CONVENTION ON INTERNATIONAL TRADE IN ENDANGERED SPECIES
OF WILD FAUNA AND FLORA

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CITES AND LIVELIHOODS TOOLKIT AND GUIDELINES

The attached documents have been submitted by the Secretariat on behalf of the Working Group on CITES and Livelihoods, in relation to agenda item 19 on *CITES and livelihoods*.*

* *The geographical designations employed in these documents do not imply the expression of any opinion whatsoever on the part of the CITES Secretariat or the United Nations Environment Programme concerning the legal status of any country, territory, or area, or concerning the delimitation of its frontiers or boundaries. The responsibility for the contents of the documents rest exclusively with their authors.*

CITES & Livelihoods

Paper 1: Rapid Assessment Tools

Tools to assess the impact of the implementation of CITES listings on livelihoods of the poor

Prepared for the CITES & Livelihoods Working Group

United Nations Environment Programme -
World Conservation Monitoring Centre

in collaboration with

Durrell Institute of Conservation and Ecology
TRAFFIC South Africa

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Summary

Two background papers have been prepared for consideration by the CITES and Livelihoods Working Group, in fulfilment of the MoU between the CITES Secretariat and UNEP-WCMC: *Assistance in the preparation of a toolkit for the rapid assessment of implementing CITES listing decisions on the livelihoods of the poor and draft voluntary guidelines for addressing.* The background papers comprise:

Paper 1: Rapid Assessment Tools - Tools to assess the impact of the implementation of CITES listings on livelihoods of the poor (this paper)

Paper 2: Addressing livelihood Impacts - Guidelines to address the impact of the implementation of CITES listings on livelihoods of the poor (separate document)

Links are identified with other relevant processes both within and outside CITES, to avoid duplication of effort and to foster a common approach to relevant issues. Of particular relevance is the CITES National Wildlife Trade Policy Review (NWTPR) process (CITES/IUED/UNEP, 2007) which parallels the CITES and Livelihoods process closely in its method of working. In both processes:

- the tools and guidance are intended to assist staff, within government ministries, national research institutions and other bodies, to assess and address issues at the national level in relation to CITES implementation;
- there is no connection between the processes discussed and compliance-related processes under CITES; and
- similar core principles apply (Box 1).

A review of the history of the CITES and Livelihoods process is provided, and key terms and information needs are discussed. This is followed by a review of principles and existing guidance on impact assessment methodologies and an examination of a number of existing livelihoods assessment tools developed by conservation and development organisations. Based on this information, issues of particular relevance to the development of a tool for use in a CITES context are considered.

Neither paper is intended to provide a comprehensive literature review.

A proposed tool for voluntary use by the Parties at the national level is provided in Chapter 7.

Box 1. Core principles underpinning the CITES & Livelihoods process (adapted from NWTPR core principles in Doc COP14. Inf. 17 Box 1.)

• **Party-driven:** The process is a voluntary one, resulting from a Resolution and Decisions of the Conference of the Parties.

• **Capacity building oriented:** the project is neither prescriptive nor linked to compliance mechanisms.

• **Results oriented:** the work focuses on outcomes that will help the effective implementation of CITES

• **Interdisciplinary:** CITES and livelihoods involve different disciplines including biology, law, economics, other social sciences and traditional knowledge and linkages between these will need to be strengthened to inform the CITES and Livelihoods process.

• **Stakeholder-oriented:** Particular importance is attached to stakeholder participation as a crucial element to increase the likelihood of the outputs being accepted and implemented. In addition to the poor, the range of stakeholders includes rural poor organizations, cooperatives and community-level committees, representatives of indigenous people, as well as non-governmental organizations, the private sector, individuals, relevant national and multilateral organizations and government bodies

• **Partnership oriented:** Effective implementation will involve the coordinated participation of different actors from government, academic and international organizations.

Key issues for consideration by the CITES & Livelihoods working group

Issues discussed in this paper that the working group may wish to focus further discussions on include:

1) **Poor** – Consider whether to agree the definition, for CITES purposes as: "*The Poor" are considered to comprise the rural poor who are directly involved with collection of specimens from the wild as part of their livelihoods and coping strategies* (Chapter 2: Introduction – Definitions – The Poor).

2) **NWTPR Framework** - Ensure the CITES and Livelihoods discussions benefit from and contribute to NWTPR work, particularly in relation to definitions of key terms, and NWTR questions and indicators relating to social and economic issues (Chapter 5: Issues to consider for a CITES tool - CITES Context - CITES National Wildlife Trade Policy reviews)

3) **Impacts** – Discuss whether the "Do no harm" position should be encouraged (Chapter 5: Impacts)

4) **Indicators of poverty** – It may be helpful for the working group to suggest an approach to identifying poverty related indicators that Parties could follow, that maintains synergy with work being implemented by the CBD and the 2010 Biodiversity Indicators Partnership (see Chapter 6: Issues to consider for a CITES tool: general –Indicators of Poverty - CBD & 2010 Biodiversity Indicators Partnership).

5) **Proposed Tool for Use by Parties** – Discuss the tool proposed in Chapter 7.

A preliminary draft of this paper was circulated to the CITES and Livelihoods working group. The final version includes feedback from working group members and others, as well as additional material.

Introduction

History of the CITES & Livelihoods process

Resolution & Decisions

At its 13th meeting (CoP13, Bangkok, 2004), the Conference of the Parties adopted an amendment to Resolution Conf. 8.3 with the inclusion of the wording:

RECOGNIZES that implementation of CITES-listing decisions should take into account potential impacts on the livelihoods of the poor

This introduced a new issue within CITES, but there was a lack of clarity about what was being proposed. To address this lack of clarity, the South African National Biodiversity Institute hosted a workshop in 2006 on CITES and Livelihoods, to identify practical measures that would contribute to the implementation of the new provision of CITES Resolution Conf. 8.3 (Rev. CoP13). The workshop agreed on 14 recommendations that were presented at CoP14 and served as the basis for the adoption of Decisions 14.3 and 14.4 adopted by the Conference of the Parties at its 14th meeting (CoP14, The Hague, 2007). Decision 14.4 related to raising the funds to implement Decisions 14.3.

Decision 14.3 states that:

The Standing Committee shall, subject to the availability of external funding, and requesting the assistance of organizations including the IUCN Species Survival Commission, initiate and supervise a process to develop, by the 15th meeting of the Conference of the Parties:

a) tools for voluntary use by the Parties for the rapid assessment at the national level of the positive and negative impacts of implementing CITES listing decisions on the livelihoods of the poor, in conformity with Resolution Conf. 8.3 (Rev. CoP13); and

b) draft voluntary guidelines for Parties to address these impacts, particularly in developing countries. The guidelines should, where possible, assist Parties to develop local, national and regional initiatives that take account of the impacts of implementing CITES listing decisions on the livelihoods of the poor. This process may benefit from taking account of the deliberations and recommendations of the CITES and Livelihoods Workshop (5-7 September 2006) and should draw on the technical contributions of Parties, the Secretariat, non-governmental organizations and other national and international agencies, such as IUCN – The World Conservation Union.

For further clarification, the process shall not include consideration of the criteria for amendment of the Appendices or the requirement to make non-detriment findings.

At its 57th meeting (SC57, Geneva, July 2008), the Standing Committee agreed on the creation of a Working Group on CITES and Livelihoods to assist in the implementation of Decision 14.3.

One of the first issues discussed by the Working Group was the scope of the amendment to Resolution Conf. 8.3. A majority of members reaffirmed that the emphasis of the amendment was clearly on the *implementation* of CITES-listing decisions, rather than on the listing of the species itself. It was also emphasized that consideration of the impacts of the implementation of the CITES-listing decisions on the livelihoods of the poor should not be a "backdoor" to discuss the criteria for listing species in CITES and that impacts could be negative as well as positive.

Although the wording of the resolution: “take into account the potential impacts” suggests that the impacts to be considered are likely to be an adverse ones, the wording of the Decision clarifies that both positive and negative impacts are to be considered when the processes described in paragraphs a) and b) are implemented.

Implementation of Decision 14.3

In May 2009, the Secretariat contracted UNEP-WCMC to develop background papers regarding the information requested in paragraphs a) and b) of Decision 14.3 for consideration by the Working Group.

UNEP-WCMC collaborated in the development of the background papers with the Durrell Institute of Conservation and Ecology, TRAFFIC South Africa, the Chair of the Working Group on CITES and Livelihoods, and the Secretariat.

A progress report on the work was provided by the Secretariat at the 58th meeting of the Standing Committee (Geneva, July 2009). The Committee decided that the Chair of the Working Group should submit the background papers for consideration at the 59th meeting of the Standing Committee (SC59, Doha, March 2010). The Committee could then decide whether to endorse the documents for consideration at the present meeting.

The Secretariat issued Notification No. 2009/035 on 10 August 2009, inviting Parties to submit research findings or case studies that could be used in the development of the background papers.

A preliminary draft of the background papers was circulated by the Chair of the Working Group to members on 13 August 2009, with a deadline of 15 September 2009 to respond.

The deadline for completion of the final version of the background papers was subsequently extended to 31 November 2009. They will be submitted for consideration at SC59. The Chair of the Working Group will report at the present meeting on the results of that discussion.

CoP15 Doc.14 prepared by the chair of the Standing Committee Working Group on CITES and Livelihoods in consultation with UNEP-WCMC was submitted to CoP15. The document summarises activities to date and includes draft decisions and a draft resolution derived from the draft background documents, comprising a series of Principles that Parties could consider when addressing livelihoods issues.

Definitions

Definitions and a common understanding of key terms will be an important for Parties to consider, when developing livelihoods assessment strategies. In particular, a clear understanding of the terms *livelihoods, poor* and *rapid* (in relation to assessment) will be required.

Livelihoods

Recognising that only the poor really know what poverty comprises and how their livelihood strategies operate, some authors suggest that the poor themselves should be instrumental in developing indicators to characterise their own livelihoods and changes therein (Brocklesby & Hinshelwood, 2001; Ashley & Hussein, 1996). This may be practical in a project-based situation but may be more problematic in terms of providing a workable option for CITES Parties to follow at the national scale.

Livelihoods are increasingly recognised as involving much more than simple economics, i.e. they are multidimensional (World Bank 2000; Kusters et al, 2005), and a number of conceptual frameworks have been developed to guide livelihood assessment.

The Five Capitals

The sustainable livelihoods approach or framework (SLA or SLF) developed by DfID (1999) and OECD (2001), uses the “five capitals” approach, identifying five factors:

1. Human
2. Social
3. Natural
4. Physical
5. Financial

This approach recognises that people’s livelihoods and well being are dependent on a complex mix of issues (DFID, 1999; OECD, 2001; Carney et al 1998). The SLF is widely used in the development context and the approach, with appropriate modification has been used by organizations such as DFID, Save the Children, OXFAM GB and Oxfam South Africa, amongst others. From a starting point of the DFID five capitals, other organizations have modified the approach to include issues such as empowerment and politics. In contrast, others have reduced the framework to a more manageable triumvirate of assets, capacities and activities (de Stage, 2002).

As approaches evolve into a more rights-based approach, differing emphasis is placed on concepts such as empowerment, governance, security, poor health, hunger, assets, capabilities, and activities, depending on the aim of the organisation carrying out the assessment. The World Bank for example recognizes opportunities, empowerment and security as key issues. Now, both development and conservation agencies use their own variations on the SLA theme.

Kusters et al (2005) describe their use of the five capitals approach in their CIFOR report “*A method to assess the outcomes of forest product trade on livelihoods and the environments*”, and the indicators that they developed for use at the household, community and national levels. This approach would appear to provide a

simple starting point for Parties wishing to initiate and develop their own methods, particularly with regards the household level indicators.

Kusters et al (2005) provide a list of guiding questions and examples, for household use in Annex 3 of their report. These focus on the impact of commercial production of non timber forest products (NTFPs), e.g.

Question 1.1.a: Has commercial production of the NTFP target species led to much worse, worse, better much better physical access by producer households to the target resource?

These questions could be readily modified to fit the CITES context. For example the question above could read: "Has implementation of a particular CITES listing led to much worse, worse, better much better physical access by producer households to the target resource?"

This would also support the approach taken in the CITES Wildlife Trade Policy Review process (CoP14 Inf. 17), which also refers (in table 3) to Kusters et al (2005) when defining areas in which to observe change.

The Poor

In the past, "the poor" have been characterized by their earning power, such as those who earn less than USD1-2 per day (World Bank, 2001) and it is generally recognized that the poor are those with the least in the way of assets (including income corrected for purchasing power), opportunities, power, child mortality and illiteracy.

Of those who live on less than USD2 per day, around 70% live in rural areas (IFAD, 2001), where chronic poverty is associated with remoteness and weak integration into society (Sunderlin et al, 2005; Woodhouse, 2002). The rural poor are classified into the landless, those with a low asset base, or small holders, pastoralists, rural women, ethnic minorities and indigenous populations (World Bank, 2003). Poor rural women are often found in family units where the patriarchal figures are relatively prosperous. This is a manifestation of a fundamental issue to address in terms of CITES and livelihoods, namely, that if implementation of CITES decisions is not undertaken in the context of a broader strategy to alleviate poverty, the negative impacts will be more severe, opportunities for income enhancement will be lost and ultimately, the relevant species may still face unsustainable harvest (C. O'Criodain, Pers. Comm.). Meanwhile 50% of the hungry come from farm households in high risk production areas and 8% are herders, fishers and forest dependent households (Scherr et al, 2003).

Definition for CITES purposes

For CITES purposes, 'the poor' may mainly be considered as the rural poor who are directly involved with collection of specimens from the wild as part of their livelihoods and "coping strategies".

These are the people with the fewest alternatives to harvesting or processing wild products, or that are otherwise dependent on the ecosystems necessary to support the species that supply such products, and those who use wildlife as part of their coping strategies. These people should be prioritized by Parties when considering how listing decisions impact livelihoods of the poor, including those directly involved in trade and those who depend on their own domestic use of wildlife.

This category of poor therefore encompasses those pivotal stakeholders (*sensu* Freese, 1997) for whom it is key to ensure they receive any benefits of trade, or any other benefits arising from the implementation of CITES listings, as incentives to conserve species and their associated habitats. In addition, there may be other traders and processors of wildlife products who could also be classed as 'poor', particularly as CITES becomes more involved with fishery and timber products. However, they are not pivotal stakeholders (*sensu* Freese, 1997).

Rapid

Parties will need to agree what is implied by the word "rapid" in relation to implementation of a "rapid assessment". This is discussed in Chapter 5 *Issues to consider for a CITES tool*, in the section *CITES context*.

Trade monitoring or trade prohibition?

The impact of the implementation of a CITES listing decision on livelihoods of the poor will vary considerably depending on the nature of the control imposed by the decision. Decisions that limit or prohibit commercial

trade (e.g. Appendix I listings; zero quotas; trade suspensions), may be expected to have very different impacts from an Appendix II listings which only necessitate the presence of a satisfactory non-detriment finding (NDF) and CITES export permit.

The intention of any CITES regulation is to ensure the long-term survival of the species, which may generally be expected to be considered a positive outcome, although this may not be true for all, such as poor farmers and their families if they or their crops are at risk from a CITES listed species.

In the short-term, a ban or limitation on trade may have a negative impact in relation to the ability of people to benefit directly from legal trade, but a positive impact if the continued presence of the species in the wild leads to either ongoing trade or increased revenue for the poor, for example through increased tourism and subsequent employment by poor people as park guards.

The process of monitoring trade *via* an Appendix II listing may have negative impacts due to the administrative costs incurred or as a result of public misperception of CITES leading to trade in the species being considered less favourably by importers. Alternatively, if CITES is seen as confirmation of sustainable trade, leading to increased revenue or ongoing trade opportunities, the impact could be positive.

The differences in implementation of regulations that restrict trade, compared to those that monitor trade need to taken into consideration in relation to both this paper, regarding the assessment of impacts and paper 2, regarding methods to address impacts.

What do Parties need to know?

In order to understand the impact of implementing CITES listings on livelihoods of the poor, the following key questions need to be answered, ideally in relation to each species:

1. What is its importance to livelihoods of the poor, such as providing a source of cash, availability for local use, or for customary reasons?

2. What is its importance in international trade?

3. What relevant CITES regulations have been and/or currently are in place?

4. What is the relative impact of the CITES regulations compared to other confounding factors?

A CITES rapid impact assessment process for use at the national level to understand the impact of implementation of CITES listings on the livelihoods of the poor will need to address all these issues. However, it is not likely to be practical for Parties to assess all their CITES listed species on a species by species basis and a preliminary screening process would therefore seem advisable, based on items 1-3 above, to prioritise species for inclusion in the rapid appraisal process.

Item 4 highlights the importance of attempting to differentiate the impact of CITES listings on livelihoods from the various other issues that influence availability of the species to the benefit of livelihoods. Hutton (2008), for example, notes that habitat loss generally has a far greater impact on species loss than does international trade. Unravelling the various factors involved will inevitably be a complex matter and would best be undertaken if comparable data were available pre- and post- CITES listing.

Identifying the particular impact of the CITES listing decision in relation to other confounding factors is the real challenge that an effective CITES rapid assessment tool would, in an ideal world, address. However this is unlikely to be possible and a more realistic solution is likely to be needed. In presenting the results of the CITES and Livelihoods workshop held in 2005 in South Africa, Dickson (2008) notes that “the rapid assessment tools should focus on making an assessment of whether a given package of measures does (or will, in the case of measures under development) have a beneficial impact, rather than attempting the very challenging task of assessing the causal role of CITES trade regulation alone”.

As a final step, Parties will also need to understand how information about livelihood impacts can feed into evolving policy-making.

Information requested under the National Wildlife Trade Policy Review (NWTPR) process is relevant to the CITES and Livelihoods process. Since the NWTPR process is also a voluntary one, the CITES and Livelihoods cannot depend on this process having been undertaken. The integration of relevant aspects of the NWTPR into

the current process is therefore discussed in Chapters 6 and 7, to ensure there is no duplication of effort either in designing questions or in data collection.

It should be noted that the CITES and Livelihoods process, which is a voluntary one, will not need to consider any issues relating to sustainable use, since assessing sustainable use is an obligation of the Parties under Article IV of the Convention, which requires the implementation of a non-detriment finding prior to the issuance of an Appendix II export permit. No information needs therefore exist in this respect in relation to the CITES and Livelihoods process.

The impact assessment process

International framework

Tools and guidance for assessing impacts of policies, projects and natural and humanitarian disasters on environment and livelihoods have been developed by many conservation and development organisations. These include the World Bank, regional organisations, such as the European Commission, international and national non-government organisations as well as Multilateral Environmental Agreements including the Convention on Biological Diversity (CBD), the Ramsar Convention on Wetlands (RAMSAR) and the Convention on Migratory Species (CMS), as well as UNEP (CBBIA 2004). Meanwhile, much of the research that informs developments in impact assessments comes *via* the International Association for Impact Assessment (IAIA).

Environmental impact assessment (EIA) developed in response to concerns over the environmental impacts of large infrastructure development projects and has now been extended by Social Impact Assessment (SIA). Meanwhile, Strategic Environmental Assessment (SEA) has been developed to review the effects of sectoral policies by using Environmental and Social Impact Assessments (ESIA).

Principles & framework

Impact assessment methodologies generally conform to a common framework and involve a number of common steps: Screening; Scoping; Data collection; Impact/ risk assessments; Mitigation/ avoidance; Monitoring of recommended actions (Fig. 1).

- **Screening**: One of the most important steps at the start of the process is to undertake a brief screening process to establish the nature of the impact assessment study. This step, will be one that CITES authorities are already familiar with through processes such as making non-detriment findings, as it involves weighing up the need for assessment and levels of detail required.

