# **The Field Guides Project** (FRP project R7475)**: Working Paper 3. Field guides and policy: Informing and supporting information**

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## 1 Background

In collaboration with institutions in Bolivia and Brazil[1], the University of Oxford is supported by the UK Department for International Development (DFID) in a three-year project entitled 'Developing a global methodology and manual for biodiversity guides suitable for use in rural development'. This project is described in more detail in Box 1 below. The main objective of the project is to help a wider range of people to produce guides to identify and use local plant species. DFID is concerned that this work should link with policy developments in each country, for two reasons:

- Policy links will raise the profile the project results
- Interest in supporting commitments to the Convention on Biological Diversity (CBD)

Therefore, the project aims to incorporate the views of policy makers and implementers, and respond to needs identified by them in order to contribute to

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national priorities. Consequently, interviews were sought with the following categories of stakeholders:

- Senior civil servants responsible for implementing the CBD
- Senior civil servants linked to other relevant policy
- Politicians advocating legislation to implement the CBD
- National or international NGOs with national perspective on biodiversity conservation
- Consultants with national perspective on biodiversity conservation or CBD.

This working paper summarises the consultations made by Dr. Anna Lawrence in Brazil and La Paz during the period of 21 March to 18 April 2000 with these stakeholders, and the consequent implications for the project. Consultations did not take place as formal interviews, but were open and two-way and therefore stakeholders are referred to in this report as *contributors.*

***Might need to explain choice of institution – e.g. national / international NGOs – comment on their influential role.***

**Box 1: Project objectives**

If biodiversity is to be valued, conserved and used more effectively, it is important that a wide range of people should be able to identify the species, and learn more about them, either by linking with scientific knowledge or documenting and enhancing local knowledge. Biologists have plenty of experience in writing guides for others in their own field. But in the context of biodiversity in rural development, many institutions would like to provide field guides to help a wider range of people identify species accurately, and find out more about those species. What are the challenges for botanists of writing guides for local communities, extension workers, or ecotourists? Conversely, what should a development worker do to write guides that are scientifically accurate?

The Biodiversity Guides project will enable authors from different backgrounds to work together with potential users, to produce field guides that benefit rural livelihoods and biodiversity. To do this, we are exploring ways and developing methods to combine scientific and local knowledge in an effective and usable way. As a part of this process, we will write field guides in different contexts with different user groups, using methods which make sure we are responding to demand but also ensuring the guides contain the most accurate information.

Most importantly this project will bring together the experience gained in writing these guides, and shared through interviews with other authors and users of guides, to write a methodological manual that explains how to produce future plant guides that are useful to different user groups, and are accurate and useful.

## 2 Topics discussed in interviews

The following topics were the subject of informal discussion during the consultation sessions:

- Policy developments and priority activities under the CBD

- State of scientific knowledge about biodiversity and the importance of species identification
- Biodiversity monitoring
- Sustainable use of biodiversity in rural development / contribution to rural livelihoods
- Intellectual property rights
- Priority user groups, objectives and content for plant guides and the methodological manual

The findings from these interviews are summarised below. Throughout the document the source of information obtained in a consultation is denoted by the relevant name or acronym in square brackets.

# 3 Policy context

## 3.1 The Convention on Biological Diversity

The Convention on Biological Diversity was ratified by both Bolivia and Brazil. The Ministry of the Environment in Brazil is upbeat about the CBD, and the important new opportunities it creates. The Director of the National Biodiversity Programme regards the CBD as a framework but little more, lacking the details. The first move in Brazil has been the approval of the Patent Laws (1996) that protect companies' knowledge, and plant breeders' rights (1997). However, legislation to protect local communities' rights to benefits from their own knowledge (the 'access to genetic resources' bill, responding to articles 8j, 15 and 16 of the CBD) has been delayed (on hold?) since 1995 [D. Hathaway; UNDP Brazil; Marina Silva]. This delay is perceived by NGOs and politicians who support community rights as a major obstacle to the protection of local knowledge and to ensuring that the benefits from such knowledge are shared with the community. These commentators point to the undue influence of the US and, in particular, that nation's failure to ratify the CBD itself and consequently its disregard for equality amongst countries as 'owners' of biodiversity.

