

# CASE STUDY ON ACCESS & BENEFIT-SHARING FOR NON-COMMERCIAL ACADEMIC RESEARCH IN LATIN AMERICA AND THE CARIBBEAN

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BOLIVIA

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## Current national regulations and conditions for scientific plant collections and exchange

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**Region:** La Paz, Bolivia

**Field of research:** Botany

**Research goal:**

To increase knowledge of Bolivian plants through exchange with other herbaria and specialists in order to have them taxonomically identified; some of these species are useful for human communities



**Commercial purpose:**

Non-commercial purpose only because it consists on scientific material (dried specimens of plants). No potential for commercialisation because only one voucher is sent for identification or exchange.

Preparation of botanical specimens for exchange with herbaria

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**Resources accessed:**

Vascular plants of Bolivia, some are ecologically important at the ecosystem level, others are under pressure and harvest, and a part of them is considered useful for human populations for different purposes (food, construction, medicines, tools, handicrafts, among others), and others have commercial value for local markets (timber). Not included those species under CITES appendixes or endangered species.

**Provider of resources:**

Natural heritage of Bolivia and in some cases, ethnic and peasant communities in non private owned lands

Provider of traditional knowledge were ethnic and peasant communities – the research divulgates the knowledge of these people about plants and process this information under scientific procedures and methods. This info is published by the project in many ways: such as reports, academic theses, scientific articles, books or guides and manuals (this last includes them as authors)

**User of resources:** Local communities, researchers, local organizations and entrepreneurs, decision makers, etc.

**Governing body regulating access:** Bolivian state

**Utilisation of resources during the project:**

Taxonomic identification of material obtained in poorly known regions of the country; genetic analysis to improve and update current knowledge on plant taxonomy; publication of results gathered during fieldwork and involvement of local guides and informants in ethnobotanical articles and guidelines

**Utilisation of resources after project completion:**

Plant materials are stored at the herbarium and preserved in collections. As a standard procedure among herbaria in the world, there is also the need of exchanging similar collections with other centers in Bolivia and countries in terms of updating valid names or increasing reference collection by shipping by turtle mail dried specimens (one duplicate per collection) registered by both institutions under an exchange program which is followed up by

herbarium curators. Also publication of results gathered during fieldwork and involvement of local guides and informants in ethnobotanical articles and guidelines

### Utilisation of generated information after project completion:

Database of plant specimens and type specimens are permanently updated in order to facilitate access for other researchers and other public. Finally, still remains the task of publishing results gathered during fieldwork and involvement of local guides and informants in ethnobotanical articles and guidelines

### Negotiation procedures:

The permit document is considered as a legal declaration because the Herbarium has been accepted as an accredited institution by the Bolivian state. When studies are related with human informants, the project should include a supporting letter from the community and then start the process for obtaining the permit. Two documents are part of the process: permit form and the in extenso proposal. The proposed methods to be used in the field and in the lab have to be detailed regarding all procedures (e.g., localities of study, number of duplicates, protected areas, molecular studies and ethnobiological protocols). Before signing (physical not digital) the document of the permit application, there is a preliminary review by the government ombudsmen.

### Negotiation duration from the time of permit application:

1-2 months or more before starting the activities of the project

### Information on Prior Informed Consent (PIC) &/or Mutually Agreed Terms (MAT) when available:

In order to get a supporting letter or other statement from the community the researcher visit all communities that will be involved in the proposal (before raising funds); also a commitment letter with the leader of the community is signed, usually before starting the project in order to share common goals and determine the functioning of actions and duration of the project work

### Factors of success of the application procedure:

- The permanent interaction with the government ombudsmen and with visiting researchers to Bolivia.
- The submission of complete and clear documents (only in Spanish) by the visiting researcher to the herbarium.
- The payment of courier mail in order to shorten process time.



Workshop with local communities © Mónica Moraes

- A scientist at the Herbarium that devotes long, explanatory and instructive talks with the government ombudsmen

### **Non-monetary & monetary benefits shared:**

Local communities are involved in botanical and ethnobiological research as counterparts and also into scientific procedures in field. Local guides and informants interact with scientists and learn how to register data under a precise protocol. They are involved into fieldwork and also contribute in measuring plants or setting up a transect. By being exposed to them, they also learn the scientific names and relate them with vernacular local names of each species.

Researchers learn about ethnic knowledge and involve these cultural perceptions in the interpretation of the information gathered in the fieldwork campaigns.

### **Awareness of benefits shared:**

The national authorities should be aware of the benefits shared only if the accredited institution reports to the Bolivian state. The herbarium delivers final reports about the results of the study as well as derived publications to decision makers or the presentation of results and progress meetings or workshops. This was the case for what the Bolivian herbarium does.

### **Continuation of benefits sharing:**

Forming groups of informants, guides and local authorities of the communities as partners in other projects and organizing participatory workshops.

### **Other comments:**

Since 1990, Bolivia has a ban on scientific collections and research on biodiversity. There were many changes in the definition of procedures and since about 8 years ago, conditions have become speedy and satisfactory. Nevertheless, what supports current regulations for biological scientific research in regards to the shipment of specimens for exchange or for taxonomic identification is the export of collections, as having them considered with commercial value. The Bolivian regulation implies de facto that if duplicates or collections are sent to another country, they are considered as having commercial values, because the regulation qualifies this transfer as an "export" and not an exchange or a simple shipment by mail. Bolivia's government offices that issue permits do not understand the need that a scientific research center has in order to coordinate with other herbaria and plant specialist and therefore improve taxonomic identification of our scientific collections.