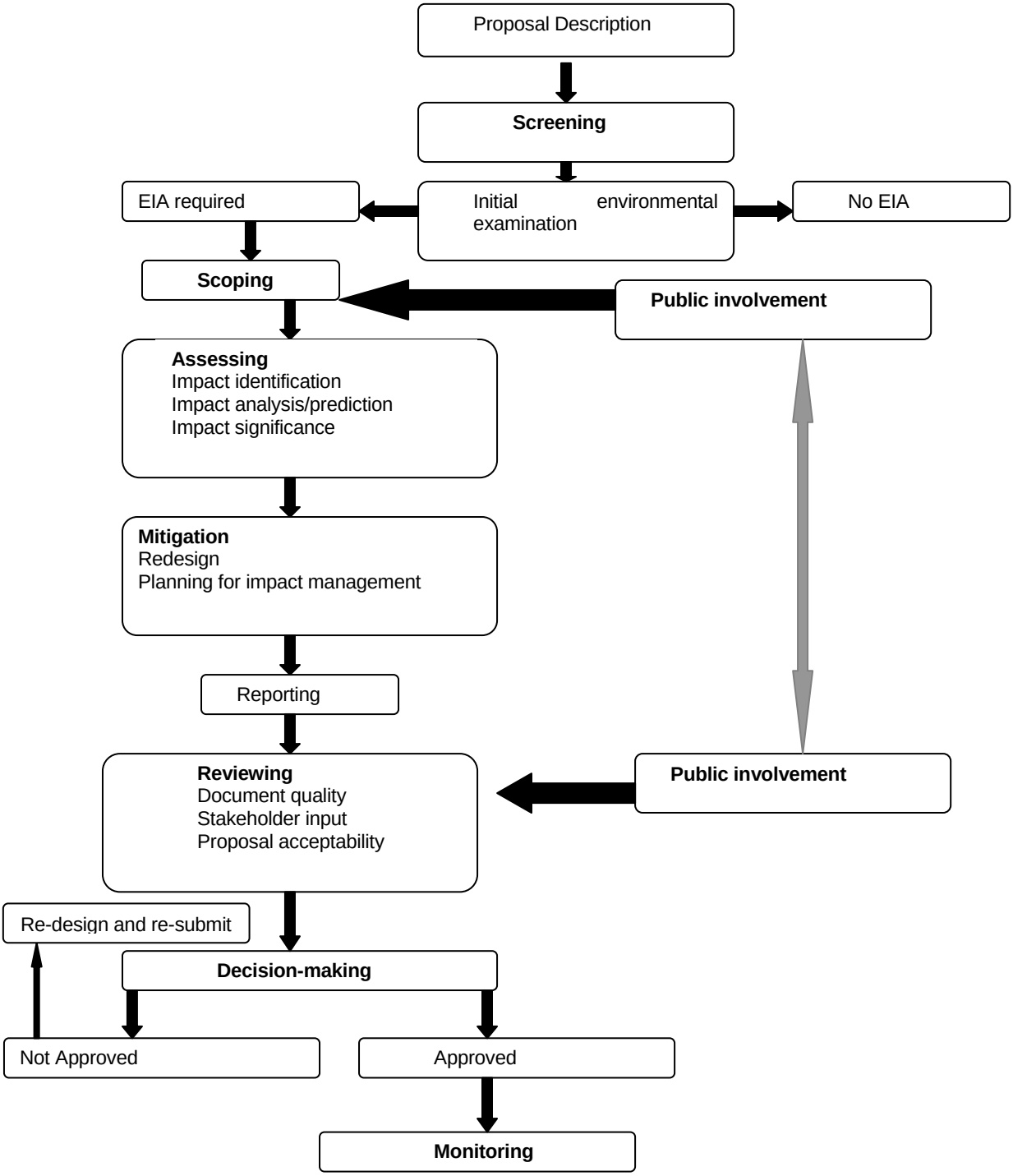

Figure 1: Steps in an Impact Assessment Process (MoE/METAP/UPP, 2001)

For example, given a finite budget for livelihoods assessment and a choice between assessing impacts of listing decisions for two taxa, one of which involves four poor harvesters and the other of which involves 200 poor harvesters, the latter is likely to be chosen for the full assessment.

- **Scoping and data collection:** Scoping involves public participation and establishing the framework and limits of the data collection and methods to be used. Meanwhile the Data collection step, should be relatively straight forward and continue to involve public participation. Many of the tools that are reviewed in the following paragraphs illustrate means of data collection. Once the necessary data has been collected, then stakeholders will be involved in assessing the risk of particular impacts and if necessary then designing methods to avoid or mitigate particular impacts. Finally, the success of recommended mitigation and/or enhancement action should be monitored to ensure that the action is having the proposed effect.

- **Risk assessment**: The CITES Secretariat has provided information on risk assessments as part of its inputs to the International Workshop on Making Non-detriment findings held in 2008 in Cancun, Mexico (Morgan 2008: background paper and presentation). The associated guidance indicates that data requirements should be proportionate to the potential risks; assessment should be based on the best information available; if extra information is needed and can be obtained, then it should be collected; and finally, experience can help with assessments.

Principles of risk assessments indicate that stakeholder participation is vital and that information collection and mitigation strategies should be proportionate to the risk. Therefore, when the risk is small, a small amount of effort should be expended and *vice versa*.

Current practice

Tools and guidance

A variety of guidance and specific tools have now been developed to guide users through the burgeoning field of Impact Assessment. For example, the OECD provides guidance on using Strategic Environmental Assessment (SEA) in developing countries (OECD, 2006) and information for EU countries is provided by the EC's Handbook for Trade Sustainability Impact Assessment (EC, 2006). Meanwhile to ensure that conservation and sustainable use of biodiversity is pursued as a fundamental objective of strategic decision-making, guidance on conducting Strategic Environmental Assessments (SEA) of proposed policies, plans or programmes has been developed by the Capacity-Building for Biodiversity Impact Assessment project (CBBIA, 2004). Likewise, the World Bank has also developed Poverty and Social Impact Assessment (PSIA) guidance (World Bank, 2003).

Many toolkits incorporate detailed instructions, training manuals and data collection sheets. Amongst conservation organisations, the toolkits have largely been associated with protected areas and landscape approaches, although IUCN is developing a livelihoods assessment module that aims to capture local information on the contribution of species to livelihoods. All these tools are generally for use at the local, rather than national level, as CITES might require. However local level tools are likely to be more appropriate, particularly in big heterogeneous countries (Brazil, DRC, South Africa, Indonesia) where a national level approach may be meaningless. Indeed, trade-offs at the national level (e.g. through substitution of products) could mask real gains for some communities and losses for others (C. O'Criodian, pers. comm.).

Quantitative and qualitative tools

Impact assessment tools may be either quantitative or qualitative. In a biodiversity conservation context, there is growing recognition of the need to account for social impacts of conservation actions (Adams et al, 2004) and also recognition of the need to measure and monitor project outcomes (Pullin and Knight, 2001, Sutherland et al, 2004). Thus conservationists have started to develop means to assess both social impacts of projects as well as project success. Influenced by the quantitative backgrounds of many biological conservationists, the movement has generally adopted a quantitative target and indicator driven approach (Salafsky *et al.* 2002, Kapos et al 2008). However, such quantitative approaches are viewed with some concern by many social scientists, who view externally derived indicator-driven approaches as too restrictive and in danger of losing

much important information about the drivers of particular social actions (World Bank, 2003). Social scientists and development workers have been quicker to use qualitative methods and participatory approaches to indicator development. At the local level, the development community has developed the use of qualitative stories of change, which have now been used with some success to monitor change in a conservation context at the site level (Wilder and Walpole, 2008). Meanwhile, many organisations now recognize the value of a mixed methods approach that includes both quantitative and qualitative approaches which can be used for either site-based, or national level policy assessments (World Bank, 2003).

Tools for social impact assessment

Participatory rural assessment methods have been used by development agencies for some time to understand livelihood strategies of different groups of people. Such tools may vary from rapid to longer term and from participatory to less participatory. In general, rapid assessment (RA) methods are used when time is short to deliver predefined data quickly, although community members participate in data collection, empowerment is not the aim. In contrast, Participatory Rural Assessment (PRA), which often uses many of the same methods, is designed to empower community participants and as such has an open design and less restricted time-frame (Bergeron, 1999). A description of various methods used in participatory research is available in Annex 1.

Rapid Appraisal Programmes (RAP)

Rapid appraisal tools were developed in the 1980s, when it became clear that quicker means of data collection were necessary in the development field and also that understanding of issues differed between data collectors and people living in the situation, due to differences in perceptions and values (See Chambers 1997). Thus Rapid Appraisal Programmes (RAPs) aim to involve local people and are used in health (World Health Organisation (WHO)), forestry, fisheries, agriculture (Food and Agriculture Organisation (FAO)) and biodiversity assessment programmes (Conservation International (CI)), as well as in disaster relief planning (FAO/International Labour Organisation FAO/ILO). Many of the organisations that undertake RAPs develop their own generic guidance.

In terms of RAP methodology a number of commonalities emerge: RAPs are generally undertaken by a multidisciplinary team, they involve training of assistants, and will vary in length, depending on the complexity of the issue, the geographic scope of area, data needs and funding available. It is generally acknowledged that the reliability of a RAP will vary depending on the rapidity of the survey, so follow-up and further monitoring on interventions will help to reduce uncertainty.

The basic stages of a RAP involve, defining the question to be assessed, collecting available background data, mapping the area of interest, undertaking stakeholder and institutional analysis to identify key actor groups and institutions involved in resource management. To identify impacts on livelihoods it will be necessary to interview individuals to understand their livelihoods strategies and to examine how these vary by gender and wealth group. Thus methods can involve key informant interviews, focus group discussions and household measures. In the CITES context, a key method for identifying stakeholder will involve trade chain analysis.

A summary of the different generic methods used in livelihood assessments is provided in Annex 1.

Livelihoods assessment tools developed by conservation and development organisations

Methods designed by conservation and development organisations to assess the impacts on local livelihoods are summarised in Table 1 and described in Annex 2.

They have focussed on different issues, such as: the outcomes of forest products trade on livelihoods (Kusters, 2005); successful commercialization of NTFPS (Marshall et al, 2006); benefits associated with protected areas (WWF PA BAT; TNC Natures' Investment Bank); and landscapes (WWF LOAM and CIFOR MLA) as well monitoring project success (FFI Stories of Change).

Table 1 Key characteristics of different livelihoods assessment tools

Organisation	Aim	Conceptual framework	Method[2]	Results	Rapid
1. Cambridge Conservation Measures Partnership	Project Impacts	5 capitals	Desk, Participatory	Spreadsheets, Reports	Variable
2. CIFOR Forest Product Trade	Outcomes of forest products trade	5 capitals: assets & earning checklist with Likert scale	Household, Community and National	Report	Variable

3. CIFOR Multi disciplinary Landscape Assessment	Landscape for project design	Hazards, taboos, vegetation types, prices, natural products	Desk, Participatory	Spreadsheet, Report	Variable
4. Commercialization of NTFP report	Researching NTFP commercialization	5 capitals + trade analyses: enterprise budget, market & value chain analysis	Desk, Participatory, Market Tool	Spreadsheet tool & reports	Variable 2 week initial
5. EC Handbook for Trade Sustainability Impact Assessment	Policy assessment	Economic, social and environmental indicators; asses impacts on equity, reversibility & change capacity	Desk, Participatory	Reports	Variable
6. FAO/ILO Livelihoods Assessment Tools	Disaster/hazard identification	SL Framework, capabilities, assets, activities	?	?	? baseline
7. FFI: Most Significant Change	Project Impacts	? Open	Desk, Participatory	Report	Variable
8. International Red Cross: Vulnerability and Capacity Assessment	Vulnerability./ hazard identification	Vulnerability, capacity and hazard analysis	Desk, Participatory Household	Reports	Baselines
9. The Nature Conservancy (TNC): Nature's Investment Bank report	PA Benefits	Opportunities, Empowerment, Security	Desk, Participatory Household	Report	Variable
10. ODI/AWF Methodologies for Livelihood Impact Assessment	Project impacts & contribution	5 capitals	Desk, Participatory Household	Report & method	Variable
11. OECD Strategic Environmental Assessment	Policy assessment to integrate environment	5 capitals	Desk, Participatory	Report	Variable
12. Provention consortium – Disaster relief and prevention	Development tools	Various	Various	Various	Various
13. Save the Children: Household Economy Appeal	Vulnerability/ drought, price, etc.	Household economy and Livelihoods framework, with market analysis. Baseline+Hazard+Coping= Outcome	Desk, Participatory Household	Quantitative results & maps, Spreadsheet	Baselines update 3-10 yrs
14. SIS Livelihoods module	Livelihoods	?	Household	?	?
15. WHO Rapid Appraisal	To inform design of Health provision	Structural, Community, Individual influences on health risk	Desk, Participatory Household	Report, Spreadsheet	12 week survey teams
16. World Bank PSIA	Policy assessment	Well-being- income and non-income based: assets, access, employment	Desk, Participatory Household	Report	Varies with impact & capacity
17. WWF: Protected Areas Benefits Assessment	PA Benefits	5 capitals- subsistence; economics, cultural, environmental services, political	Desk, Participatory	Report & spreadsheet	Variable
18. WWF: Landscape Outcome Assessment Methodology	Landscape change	5 capitals	Desk, Participatory	Radar plots, report, spreadsheet	Variable

Meanwhile, development organisations have for some time been using variations on the ODI/DfID Livelihoods framework to assess the impacts of their work and of policy reforms (World Bank PSIA), to plan for disaster relief (FAO/ILO; Save the Children) and to help people overcome periods of vulnerability (Oxfam).

Many of the tools for undertaking livelihoods assessments used by development and conservation practitioners are site- or project-based, use a complex array of methods and can be time-consuming for both staff and participants. Most tools combine desk-based initial data compilation with participatory data collection from key informants and at the community and household levels. The tools vary in the specific methods that they advocate, whether it be wealth rankings, focus groups discussions to identify either qualitative or quantitative indicators of change, transects walks to identify assets, and household surveys. They do however provide examples of methods and questions that could be extracted and modified and may be useful to CITES parties in assessing the positive and negative impacts of implementing CITES listing decisions.

For a rapid assessment, the method developed by Kusters et al (2005) which depends on expert assessment of the outcomes of forest product trade on livelihoods provides a rapid means of assessing potential impacts for further investigation and may be of particular relevance to the CITES and Livelihoods process, since this approach has been followed in the NWTPR to define assets against which social impacts can be identified (natural, physical, human, financial, social).

Methods described in Marshall et al (2006) are likely to be particularly useful in assessing market aspects of the trade. Meanwhile the baseline assessments undertaken by development agencies may help to pinpoint areas where livelihoods are particularly vulnerable. The method of Most Significant Change (Wilder & Walpole, 2008) is useful for understanding livelihood options and vulnerabilities of the poorest in the trade chain and is helpful in understanding causal links better, which might be a particular benefit in the CITES and Livelihoods process. However, it is not a rapid assessment tool. It is a participatory approach to monitoring and evaluating impact, that requires quite a lot of up front planning and development, plus on-going investment and engagement with communities to generate the kinds of data/stories required (M. Walpole, pers. comm.).

As mitigation/enhancement strategies are developed, further monitoring will be required to ensure that strategies continue to be effective. As parties develop their approach to livelihoods assessment it is likely that methods and tools for assessments may also be refined and further developed in future.

Issues to consider for a CITES tool: CITES context

CITES v. other management methods

A major issue in undertaking any assessment will be the problem of identifying impacts on livelihoods that result from a CITES-related decision, as opposed to other matters: other management measures, changes in demand, and changes in access to, or abundance of, the species in question.

With or without a CITES listing, management of a resource still rests primarily with communities and traders in conjunction with relevant authorities. Perceptions around CITES only arise when a species is proposed for listing or is listed. It may be more helpful for assessments to take a “CITES neutral” approach where the impact of implementing a CITES listing is just one of the management options whose impact is assessed.

Existing and new listings

Decision 14.3 does not distinguish between new or existing CITES listing decisions, hence the tool should be suitable for application to all CITES listed species. There was discussion amongst the CITES and Livelihoods working group regarding the need to assess livelihoods prior to a CITES listing proposal being discussed by the Conference of the Parties. Some working group members considered this was important, to generate important baseline information. The opinion was also voiced that this might impact the decision on whether to list the species, and that this should therefore be excluded.

CITES National Wildlife Trade Policy reviews

Identification of appropriate tools for use in a CITES context will benefit from consideration of other efforts that CITES Parties are already undertaking. In particular the CITES community has already invested resources in developing and testing a methodology to undertake National Wildlife Trade Policy Reviews (NWTPR), see Doc. 14 Inf. 17 (CITES/UED/UNEP, 2007). As with the CITES and Livelihoods process, implementation of the NWTPR is also voluntary.

The framework developed under NWTPR includes consideration of social and economic issues based on existing data, available knowledge, stakeholder discussions and other data gathering processes. If Parties have undertaken a NWTPR, information from this can feed into the CITES and Livelihoods process. Social and economic impacts are considered in Section 3.2 of the NWTPR, including questions and criteria against which to assess these impacts. The questions, which are all relevant in a livelihoods context, comprise:

Social impacts: has the wildlife trade policy had positive social impacts on harvesters?

1. Has the wildlife trade policy affected property (access, use and tenure) rights of indigenous and local communities engaged in harvesting?

2. Has the wildlife trade policy affected the financial assets of harvesters?

3. Has the wildlife trade policy affected harvesters' ability to engage in and benefit from sustainable trade?

4. Has the wildlife trade policy contributed to human development of the rural poor?

Economic impacts: has the wildlife trade policy had a positive economic impact?

1. Has the wildlife trade policy caused a change in the supply structure?

2. Has the wildlife trade policy caused a change in the demand structure?

3. Has the wildlife trade policy affected the competitiveness of legal traders?

4. Has wildlife trade policy created positive incentives for, or stimulate private investments in sustainable management of resources?

5. Has wildlife trade policy created jobs and incomes for more people?

If it were to be adapted for livelihoods impacts assessments, the NWTPR methodology would require further emphasis on the review of external factors that can influence the outcome of domestic policies and greater focus on livelihood impacts by making more explicit use of livelihoods frameworks such as the SLA framework; or the assets, capabilities and activities framework; or the opportunities, empowerment and security framework. The Annex to Doc COP14. Inf. 17 introduces basic social science methods that could be used, although value chain analysis should be added.

Scale of assessment

Parties will need to consider the scale of the assessment being undertaken, and the resources available for the assessment, since this will affect the choice of tool. The larger the scale of an assessment, i.e. the greater the number of taxa and the larger the geographic areas involved, the less detailed the assessment will be. Conversely, the greater the likely impact of an action, the more information is likely to be needed

In terms of scale of assessment it may be helpful for the working group to consider whether they should provide guidance to Parties to help them to decide whether they should prioritise rapid assessments of:

i) generic impacts of the implementation policies applied to CITES listings generally, including differences in implementation of listings of species on Appendices I, II and III (including policies addressing various types of production systems and different categories of use), with the aim of contributing to development of generic guidelines on mitigation (where necessary) or on maximizing any positive benefits, alternative strategies of use, and the integration of CITES implementation into broad management policy-making; **or**

ii) specific impacts related to the implementation of CITES listings for particular species or categories of species, with a view to developing mitigation strategies for any negative impacts or strategies for the maximizing of positive benefits

An individual Party could decide to undertake a rapid assessment of:

i) the potential impacts of the full variety of all listing decisions for all taxa being implemented in that country – in order to develop a national mitigation strategy or a strategy to maximize potential positive impacts of implementation, perhaps in conjunction with its national wildlife trade policy or other policies affecting the livelihoods of the poor; or

ii) the implementation of a particular listing or proposed listing with a view to developing a mitigation strategy or a strategy to maximize potential positive impacts of implementation.

Further guidance on the envisaged usage or role of the impact assessments would help to inform the selection of appropriate tools.