## 3.2 Access to genetic resources

The legislation on access to genetic resources in Brazil has recently been resurrected under the direction of Senator Marina Silva, for whom this issue is primary and overrides all considerations of the value of biodiversity. Nevertheless, she encounters deep-rooted opposition, often unattributable, and from surprising quarters. For example, research institutions are concerned about the possible effects on their work. Other commentators disagree, suggesting that such law would protect them because without a framework there is no standard by which to accuse or defend accusations of biopiracy. For this reason, FUNBIO (Fundo Brasileiro para a Biodiversidade, or Brazilian Biodiversity Fund) is developing a code of conduct for researchers that, *in the absence of a legal framework,* will allow researchers to proceed ethically and with Prior Informed Consent. Gisela Alencar [UNDP Brazil] pointed out that understanding of such codes of conduct is developing each year. However, such uncertainty is causing much tension and scientists are reacting very negatively to the situation. Local communities such as workers' *sindicatos* supported by the PT are also campaigning for legislation that guarantees their right to benefits from their own knowledge [PT: Gerson Teixeira].

The situation in Bolivia is very different. After the Rio Conference (UNCED) in 1992 the Environment Law (*Ley del Medio Ambiente*) was passed, thereby establishing the National System of Protected Areas and bringing a hitherto *ad hoc* assembly of national parks under one management system controlled by national policy. More

radically, through Decision No. 391 of the Cartagena Acuerdo Commission[2], all Andean countries agreed to develop legislation to protect access to genetic resources. In Bolivia, this agreement was approved as Supreme Decree No. 24676 in June 1997 and makes the country one of the first countries to fulfil this requirement.

A biodiversity strategy has been drafted in Bolivia and is currently under wide consultation. The country has made significant progress in the thorough and committed consultation process it is using to develop the biodiversity strategy. The timetable reported by one contributor [Monica Moraes, Director of the Institute of Ecology] is to hold a round of departmental consultation workshops in May 2000 and submit the strategy in August. This contrasts directly with the process in Brazil where contributors frequently complained of a lack of engagement between politicians and civil society.

In view of the unusually participatory nature of the consultation of the biodiversity strategy in Bolivia, it is surprising that some institutions expressed doubt that any progress had been made in response to the CBD. Two international organisations were unaware of Bolivia's decree in response to Decision 391 of the Cartagena Acuerdo. In fact Bolivia (with the other Andean countries which signed the Cartagena Accord) is ahead of most other signatories to the CBD in its prompt action on access to genetic resources. Currently, the first proposal to study genetic resources under this new legislation is being processed (a US application (*solicitud*) to study wild peanuts), while a further application (*solicitud*)) from Merck to study medicinal plants is pending. There is considerable pride in this legislation and Bolivian policy-makers see themselves as leading the way in experimenting with the new processes. They recognise that, being new, the legislation cannot be applied mechanically but that some flexibility is necessary.

**Other policy: … AL to add**

## 4 Policy development in Bolivia

Forestry law in Bolivia requires management plans that can only be written by a qualified forester. However, species identification activities carried out during accompanying inventory activities are usually undertaken by local specialists (known as *materos*). There is a concern within Bolivian forestry institutions to achieve more integrated forest management, and therefore to take non-timber species into account.

Recent changes to the Agrarian Reform law, the INRA, have meant that the legal facility now exists to establish Tierras Comunitarias de Orígen (TCOs) (Ancestral Community Lands). The process is lengthy but several TCOs are now established [examples …?] often in areas of high or important biodiversity. Indigenous communities are considered to have knowledge about biodiversity that is an important resource, both for themselves and nationally; hence special regulations create opportunities allowing community management of resources.

## 5 Policy development in Brazil

Brazil – big, equity issues so has very different priorities among different stakeholders (see below). A controversial law was passed in Acre state in July 1997

[2] *Régimen Común sobre Acceso a los Recursos Genéticos.* The Acuerdo de Cartagena is

imposing ‘harsh penalties against foreigners who claim rights to Amazonian forests’ [Sash I am not sure this fits in here please review].