Impacts

CITES Decision 14.3 makes clear that the positive and negative impacts of implementation of CITES listing decisions should be addressed in papers 1 and 2. Dickson (2008) has recommended that CITES Parties adopt the 'Do no harm' position (see Recommendation V.29 Poverty and Protected Areas IUCN, 2003; Hedden-Dunkhorst et al., 2007). If this position is adopted, the immediate focus of an assessment process should be to identify whether the implementation of a CITES listing decision is likely to have a negative impact on the livelihoods of the poor so that Parties can subsequently develop mitigation strategies (Paper 2), to prevent the negative impact from occurring in the first place.

Impacts of the implementation of CITES listing decisions can be both positive and negative, depending on particular stakeholders' perspectives and whether these can be delivered in the short or long-term. For example, restriction of unsustainable international trade may negatively impact a harvester who depends on income from species traded internationally, but may positively impact a harvester who depends on the product for their own use, if the population starts to recover. Thus impact assessment will need to consider which stakeholders are directly involved in the trade, as well as those who depend on domestic use of the product.

Impacts of the implementation of CITES listings may include direct impacts such as reduction or cessation of wild harvest levels which in turn can affect income levels from international trade both negatively, if trade volume declines and price remains stable; or positively if volume declines but price increases or if a reduction of trade is followed by a corresponding increase in revenue or other benefits arising from other uses of the species. Trade restrictions can also have indirect impacts by encouraging the development of other sources of the product such as development of *ex situ* production, or use of substitutes. They may also affect increased illegal use of the local resource either by encouraging open-access use through illegal harvesting and trade or by making such use more difficult (i.e. by eliminating loopholes for laundering illegally-taken specimens into legal trade.

Further information on the potential positive and negative impacts of the implementation of CITES listings is drawn from case studies and is presented in Paper 2.

As well as the initial impact assessment, Parties could also consider monitoring the impacts or effectiveness of mitigation strategies (in the case of negative impacts) or enhancement strategies (in the case of positive impacts), using methods such as indicators of change or most significant change stories (Wilder and Walpole 2008). Another method may be to look for improvements in certain indicators, as in the Nature Conservancy study which used the World Bank definition of poverty and quantified poverty reduction by looking for increased opportunities (e.g. education and alternative livelihoods), greater empowerment (e.g. decision-making and resource ownership) and enhanced security by reducing risks from natural hazards and food shortages (Leishner et al, 2007).

Issues to consider for a CITES tool: general

Rapid

Desk based v. local surveys

Parties will need to determine what they mean by Rapid Assessment (RA). Rapid Assessments generally involve some field visits, but the necessity for, and length and extent of these, will vary depending on the extent of the trade, of the trade regulation, of the numbers of people involved and prior information on livelihood and poverty issues. When undertaking rapid assessments, the temptation may be to use desk-based exercises or surveys of expert opinion, as have been used to assess some socio-economic aspects of wildlife trade (Kusters et al, 2005; TRAFFIC, 2008). However, livelihoods experts are generally clear that livelihoods should be assessed at the local village and household levels, and by the communities themselves (see Wilder and Walpole 2008). Inclusion of the communities is very important and is the essence of the Most Significant Change process (see Case Study 6) (M. Walpole, pers. comm.).

Narrowing the scope

The rapidity and form of the assessments will depend to some extent on when and how the assessments are envisaged to be undertaken. Parties could undertake assessments on a case by case basis. Alternatively a more generic approach could be adopted to review categories of listing decisions that have been prioritised for assessment.

CITES Parties could also adopt an approach that involves national mapping of areas of harvest for export followed by household investigations of likely dependence on wildlife, and on the nature of that dependence (e.g. for trade, local use for food or medicine, cultural purposes, as a source of ecotourism revenue etc) to form a baseline for further specific data collection on impacts of specific CITES regulations.

An examination of trade levels in different species, coupled with information from key informants on areas of collection and value to harvesters and processors could prioritise areas for both conservation and development work. Rapid appraisals of impacts on livelihoods will ideally require participatory data collection at the household levels to assess the importance of CITES listed species in household strategies.

Multi-sector approaches

Partnerships and multi-sectoral approaches are likely to be important in implementing rapid appraisals and there will be a need to benefit from relevant experience of other governmental and non-governmental agencies.

In the case of disaster relief and other humanitarian interventions, development agencies use methods to provide baseline poverty and hazard maps at regional and even national levels. They subsequently undertake further rapid and in-depth assessments on specific aspects as necessary (See Cruciano, 2007FAO/ILO; Save the Children). CITES parties could explore partnerships with relevant intergovernmental agency teams (e.g. Food and Agriculture Organisation/ International Labour Organisation (FAO/ILO)) and development NGOs (e.g. Care, Oxfam, Save the Children) to determine if their baseline surveys could fit CITES purposes and thus speed-up assessments. CITES national authorities will also need to work with ministries responsible for poverty reduction, social development and agriculture, etc. These partners will be well versed in livelihoods assessment, using participatory techniques, whether for disaster planning, or for planning poverty reduction assessments and projects.

Mixed methods

Mixed methods that combine both quantitative and qualitative approaches are advocated by most commentators for undertaking livelihoods impact assessments. Traditionally, conservationists have focussed on use of quantitative methods, whilst social scientists recognise the value of qualitative methods in gaining greater understanding and insight of the perceptions of those being impacted. Thus participatory rural appraisal methods are generally used for rapid livelihoods assessments. Most recently, conservationists have advocated the use of Most Significant Stories of Change methods which are based on collection of individual perceptions of change (see Wilder & Walpole, 2008). Such methods, although originally used for monitoring project success, if carefully targeted at wildlife harvesters, may provide useful qualitative information to begin to understand perceived impacts of CITES listing decisions, but definitely require project support (M. Walpole, pers. comm.).

Indicators of poverty

Although one possibility is to ask the poor themselves how to characterize poverty (Brocklesby & Hinshelwood, 2001), in the CITES context the use of indicators that are case and context specific would be more objective (Ashley & Hussein, 2000).

When considering indicator selection, aspects of poverty that may prove relevant include hunger and health, as identified by UNDP (2009) and the heads of the five biodiversity conventions (Zedan et al, 2005). Others have used infant mortality rates as poverty indicators because they correlate with income, education and health status of populations (see Redford et al, 2008 citing Dasgupta 1993 and Balk et al., 2006).

HDI/HPI

In 1990, UNDP introduced a new way of measuring development by combining indicators of life expectancy, educational attainment and income into a composite human development index, the Human Development Index (HDI). The UNDP also developed the Human Poverty Index (HPI) which concentrates on deprivation in the three essential elements of human life already reflected in the HDI: longevity, knowledge and a decent standard of living as well as a Gender-related Development Index (GDI) and Gender Empowerment Measure (GDM), all of which are of relevance to this paper (UNDP, 2009).

It is difficult to use the HDI to monitor changes in human development in the short-term since two of its components, namely life expectancy and adult literacy change slowly. However, to reflect national or sub-national priorities and problems the HDI can be tailored so that additional components are included in the

calculation. This could involve expanding the breadth of existing component indices to include components that are more sensitive to short-term changes, e.g. rate of employment, the percent of population with access to health services, daily caloric intake as a percentage of recommended intake, under-five or maternal mortality rates. For further details see *Country Specific HDIs* at http://hdr.undp.org/en/statistics/indices/hdi/ (UNDP, 2009).

UNDP note that the usefulness and versatility of the HDI as an analytical tool for HD at the national and sub-national levels would be enhanced if countries choose components that reflect their priorities and problems and are sensitive to their development levels, rather than rigidly using the three components presented in the HDI of the global HDRs.

CBD & 2010 Biodiversity Indicators Partnership

Indicators are currently being developed for the CBD as part of the 2010 Biodiversity Indicators Partnership www.twentyten.net of which CITES is a partner including those of relevance to poverty. The most relevant indicator is "Health and well-being of communities directly dependent on ecosystem goods and services", which lies within the focal area *Ecosystem Integrity and ecosystem goods and services*. Other indicators of indirect relevance include "Nutritional indicators for biodiversity" and "Biodiversity for food and medicine", both being of the same focal area, and "Wild Commodities Index" (*Sustainable use*). Indicators on access and benefit sharing have not yet been developed.

An overview of the current status of indicator development can be found in the report of the Expert Workshop on the 2010 Biodiversity Indicators and Post-2010 Indicator Development in July 2009 (see http://www.cbd.int/doc/meetings/ind/emind-02/official/emind-02-0709-10-workshop-report-en.pdf). Through decision VIII/15, the CBD COP has urged Parties and other Governments to develop national indicators and Parties have reported, through the 4th national reports, on their action in this regard.

The 2010 indicators will be reviewed by CBD SBSTTA 14 in May 2010 and at CBD COP 10 in October 2010. Although these indicators only provide a broad framework, a further CBD process is underway to guide Parties in the development of indicators for national use.

Adopting indicators developed in relation to the CBD would support synergy between the CBD and CITES (see CoP15 Doc. 10.1), and would complement the draft Resolution in Doc. 10.1 under the 2010 Biodiversity Indicators Partnership, which provides for support from CITES to the CBD.

The CITES and livelihoods working group could encourage Parties to ensure close liaison between CITES Management Authorities and CBD focal points in relation to any use of CBD related indicators.

Designing a tool for CITES use

Many of the tools already described above and those summarised in Table 1, are site- or project based, use a complex array of methods and can be time-consuming for both staff and participants. They do however provide examples of methods and questions that could be extracted and modified and may be useful to CITES parties in assessing the impacts of the implementation of listing decisions.

For a rapid assessment, the method developed by Kusters et al (2005) which depends on expert assessment of the outcomes of forest product trade on livelihoods provides a rapid means of assessing potential impacts for further investigation. Sample questions modelled on the questions included in Annex 3 of Kusters et al (2005) are included in the proposed tool to illustrate their approach (Chapter 7).

Methods described in Marshall et al (2006), and the CITES National Wildlife Trade Policy Reviews are likely to be particularly useful in assessing market aspects of the trade. Meanwhile the baseline assessments undertaken by development agencies may help to pinpoint areas where livelihoods are particularly vulnerable. The method of most significant change is likely to be useful for understanding livelihood options and

vulnerabilities of the poorest in the trade chain. As mitigation/enhancement strategies are developed, further monitoring will be required to ensure that strategies continue to be effective. As parties develop their approach to livelihoods assessment it is likely that methods and tools for assessments may also be refined and further developed in future.

Testing and refining data collection tools

Testing and refining of data collection tools will be an important aspect of undertaking livelihoods assessments. This will help to ensure that the assessments can be undertaken in a cost-effective, yet rigorous manner, and are proportionate to the risks involved. To refine the tool outlined in Chapter 7, trade and livelihood questions that may be useful can be found in questions, questionnaires and data sheets provided in CITES CoP14 Inf. 17; Kusters et al (2005); Marshall et al (2006) and TRAFFIC (2008). The manuals compiled by Catley et al (2007) and World Bank (2003) provide excellent summaries of participatory methods.

Following experience and testing of the general toolkit outlined in Chapter 7, development of a more specific toolkit for CITES purposes will require guidance from the working group on how and when the assessments are likely to be used. Examples of data collection sheets prepared by conservation agencies including CIFOR, WWF and TNC may prove useful models, although they are targeted at landscape and protected area evaluation (CIFOR 2008; Dudley and Stolton 2008; Aldrich and Sayer 2007; Leishner et al 2007). IUCN's ongoing development of a livelihoods module associated with the Red List for use in evaluating the livelihood contributions of species may also provide a useful model.

Final considerations and caveats

In using such livelihoods assessment tools, it is important to remember that

1) data collection should be proportionate to the risk;

2) poor people may characterize their livelihoods and impacts on those livelihoods differently from outsiders, and therefore participatory assessments should be considered;

3) a variety of tools and methods are available ranging from the simple to the complex and the tools chosen in a given situation will depend on the particular form of assessment in mind and available resources;

4) livelihoods assessments generally involve desk collation of existing data followed by key informant interviews and possibly focus group discussions;

5) collaboration with other organisations, including international and national IGOs or NGOs who already work in a livelihoods context may be advisable;

6) Standardised tools have been developed by some organisations, but others argue that flexibility is required and the great variety of tools developed for different organizations and uses suggests that a flexible approach is more pragmatic.

7) Specific trade related analyses such as trade chain analysis should be considered

Proposed tool for use by CITES Parties

CITES Parties could consider adopting the following steps and actions in implementing a rapid appraisal to identify the impact of CITES listing on the livelihoods of the poor.

STEPS TO RAPIDLY ASSESS THE IMPACT OF THE IMPLEMENTATION OF CITES LISTINGS ON LIVELIHOODS OF POOR RURAL COMMUNITIES

Proposed steps for rapidly assessing impacts for use by CITES Parties

The interested Parties could consider the following general steps when implementing a rapid assessment to identify how CITES listings affect the livelihoods of economically poor local communities.

Step 1: Define the current situation regarding livelihoods of poor rural community(ies) concerned and evaluate existing biological and trade data on relevant CITES-listed species.

Step 2: Conduct a desk study to obtain further information on selected species

Step 3: Identify communities which are potentially impacted and collect relevant information for field work

Step 4: Conduct field-based participatory livelihoods assessment in potentially-impacted communities

Step 5: Undertake final assessments and develop recommendations

Step 6: Monitor implementation of recommendations and changes and impacts over time

CITES Parties could consider adopting some or all of the following steps in implementing a rapid appraisal to identify the impact of CITES listing on the livelihoods of the poor.

Proposed actions for implementing the steps for rapidly assessing impacts for use by CITES Parties

Step 1: Define current circumstances & collate and assess existing CITES information

1. Identify relevant indicators of poverty against which to assess change (in conjunction with CBD National Focal Point)

2. Identify whether a generic and/or a taxon based assessment is to be carried out.

The steps below assume a taxon based assessment is being implemented. If a generic assessment is being undertaken, input from a NWTPR or use of the NWTPR framework will be of particular importance.

3. Describe existing domestic and international management processes currently in place, particularly stricter domestic measures.

    3.1. Draw on the results of the NWTPR, if this voluntary process has been undertaken.

4. Prioritise species for assessment

A prioritisation process by Parties of species within their national jurisdiction, including, for example, the steps listed below, will help identify key species for rapid assessment.

1) **Unlisted species.** Review prior to the development of a proposal to list a species in the Appendices to CITES. This would provide information on the impact of existing management systems as a comparator for post-CITES listing assessments.

    Note: the working group was not in agreement concerning review prior to CITES listing.

2) Prioritisation of taxa based on the CITES controls imposed, and level of trade. The following order could be considered:

    a) Listed in **Appendix I**, and:
        i) with no positive measures or mitigation strategies following previous extensive trade;
        ii) associated with strategies to provide incentives for conservation (mitigation strategies) such as *ex situ* artificial propagation or captive breeding, ranching, and trophy hunting quotas;

b) Listed in **Appendix II**, and:
   i) subject to Significant Trade Review recommendations
   ii) with evidence of regular/high trade
   Available from CITES Trade database: http://www.unep-wcmc.org/citestrade/trade.cfm)
   iii) with little evidence of historic trade

c) Listed in **Appendix III.**

d) In addition, taxa which have the following attributes could be prioritised:
   i) those whose listing has changed within the last ten years; and/or
   ii) for which harvesting from the wild was the major source of supply; and/or
   iii) for which the poor are known to be major suppliers/ domestic users; and/or
   iv) for which the income from trade has been reduced either through a decline in volume and price or a decline in price.

5. For selected species:

   5.1. Summarise existing and previous CITES history
   Available from CITES Species Database http://www.cites.org/eng/resources/species.html

   5.2. Characterise the CITES implementation measures taken with respect to the species, including methods of permit issuance, apportionment of licences, enforcement with respect to illegal trade etc, as well as associated measures (e.g. education, capacity building).

Step 2: Undertake desk based work to gather new data for selected species

6. Map the distribution of the species and collection areas if known;

7. Collate information on extraction and trade levels to assess numbers of people likely to be involved; (part of overall NDF)

8. Undertake trade chain analysis through targeted key informant interviews and focus group discussions, coupled with examination of available trade data to identify stakeholders and numbers involved at each stage;

9. If a NWTPR had not been implemented or has not been implemented in relation to the species under consideration, address the questions below, modified from questions included in section 3.2 of the NWTPR. (New wording is in red and underlined.)

   Social impacts: has the wildlife trade policy had positive social impacts on poor harvesters?

   9.1. Has the wildlife trade policy affected property (access, use and tenure) rights of poor indigenous and local communities engaged in harvesting?

   9.2. Has the wildlife trade policy affected the financial assets of poor harvesters?

   9.3. Has the wildlife trade policy affected poor harvesters' ability to engage in and benefit from sustainable trade?

   9.4. Has the wildlife trade policy contributed to human development of the rural poor?

   Economic impacts: has the wildlife trade policy had a positive economic impact on the poor?

   9.5. Has the wildlife trade policy caused a change in the supply structure that impacts the poor?

   9.6. Has the wildlife trade policy caused a change in the demand structure that impacts the poor?

   9.7. Has the wildlife trade policy affected the competitiveness of legal traders that impacts the poor?

   9.8. Has wildlife trade policy created positive incentives for, or stimulate private investments in sustainable management of resources that impacts the poor?

9.9. Has wildlife trade policy created jobs and incomes for more poor people?

Step 3: Obtain data from other agencies and identify key villages for field work

10. Contact development/ disaster/ health/ and conservation organizations access existing information is available on livelihoods, vulnerabilities and resilience.

11. From this initial analysis, identify a sample of key areas or villages from which to collect livelihoods information, *via*:

    11.1. participatory livelihoods assessments;

    11.2. documentation collected by other organisations;

    11.3. expert witnesses

Step 4: Undertake field based participatory livelihoods assessments in key villages

12. Identify potential impacts and market responses through key informant interviews/ stakeholder workshop. Key villages which supply a significant portion of the trade and are likely to be representative of the first stages of the supply chain (see Kuhl et al, 2009). Stories of Change methods (Wilder & Walpole, 2008) targeted at particular stakeholders may provide a means to gain some understanding of change after a CITES listing has been implemented.

13. More traditional Participatory Rural Appraisal (PRA) tools may include:

    13.1. Village meetings at the start and end of the data collection and assessment period coupled with Stories of Change methods, which need to be implemented as an on-going process.

    13.2. Village transects and mapping to provide an inventory of all households.

    13.3. Historical timelines to provide some evidence of change.

    13.4. Focus group methods to assess the importance of supply of the CITES specimens. Focus groups can be used to compile information on: the livelihoods options available to the villagers (e.g. farming; supplying CITES species; fishing; hunting; ecotourism employment etc); the seasonality of different livelihood options and of hunger seasons through the use of seasonal calendars; relative income and wealth rankings. Participants can also be asked to rank the entry barriers and popularity of different livelihood options.

    13.5. Household questionnaires administered to randomly selected households through semi-structured interviews can be used to collect information on household demography, livelihood activities and sources of income including potential or actual changes following any modification of implementation measures (e.g. following adoption of amendments to the Appendices by the Parties), as well as on wealth indicators.

    Questions could be modelled according to format provided in Annex 3 of Kusters et al, (2005) (Substituted wording is in red and underlined), for example:

    1. Has implementation of CITES listing led to much worse (-2) worse (-1), better (+1), much better (+2) physical access by producer households to the target resource?

    2. Has implementation of CITES listing led to much reduced (-2); reduced (-1); increased (+1); much increased (+2) cash income for the producer households or no impact (0)?
    3. Has implementation of CITES listing led to much worse (-2); worse (-1); better (+1); much better (+2) health and nutritional status of the producer households, or no impact (0)?

    13.6. Interviews with key informants identified through focus group and other discussions as being involved with harvesting of CITES species can provide further information.

Step 5: Final assessments

14. Final assessments should be undertaken through meetings with key stakeholders.

15. These should include identification of potential impacts on different wealth/gender/cultural groups.

16. A focus will need to be kept on identifying the impact of the CITES listing decision, compared to other confounding factors/management measures.

Step 4: Monitoring changes of impacts over time

17. A periodic review of these assessments, including consideration of changes in poverty indicators, would allow changes of impacts over time to be monitored.

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Annex 1:
Methods used in participatory research and livelihoods assessments

Comprehensive references to appropriate tools

Comprehensive references to appropriate tools are provided in:

Catley, A., John Burns, Dawit Abebe, Omeno Suji. 2007. The Participatory Impact Assessment, A Guide for Practitioners - Feinstein International Center, Tufts University
www.proventionconsortium.org/themes/default/pdfs/CRA/PIA_Feinstein_meth.pdf

Marshall, E., Schreckenberg, K., Newton, A. (Eds.) 2006. Commercialization of non-timber forest products: Factors influencing success. Lessons learned from Mexico and Bolivia and Policy Implications for Decision-makers. UNEP-WCMC, Cambridge, UK. 136pp. including CD-ROM.

PCLG. 2009. Poverty and Conservation.info The information portal of the Poverty and Conservation Learning group, providing all project documentation, meeting notes and hosting of the four PCLG database. www.povertyandconservation.info/en/tools.php

Livelihood assessments are based on a range of generic approaches, including those listed below. These details are based on material extracted from a wide variety of sources. It is usual for a combination of these approaches to be used in any assessment.

CITES National Wildlife Trade Policy review.

Where national reviews have been undertaken, these will provide a useful baseline for subsequent assessment of the impact of specific listing decisions (Doc. 14 Inf. 17) and can also provide some information on methods that may be useful. However, the National Wildlife Trade Policy Review (NWTPR) methodology would require some modifications such as:

- further emphasis on the review of external factors that can influence the outcome of domestic policies and;
- greater focus on livelihood impacts by making more explicit use of livelihoods frameworks such as the SLA framework; or the assets, capabilities and activities framework; or the opportunities, empowerment and security framework.

Qualitative and contextual data can be collected through methods such as participatory appraisals, asset mapping, and structured interviewing of individuals, communities, or focus groups. This information can be used to undertake stakeholder analysis.

Participatory rural appraisal (PRA).

These tools can be used at village meetings with women's, men's and youth groups conducting separate exercises where appropriate. Groups consist of around 10-12 persons each. Exercises are typically conducted over a three to four day period in each village. During meetings, resource maps are drawn and discussions held with groups selected from the village.

Transect walks.

This method involves walking around the village, its land, or the protected area and asking questions that provide information on natural resource use/livelihoods issues.

Seasonal Calendars.

These calendars are generally compiled with community informants to map out the seasonal tasks and opportunities of the villagers, as well as the seasonal income and outgoings to identify periods of stress.

Participatory wealth ranking

Participatory wealth ranking exercises aim to define four well-being categories, i.e. very poor, poor, rich and very rich. They are normally done with village leaders to provide some context to the exercise, and to set criteria for the divisions. After setting criteria, each household in a village is assigned to a wealth class. This list can serves as a sampling frame for a stratified random sample of the different wealth classes.

Key informant interviews

Interviews with key players in the village/ trade chain that provide additional information which can be used to cross check information on livelihoods obtained from other sources.

Household surveys

Many field approaches use household questionnaires to gather basic data on demography, wealth, social structures, health, etc. These forms of data gathering techniques form the basis of many national surveys, such as those on household incomes, livestock, etc. Household survey data are generally pivotal to undertaking quantitative poverty and distributional analysis. Although, increasingly workers are using semi-structured interviews and focus groups to collect similar data.

Participatory Environmental Valuation (PEV)

PEV is essentially a participatory rural appraisal (PRA) scoring exercise in which the value of a cost or benefit is estimated by assigning scores in relation to known costs/benefits. PEV may be conducted with groups or with individuals. PEV focuses primarily on costs and benefits that cannot be valued by more standard methods based on market prices, but can also include the costs and benefits that have already been valued through market price-based tools so as to "calibrate" the tool and provide triangulation.

Market structure

Surveys among consumers and producers of goods and services can be useful approaches to understanding market structure. Identifying the nature of the market is an important step toward understanding the conditions needed for market reform to lead to improvements in performance and better outcomes for the poor. Trader surveys can be useful for understanding the nature of the market, the number and types of economic agents, and market constraints, as well as barriers to entry and transaction costs. Quantitative or qualitative household surveys can also reveal who buys services, where, and at what price. Citizen report cards can be used to assess the effectiveness of co-operative and state marketing agencies and price analysis can provide information on Market opportunities and competitiveness.

Trade Chain or Value Chain analysis

Value chain analysis is used to identify the main actors in the chain from the harvesters onwards to identify impacts that may affect the poor. A value chain analysis should be carried out with traders and producers or harvesters. Interviews with the traders help to determine the source and volume of products for international trade and to identify the harvesters/producers, or the areas that they come from. Meanwhile interviews at the community level help to identify the harvesters and assess the impacts of the implementation of a CITES listing on their overall livelihood strategies.

Annex 2: Livelihood Assessments & Tools

Examples of livelihood assessment methodologies and tools developed by conservation and development organisations are provided below. Summary details are provided in Table 1. Cambridge Conservation Measures Partnership

In an effort to respond to calls for more empirical data on the success of conservation interventions, a Cambridge based consortium has developed a spreadsheet to guide organisations in assessing project success (Kapos et al, 2008). This tool includes questions to measure aspects related to livelihoods, that may be relevant in a CITES context. However, the tool is designed for monitoring project success rather than impacts on livelihoods and thus may be of limited value in the context of rapid assessments.

Kapos, V., Andrew Balmford, Rosalind Aveling, Philip Bubb, Peter Carey, Abigail Entwistle, John Hopkins, Teresa Mulliken, Roger Safford, Alison Stattersfield, Matt Walpole, & Andrea Manica 2008. Calibrating conservation: new tools for measuring success. *Conservation Letters* 1 155–164.

http://www.cambridgeconservationforum.org.uk/projects/measures/outputs/

1. CIFOR: Method to Assess the Outcomes of Forest Product Trade on Livelihoods and the Environment

As part of a multi-collaborator research project on the potential of non-timber forest product (NTFP) trade for conservation and development, the authors designed tools to assess the effects of NTFP trade on people's livelihoods and the environment (Kusters et al, 2005). To assess livelihood outcomes of NTFP trade, they used the Sustainable Rural Livelihoods framework and identified indicators to capture changes in financial, physical, natural, human and social assets at the household and community level. They also selected indicators to assess livelihood related changes at the national level. To assess the environmental impacts of commercial NTFP production, this paper identifies indicators at four levels: target species population, land use ecosystem, landscape, and global level. The method presented in this paper is intended to provide a time and cost effective tool to measure the effects of NTFP trade, based on expert judgment. The paper first presents a brief overview of the research project and the challenges faced in the design of the method, followed by a description of the method.

Kusters, K., Belcher, B., Ruiz Perez, M., & Achdiawan, R. (2005). "*A method to assess the outcomes of forest product trade on livelihoods and the environments*". CIFOR Working Paper Vol. 32. CIFOR, Bogor, Indonesia. 23pp. www.cifor.cgiar.org/publications/pdf_files/WPapers/WP32Kusters.pdf

2. CIFOR: Multi-disciplinary Landscape Assessment (MLA)

CIFOR has also developed a comprehensive Landscape Level assessment approach. This combines traditional scientific and participatory recording of site characteristics including soil types and herb and tree transects with village surveys. The village surveys include structured interviews with key informants to glean information on use and regulation of natural resource use as well as household surveys to collect information on income, taboos, perceptions and aspirations. Scoring methods are then used to assess the importance that people place on access to different resources. The CIFOR tool is very detailed with a large number of sample data sheets collecting data on historic hazards, taboos, vegetation types, prices of local commodities, types of natural products that are collected and the income that they generate. Questions are also included on threats to the forest and way of life and exploring how householders perceive the future. Some of the data sheets could provide useful examples of questions for CITES Parties to adapt.

CIFOR, 2008. Multidisciplinary Landscape Approach Methods
http://www.cifor.cgiar.org/mla/_ref/method/index.htm

3. Commercialization of NTFP report

The report provides results of a multidisciplinary project, implemented in Bolivia and Mexico, that analysed the structure and function of 16 non-timber forest product (NTFP) value chains in order to identify attributes that make a chain successful. Six key hypotheses were identified and a set of research questions devised.

Data collection tools used included: community reports; market reports; questionnaires; policy studies; information-needs assessment. The main findings of the project are described under the themes:

- Success means different things to different people
- NTFP activities can help alleviate poverty
- NTFP activities involve poor people and less-poor people
- Status of women, which can be improved
- Increased commercialization initially leads to overexploitation
- Little relevant legislation exists in either of the project countries
- Lack of market information is the key barrier to trade

Marshall, E., Schreckenberg, K., Newton, A. (Eds.) 2006. Commercialization of non-timber forest products: Factors influencing success. Lessons learned from Mexico and Bolivia and Policy Implications for Decision-makers. UNEP-WCMC, Cambridge, UK. 136pp. including CD-ROM.

4. EC Handbook for Trade Sustainability Impact Assessment

The European Commission Handbook for Trade Sustainability Impact Assessment (EC, 2006) provides general guidance on assessing the impacts of reform in trade policy. It sets out the steps to follow for a macro-level assessment and as such, could be helpful for the national level approach that CITES may require. However, the guidance is very general and methods and tools are presented as a decision for the consultants to make on the basis of the particular case in question. It provides an example of a Trade Sustainability Impact Assessment report that presents a summary of key economic, social and environmental factors that could be impacted and the potential impacts in terms of equity, reversibility and capacity to change. Although these assessments are developed at the national level, with an apparently high proportion of desk-based research compiling existing national level data, the approach does stress the need for participation of key stakeholders.

EC. 2006. Handbook for Trade Sustainability Impact Assessment. DG Trade, European Commission.

5. FAO/ILO Livelihood Assessment Tools

For disaster planning and recovery, the FAO and the International Labour Organization (ILO) recognize the importance of livelihood strategies other than farming, and so their toolkit calls for a comprehensive review of the livelihood strategies. They use the sustainable livelihoods framework and aim to understand the capabilities, assets and activities required for a means of living. They have developed a common framework: the Integrated Post-Disaster Livelihood Assessment and Planning System (LAPS), which includes three stages.

The first step is to use the Livelihood Assessment Toolkit (LAT) to carryout **baseline surveys**, the second is to assess the initial livelihood impacts within 10 days of the disaster, followed-up by another assessment three months after the disaster to allow plans to be made for livelihood early recovery. The initial livelihood base line collects quantitative and qualitative data to describe the livelihood activities in a specific area by gender, it includes hazard mapping, population data, livelihood income and activities and Key Indicators for the Labour Market (KILM).

The second step, the **Initial Impact Analysis** uses the baseline, then updates the market information and examines the severity of the disaster and the exposure, and maps the availability of relief work – all from desk work. This is followed by field visits to assess the impact of the disaster on local livelihood, to assess coping strategies, suggest livelihood recovery responses and examine opportunities for employment intensive investment opportunities for recovery. Key interviews are undertaken, with local businessmen; traders and shopkeepers; community focus groups, gender groups; and household interviews. The key questions to use in assessing impact include information on the magnitude and exposure to risk by the disaster; the livelihood characteristics, livelihood impact information, and recovery opportunity and needs.

The third step is the **Livelihoods Rapid Assessment** which provides a more detailed assessment of the impact of the disaster on livelihoods coping strategies, potentials and constraints. This assessment is conducted with the help of templates and checklists to form the basis for semi-structured interviews with i) district levels players such as key institutions, business men and traders; ii) community level participants

through group discussions and gender groups and iii) household surveys. In brief, the method involves deskwork coupled with quick field visits as outlined :

FAO/ILO Impact analysis steps:

1. **Livelihood Baseline:**
   a. Use Livelihood Assessment Toolkit (LAT) to design baseline surveys;
2. **Initial Impact Analysis: Assess initial livelihood impacts**
   a. Assess impacts within 10 days of the disaster
   b. Follow-up with another assessment three months after
   c. .....
3. **Livelihoods Rapid Assessment**....

DESK WORK:

1 Pre-disaster livelihood baseline
2 Updating labour market information
3 Severity of disaster exposure
4 Mapping agency capacity for relief and recovery

QUICK FIELD VISITS:

1 Impact of disaster on local livelihoods
2 Initial coping strategies
3 Suggested livelihood recovery responses
4 Employment- intensive investment opportunities for recovery

Cruciano, A. 2007. The FAO – ILO Livelihood Assessment Toolkit: a comprehensive rapid assessment of the impact of disasters on livelihoods from Cruciano, A. 2007. Briefing.
http://www.ilo.org/public/english/employment/crisis/events/peer/download/tool7-ppt.pdf.
See http://www.fao-ilo.org/fao-ilo-emergencies/en/)

6. FFI: Most Significant Change Method

Fauna & Flora International (FFI) tested the Most Significant Change method (MSC) for use in a conservation context (Wilder and Walpole, 2008). The MSC method is a non-indicator based participatory monitoring method used by the development sector for assessing outcomes and impacts of projects. As such, it is a systematic way of collecting anecdotal information on change that is missed by conventional quantitative methods. Thus, it could potentially be explored to provide a means of collecting information on how livelihoods have changed following CITES listing decisions. However, the authors note that the system is burdensome to establish and maintain. They also note that it is most appropriate for projects that are complex, with divergent outcomes, have many sites and organisational layers are participatory and focussed on social change and have regular contact between communities and field teams. This analysis suggests that the MSC method is not appropriate for rapid assessments, but may be of use in longer term studies.

Wilder, L and Walpole, M 2008. Measuring social impacts in conservation: experience of using the *Most Significant Change* method**.** *Oryx*, Volume 42, 529-538.

7. International Red Cross: Vulnerability and Capacity Assessment

The Red Cross, like many disaster relief organisations, is increasingly working with communities to help them develop their resilience to disasters. As part of this programme, the Red Cross have updated their Vulnerability and Capacity Assessment tool kit (VCA) (IFRC, 2007). This is a community-based tool that enables communities first to identify vulnerabilities and then to develop an action plan to increase their own capacity to address many of the issues. As such, this is not conceived as a rapid assessment tool, but nonetheless has lessons for a CITES approach.

More importantly, the tool box provides a clear exposition of a number of tools used in participatory research and participatory action research (IFRC, 2007) and draws on the FAO community toolbox (FAO, 1990). It also underlines the importance of choosing tools depending on the situation, recognising that different tools will be more appropriate in certain situations, and finally, stresses the importance of triangulation to check results. The tool kit presents examples of a matrix for collecting data on livelihood assets and resources; and on household

level activities; and a matrix for summarising results. It also provides information on developing a seasonal calendar outlining livelihood activities, stress periods such as hunger seasons, or periods when school fees are due.

IFRC matrix for Data collection on Livelihoods household assets and resources

Natural	Physical	Financial	Human	Social
Land	Tools equipment	Savings	Education	Community groups
Water supply	Transport links	Access to credit	Training	Kin elsewhere
Forest resources	Water supply/ taps		Skills	Religious groups
Fishing resources				Political groups
Wild plants				Social networks

FAO. 1990. The community's toolbox: The idea, methods and tools for participatory assessment, monitoring and evaluation in community forestry, D'Arcy Davis Case. www.fao.org/docrep/x5307e/x5307e00.htm

IFRC 2007. VCA toolbox with reference sheets. International Federation of Red Cross and Red crescent societies. International Federation of Red Cross and Red Crescent Societies, Geneva , Switzerland www.proventionconsortium.org/themes/default/pdfs/CRA/VCA-toolbox-en_meth.pdf

8. The Nature Conservancy: Nature's Investment Bank

The Nature Conservancy's Nature's Investment Bank report compared the livelihoods of people in areas with a Marine Protected Area (MPA) with those living in areas without MPAs in order to assess the potential benefits of protected areas (Leishner *et al* 2007). Researchers used a conceptual framework of opportunities, empowerment and security developed by the World Bank. They measured aspects of this framework using focus group discussions, key informant interviews and finally household surveys. Focus groups and key informant interviews were undertaken before selecting a sample of respondents for deeper household surveys. They interviewed over 1000 people in four areas of the Pacific and spent around 30 days at each site. The household surveys included qualitative data collection using indicators of improvement such as "fish catches have increased" with possible responses such as "strongly agree, agree, don't know, disagree, and strongly disagree". Finally, opportunity or welfare indicators were plotted on radar plots for a graphic comparison of measures associated with protected areas and those not associated with PAs. Researchers concluded that MPAs were associated with improved fish catches; new jobs, mostly in tourism; stronger local governance; benefits to health; and benefits to women. This study was site based.

Leishner, C, van Beukering, P. and Scherl, L.M. 2007. Nature's investment bank how marine protected areas contribute to poverty reduction. The Nature Conservancy, Washington, USA.

9. ODI/AWF: Developing Methodologies for Livelihood Impact Assessment

The ODI/AWF (Overseas Development Institute/African Wildlife Foundation) tool was designed to assess how conservation projects are either impacting or contributing to livelihoods. The approach uses a multi-disciplinary team but is recognised to be somewhat time consuming – both for the assessors and also for the local participants, with the main visit to each project taking between 7-10 days. The report does, however, provide a useful summary of a variety of assessment tools and presents examples of a framework for data collection and analysis (Figure 1). It also provides examples of topics that could be covered in the assessment (Table 2).

Although the ODI tool is site-based and very labour intensive, it could possibly be modified for a more overarching process, if such simplification does not go against the whole livelihoods ethos.

There were however, a number of criticisms of this type of participatory approach from both the ODI/AWF project. The time required to carry out full participatory assessments was viewed as an issue, both from the researchers and subjects point of view. Concerns have also been voiced over the usability of indicators derived in a participatory manner and over the difficulty of integrating participatory data with other data. In addition there have been questions raised over the separation of results by gender, as well as over SLA lack of recognition of issues such as empowerment, politics and power.

Figure 1. Livelihoods Assessment from the ODI AWF Methodology (After Ashley & Hussein 2000).

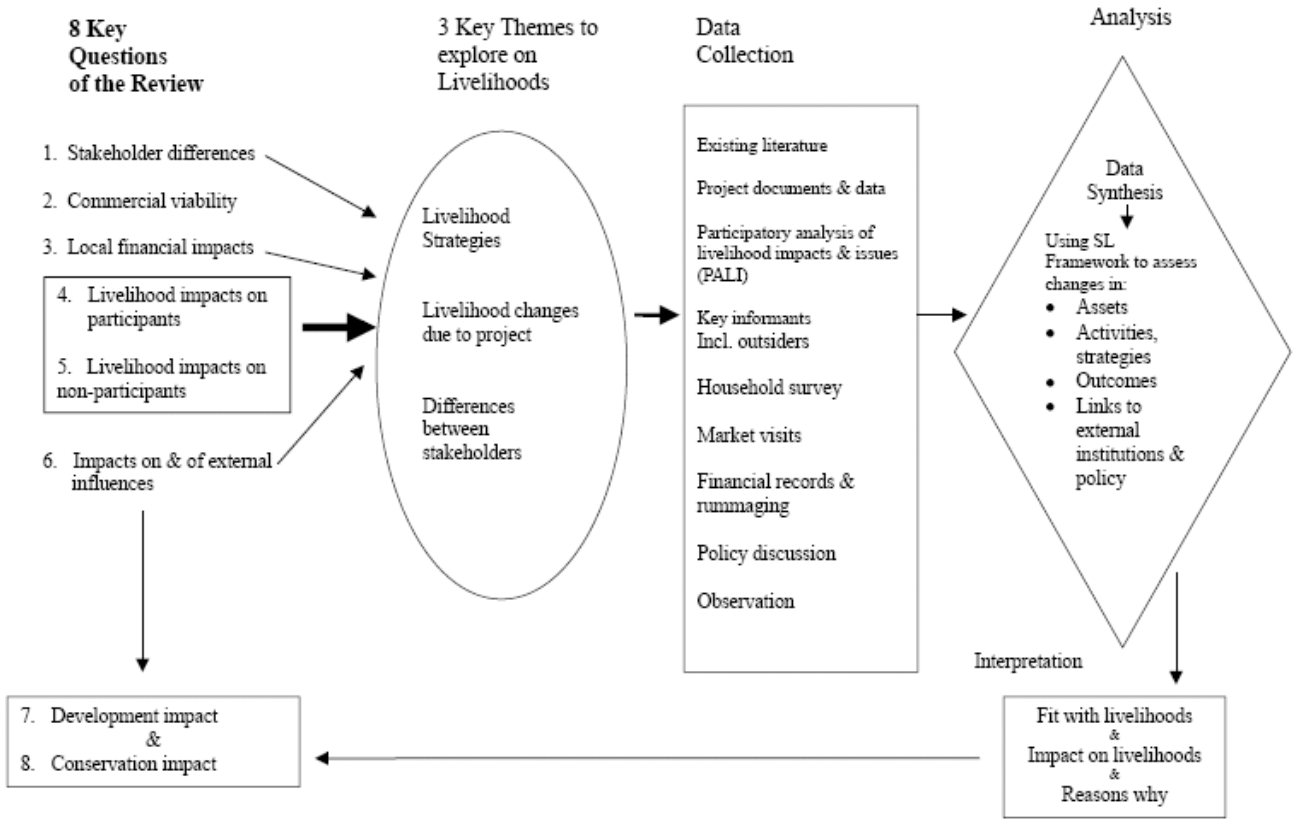

Table 2. ODI/AWF. Topics for a Participatory Assessment of Livelihoods Impact (PALI) process from Ashley & Hussein 2000.