## 6 Perceptions and priorities

Documenting biodiversity through scientific study is a big priority for the Brazilian government. However, the official biological objectives contrast with the more complex social and political issues that are the focus of some politicians, and the majority of NGOs. Brazil has no legislation on access to genetic resources, and so much of the public debate around biodiversity focuses, inevitably, on issues of intellectual property rights and ‘biopiracy’. In Brazil, all contributors to this report commented on the topic, in stark contrast to Bolivia where contributors indicated that access to genetic resources was not an issue because of Decision 391 taken at Cartagena.

At the same time, Brazilian officials talked more than their Bolivian counterparts about bioprospecting, because there is a stronger sense in Brazil both of biodiversity as a commercial resource, and of Brazil’s own ability to participate in the realisation of such a resource. The Director of the National Programme for Biodiversity, Brazil, sees bioprospecting as a major activity for Brazil, and expressed the hope that public interest in the subject would improve understanding of the need for scientific study.

Several contributors suggested that the Bolivian strategy has been to focus on establishing and managing protected areas [UNDP Bolivia, SERNAP, DGB]. SERNAP figures show that nearly 14% of Bolivia is now classified as some form of protected area. The DGB is emphasising the need to think about resources outside these protected areas. However, the Director of the Institute of Ecology felt there was most potential in involving communities in conservation inside the protected areas [presumably because they are obliged to by law]. Even with this shift in emphasis, management rather than study of biodiversity is the clear priority in Bolivia (see below).

To academic and NGO contributors, the CBD was often seen as an important factor that had facilitated funding of their work or enhanced public awareness of the issues but had achieved little else. WWF Bolivia for example described it as a ‘tool to promote discussion about biodiversity’. While those government representatives who were interviewed, naturally saw biodiversity issues as a priority, they were perceived to be in a minority by external commentators who felt that environmental and biodiversity issues are not prioritised by either of the Brazilian or the Bolivian governments.

Some contributors questioned the links between our work, their work and biodiversity. It was not until we explained that we are working with any component of diversity that BOLFOR appreciated our work as relevant. Similarly, the DGB, which increasingly focuses on genetic resources (especially on-farm genetic resources), also sought clarification about where our mutual interests lie. For the DGB, useful plants (especially medicinal), including domesticated and wild, are of greatest interest and consequently they are most enthusiastic about the production of guides to useful plants.

## 7 Conservation and livelihoods: potential IMPACT of the guides

UNDP Bolivia wanted to point out that poverty cannot just be eliminated financially, but rather by building up human and social capital through training, education, political participation and social networks. It is through these activities that identification guides could have most impact on poverty, by enhancing local people's knowledge and control over their resources.

We should recognise that communities are not conservationists. They will be able to conserve their resources only in so far as they have economic stability. Biodiversity is not the way out of poverty and we cannot rely upon discovering new and miraculous products to resolve problems. Developing existing products, such as coffee, is much more promising [UNDP, Bolivia]. UNDP Brazil expressed similar priorities, stating that they 'are mostly concerned about the eradication of poverty.'

The Institute of Ecology in Bolivia expressed that communities must take some responsibility and become involved in these issues, and that is why it is so important for developments to go through the right political channels. With all the changes in the responsibilities of local government it is important to show them that [producing guides] is within their priorities. Also expressing the need to be in touch with the communities, the IoE said that the way forward with this work in Bolivia is in multi-disciplinary teams and with consensus in the communities. With a different objective in mind (management of protected areas), the Chief of the Protected Area Service in Bolivia also noted the importance of enabling people to take decisions about management.

It is important that the guides should not just be a product but should have an impact in terms of enhancing knowledge [SERNAP]. Several contributors saw guides as having a role in building up community involvement in conservation. Whilst this contribution cannot be equated to contributing to rural development it can, if done well, enhance community ownership of the process.

Lastly, but by no means least, guides are very necessary for communities simply because they do not have access to outside information. Source?

## 8 State of scientific knowledge

A distinct difference in view exists between senior decision-makers in Brazil and Bolivia. Bolivians feel there have been sufficient botanical studies undertaken and that they are now in a position to take decisions and move forward. Within the flowering plants, 60-70% of the species in Bolivia are known (according to Monica Moraes, 60-80% of Bolivian vascular plant species are known) and Bolivians are in a position to create protected areas [SERNAP] and take decisions about management of genetic resources [DGB]. UNDP also felt enough data exists, and IoE said that there is sufficient knowledge to go ahead with management. Whilst SERNAP would be interested in having data on whether biodiversity is being conserved or not, they are aware that such detailed floral and faunal data are useless in areas where there is no administration or park wardens. Scientific data will help to define critical areas within the protected areas; but establishing the administration is SERNAP's first priority.