Topic	Activity	What can be learned
Current livelihood activities	List pros and cons	Livelihood strategies. Criteria for judging
	Rank according to: Contribution to income Preference Importance to HH. Discuss	Key activities and assets. Ball park figures for income from different activities. Values other than cash income. Criteria can then be discussed/ expanded/ ranked
	Generate *criteria* for scoring activities and construct matrix.	As above, but more complex. Focus on locally generated criteria (which can then be ranked). Scoring against criteria is easier to visualize for consensus building and comparing across SH groups.
	Incorporate the wildlife enterprise in the above.	How wildlife enterprise fits into strategies, how it meets livelihood criteria.
	Construct matrix of activities and needs	What needs are, which activities are pursued and why. Which activities have multiple functions
	Construct matrix of positive and negative impacts of WE on other activities	Impacts of PROJECT on other livelihood activities
	Carryout any of the above in stakeholder groups	Differences between SHs in terms of activities, strategies, and impacts.
Seasonality	Construct matrix or discussion of seasonality of income, work, food availability.	Livelihood strategies. Main needs. Human Capital availability.
Wealth ranking	Carryout wealth ranking of participants and explanation of criteria.	Stakeholder identification. Local criteria for livelihood security.
	Compare with previous wealth ranking.	How people move in and out of poverty and why?
Scenario-building (positive and negative)	Paint picture (verbally or literally) of positive and negative future – in general or resulting from this enterprise.	Long-term trends. Long-term impacts of project. Useful if going on to joint planning.
Current assets and resources	Discuss what are the assets and resources you currently rely on to support the family (building blocks)? How?	Should identify livelihood assets, and relative importance.
Constraints	Discuss: What are the constraints that prevent livelihood improvement?	Encourages focus on external influences.
Pros and Cons of WE	List pros and cons	Direct and indirect impacts of project.
	Rank pros and cons	Priority concerns, significance of impacts
	Identify who bears and receives benefits	Distribution of impacts between stakeholders
Participation in the project	Discuss who does and who does not participate, why?	Stakeholder roles. Impacts as perceived by each.
	Discuss how participants are selected?	Barriers to participation (external or internal).
Expenditure of earnings	Rank/ matrix of items of expenditure Who decides?	Impact of earnings (e.g. on needs, HH assets). Who benefits
Time-line and trends	Construct time line. Discussion of key events and gradual trends. How people coped or adapted? How are they preparing for the next change? Household action, community action.	Adaptive livelihood strategies and coping strategies. Influence of external policies and organizations. Dynamic processes. Role of internal organization.
Changes and causes	Construct matrix of recent major changes and their causes, then rank the most influential causes of each.	Changes in livelihoods over time. Role of external influences. Significance or not of the project as a major influence.

The use of impact analysis and assessment of livelihoods in a conservation context is relatively new and valuable advice is available from a project undertaken by a development-conservation partnership (Ashley & Hussein, 2000). The authors stress the importance of involving participants for a full understanding of impacts and how to address them and also recognition that different wealth and gender groups will be impacted differently.

Ashley, C. & Hussein, K. 2000. Developing Methodologies for Livelihood Impact Assessment: Experience of the African Wildlife Foundation in East Africa. ODI/ AWF. http://www.odi.org.uk/resources/download/2032.pdf

10. OECD Strategic Environmental Assessment

The OECD Strategic Environmental Assessment methodology is designed for use at the national level and, as such, may be useful in a CITES context (OECD, 2006). The guidance notes that there is no best method for impacts assessment and that the tools and methods will vary depending on the particular case. It also notes that in terms of developing cross-sectoral linkage it will be important to have "champions" in particular departments and ministries.

OECD. 2006. Applying Strategic Environmental Assessment: Good Practice Guidance for Development Co-Operation DAC, OECD: Paris.

11. Provention Consortium – Disaster relief and prevention assessment tools

The Provention consortium is co-ordinated by a Geneva-based secretariat that aims to co-ordinate efforts by NGOs and others in disaster prevention and relief. It provides a comprehensive list of tools available via their website. In particular, the work by Catley *et al* 2007 provides a helpful introduction to participatory methods, including sampling strategies and descriptions of tools such as stakeholder analysis, wealth ranking, seasonal calendars, etc. One of the tools linked through the website, CRiSTAL, although designed for community-based screening of climate change risks, might provide an interesting example of how a CITES screening tool could be developed (see CRiSTAL, 2008). CRiSTAL is presented as an excel spreadsheet which leads participants to identify the main hazards of particular scenarios. So it could arguably provide a framework for CITES Parties to work with stakeholders to identify and assess impacts of listing decisions on livelihoods of the poor, unless the approach is deemed too restrictive.

Catley, A., John Burns, Dawit Abebe, Omeno Suji. 2007? The Participatory Impact Assessment, A Guide for Practitioners - Feinstein International Center, Tufts University
http://www.proventionconsortium.org/themes/default/pdfs/CRA/PIA_Feinstein_meth.pdf

CRiSTAL Community-based Risk Screening Tool – Adaptation and Livelihoods (CRiSTAL) - IISD, IUCN, SEI-US, Intercooperation, financed by the Swiss Agency for Development and Cooperation (SDC)
http://www.iisd.org/pdf/2008/cristal.xls)

12. Save the Children: Household Economy Approach

Save the Children has developed "The Practitioners' Guide to the Household Economy Approach (HEA)" (Boudrea, 2007). The HEA is a framework for analysing how people obtain food, non-food goods and services, and how they might respond to changes in their external environment, like a drought or a rise in food prices. The Guide presents material on how to use market assessment to help determine an appropriate response to acute food insecurity and is complemented by The Household Economy Approach: A guide for programme planners and policy-makers and The Household Economy Approach Facilitator's Resource Pack: Guidance materials for trainers. The guide is very detailed and, as with some of the other tools, results in checklists and spreadsheets for quantitative analysis. Save the Children uses rapid appraisal methods such as focus groups as the primary means to collect baseline data, but this can be supplemented by random sampling and surveying. Their analysis is based on the idea that geography, production system, markets and trade determine both vulnerabilities and coping strategies. By assessing the baseline, hazard, and coping strategy, it is possible to predict the potential outcomes. The main benefit to CITES of this programme, is that livelihood zone maps have been developed by Save the Children and Partners in a number of countries, which might provide baseline information for CITES purposes.

Table 3 Steps in the Framework Information collection methods used (to date)

Baseline	
Livelihood	Zoning Semi-structured interviews; participatory workshops; secondary data review
Wealth Breakdowns	Semi-structured interviews; proportional piling; census data review (to cross-check household composition)
Analysis of Livelihood Strategies	Semi-structured interviews; review of secondary data (to cross-check yields, production, livestock numbers, etc.); proportional piling; participatory seasonal calendars and community mapping
Outcome Analysis	
Problem Specification	Household surveys (to gather monitoring data such as crop production and prices); Semi-structured interviews; review of secondary

	information, especially time series data
Analysis of Coping Capacity	Semi-structured interviews; review of secondary data (on labour markets, herd composition, viable off-take rates, etc)
Projected Outcomes	No additional information goes into this step; this step comprises an analysis and processing of the data and information gathered in the previous steps

Boudrea, T. 2007. (Ed). The Practitioners' Guide to the Household Economy Approach (HEA). The Household Economy Approach: A guide for programme planners and policy-makers and The Household Economy Approach Facilitator's Resource Pack: Guidance materials for trainers (http://www.savethechildren.org.uk/en/54_6781.htm).

14. Species Information System: Livelihoods Component

The IUCN Species Information System (SIS) is being further developed to cover issues of use and livelihoods, including details on what a species is used for, and its importance to human livelihoods (Oldfield *et al*, 2008).

Although it is currently possible to collect data on species and livelihoods through the SIS, additional revision of the framework to capture this information has been identified as a necessity / priority to increase the value of this information. The livelihoods module will allow information to be captured on a case study basis, which can be at a local, national or global (i.e. the range of the species) scale. It will collect information on value of both direct use and of harvesting, which can therefore be international, national or local, and so the estimated harvest levels, value to economy, primary users and harvesters and value to livelihoods all reflect the chosen scale. Many case-studies can be added to one species (or sub-species), so you can have many case studies for a species all at different scales (and localities) (T. Oldfield and K. Smith, pers. comm.).

The scheme may offer potential for use in the CITES and Livelihoods context once these issues have been addressed.

Oldfield, T., Smith, K. & Allen, D. 2008. Developing the framework for collecting information on use and livelihoods. Report from workshop held at UNEP-WCMC. (Report by David Allen for Livelihoods).

15. WHO: Rapid Assessment and Response Technical Guide

The World Health Organisation (WHO) has developed a "Rapid Assessment and Response Technical Guide TG-RAR" which is designed to collect data to inform the design of health related projects (Stimson *et al,* 2003). Whilst some aspects of the data collection methodology could be adapted, it is probably overly detailed for CITES purposes. Nonetheless, the manual does have a useful Methods module with sections on research skills, sampling and data collection methods. The method uses a simple model to identify the different levels of influence on health risk behaviour.

Stimson, G.V., Donoghoe,M.C., Fitch, C., Rhodes,T.J., Ball, A., and Weiler, G. 2003. Rapid Assessment and Response Technical Guide, Version 1.0 (2003). World Health Organization: Department of Child and Adolescent Health and Development, and Department of HIV/AIDS, Geneva. http://www.who.int/docstore/hiv/Core/Chapter_9.1.html

16. World Bank: Poverty focal areas

Focal areas adapted by Leisher et al (2007) are listed in the table below:

OPPORTUNITES	EMPOWERMENT	SECURITY
Income	Governance Mechanisms	Health
Housing	Community Participation	Social Cohesion
Luxury Goods	Benefits to Women	Cultural Traditions
Fish Catch	Access and rights	
Education		
Alternative Livelihoods		

Leishner, C, van Beukering, P. and Scherl, L.M. 2007. Nature's investment bank how marine protected areas contribute to poverty reduction. The nature Conservancy, Washington, USA.

16. WWF: Protected Areas Benefits Assessment (WWF PA-BAT)

The WWF Protected Areas Benefits Assessment Tool (PA-BAT) was designed originally to assess the benefits of protected areas for a specific study, but it has since been developed as a more general tool and may be applicable to areas other than protected areas (Dudley & Stolton, 2008). The tool is based on the conceptual framework of the Sustainable Livelihoods approach developed by DfID (1999) and OECD (2001).

The WWF tool is an assessment tool; it was not designed as a monitoring tool. It does not record illegal use and or specific quantitative economic values, rather it assesses qualitative values and benefits. The Tool consists of two sections to be completed for each site – the first collects specific information on site name etc and a qualitative evaluation by the team on overall contributions to well-being.

The second section collects information on the benefits to protected area stakeholders such as: the types of benefits; who they are important to; and qualitative information about their level of importance, their relationship to the protected area and the times of year in which they are important. For example, a sheet on the benefits of hunting includes the questions listed below.

The guidance recommends that "a broad range of stakeholders should be involved in carrying out the assessment, for example in a workshop involving park staff, local communities and others with an interest in the site. In this case there may be competing views about various benefits and it is possible that alternative views may have to be represented – for instance positive benefits for some stakeholders may be matched by negative impacts on others which will need to be recorded in the comments section of the report".

Example of stakeholders and questions assessed as part of the WWF PA BAT

Stakeholders included in the assessment:

- Indigenous people in Protected Areas;
- Other people in Protected Areas;
- National population;
- Government;
- Global community

Questions asked: Is hunting/ plant collection/ medicinal use:

1. of minor importance to subsistence?
2. of major importance to subsistence?
3. of minor importance as a source of revenue?
4. of major importance as a source of revenue?
5. of sacred value to identified stakeholders

DFID (1999); Sustainable Livelihoods Guidance Sheets, Department for International Development, UK.

Dudley, N and Stolton, S. 2008 (revised 2009). The Protected Areas Benefits Assessment Tool: A methodology. WWF, Gland, Switzerland.

OECD. 2001. The DAC Guidelines Poverty Reduction, Organisation for Economic Co-operation and Development (OECD), Development Assistance Committee (DAC), Paris, France

17. WWF: Landscape tools (WWF LOAM)

WWF, with other partners, has developed another tool for use at the landscape level, appropriately named: the Landscape Outcome Assessment Methodology (LOAM) (Aldrich and Sayer, 2007). This tool aims to measure how a landscape is changing over time by assessing the progress in delivering agreed, predefined conservation and livelihood outcomes. LOAM also helps to develop a participatory process and common understanding amongst stakeholders.

LOAM uses the Capital Assets/Sustainable Rural Livelihoods Framework (Carney *et al*., 1998). A stakeholder process is used to develop a small representative set of locally appropriate indicators grouped under each of the five assets. A scoring system is then applied to measure, monitor and communicate the nature and extent to which the landscape is changing over time. The scores can be graphically illustrated using radar plots. This process begins with initial desk-based scoping studies and is followed by stakeholder analyses and the development of a participatory process which examines possible scenarios for change and subsequent development of indicators.

Aldrich, M. and Sayer, J. 2007. Landscape Outcomes Assessment Methodology (LOAM) In Practice. WWF, Gland, Switzerland

Carney, D. et. al. (1998) Sustainable rural livelihoods: what contribution can we make? Department for International Development, London.

CITES & Livelihoods

Paper 2: Addressing livelihood impacts:

Nazca Guidelines to address the impact of the implementation of CITES listing decisions on the livelihoods of the poor

Prepared for the CITES & Livelihoods Working Group

United Nations Environment Programme -
World Conservation Monitoring Centre

in collaboration with

The Durrell Institute of Conservation and Ecology
TRAFFIC South Africa

Reviewed and updated at the regional meeting on CITES and Livelihoods organized by the ACTO Secretariat and held in Lima, Peru from 11 to 13 July 2012 and a meeting of the Working Group held in Nazca, Peru from 26 to 28 September 2012

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Summary

Two papers have been produced to address CITES Decision 14.3. This Decision was agreed in response to an amendment to Resolution Conf. 8.3, which included a new paragraph: "*RECOGNIZES that implementation of CITES-listing decisions should take into account potential impacts on the livelihoods of the poor*". A summary of activities that lead to this Decision is described in Paper 1.

This paper comprises the second of these two papers and addresses paragraph b) of the Decision.

Decision 14.3 states that:

> *The Standing Committee shall, subject to the availability of external funding, and requesting the assistance of organizations including the IUCN Species Survival Commission, initiate and supervise a process to develop, by the 15th meeting of the Conference of the Parties:*
>
> *a) tools for voluntary use by the Parties for the rapid assessment at the national level of the positive and negative impacts of implementing CITES listing decisions on the livelihoods of the poor, in conformity with Resolution Conf. 8.3 (Rev. CoP13); and*
>
> *b) draft voluntary guidelines for Parties to address these impacts, particularly in developing countries. The guidelines should, where possible, assist Parties to develop local, national and regional initiatives that take account of the impacts of implementing CITES listing decisions on the livelihoods of the poor. This process may benefit from taking account of the deliberations and recommendations of the CITES and Livelihoods Workshop (5-7 September 2006) and should draw on the technical contributions of Parties, the Secretariat, non-governmental organizations and other national and international agencies, such as IUCN – The World Conservation Union.*
>
> *For further clarification, the process shall not include consideration of the criteria for amendment of the Appendices or the requirement to make non-detriment findings.*

Although the wording in paragraph b) "*address these impacts*" may generally be considered to imply a negative concept, the Decision makes clear that both positive and negative impacts should be considered, and the guidelines therefore focus on both proactive actions that Parties could take to enhance positive outcomes of CITES listings as well as mitigation measures to minimize negative impacts.

This paper summarises ideas and information on the impacts that implementation of CITES listing decisions can have on livelihoods; on activities that do or may help address such impacts; and from case studies of CITES listed species. The Draft Voluntary Guidelines (Annex 1) are based on key factors and principles (Annex 2) identified from this information. The Case Studies are provided in Annex 3. The document is not intended to provide a comprehensive literature review.

It should be noted that there is a general lack of detailed information on the actual positive or negative impacts on livelihoods of the implementation of CITES listings. The extent of livelihood impacts, both in terms of numbers affected and the level of impact are unclear and have not been comprehensively assessed. Information presented in the case studies is largely *ad hoc* and based on perceptions and conjecture rather than on evidence from multidisciplinary assessment methods. Methods to undertake livelihoods assessments need testing, and a process needs to be developed to prioritise aspects of implementation policies relating either to single taxa or to a wide range of taxa for assessment.

A preliminary draft of this paper was circulated to the CITES and Livelihoods working group. The final version includes feedback from working group members and others, as well as additional material.

Purpose of CITES

The aim of adopting CITES listing decisions is to conserve biodiversity and contribute to its sustainable use by ensuring that no species of wild fauna or flora becomes or remains subject to unsustainable exploitation through international trade, thereby contributing to the significant reduction of the rate of biodiversity loss (Res. Conf. 14.2).

To achieve this, CITES Parties regulate trade though listing taxa in Appendices I, II and III. By requiring findings of legal acquisition and non-detriment associated with these listings, CITES can in the longer term, help to ensure that rightful stakeholders obtain benefits of ongoing consumptive and non-consumptive use of CITES-listed species.

In their response to the working group, Oceania (N. Thappa, pers. comm.) reiterated the need for CITES to focus on and deliver the core mission of CITES, since this in turn can lead to a positive contribution to livelihoods. They note that other multilateral conventions specifically focus on addressing the issue of livelihoods and commend the work of the conventions in this area. Given this, Oceania supports the voluntary use of the CITES livelihood toolkit to mitigate any negative impacts of implementing CITES listing decisions on livelihoods, but provided the primary conservation/regulation goal of CITES is accorded paramount consideration.

Definitions of the terms “poor” and “livelihoods” for the purposes of this report are provided in Paper 1.

Impacts of regulating trade on livelihoods

Long and short term impacts

The regulation of wildlife trade by CITES is associated with changes in levels and values of trade, changes in access to trade opportunities, changes in consumer attitudes to trade, and changes in the status of wildlife populations (see TRAFFIC 2008 for a recent regional compilation). Such changes can impact livelihoods of the poor, both directly through their ability to benefit from trade opportunities and indirectly, by allowing wildlife populations to recover and sustain domestic collection and long-term use. These impacts may differ in the long and short term, and a listing, and the implementation policies arising from it, may have negative impacts in the short term but deliver positive outcomes in the longer term. The impact on particular individuals may also differ depending on their role in the supply chain.

Positive impacts

Often, the impacts of implementing CITES listing decisions on the livelihoods of the poor will be positive, as for example when enforcement of trade restrictions curbs over-exploitation, allowing for long-term access to resources for domestic and subsistence use. Positive outcomes can also occur when trade restrictions result in increased prices and income (including the benefits of shifting to more sustainable production systems or alternate uses of the species involved), provided that such increases are passed down the trade chain and do not fuel illegal trade. Such positive impacts may benefit from enhancement measures such as education and capacity building, followed by adoption of these measures in other locations/species.

Negative impacts

Negative impacts are most likely to be associated with decisions that increase the level of regulation and reduce access by the poor for legal trade purposes, particularly if illegal trade is not addressed. Negative impacts can also arise out of misperceptions about CITES limiting trade, and from the administrative costs involved in trading in an Appendix II listed species.

Differences between Parties

The outcome of implementing CITES listing decisions and their impacts on livelihoods may also be context specific and may depend both on the different ways in which they are implemented by the Parties and on the relationships between such implementation and broader wildlife-related national policies.

For example, the Appendix I listing of white (*Ceratotherium simum*) and black rhino (*Diceros bicornis*) is associated with very different outcomes. Clearly, the two species differ in both their biology, in being grazers and browsers, respectively. However, differences in national systems of governance and land tenure have been critical to their different patterns of recovery since their populations were decimated. In South Africa, ownership of white rhinos on private lands and the ability to generate income from hunting and live sales domestically and later internationally has contributed to both an increase in rhino numbers and some livelihood contributions in the forms of local employment on private land farms. In contrast, in East African countries, where black rhinos have largely remained state-owned, and largely managed on state-run protected areas, recovery is slow (Leader-Williams, 2003). These are specific examples of policies relating to broader implementation issues, and illustrate the crucial importance of the manner of implementation measures (R. Orenstein, pers. comm.).

Lichtenstein (2009) notes that the outcomes in relation to trade in vicuña products on livelihoods differs between range states, due to different implementing legislation.

Similarly, the response to Appendix II listing of Agarwood producing species differs among range states, with some moving ahead rapidly on cultivation and plantation projects (see Burgener, 2007). However, a major issue in reviewing examples of CITES listings is the lack of detailed information on livelihood impacts.

Differences between Appendices & other restrictions

Appendix I

Appendix I listings may be predicted to be generally associated with reduced opportunities to legally trade wildlife internationally from the wild, particularly in the short-term. However, Appendix I listings may also enhance long-term population recovery which may be associated with improved domestic access to resources, and lead in time to the adoption of alternative production methods such as captive breeding or artificial propagation, the adoption of approved, scientifically-based quotas or specific down-listings which may provide community benefits.

Appendix II

Appendix II and III listings likewise usually result in additional trade regulation, which may be predicted to be associated with reduced levels of legal trade from the wild and increased costs associated with permitting etc in the short term, particularly in the early period of a listing. In the longer term, such listings should deliver benefits in terms of sustainable supply and improved national management and conservation policies for the species concerned, which may in themselves increase benefits for people dependent on the listed species.

Further Restrictions

Appendix II-listed species may also be subject to recommendations under the Significant Trade Review process that lead to further trade restrictions, or temporary or permanent cessation in trade, in order to deliver longer term sustainability. Such recommendations have resulted in documented shifts in trade to different production systems, such as from wild capture to captive breeding out of range for Fisher's lovebird (Burgener, 2007) or to different species, which may have different geographic distributions, such as Chameleons in Madagascar (Carpenter et al, 2004) or to different products (West African and Indonesian snake skin trades). Such changes may impact those who use trade as part of their "coping strategies".

Stricter domestic measures

Stricter domestic measures (SDM) are used by a number of Parties to further restrict trade. While these generally aim to promote long-term sustainability or prevent disease introductions, they may encourage *ex situ* production in non-range states. The working group had differing opinions on the issue of SDM some considering this was outside the scope of considerations on the impact of the implementation of CITES listings on the livelihoods of the poor.

R. Orenstein (pers. comm.) for example, in comments submitted on behalf of Humane Society International and Kitty Block, considers that SDM not to be part of CITES implementation and that they are therefore irrelevant to the current discussions.

On the other hand the view of the Safari Club International Foundation (M. Eckert, pers. comm.) is that: "*the use (or indeed abuse) of stricter domestic measures is one of the very things that the mandate of the Working Group is aimed at. SCIF knows of at least one range state government that has complained to an importing*

Party that the importing Party's use of stricter domestic measures has impaired the conservation program of the range state for a CITES Appendix I species. In that case, the conservation program in question relies on the equitable sharing of benefits from sustainable use through trophy hunting and the positive impact of those benefits on livelihoods in order to achieve its conservation effect. It would be shortsighted in the extreme, and would not serve the needs of the CoP, if the Working Group ignored this aspect of the issue.

The Working Group and the CoP should in fact explore the "key factor" of limitations on the marketplace for the utilization of wildlife and plants, which includes the policies and practices of range states and their stricter domestic measures. Whenever utilization has an economic aspect then the marketplace must be considered and it is the special province of CITES to deal with the international marketplace. Being international, the marketplace of necessity includes the exporting Party and the importing Party. Therefore, SCIF strongly encourages the Working Group not to remove the section on stricter domestic measures in Document 3, Paper 2".

Exemptions to Appendix I

With respect to the implementation of Appendix I listings, Parties can, if they choose, adopt measures that take into account exemptions listed under Article VII of the Convention (such as those relating to captive breeding or artificial propagation) as well as measures adopted in resolutions of the Parties, including the adoption of approved quota systems or measures promoting the development of alternative, sustainable production systems (such as ranching of crocodilians or the shearing of vicuna) that may, if approved by the Parties, lead to the transfer of the national population of a species to Appendix II. Incorporating such measures into implementation strategies may provide benefits to the poor, providing that such measures can be conducted sustainably and equitably (R. Orenstein, pers. comm.).

Trade from *ex-situ* production systems such as artificial propagation and captive breeding may have less direct negative impact on wild populations than removal of specimens from the wild. Artificial propagation is particularly important for trade in plants and with financial support may offer significant opportunities for the poor; although for medicinal plants and animal parts there may be a preference from consumers for wild origin material.

To benefit from such measures requires that individuals or projects have the ability to invest in the infrastructure required for ranching, artificial propagation/captive breeding, hunting operations, and so on. Such investment is rarely a possibility for the poor (Roe et al 2002), and governments may, where possible, wish to assist communities seeking to shift from direct harvest to alternative production methods as part of their mitigation strategies. However, some operations financed by investors do provide limited benefits to the poor through employment opportunities or egg collection.

Enhanced production of source W specimens is often a cheap and realizable option for the poor but, if not properly regulated, can have negative impacts. There is also scope for encouraging harvest techniques that reduce unintended mortality and waste (C. Ó Críodáin, pers.comm.).

Benefits for local communities from implementation of measures relating to Appendix I listed species are also derived from conservation and development projects involving eco-tourism (Trong & Drews, 2004) and sport hunting (Weaver and Skyer, 2003). Such projects are credited with providing benefits to a range of stakeholders. However, the direct value of such projects to the poor has been questioned. Indeed, there is growing evidence that community-based natural resource management (CBNRM) projects, whether focused on consumptive or non-consumptive use of wildlife including CITES-listed species, may not distribute benefits equitably to the poor who are the pivotal stakeholders. The poorest of the poor, who by definition lack both land and education, are often disadvantaged by both the additional domestic restrictions on hunting and collecting that are associated with such projects, and by suffering conflict as wildlife populations recover and people from other areas move closer to wildlife areas (Jones, 2009; Woodroffe et al, 2005). These constraints need to be recognized more explicitly and addressed.

Activities addressing impacts

Delay entry into force

Parties have been willing in the past to take a flexible approach with respect to the entry into force of certain listings in order to provide time to ensure that CITES-listings are implemented appropriately and that any trade conducted under the listing will be both legal and sustainable (e.g. sturgeon, sea-horses, eels). For example, the recent entry into force of the Appendix II listing for seahorses was delayed to allow Parties to make appropriate arrangements to implement the listing, and consider dealing with impacts on livelihoods of the poor (see Christie *et al*, 2007).

Project support

Some Appendix II-listed species are the focus of projects implemented by individual CITES parties at the national level that are designed to support sustainable production and development. These projects have been developed by Parties acting alone or in conjunction with development bodies such as the UNCTAD biotrade initiative in Latin America and Africa (see FFI 2006), or NGOs as in the snowdrop *Galanthus* project in Turkey (Entwistle et al, 2002) .

Learning from unlisted species

Some unlisted species or higher taxa have become the focus of attention by Parties (e.g. birds-nest swiftlets (*Collocalia* spp.); sharks (Chondrichthyians); sea cucumbers (Holothurians), *Harpagophytum* spp., etc.). In the case of sharks and sea cucumbers, the Animals Committee has undertaken extensive data collection and discussion to assess the status of species and encourage others to improve management measures that, in turn, could benefit livelihoods. Lessons learned from these efforts may be useful for Parties implementing existing listings, or may be appropriate for the design of specific implementation strategies should currently unlisted species in these taxa be added to the Appendices in future. In the case of *Harpagophytum* spp., although the taxon was not included in the Appendices, the Plants Committee has supported a programme to assess sustainability of use and local livelihoods.

Incentive-driven conservation and sustainable-use measures

A summary of incentive-driven conservation measures that relate to local communities in Southern Africa is given by Abensperg-Traum (2009). These focus on Community-Based Natural Resource Management, transferring responsibility for species conservation to local communities which share their living space with wildlife in extensively managed areas outside protected zones. Property rights are a crucial element. By transferring ownership or user rights, local communities can benefit directly from ecotourism, hunting safaris etc. and consequently have a correspondingly higher incentive to use wildlife sustainably, rather than to use land for other purposes such as agriculture.

Ideally, the impacts of conservation incentives should be assessed in relation to issues that include: the social structure of those impacted; distribution and use of proceeds from trade; generation of direct and indirect work; education and training; and cultural identify and values (Sanchez, 2009).

Existing standards and recommendations

To ensure that the implementation of CITES listings by Parties has the best possible impact on the livelihoods of poor people who are dependent on these species, lessons can be drawn from proactive processes, particularly in the development of trade standards, outside the CITES arena. Consideration of the work of other institutions or processes and encouraging their adoption will enable Parties to benefit from existing relevant efforts, and avoid repeating work that has already been done. This is particularly true since the processes described below have been developed and endorsed by a wide constituency of participating organisations and individuals.

In addition to the long-standing FSC standard, there has been a recent focus from various other organisations, on developing further standards for sustainable use and fair trade of natural materials. These provide examples of activities that Parties could encourage and promulgate; to enhance the positive impact of CITES listing on livelihoods of the poor, since evidence of responsible trade, resulting from adherence to these standards, may

lead to continued and/or higher revenue for the poor. The standards are based on a series of principles, criteria and indicators.

FSC International Standard

The FSC International Standard (FSC, 1996) has a much longer history than the other standards described below, and is much the best known and is widely used. The current version 4.0 was agreed in 1996.

The FSC's Principles and Criteria (P&C) apply to all tropical, temperate and boreal forests, as addressed in Principle #9 and the accompanying glossary. Many of these P&C apply also to plantations and partially replanted forests. While the P&C are mainly designed for forests managed for the production of wood products, they are also relevant, to varying degrees, to forests managed for non-timber products and other services. The standard comprises 10 principles, principles 2 and 3 being of particular relevance to livelihoods of the poor:

Principle #1: Compliance with laws and FSC Principles
Principle #2: Tenure and use rights and responsibilities
Principle #3: Indigenous peoples' rights
Principle #4: Community relations and worker's rights
Principle #5: Benefits from the forest
Principle #6: Environmental impact
Principle #7: Management plan
Principle #8: Monitoring and assessment
Principle #9: Maintenance of high conservation value forests
Principle #10: Plantations

ISSC-MAP & FairWild

The International Standard for Sustainable Wild Collection of Medicinal and Aromatic Plants (ISSC-MAP) (MPSG, 2007), has been designed, as its name suggests, to meet the needs of medicinal and aromatic plants. For the ISSC-MAP, the term “medicinal and aromatic plants” include plants used to produce pharmaceuticals, dietary supplement products and natural health products, beauty aids, cosmetics, and personal care products, as well as some products marketed in the culinary/food sector (B. Paetzold, pers. comm.). The FairWild (FW) Standard (Meinshausen, 2006) applies to Wild Collection Companies who wish to add high social performance and Fair Trade aspects to their endeavours towards sustainability. Both standards are currently in the first version.

Organisations involved in development of the ISSC-MAP comprise: the German Federal agency for Nature Conservation (BfN), the SSC Medicinal Plants Specialist Group, IUCN, WWF Germany and TRAFFIC and an international, interdisciplinary advisory group. The FairWild Standard was developed by the Swiss Import Promotion Programme (SIPPO), Forum Essenzia and Institute for Marketecology (IMO). In 2008, during the IVth IUCN World Conservation Congress, the newly established FairWild Foundation was endorsed as the official owner of both standards and is responsible for the quality and implementation of a unified standard and certification system (D. Leaman, Chair MPSG, pers. comm.).

In a final report to WWF Germany on a project to support the implementation of ISSC-MAP in CITES through the NDF process, Leaman (2009) notes that implementation of the ISSC-MAP within the CITES context is one of the priority implementation scenarios identified for the standard. Results from the report were included in PC18 WG10 Doc.1.

The ISSC-MAP standard comprises three sections, each relating to two principles (Table 1).

Table 1: ISSC-MAP Principles and Criteria

SECTION 1: WILD COLLECTION AND CONSERVATION REQUIREMENTS
Principle 1. Maintaining Wild MAP Resources Wild collection of MAP resources shall be conducted at a scale and rate and in a manner that maintains populations and species over the long term.
1.1 Conservation status of target MAP species The conservation status of target MAP species and populations is assessed and regularly reviewed. **1.2 Knowledge-based collection practices** MAP collection and management practices are based on adequate identification, inventory, assessment, and monitoring of the target

species and collection impacts.

1.3 Collection intensity and species regeneration
The rate (intensity and frequency) of MAP collection does not exceed the target species' ability to regenerate over the long term.

Principle 2. Preventing Negative Environmental Impacts
Negative impacts caused by MAP collection activities on other wild species, the collection area, and neighbouring areas shall be prevented.

2.1 Sensitive taxa and habitats
Rare, threatened, and endangered species and habitats that are likely to be affected by MAP collection and management are identified and protected.

2.2 Habitat (landscape level) management
Management activities supporting wild MAP collection do not adversely affect ecosystem diversity, processes, and functions.

SECTION II: LEGAL AND ETHICAL REQUIREMENTS

Principle 3. Complying with Laws, Regulations, and Agreements
MAP collection and management activities shall be carried out under legitimate tenure arrangements, and comply with relevant laws, regulations, and agreements.

3.1 Tenure, management authority, and use rights
Collectors and managers have a clear and recognized right and authority to use and manage the target MAP resources

3.2 Laws, regulations, and administrative requirements
Collection and management of MAP resources complies with all international agreements and with national, and local laws, regulations, and administrative requirements, including those related to protected species and areas.

Principle 4. Respecting Customary Rights
Local communities' and indigenous peoples' customary rights to use and manage collection areas and wild collected MAP resources shall be recognized and respected.

4.1 Traditional use, access rights, and cultural heritage
Local communities and indigenous people with legal or customary tenure or use rights maintain control, to the extent necessary to protect their rights or resources, over MAP collection operations.

4.2 Benefit sharing
Agreements with local communities and indigenous people are based on appropriate and adequate knowledge of MAP resource tenure, management requirements, and resource value.

SECTION III: MANAGEMENT AND BUSINESS REQUIREMENTS

Principle 5. Applying Responsible Management Practices
Wild collection of MAP species shall be based on adaptive, practical, participatory, and transparent management practices.

5.1 Species / area management plan
A species / area management plan defines adaptive, practical management processes and good collection practices.

5.2 Inventory, assessment, and monitoring
Management of MAP wild collection is supported by adequate and practical resource inventory, assessment, and monitoring of collection impacts.

5.2 Transparency and participation
MAP collection activities are carried out in a transparent manner with respect to management planning and implementation, recording and sharing information, and involving stakeholders.

5.4 Documentation
Procedures for collecting, managing, and sharing information required for effective collection management are established and carried out.

Principle 6. Applying Responsible Business Practices
Wild collection of wild MAP resources shall be undertaken to support quality, financial, and labour requirements of the market without sacrificing sustainability of the resource.

6.1 Market / buyer specifications
The sustainable collection and handling of MAP resources is managed and planned according to market requirements in order to prevent or minimise the collection of products unlikely to be sold.

6.2 Traceability
Storage and handling of MAP resources is managed to support traceability to collection area.

6.3 Financial viability
Mechanisms are encouraged to ensure the financial viability of systems of sustainable wild collection of MAP resources.

6.4 Training and capacity building
Resource managers and collectors have adequate skills (training, supervision, experience) to implement the provisions of the management plan, and to comply with the requirements of this standard.

6.5 Worker safety and compensation
MAP collection management provides adequate work-related health, safety, and financial compensation to collectors and other workers

The FairWild Standard addresses the chain-of-custody in four phases (sections) from collector to final buyer. Section 1: Relation between collectors and collection company is particularly relevant to livelihoods of the very poor (Table 2).

A project to test the applicability and practicality of the ISSC-MAP in India identified as a major problem the issue of who would be responsible for pursuing the standard at particular sites, and concluded that fiscal

measures were needed to push the herbal industry towards greater involvement in sustainability (Hamilton, 2008).

It is interesting to note that TRAFFIC has field tested the use of the FairWild Standard when developing an NDF for *Pelargonium sidoides* in Lesotho and South Africa. The species is not CITES-listed but populations are under severe pressure due to land conversion and harvesting. The ISSC-MAP proved to be a comprehensive and useful tool to prepare an NDF in Lesotho, and the results were presented at the 2008 CITES NDF workshop in Mexico (B. Paetzold, pers. comm.).

The first trial use of the FairWild standard is being made in FairWild projects in Bosnia and Herzegovina, Croatia, France, Kazakhstan, Macedonia, and Uzbekistan (Meinshausen, 2006). Although none of these projects yet cover CITES-listed species, future feedback from these and future projects might help inform the CITES/livelihoods issue at a later date.

Table 2: FairWild Standard – Section I: Relation between Collectors and Collection Company – Principles and Criteria

SECTION 1: WILD COLLECTION AND CONSERVATION REQUIREMENTS
Principle 1 Fair Contractual relationship between company and collectors. Collectors have the structures and access to information to represent their interests towards the wild collection company
1.1. **Contractual relationship** The economic relation between company and collectors is fair and transparent.
Collectors organisation Collectors have the organizational structures to represent and defend their interests.
Principle 2 No discrimination No discrimination of particular social groups as collectors. The company supports the registration of women as collectors.
2.1. Selection of collector No discrimination of particular social groups and encouragement of women as registered collectors.
Principle 3 Child Labour is avoided Collection activity is done without substantial work contribution of children
3.1. Child Workers and Young Workers Children are not contracted as collectors no used by collectors as workers. All young workers never do hazardous work.
3.2. Children helping their parents in collection Children do very limited work in collection and under supervision only.
Principle 4 Respecting customary rights Local communities' and indigenous peoples' customary rights to use and manage collection areas and wild collected MAP resources shall be recognized and respected.
Traditional use, access rights, and cultural heritage. Local communities and indigenous people with legal or customary tenure or use rights maintain control to the extent necessary to protect their rights or sources over MAP (medicinal and aromatic plants) sources.
Benefit sharing Agreements with local communities and indigenous people are based on appropriate and adequate knowledge of MAP resource tenure, management requirements, and resource value.
Principle 5 Fair Trade benefits the collectors and their communities Fair Trade minimizes trade intermediaries, ensures collectors a fair price for the collected goods and allows for social community development through means of a FairTrade premium fund.
5.1 Transparent Cost Calculations Transparent calculation of costs allows fair price negotiations between company and collectors as well as with buyers/traders
5.2. Payment of collectors The Collection company agrees with collectors on fair prices and effectively pays the agreed prices on time.
5.3. Intermediate traders and product assortment FairTrade minimizes trade intermediaries and keeps long term interests of collectors in mind.
5.4. FairTrade Premium use As soon as any FairTrade premium is received, it is administered transparently in a premium fund and decisions on the use are done in a democratic way.