In Brazil, there was a stronger focus on the challenges of scientific study. The contribution from the … was based on an erudite scientific discussion of biodiversity studies, highlighting:

- The lack of knowledge about biodiversity compared with that about climate change, making decisions difficult to take and implement
- The complexity of biodiversity rather than simple species diversity. How do we measure it and how do values vary?
- Problems with measuring biodiversity affect our (lack of) knowledge about loss of biodiversity and the wide variation in estimates.
- The potential significance of recent discussions of ecological redundancy[3]
- The lack of knowledge of determinants of biodiversity (what processes maintain biodiversity and how).

A recently completed survey of the state of current knowledge of Brazilian biodiversity [to be published on the website of the Brazilian Ministry of the Environment (*www.mma.gov.br*)] included in its indicators the existence of guides to each group. The Director of the National Biodiversity Programme noted that guides cannot always be based on sound recent scientific study, and that there is a need for 'working guides' that are revised periodically. There is recognition of the need for pragmatism.

However, there was also a feeling among government scientists in Brazil that other actors do not understand the need for scientific study, and that they think there is already enough information about biodiversity. The director of the National Biodiversity Programme felt there would be opportunities to demonstrate the need for scientific study, by building on public concern about biopiracy.

Several contributors distinguished between the state of knowledge of biodiversity (adequate) and the appropriate information flow (inadequate). Much of the information is available only in foreign languages and foreign countries or through computers and libraries. In this sense our project is seen as an important contribution to overcoming constraints on the information flow.

While it is not surprising that taxonomists, biologists and ecologists attribute more importance to conducting scientific studies of biodiversity, it is noticeable that these categories in Brazil are much more in favour of scientific study than they are in Bolivia. For example, Marina Silva (Brazil) was very appreciative of the value of classifying and understanding variability of species. In part, this is because Brazil has vast areas of unexplored biodiversity, arguably more so than in Bolivia; but it can also be attributed to the fact that Brazil has vastly more resources for conducting such studies. Bolivia is hugely under-resourced in terms of facilities for scientific study, post-graduate education etc. and some pragmatism of the small core of specialists charged with decisions about Bolivian biodiversity is evident in their response that action is more important than taxonomic study at this stage. *Bolivia has no research capacity compared with Brazil [UNDP Bolivia].*

If local knowledge is published, patents cannot be granted on that knowledge – this is the situation in Bolivia – but policy-makers recognise that they cannot stop investors from patenting products derived from those products.

[3] the theory that ecosystems can function without the current numbers of species; evidence suggests that this affects different ecosystems in different ways. For example, one theoretical measure of redundancy is number of species per genus; this is higher in the Amazon than in the Brazilian cerrado suggesting that it is safer to lose Amazonian species than cerrado species. However there are few empirical studies to test such theories.

In Bolivia, patents cannot be granted on local knowledge that has been published, however, policy-makers recognise that they cannot stop investors from patenting products derived from this knowledge.

## 9 Issues around identification

The role of guides in species identification seems to be largely taken for granted. It is widely considered that rural resource users will already know the species, and therefore will not be interested in identification tools, which will be more useful to scientists conducting vegetation studies.

Even in Brazil, where more emphasis was placed on the need to study biodiversity, the Director of the National Programme for Biodiversity commented that the lack of good species identification does not prevent all intelligent decision-making because diversity is not just about numbers. But he did accept that identification is a major constraint to decision-making, and that it delayed by poor access to literature, and the use of complex language. These are issues that the guides will need to respond to directly. He suggested that most surveys in Brazil fail to identify about 50% of the species and that, consequently, identification guides would be extremely important. Enhanced species identification would help with:

- Improved screening of plants for bioprospecting
- Management of protected areas e.g. to identify non-native species
- Utilisation e.g. timber identification