Union for Ethical Biotrade

The Union for Ethical BioTrade has developed a BioTrade Verification Framework for Native Natural Ingredients) for use by private-sector organisations looking to make a positive contribution to sustainable development and the objectives of the Convention on Biological Diversity through recognition of their policies

on quality, sustainable sourcing and corporate social responsibility. The framework has been prepared following a lengthy, inclusive and participative development process involving economic, environmental and social interest groups. During its preparation stakeholders from around the world and from all parts of the supply chain were consulted. The process by which the Framework has been developed follows both the World Trade Organization (WTO) requirements for developing standards and the International Social and Environmental Accreditation and Labeling alliance (ISEAL) Code of Good Practice for Setting Social and Environmental Standards (UEBT, 2007).

The framework defines a list of 7 principles and a long list of related criteria. The Principles comprise:

1. Conservation of biodiversity
2. Sustainable use of biodiversity
3. Fair and equitable sharing of benefits derived from the use of biodiversity
4. Socio-economic sustainability (productive, financial and market management)
5. Compliance with national and international legislation
6. Respect for the rights of actors involved in BioTrade activities
7. Clarity about land tenure, right of use and access to natural resources

CITES is recognized in Criterion 5.3 which states that *inter alia* the provisions of CITES should be recognized. Verification bodies do not insist that all criteria have to be satisfied; however failure to meet a subset of minimum indicators prohibits an organization being a member of UEBT. These minimum criteria do not include criterion 5.3. It may be useful for discussions to be held between organisations involved with implementation of CITES (Secretariat/Parties/IGOs/NGOs) and UEBT to encourage the inclusion within the minimum criteria, of compliance with CITES (i.e. ensuring presence of CITES permit).

NTFP Report

A report on the commercialization of non-timber forest products (NTFPs) is of particular relevance (Schreckenberg et al, 2006). This includes recommendations for a number of government-level interventions and options for direct assistance to communities by government, NGOs and private sector organizations. These include the need for:

Policies that support NTFP activities as part of a diversified livelihood strategy;
Clarification of legal and regulatory and institutional frameworks governing commercialization;
Promoting local regulatory mechanisms for resource access and management to ensure equitable access and sustainable supplies;
Support of credit-provision to the rural poor and small scale entrepreneurs;
Improvement of access to education and information;
Improvements to transport and communications infrastructure that will facilitate market access.
Enhancing community organizations to increase the market power of producers and processors to decrease their vulnerability to external shocks;
Increasing opportunities for involvement of women;
Building business capacity;
Building technical know-how to ensure sustainable resource management, harvesting, domestication where appropriate and product processing;
Support for collaboration between producer communities and for development of mechanisms, such as certification, that value the origin and identity of the product.

CITES & Livelihoods process report

A comprehensive account of the process leading to the production of this report is given by Dickson (2008). This lists three issues that need to be taken into account for the guidelines to be effective:

1) Many different factors shape how the trade in a CITES species affects the livelihoods of the poor. A significant number of these factors operate within range states and some of them, such as rights over land and wild resources, are difficult to change quickly.

2) Some of the other factors that affect impacts are those that originate in importing states.

3) Much remains unknown about the causal relationships between different factors and particular outcomes. Even if it is known, for example, that the trade in a CITES species contributes to livelihoods at the local level, it may not be easy to identify which particular factors are causally significant in bringing that about. It may be yet more difficult to predict the impact of a particular policy change.

Dickson therefore recommends that:

1) The guidelines should not be too prescriptive with regards to particular ways of improving impacts on livelihoods. Solutions are likely to be case specific, and a mechanistic application of a model that works in one place to a different context is unlikely to be successful. The guidelines should identify at a generic level, the kinds of factors that are likely to be important, or focus on the types of decision-making processes that lead to the development of good solutions;

2) The guidelines should acknowledge that developing solutions within range states will take time and may require significant policy changes. The guidelines will need to respect Party sovereignty and it may be useful to see the formulation of the guidelines as a process, that extends over time, of supporting Parties to address livelihoods.

3) The guidelines will need to address what importing countries individually, and CITES as a whole, can do to implement the Convention in a way that contributes to the livelihoods of people at the local level. In this regard the use of stricter domestic measures, efforts to influence consumer demand, and the automatic link between a CITES listing and a particular type of trade regulation are all relevant.

Key factors

Case studies and Kirstenbosch Workshop

Case studies of CITES-listed taxa in relation to livelihoods are provided in Annex 3.

Key issues discussed at the Kirstenbosch CITES and livelihoods workshop and included in the initial workshop report (FFI, 2006) are listed in Table 3.

Table 3: Key issues identified by Participants at the CITES and livelihoods workshop (2006)[1]

a	Empowering strong tenure over land and resources
b	Forming representative associations for harvesters
c	Forming trader and exporter associations
d	Developing standards, labels, certification, and so on
e	Ensuring cross-sectoral cooperation
f	Building a supportive international context

A review of the case studies in Annex 3 indicate a number of key factors that CITES Parties could consider when addressing the impact of implementing CITES-listing decisions on livelihoods of the poor.

Key factors

Key Factor 1: Compensation for costs associated with the implementation of CITES listings

The costs of conservation programmes associated with CITES-listed species may fall disproportionately on the poor. The implementation of Appendix I and, to some extent, Appendix II and III, listings places restrictions on trade and may restrict the options for the poor, particularly in the short term, unless mitigation or alternatives are available.

There may also be costs associated with successful conservation measures in the long-term for a few high-profile species whose behaviours may lead to human-wildlife conflict if these conflicts increase due to depredations on crops and livestock. Without adequate means of compensation and/or mitigation through, for

[1] NB: These issues were not specifically incorporated into the final Workshop recommendations; see CITES Doc. 14.4.

example, crop and livestock protection schemes, the poor who have few assets and alternatives may be disproportionately affected by increasing conflicts with some species of wildlife.

The implementation of CITES listings may be associated with increased costs through permitting which are generally short-term and are usually borne by middlemen rather than harvesters, but may in some cases be passed down the trade chain and affect harvesters. Implementation measures, should therefore include, or form part of measures addressing trade structures and the distribution of costs.

Key Factor 2: Equity, empowerment and tenure

In determining who should benefit from conservation programmes associated with the implementation of CITES listings, the key lies in part in the definition of "poor". Many conservation programmes, both consumptive and non-consumptive, aim to deliver benefits to the poor – but commentators suggest that the poorest of the poor often do not benefit equitably (see Jones 2009; Honey 1999). Furthermore, community conservation projects are often associated with restricted access to natural resources, yet it is the poorest of the poor who require seasonal access to such resources to get them through periods of vulnerability, such as seasons when food is in limited supply or when school or clinic fees become due and immediate access to revenue becomes necessary (see Roe, 2002, 2008; de Stage, 2002).

High demand for restricted products can also stimulate prices and illegal trade, and without equity in terms of tenure over resources, coupled with increased enforcement, education and capacity-building efforts to control illegal trade, the poor may be unable to exclude outsiders (FFI, 2008).

Implementation policies should therefore be designed to ensure both that benefits that accrue are directed as much as possible to the poor and are distributed equitably, and that those benefiting from the implementation of the listing are supportive of, and assist with to the greatest extent possible, enforcement efforts directed at illegal trade.

Key Factor 3: Representation

The need for representation of the poor through harvester/ collector organizations and of trader organizations was discussed at the CITES and livelihoods workshop (FFI, 2006). Such representation may be important to ensure that sharing of benefits is equitable and does not disadvantage the poorest sectors of society. Implementation strategies may include licensing measures designed to promote such organizations (e.g. for *Hoodia* in South Africa).

Key Factor 4: Supportive international context

Implementation of CITES listing is associated with stricter domestic measures pertaining to certain species, and these can restrict market access for products from that species, and so restrict the income that can be earned. There have been concerns of this nature in relation to the import of crocodile and sport hunting products to the USA, of wild birds to the USA and Europe, and of reptiles to Europe, and of many species to Australia (Kievert, 2000; Cooney & Jepson, 2005). Stricter domestic measures can also impact the opportunity for exports as in the case of the Appendix II listing of seahorses in the Philippines (Christie In press). The recommendations of the CITES Significant Trade Review can also have impacts on trade opportunities (Roe, 2002). Thus issues of the impacts of broader legislation on the poor remain to be addressed. However, there were queries from the working group regarding the relevance of consideration of stricter domestic measures in the current context. The problem of identifying what constituted a stricter domestic measure was also raised within the working group and suggested as a topic that could be discussed further, e.g. whether a voluntary zero quota set by a Party for a species newly listed in Appendix II is considered to be national implementation, or stricter domestic measure (T. Oldfield, pers. comm.).

However there were different views within the working group concerning whether or not stricter domestic measures should be considered (see Stricter Domestic Measures in Chapter 3).

Key Factor 5: Market mechanisms and access to micro-finance

Market forces may mean that CITES-listed species cannot be assumed to be a source of sustainable revenues indefinitely even if the collection of specimens is conducted on a sustainable basis. The fashion for some products derived from wildlife may change for reasons that have nothing to do with CITES or conservation issues in general. When projects aim to provide alternative sources of specimens, such as ranching or *ex situ* production become successful, there is the danger of swamping the market and driving prices down. This has

been recorded for the crocodilian skin trade, and in relation to live sales of white rhino and trophy hunts of Marco Polo sheep in Mexico (MacGregor, 2006; Reidl, 2006).

Similarly, demand for specimens from the wild often declines when captive breeding become more cost-effective, as the captive-bred specimens have the added advantage of attributes such as tameness, lack of disease and the availability of unusual colour morphs (Robinson, 2001). However, *ex situ* production of some species remains expensive, so there is scope for sustainable wild production to compete successfully (C. Ó Críodáin, pers.comm.). Meanwhile the requirement for investment and lack of access to micro-credit, mean that poor local people often cannot benefit from developing *ex situ* production systems (Entwistle, 2002; Roe, 2002). Implementation policies may need to address such issues, as may broader development policies aimed at providing entrepreneurial assistance, including micro-financing, to poor communities. This issue goes well beyond the context of CITES implementation and may include the encouragement of alternative means of revenue generation not related to the use of CITES-listed species.

Key Factor 6: Consumer confidence

The CITES vision statement starts with the words "*Conserve biodiversity and contribute to its sustainable use……*" (Strategic Vision Res. Conf 14.2). However the broad perception of CITES is of a Convention that protects species against overuse, and as such it is largely seen as restricting rather than promoting trade. Whilst Appendix II listings provide a positive means to promote well managed and sustainable trade, this is not the general external perception of CITES, particularly amongst NTFP, fishery and timber producers (IUCN, 2000). For example, C. Ó Críodáin (pers. comm.) recalls a situation where an NGO was was encouraging a public body to adopt a procurement policy that excluded purchase of any CITES timber listed on Appendices I, II or III, overriding any considerations about FSC certification etc

Key Factor 7: Certification

One means of increasing consumer confidence may be to continue strengthening the basis for non-detriment findings and enforcement of the Convention coupled with promotion of CITES as a reliable stamp of sustainability where production contributes to the livelihoods of the poor. However, meeting certification standards can be expensive and can act as a trade barrier for the poor, unless NGOs support the poorest to gain accreditation (Bodmer, pers. comm.; Watson, 2005). Reversing the trends towards *ex situ* production of products such as crocodilian skins may be addressed by developing certification of wild produced skins (Macgregor, 2006).

The need to encourage certification standards that support the poor therefore remains to be addressed. This may be possible if existing certification standards are included in integrated management planning and managed by the country concerned. If Scientific Authorities uphold the required standards then the costs of certification may be reduced. This is being attempted by the pilot projects of the ISSC MAP in five countries.

The ISSC MAP includes all the standards required of a government, industry and other stakeholders (including poorer communities) to adopt and manage a resource from a biological/ sustainability perspective but also taking into account the access and benefit sharing, value-adding and certification process through FairWild. The adoption of such a management system may or may not require a CITES listing because its main aim is to strengthen domestic management and not place management in the hands of CITES or the certifier, however, it does not preclude a listing. This approach does encourage national authorities to consider livelihood and biological parameters together as required by the CBD. Naturally the ability to implement such a system is limited by the resources of the government and the country but is perhaps in the long term the best way to go (D. Newton, pers.comm.).

Key Factor 8: Cross-sectoral technical support

Since poverty is a result of a range of political, institutional, and social injustices - including marginalisation of women and the failure to protect poor communities from powerful vested interests, livelihood issues associated with the implementation of CITES listings can only be addressed successfully as part of wider poverty alleviation strategies (C. Ó Críodáin, pers. comm.).

Many of the areas outlined above for further mitigation work fall beyond the remit of CITES authorities, yet are vital to the effective workings of the Convention. Therefore, it will be important for CITES authorities to develop further cross-sectoral linkages with government agencies that deal with issues such as land, agriculture, conservation, rural development, trade and industry. The technical support needed should help CITES Parties make robust non-detriment findings, improve enforcement of the requirements of the Convention, make use of

market mechanisms where appropriate, and ensure that appropriate benefit sharing arrangements are in place to mitigate livelihood impacts on the poor.

Implementation policies should therefore be integrated with broader national policies relating to wildlife conservation and sustainable development, as well as wider issues of poverty alleviation, to the extent that doing so will not interfere with proper implementation and enforcement of the Convention itself (R. Orenstein, pers. comm.).

Principles

Based on the matters discussed above, principles (see Annex 2) have been identified that Parties might consider when addressing livelihood issues. These principles form the basis of the draft resolution in CoP15 Doc. 14.

The principles relate to four themes:

Empowerment of the poor
Compensatory mechanisms for the shift form *in situ* to *ex situ* production
Mitigation strategies for human-wildlife conflict
Enabling policies

Draft Voluntary Guidelines

The draft voluntary guidelines (Annex 1) are based on all the issues considered above. They also provide for a prioritization process for a Party to identify its CITES-listed species that are likely to be of particular importance to the poor, such as medicinal plants that are used for primary health care or species that provide the only source of cash income, however small that might be.

The draft guidelines provide for consideration of the principles and criteria listed in the ISSC-MAP, FairWild and UEAB standards, but do not list each of these for reasons of brevity. The FairWild and UEAB standards are of particular relevance to actions that promote the positive impacts of implementing CITES listings rather than for mitigation measures for negative impacts.

The preliminary phase of the guidelines also provides for information from rapid assessments undertaken to assess the impact of CITES listing on the livelihood of the poor to be considered.

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Annex 1: Key elements of the Nazca Guidelines to Address the impacts of Implementing CITES listing decisions on the livelihoods of poor rural communities

The following are the key elements identified in the Nazca Guidelines for Parties to use in addressing the impacts of implementing CITES-listing decisions on the livelihoods of economically poor rural communities. In using these Guidelines, it is important that:

– Principles included in Resolution Conf. 16.XX are taken into account;

– National agencies work with stakeholders at all levels;

– Activities are integrated with existing relevant implementation practices; and

– Transparent procedures be followed.

1. Preliminary activities - identify priority species in order to test the Guidelines

1.1 Identify priority species in order to put the Guidelines to the test, including:

1.1.1 Species that are used directly by the rural poor communities for commercial and subsistence purposes (e.g. medicinal plants) and which represent one of their main source of cash income.

1.1.2 Species subject to regular or significant international trade.

1.2 Analyze the outcome of rapid assessments to report on the actions described below.

2. Empowerment of economically poor rural communities

2.1 Equity

2.1.1 Develop policies to ensure that the benefits obtained from CITES trade are allocated to economically poor rural communities and are distributed fair and equitably.

2.1.2 Develop policies to ensure that those affected by the implementation of the listing are supportive of and assist with enforcement efforts directed at illegal trade.

2.1.3 Promulgate and encourage the use of standards for sustainability and fair trade.

2.2 Tenure

2.2.1 Recognize resource tenure for indigenous and economically poor local communities.

2.2.2 Promulgate and foster the use of standards in issues relating to tenure.

2.2.3 Promote the use of certification marks or marks of origin for products obtained legally and in a sustainable manner by rural communities.

2.3 Empowerment

2.3.1 Promote transparency in all policy-making.

2.3.2 If necessary, consider postponing the effective date of the CITES listings to allow time for the development of strategies to mitigate any negative effects.

2.3.3 Encourage primary users of wildlife to form socially responsible associations or similar representative structures, for example for harvesters, growers, managers and other users groups

2.3.4 Ensure that these Guidelines are regularly updated, so that the information is available on economically poor rural communities.

2.4 Education and Public Awareness

2.4.1 Support public awareness campaigns and the dissemination of information among economically poor local communities on the value of their natural resources and on the potential benefits they can obtain by participating in community programs for long-term management of natural resources.

2.4.2 Ensure that the positive aspects of CITES and CITES-related policy and legislation are fully explained, thereby enhancing an understanding of CITES as a tool for promoting sustainable use.

2.4.3 Develop aid plans to provide assistance to primary user groups severely affected by the implementation of a CITES-listing decision.

2.4.4 Promote the use of registered marks of certification and origin for products obtained legally and sustainably by poor rural communities.

3. Incentives to promote in situ production and compensatory mechanisms

3.1 Prevent economically poor rural communities from being deprived of benefits due to the development of *ex situ* production that does not provide for benefit-sharing.

3.2 Develop market-based incentives to encourage the sharing of benefits from *ex situ* production with economically poor rural communities.

3.3 Eliminate barriers to *in situ* production systems and promote the development of these systems'.

3.4 Ensure that consumer countries work with *in situ* and *ex situ* traders and trade associations to foster positive effects and minimize any negative impact.

3.5 Develop supportive strategies through bilateral projects for conservation and development focused on CITES-listed species'.

3.6 Explore alternative production systems.

4. Mitigation strategies for human-wildlife conflicts

4.1 Promote mitigation strategies that should take into consideration incentives for economically poor rural communities related not only to the CITES-listed species but to the whole ecosystem to which such species belong.

5. Empowerment Policies

5.1 Ensure cross-technical support from government agencies responsible for land issues, agriculture, conservation, environment, rural development, trade and industry, etc.

5.2 Identify increased costs and requirements arising from CITE listings and develop appropriate measures accordingly.

5.3 Encourage market mechanisms and access to micro-financing to enable economically poor rural communities to participate in the development of ex situ production systems.

5.4 Establish or build on collaborative partnerships between development and conservation agencies in order to enhance aid effectiveness for wildlife conservation and eliminate duplication of efforts.

5.5 Encourage international financial institutions and cooperation agencies to assist Parties in the development of multilateral and bilateral measures, and policies to support institutions at the regional, national and local levels, in order to address any negative impact of the implementation of CITES-listings on the livelihoods of the poor rural communities.

5.6 Foster an efficient exchange of knowledge relating to programmes on community-based management of natural resources, between national stakeholders and professionals, and the international community of conservation and development agencies.