In Bolivia, identification is also seen as one of the biggest constraints to writing management plans [BOLFOR]; even commercial timber species (a relatively limited category) are often misidentified. The *materos* are often from a different region (BOLFOR takes a team from Santa Cruz even when working in the north e.g. Pando) and therefore can find identification difficult. The need for species identification, or improved identification, or improved tools for identification, is invariably identified in a top-down manner by scientists. This is not to imply that they are incorrect, simply that the need for identification is not clear to most stakeholders [D. Hathaway and others]

One key use of identification tools is in monitoring activities (as discussed in the next section), however, these are not widely seen as requiring complex identification tools. Pragmatically, monitoring will often focus on a few indicator species.

Reliability [of guides] was an important issue to the Chief of the Protected Area Service in Bolivia.

Of more interest perhaps to the NGOs, are practical and methodological questions of access to their own information about plants. In many communities there are concerns to systematise their ancestral knowledge about plants, but they want to find a way of conserving it without granting universal access.

## 10 Monitoring biodiversity

Contributors made a clear distinction between the study and the monitoring of biodiversity. Monitoring does not need complete identification tools. Keys to ensure identification of all species within a specified group or area are seen to be a

requirement for scientists and university teachers but not for non-scientific groups involved in monitoring.

Only one contributor placed strong significance on the monitoring role of guides, and this was the sole focus of the discussion with Victor Hugo Inchausty, Chief of the Protected Area Service in Bolivia. He said, 'eventually we want to be involving communities, promoters, and conservation agents in monitoring biodiversity. We should introduce the concepts through the formal education system, as part of the curriculum'. He felt that the field guides project could make a contribution to developing guides appropriate for monitoring biodiversity with such groups, but that an appropriate system does not yet exist. Within the National System of Protected Areas, there are currently five different monitoring systems that SERNAP wants to unite as one by the end of 2000. Our recommendations on user-focused guides should be of interest to them. Within the protected areas they have not only to monitor biodiversity but also uses, timber extraction and environmental degradation. Guides could contribute to all of these activities. There is much of debate on how to monitor biodiversity, especially on how to select the indicator species. We cannot have a system that collects data on everything, so we need to consult with an interdisciplinary team. The system is *en construcción.* But animals may be more significant than plants in such participatory monitoring. Whose words are these?

From the scientific point of view improved guides may also be needed. Brazilian government officials recognised that 'difficult-to-separate' species may be important but subtle indicators of environmental change, and that there is therefore a need for guides for biologists too.

The DGB in Bolivia is concerned that the same system should apply to monitoring biodiversity both inside and outside protected areas. The Field Guide project will help us to identify indicators, by studying the impact of guides. The Institute of Ecology recommended that communities contribute to monitoring biodiversity both within protected areas and TCOs in Bolivia. They could be trained to take notes on the appearance of key species (e.g. monkeys) or disappearance of habitats. Such recognition of conspicuous species does not necessarily depend upon species identification.

The connection between the value of resources and monitoring was made by UNDP, Brazil, who said that if people value a resource they will protect it even if they cannot monitor it.

Others saw this issue (monitoring) as linking with inventory, a key aspect of farmers' ability to manage their resources sustainably and economically [EMBRAPA: Felipe Ribeiro].

## 11 Disseminating information about biodiversity

As noted above, a great deal of biodiversity data already exists. UNDP, Bolivia, expressed the urgent need to organise data, improve access to it, and to extract data from herbaria and convert it into useful information. Guides have an important role to play in this transformation of data [UNDP Bolivia].

Among the scientific contributors, the Director of the Institute of Ecology in Bolivia was particularly concerned to link her work to social development, and to take interactions between indigenous communities and scientists into account. She said

that it is important for scientists to be aware of the social conditions (context of their work?). It is important that knowledge about plants reaches a variety of levels of society, however, this can be constrained in Bolivia by language difficulties especially among the indigenous people. Most important is that a united message is delivered: that (guides?) not only provide information about plants but also enhance the value given to the environment [Institute of Ecology, Bolivia].

## 12 Ecotourism

Ecotourism emerged as one of the most significant areas in which species guides can contribute to local welfare and conservation. It was particularly emphasised by WWF and FAN. WWF in Brazil have the most experience in ecotourism, because there is a huge middle class in Brazil with sufficient resources to visit natural heritage sites, and also because the country has a more established tourist industry attracting foreigners. 'Ecotourism can make a big contribution to conservation. In Brazil ecotourism is especially important because the high biodiversity is a major attraction. It brings money to communities and also helps them to understand that there is a value for nature, and that it has other economic values which have not yet been explored (i.e. other than rubber and timber)' [WWF Brazil: Rogerio Dias]. He noted that, unlike other kinds of tourists, ecotourists want information about the species, the ecology and the people that they visit.

While ecotourism may be the trigger for writing guides, such guides will not be restricted to use by tourists but will be invaluable also to students, researchers and others working with biodiversity.

## 13 Intellectual property rights

The issue of intellectual property rights (IPRs) is seen as the key to the social component of the CBD. IPRs relate to issues of democracy and consensus, and several contributors mentioned the need to build up community involvement in recognising their rights to benefits from their traditional knowledge. Every contributor in Brazil mentioned IPRs, bioprospecting and/or Prior Informed Consent. However, it was interesting that while government officials focused on the commercial potential of biodiversity through bioprospecting, NGOs and others were more concerned about the return of benefits to the communities. 'There is a huge list of cases of violation of indigenous people's rights in Brazil' [UNDP Brazil].

While discussions in Brazil were overwhelmingly focused on this topic, Bolivian contributors were not so interested. This is because relevant legislation already exists in Bolivia but (controversially) does not in Brazil (see above, Section 3.2). While contributors recognised that the law is only as good as its implementation, there was a clear sense of pride among Bolivian policy-makers that the law was in place, at least technically ensuring that if information is published as coming from a particular community, their ownership of that information is guaranteed. What is less clear, is how benefits will be shared should such information prove commercially valuable, and little progress has been made here. The first application made under the law (Decree 24676)…..

According to UNDP in Bolivia, IPRs were more of an issue a year or two ago. They said that whilst IPRs are important, people have to realistic and accept that species do not recognise borders therefore if we (Bolivia) do not move forward on using or selling information then a neighbouring country will do so instead. However, the situation is not straightforward as it seems, since much of the local knowledge refers

to local diseases and there is no market for patents for plants that cure poor peoples' illnesses. Another complication relates to the difficulties of distinguishing between different communities.

## 14 Priorities for guides

There were wide differences between respondents in their enthusiasm for identifying priorities for field guides.

### 14.1 Priority topics for guides

- Guides for schoolchildren [WWF Bolivia]. Education is very important, and the environment is a very popular issue in Brazilian schools. Our manual / guides would be a very good resource for teachers. We could also provide methods for schools to make their own guides, not necessarily to publish but as a process which helps pupils ask their mothers and grandmothers about the species, and to understand their cultural heritage.

- Guides for ecotourists [WWF Brazil]. He said 'we desperately need guides in Brazil not only for ecotourism but also for basic research. There is a big lack of field guides to animals, birds, plants.'

- Guides to medicinal plants [DGB].

- Guides as tools in promoting community involvement in conservation. Community agreement and consensus is essential [DGB and IoE] and guides can help but only if the right social and political procedures are followed. Scientific institutions are not used to that and will have to be careful.

- Guides targeted to specific user groups. National Biodiversity Programme in Brazil said that most guides are to birds, and are for amateur nature lovers; we need to think much more about different guides for different kinds of people. This point was also made by UNDP Bolivia who said that guides were only a small component of what was needed, and that those guides which are carefully directed at a very specific client group have the potential to be very useful. In their opinion, the worst guides are those that are too general e.g. the *Guía de Arboles*.

- Animal guides. While most contributors accepted that our focus is on plant guides, several pointed out the need for animal guides as well. Particularly supportive were the Chief of the Protected Area Service in Bolivia, and the Superintendencia Forestal who see animals as important in monitoring the state of the resources i.e. as indicators.

- Guides to help Amazon forest dwellers know their species so they can be in a better position to make decisions about selling timber rights, and as a tool for fiscalização. Knowing trees and their value would help people to retain their land rights. It is fundamental that such guides include local names and uses, and the economic advantages of conserving species. It is the economic aspects that will motivate people to protect the trees [PT: Gerson Teixeira]

- Guides to enable non-specialists to assess biodiversity and to take management decisions. Linked to issues around monitoring this need was identified by the National Biodiversity Programme Brazil. Such guides would still focus on

scientists but would enable people to conduct surveys beyond their own special interest group.

- Guides as monitoring tools [SERNAP].

### 14.2 Other comments on guide requirements and content:

- Guides must include uses [UNDP Bolivia].
- For the Chief of the Protected Area Service in Bolivia, the most important criterion of success is whether guides are prepared in a participatory way.
- UNDP in Bolivia expressed the importance of weighing up the costs and benefits of a community guide and recognising that the community's (often major) input.
- Guides must not be static products [SERNAP].

## 15 Recommendations for the Field Guides Manual

### 15.1 Recommendations on content of the Field Guides Manual

- It is essential that the manual promotes the use of participatory methods, leading to a sense of ownership of the guide [UNDP Bolivia].
- The manual must show marketing sense by discussing how to define the user group, calculate costs, and choose style and language [UNDP Bolivia].
- Synthesis of the development of concepts of prior informed consent.
- Advice as to how to get complete information, how to use a variety of different information sources, and how to compile the same type of information for all species so that the format is uniform [WWF Brazil].
- The methodology should be suitable for researchers, because they are a difficult group and do not always know how to work with different products [SERNAP].
- Include information on genetic resources regulations [DGB]. It will help us to understand the impact of guides. We want to be actors in this project, we don't just want to receive information but we want to have a real role. We can contribute in reviewing the methods.
- Not just trees – economic plants [Felipe Ribeiro]
- Methodology that can be adapted at national level.

### 15.2 General comments on the Field Guides Manual

- The manual offers opportunities to spread information about the ethics of biodiversity work with communities.
- SERNAP and IoE also said they were most interested in the methodology because it will enable the results to be used in other areas for other materials.

- This is a very good initiative, it really works because if you combine people and biodiversity you are more likely to have people protecting the resource.

- I am very, very pleased you are going to produce a manual – that is genuinely methodological (i.e. offers choices between methods, and explains approach). *Adorei ver isso.*

- Must evaluate the manual (EMBRAPA).

### 15.3 Follow-up sought by respondents

The level of interest and enthusiasm for the project was genuine and unexpectedly high amongst almost all of the people interviewed.

### 15.4 Testing methods / contribution to activities

Those institutions and individuals who are interested in contributing to the Field Guides Manual are listed here with the relevant expertise and skills offered:

- Superintendencia Forestal: methods for testing guides; and impact assessment.
- BOLFOR: methods for testing guides
- Instituto de Ecología: they want to include our project profile in the draft Biodiversity Strategy as an example of what can be done. They are also very keen to review progress.
- Monica Moraes (Institute of Ecology): It seems extremely interesting (*me parece super-interesante*) and I would be delighted to hear more about the project and to see if the Institute can help (*me encantará tener noticias porque me gustaría ver si el Instituto podría ayudar*).
- DGB: Many people see the DGB as being focused only on conservation. This manual will help us to go beyond politics and to show the usefulness of technical knowledge as well. *Este tipo de trabajo ayuda al proceso que mejora la gestión de los recursos en Bolivia. Es importante.*
- Methods [DGB]
- Impact of guides [DGB]
- SERNAP: Would like us to follow the process of developing monitoring system (*acompañar el proceso*), and work towards guidelines for monitoring guides.
- National Biodiversity Programme, Brazil: the Director does not expect to use (and test) the methods himself but said that his staff would. His interest is in establishing national standards. Have to find ways of being demand-drive – because of international pressure.
- PT: they have links with organisations that would be interested in testing the methods.
- EMBRAPA: interested in testing methods.

### 15.5 Dissemination and use of results

Many of the organisations interviewed are part of networks that would be useful for informing more widely about the project and its progress.

**Workshops:**

BOLFOR, Superintendencia Forestal, WWF, DBG and others all mentioned that there is a STRONG demand for a workshop to present the draft of our methodological manual in Bolivia. This could be done at the national level.

In Brazil the remit of such a workshop would be more difficult because of the size of the country. However, collaboration with organisations such as WWF could give us access to a wide area and range of organisations, and both WWF and UNDP in Brazil are convinced that this would be a worthwhile activity and collaboration.

**Publications:**
UNDP is most interested in publishing useful guides and would be happy to help e.g. by turning the manual into a Brazilian product. We (The Field Guides Project) have links all over the country, and groups who might be willing to test the methods.

**Activities:**
The Director of the Institute of Ecology was putting together a final draft of the Biodiversity Strategy for consultation, when she was interviewed for this report. She felt it would be important to include examples of practical action that can be taken and offered to include information on this project in the draft strategy.

We are very willing to help – it is a very wise project.

WWF Brazil would be interested in helping with a training course at the end of the field guides project. They have 40 projects, of which many will produce guides and so it would be very useful to have draft Field Guides methodologies to test out.

## 16 Acknowledgements

We are grateful to all the respondents who gave their time and experience to participate in interviews for this study; they are listed in appendix 1.

## 17 Appendices

## 17.1 Appendix 1: People interviewed

| Name | Position |
|---|---|
| Gisela Alencar | Programme Officer<br>Environment Unit<br>UNDP / PNUD |
| Mario Baudoin | Director, DGB, Bolivia |
| Patricia Caffrey | Directora, WWF Bolivia |
| Braulio Dias | Director, National Programme for Biodiversity, Environment Ministry,<br>Brazil |
| Rogerio Dias | Coordinator, Ecotourism Programme,<br>WWF Brazil |
| Eduardo Forno | Representante Residente Adjunto, UNDP, La Paz<br>Bolivia |
| Rudi Guzman | Indendente Técnico,<br>Superintendencia Forestal,<br>Santa Cruz, Bolivia |
| David Hathaway | Independent consultant,<br>Brasilia, Brazil |
| Roger Landívar | Pantanal Ecotourism Programme, WWF Bolivia |
| Raul Lobo | BOLFOR |
| 17.1.1.1.1.1.1.1 Monica Moraes | Director, Institute of Ecology,<br>La Paz, Bolivia |
| 17.1.1.1.1.1.2 Bonifacio Mostacedo | BOLFOR |
| Carol Proença | Botany Department, |
| Felipe Ribeiro | Embrapa-Cerrados |
| Marina Silva | Senator, PT (Workers' Party),<br>Brazil |
| Jaime Taran | Indendente Técnico,<br>Superintendencia Forestal,<br>Santa Cruz, Bolivia |
| Gerson Teixeira | Technical Assistance, PT,<br>Brazil. |
| Beatríz Zapatas | Chief of the Genetic Resources Unit, DGB, Bolivia |

## 17.2 Appendix 2: acronyms

| | |
|---|---|
| BOLFOR | |
| CBD | Convention on Biological Diversity |
| CIAT | Centro de Investigación Agrícola Tropical |
| DFID | UK Department for International Development |
| DGB | |
| EMBRAPA | |
| FAN | Fundación Amigos de la Naturaleza |
| FUNBIO | Fundo Brasileiro para a Biodiversidade (Brazilian Biodiversity Fund) |
| IoE | Institute of Ecology |
| IPRs | Intellectual Property Rights |
| PNUD | |
| PT | |
| UNDP | |
| TCO | Territorio Comunitario de Orígen |
| WWF | World Wide Fund for Nature |

## 17.3 Appendix 3: Report circulation

- All on list of interviewees
- All project partners
- Eliana Zugaib, First Secretary, Brazilian Embassy, London
- Roberto Calsadilla, Consul, Bolivian Embassy, London
- Colin Hughes, Dept of Plant Sciences, University of Oxford
- William Hawthorne, Dept of Plant Sciences, University of Oxford
- FFI
- Jen Hurst
- Yam Malla
- Oxfam
- Rosario Leon, FTPP person in Cbba
- James Johnson
- 3 ETFRN connections
- Jurgen 'Cherbenca', GTZ funded in SERNAP, communities on the edge of protected areas. mapza@ceibo.entelnet.bo
- Sam Bridgewater
- Gordon Armstrong
- Trish Shanley
- Sarah Laird
- Kerry ten Kate
- Wendy Townsend
- Hew Prendergast
- IIED people
- Gary Martin