Annex 2: Principles when addressing livelihoods

The draft resolution contained in CoP16 Doc. 19 lists principles to be considered by Parties when addressing livelihood issues. These were derived from the draft voluntary guidelines included in the preliminary draft papers circulated to the CITES and Livelihoods working group in August/September 2009, and the final review at the meetings held in Lima (July 2012), and Nazca (September 2012):

CoP16 Doc. 19 (Rev. 1) Annex 1

DRAFT RESOLUTION OF THE CONFERENCE OF THE PARTIES

CITES and livelihoods of poor rural communities

RECALLING Resolution Conf. 8.3 (Rev CoP13), adopted at the 13th meeting of the Conference of the Parties (Bangkok, 2004) where the Conference recognized that implementation of CITES-listing decisions should take into account potential impacts on the livelihoods of the poor;

RECALLING ALSO Decision 15.5 requesting the Standing Committee to continue the operation of its Working Group on CITES and Livelihoods and to finalize the toolkit for the rapid assessment at the national level of the positive and negative impacts of implementing CITES-listing decisions on the livelihoods of the poor, as well as voluntary guidelines for Parties to address the negative impacts;

RECOGNIZING that CITES-listing decisions are neither the sole cause nor the sole solution to the livelihood problems of the poor rural communities, but that the effective implementation of such decisions can form part of a strategy to provide sustainable livelihoods for the rural communities, in accordance with paragraph 203 of the outcome document of the Rio+20 Conference *The Future We Want*;

RECOGNIZING that poor rural communities attach economic, social, cultural and ceremonial importance to some CITES-listed species;

RECOGNIZING that the implementation of CITES is better achieved with the engagement of poor rural communities;

RECOGNIZING that the proper implementation of CITES listings may enhance livelihoods by delivering long-term species conservation and reducing unsustainable and illegal trade;

RECOGNIZING ALSO that implementation of some listings (particularly Appendix -I listings) may impact livelihoods of the poor by restricting access to income, employment and other resources such as food, materials and medicines, but that it need not always do so if appropriate implementation strategies are adopted;

THE CONFERENCE OF THE PARTIES TO THE CONVENTION

AGREES that the following principles be considered when Parties address livelihood issues:

Regarding empowerment of the poor rural communities

ENCOURAGES Parties to work with key stakeholder groups to design, implement and monitor effective strategies with regard to the implementation of CITES listings recognizing that:

a) Solutions are likely to be case and situation specific;

b) Although amendments to the CITES Appendices must, unless indicated otherwise in an annotation, come into effect 90 days after their adoption by the Conference of the Parties, developing appropriate solutions to mitigate negative impacts on the livelihoods of the poor may require more time to implement relevant policy changes;

c) Developing guidelines must be an ongoing process as more knowledge is gained about specific impacts and successful as well as unsuccessful experiences; which means that the monitoring and evaluation of strategies will be priority aspects in the development of appropriate implementation strategies and policies; and

d) Community and traditional knowledge should be considered in the implementation of CITES;

AGREES that:

a) Empowerment of the poor rural communities should be encouraged through measures that include, as appropriate:

i) Promoting transparency in the development and implementation of policies regarding poverty and the use of natural resources, and in the value chains concerned;

ii) Maximizing the benefit share for poor rural communities in the value chains concerned;

iii) Developing associations of harvesters, managers, growers or any primary users of wildlife, however they are defined;

iv) Developing socially responsible trade associations with clear obligations for benefit sharing; and

v) Recognizing resource tenure and cultural and intellectual property rights for indigenous, tribal and poor rural communities;

b) Support for the implementation of CITES listings should be enhanced by public awareness and education, including education programmes for poor rural communities, to ensure that:

i) The positive aspects of CITES and CITES-related legislation are understood; CITES-listed species are conserved, and benefits to poor rural communities realized; and

ii) Poor communities support policies and activities designed to reduce or eliminate illegal trade in specimens of CITES-listed species; and

c) As implementation of some listings may have short-term negative impacts on the poor rural communities, mitigation strategies should be adopted as appropriate. These strategies may include:

i) Developing aid plans to provide assistance to the harvesters, managers, growers or any primary users of wildlife, however they are defined, most severely affected by the implementation of the CITES-listing decisions; and

ii) Providing alternative means of livelihoods.

Regarding enabling policies

INVITES Parties to initiate or strengthen collaborative partnerships among local, regional, national and international development and conservation agencies to enhance:

a) Financial support for wildlife conservation and poor rural communities; and

b) The complementarity of their work and CITES implementation;

RECOMMENDS that Parties explore the use of registered marks of certification and origin for products obtained legally and sustainably by poor rural communities, to indicate that the products are obtained legally and sustainably;

ENCOURAGES international financial institutions and cooperation agencies to assist Parties in the development of supportive policies and institutions at the regional, national and local levels to address negative impacts of the implementation of listings on poor rural communities.

Regarding compensatory mechanisms for the shift from* in situ *to* ex situ *production

AGREES that:

a) Implementation of some CITES-listings may encourage *ex situ* production, which may lead to loss of profits:

i) for poor rural communities. Market-based incentives may then be required to encourage benefit sharing;

ii) and to remove barriers to the development of *in situ* production systems;

b) Consumer countries may work with producer countries to develop effective strategies to support positive impacts and minimize negative impacts of the implementation of CITES listings. These can include:

i) Working with *in situ* and *ex situ* producers and trade associations;

ii) Developing supportive strategies through bilateral conservation and development projects; and

RECOMMENDS that Parties adopt mitigation strategies where appropriate, to provide:

a) compensation schemes (such as payment for ecosystem services, employment in eco-tourism or as game wardens; and

b) Licences or concessions for tourism, hunting, fishing and harvesting; the development of alternative products; and

RECOMMENDS ALSO that mitigation activities not be based on CITES-listed species only but on the whole ecosystem that contains them.

Annex 3: Case Studies

I. Eco-tourism

A. Marine turtles (App. I)

Marine Turtle populations have been impacted by harvest, bycatch, shipping and destruction of nest beaches. However, marine turtles are viewed as “flagship species” and are reportedly a valued component of ecotourism projects that are being developed to contribute to local livelihoods. The potential for revenue generation from marine turtles for tourism purposes is reportedly greater than from turtle products, and such revenue generation is arguably more sustainable than from consumptive use. However, benefits from such projects depend on investment and the stability of the tourism market. Also, benefits to the poor will generally flow through employment, which in turn may require the poor to have education and training.

Meanwhile, in the Caribbean, as elsewhere in the world, marine turtles are harvested legally and illegally particularly for domestic use of their eggs and flesh, although other parts too are used. Often there is little government enforcement of regulations and increasingly, government is entering into co-management agreements with communities whereby the community derives benefits in return for sustainable use of the resource, whether it be consumptive or non-consumptive. Often such projects are supported by NGOs who support training, research and management.

In Cuba, marine turtles were harvested for food, contributing to local livelihood needs and the shells produced from this harvest were stockpiled. Following the defeat of proposals to downlist the Cuban population so that the shells could be sold on the international market to raise extra revenue, there is currently no market for these shells (CITES amendment proposals submitted at CoP 10, 11, 12). These proposals proved controversial, partly due to the regional nature of turtle populations.

G. Webb (pers. comm.) notes that "Clearly, had Cuba's proposal been supported by the IUCN MTSG (Marine Turtle Specialist Group),and the legal trade allowed, CITES would have been in a prime position to maintain the incentives to increase legal trade and counter illegal trade. No such incentives exist today, and when WWF tires of funding Cuba, so they will be left with naught."

Key factors leading to success or failure

- Flagship species;
- Consumptive use less profitable than value to ecotourism;
- Stability of tourism market.

Future issues

- Need to reduce bycatch and other sources of mortality and implement existing legislation
- Where tourism is not possible need to find means to support disadvantaged poor.

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B. SEE Turtles: Building a Market for Sea Turtle Conservation Tourism

Six out of seven species of sea turtles around the world are in danger of extinction due primarily to poaching (meat, eggs, and shells) and entanglement in fishing gear. With slow growth rates and long maturation periods, sea turtles are especially susceptible to these threats. In many places, people earn income from these activities including the sale of meat and eggs or fishing in turtle hotspots (Troeng & Drews, 2004). SEE Turtles, a project of The Ocean Foundation, links people with turtle sites in ways that directly support protection efforts, while increasing resources in communities to help residents thrive and value sea turtles in their environment. We work with community-based organizations working at key turtle sites to promote responsible tourism that will allow the organizations to expand their work and bring alternative sources of income to communities where poaching and fishing are common practice.

SEE Turtles is strengthening the international network of sea turtle conservation organizations by filling gaps in tourism market access and capacity building. To enhance market access, we develop relationships with international tour operators to include sea turtle conservation activities and educate key constituencies through our website, media outreach, and other outlets. We also build capacity in turtle communities by providing mini-grants to partners, sharing knowledge on the necessary components of a tourism strategy, and training community members to run small tourism businesses and earn income as guides. In addition, we worked with representatives of more than twenty conservation organizations and government agencies to create and disseminate a turtle watching best practices guide for travelers, tour operators, and turtle communities.

The primary goal of SEE Turtles is to encourage transition away from destructive and consumptive uses of sea turtles by providing alternative sources of income for local communities. Secondary goals are to support field conservation efforts through increased income and technical support; to set the standard for turtle-friendly ecotourism and elevate sea turtles into a top wildlife attraction; and to inspire life-long conservationists for marine wildlife and the ocean**.**

The goal of our project is to protect sea turtles through conservation tourism. In the two years of our project, we have reached the following goals:

- Since 2007, the project has generated more than $50,000 for conservation and local communities. This income is a combination of donations, small grants, fees, and indirect spending.
- More than 100 people have visited turtle partners to date, ranging from long-term volunteers to travelers visiting a nesting beach for an evening.
- Small grants have funded the removal of outdated, inefficient and destructive fishing gear and helped train guides in Baja California Sur, as well as paying for beach patrols and allowing a women's cooperative to expand an innovative recycled plastic bag program in Costa Rica.
- The project has reached more than 10 million people with the message of responsible turtle tourism through magazines, blogs, video, E-newsletters, and speaking engagements.
- Volunteers recruited have completed more than 175 shifts patrolling nesting beaches, guarding hatcheries, and other important activities.

Key factors leading to success or failure:

- Ability of community-based conservation projects to adequately handle a modest increase in tourism
- The overall health of the international tourism industry
- The likelihood of generating enough tourism business to benefit a large percentage of the community
- The overall attractiveness of the destination to tourists
- The ability of tourism to directly reduce primary threats to turtles in the specific communities

Issues for the Future:

- Shifting ranges of turtles due to climate change could affect communities where turtle tourism has developed
- Downward population trends for sea turtles related to pre-project or distant poaching/bycatch
- Large increases in tourism in small communities can provide an incentive for unsustainable coastal development
- Expansion of the conservation tourism model to support recovery of other marine species?

References

Troeng, S. and Drews, C, 2004. Money Talks: Economic Aspects of Marine Turtle Use and Conservation. WWF International, Gland, Switzerland.

C. Tigers (App. I)

Tigers have been listed in Appendix I since 1975, but this has not arrested their population decline. Populations have declined through conflict with people as natural prey populations have dwindled, and tigers have also been poached to supply skins and bones for medicinal purposes. Meanwhile, in India, tourism helps to support protected areas as evidenced in the case of the Periyar Tiger Reserve. The community based ecotourism programmes of Periyar have reportedly contributed to halting illegal activities, strengthening park protection and generating income for park protection and community welfare. Local livelihoods are reportedly enhanced through community benefits from ecotourism revenue, administered by an eco-development committee and villagers live in the buffer zone around the protected area. However, surveys indicated no difference in the conservation awareness in villages included in an Integrated Conservation and Development Project compared with those not included in the project (Gubbi *et al*, 2008). Meanwhile the majority of respondents expressed the hope that their children would have a greater range of livelihood opportunities and would not have to collect NTFPs (Gubbi and MacMillan, 2008). According to Gubbi *et al* (2008) ecotourism provided a source of primary occupation for only 43 households or 0.8% of the 5540 households targeted by the Periyar ICDP. Although the project provided access rights for NTFP extraction, these groups held negative views of the project, possibly because it raised high expectations of benefits that did not materialize.

Key factors leading to success or failure

- Community based ecotourism ventures generate funds for community benefits, but only a small proportion of people benefit.

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D. Elephant, Rhino, Leopard, Cheetah (App. I) & Lion (App. II)

The viewing of elephant, rhino, lion, leopard, cheetah contribute to eco-tourism revenues and countries such as Kenya and India have emphasized the development of eco-tourism projects as sources of revenue to provide local incentives for conservation. In Kenya tourism provides around 12% of GD, but wildlife populations have reportedly declined some 40-60% since 1977 largely due to land conversion and increasing agriculture.

In a number of areas, conservation and development projects have been criticized as being associated with leakage and powerlessness of the poor, who suffer the depredations of wildlife conflict, but receive little direct income. In Tanzania, Zeppel (2005) has concluded that both tourism and hunting have been of little benefit to most tribal people while wildlife-conflict and poaching reduce benefits to locals. However, the question remains as to what would have happened to both people and wildlife without benefits from tourism and hunting?

Key factors leading to success or failure

- Community-based tourism ventures generate funds for community benefits, but only a small proportion of people benefit and leakage remains a concern.

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II. Hunting

A. Trophy Hunting - Species with quotas (Apps I & II)

Hunting of CITES Appendix-I listed species to contribute to conservation is undertaken under quotas approved by the CoP for specific populations of black rhino, elephants, leopard, cheetah and markhor. Similarly, hunting of Appendix II listed species (lion, bears, wolves etc) is also undertaken, with less stringent permitting requirements. The revenues from some of these hunting opportunities goes to community-based programmes, and has reportedly contributed positively to both conservation and local livelihoods through community development projects and in some cases providing "small" direct payments, which contribute to seasonal costs such as school fees etc. But such hunting projects have also impacted the very poorest, by restricting access to meat and cash income, whether legally or illegally derived, and restricting the expression of cultural identity. The poorest are also least able to accommodate the depredations of wildlife on crops and livestock, which in Namibia were estimated to comprise 18%-22% of average household incomes in certain areas. CITES Appendix-I listed predators such as jaguar, tiger, lion, cheetah and crocodiles are particularly problematic in this regard. Thus Vaughan et al (2004) recommend that means should be found to accommodate local hunting of certain species and Martin (2005) notes that unless income from wildlife increases, tolerance of crop losses is likely to be limited.

Key factors leading to success or failure

- Equitable sharing of costs and benefits is needed.

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B. Trophy Hunting & Live Sales of White & Black Rhinos (App. I)

Southern white rhinos have recovered from just a single population of between 20 and 50 animals in 1895 to about 17,500 today, with an additional 750 animals in captive breeding institutions worldwide. Listed in Appendix I in 1975, the south African population was downlisted to Appendix II in 1995 for the purposes of live sales and hunting trophies, followed in 2005 by the Swaziland population. South Africa has a policy of encouraging landholders to benefit from sales of hunting trophies and live animals and also from tourism. This policy, coupled with strict management and the species' grassland habitat and social grouping structure have contributed to its dramatic population increase. Removals of animals have maintained populations below

carrying capacity to ensure maximal rates of reproduction. Some contributions to the livelihoods of the poor will have been generated through a range of employment opportunities as guards, in hunting and capture operations as well as in the tourism industry. Whilst measures to allow landholders to derive economic incentives from the sustainable hunting and live sales are connected with maintenance of areas of "bush" habitat, it seems unlikely that local people benefit from access to collect medicinal and other local resources.

Black rhinos *Diceros bicornis* were included in Appendix I in 1977. In contrast to the white rhino, Black rhinos were decimated more recently, in the 1980s when a wave of poaching spread through Africa, but was halted at the borders of Zimbabwe, Namibia and South Africa. More recently, the populations of South Africa and Namibia were annotated with a quota for hunting trophies in 2004. Rhino poaching in Africa and Asia continues to be problematic.

C. Trophy Hunting – Elephants (App. I)

The African elephant was uplisted to Appendix I in 1989, at which point a number of southern African and importing countries took reservations. These reservations were largely based on the grounds that populations in southern Africa were deemed secure, well-managed and the revenue derived from sales of hunts and products was used to fund conservation. The southern African countries withdrew reservations in 1997 when their populations were downlisted variously for live sales, hunting trophies, non-commercial carvings, sale of hair and leather goods and one-off ivory shipments. When the Appendix-I listing came into effect a range of employment opportunities for local people in the hunting and processing industries of range states were curtailed and carvers in both range states and importing countries were affected. However, trophy hunting continued to provide limited employment opportunities, and other community infrastructure benefits have been delivered through community conservation projects.

Key factors leading to success or failure

- Flexibility of CITES listings for hunting;
- High value product and competition to purchase trophies;
- Problems with stricter domestic measures re trophy hunting;
- Such ventures good for the better-off, but the poor may continue to be marginalized;
- Protection of the population and in some cases translocation to keep reproductive rates high to allow population recovery;
- Cheaper live sales to establish new populations;
- Tenure arrangements;
- Some Cost and Benefit Sharing;
- Tourism associated with higher volumes of visitors.

Future issues

- Empowerment of marginalized groups;
- Examination of impacts of harvest restrictions on the poorest;
- Stricter domestic measures;
- Difficulty in getting appendix I quotas approved;
- Need to better integrate needs of the poor – requires understanding of their livelihood strategies and needs see for example *Savannah's Forever* project in Tanzania.

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D. Trophy Hunting – Markhor (App. I)

Markhor were included in Appendix I in 1975, whilst urial were included in Appendix II. Populations were declining due to poaching in the 1980s leading to establishment with assistance from USFWS of a conservation programme. Following negotiation, local tribesmen agreed to stop local hunting in exchange for potential employment and hunting opportunities and in 1986, the first hunts for markhor and urial went ahead. Finally in 1997 a CITES quota was agreed for trophy hunting and this quota was doubled in 2002. The Programme has continued to employ local tribesmen and to provide support through extension work to improve infrastructure and agriculture, meanwhile the wildlife population continues to grow.

Key factors leading to success or failure

- Multispecies hunts;
- Conservation Champions;
- High value, Low off-take, allowing population recovery;
- Community buy-in and agreement;
- Community benefits through, employment, infrastructure projects and agricultural outreach.

Issues for the future

This successful markhor project appears to provide a model for other communities to emulate, but results from Mexico suggest that increasing the supply of trophies may reduce prices and impact the projects (see Reidl, 2006).

References

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E. Trophy Hunting - Mexican Population of Bighorn Sheep (App. II)

In the 1970s the Isla Tiburon population of Bighorn Sheep *Ovis canadensis* was established in Mexico, to build the population in a secure, but non-native environment for later reintroduction to the species' historic range. The project involves government agencies, NGOs, researchers and the Seri community, an indigenous group who were granted communal possession of Isla Tiburon. The project aims to: guarantee the survival of the Bighorn Sheep population; to establish a hunting program that benefits the Seris; and to contribute to the recovery of the species in its historic range. The sheep population has increased and been reintroduced elsewhere. Meanwhile, hunting permits have been auctioned and the Seri community have received around USD 3 million. The increased income to the community has been associated with changes in culture and lifestyle, including alcohol abuse. Recently, income to the Seri community has decreased due competition for sale of trophy hunts with other areas where sheep have been re-introduced.

Key factors leading to success or failure

- Initial population protection, allowing the population to flourish;
- Managed trophy hunting has provided high levels of income to the community who have land tenure;
- Unaccustomed income levels have caused social problems;

- Competition with other hunting areas is now reducing income to this area.

Future Issues

- Market factors influencing trophy prices;
- Community investment programmes to manage changes in revenue generation.

References

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F. Hunting - Large mammals in Thailand (Apps. I, II & III)

Depressed mammal densities characterize the interior of many Southeast Asian protected areas, and are the result of commercial and subsistence hunting. Local people are part of this problem but can participate in solutions through improved partnerships that incorporate local knowledge into problem diagnosis. The process of involving local people helps build a constituency that is more aware of its role (positive and negative) in a protected area and generates site-specific conservation assessment for management planning.

A project in Thung Yai Naresuan Wildlife Sanctuary in Thailand illustrates the practical details of initiating such a partnership. In local workshops, village woodsmen were led through ranking exercises to develop a spatially explicit picture of 20-year trends in the abundance of 31 mammal species (mostly CITES listed) and to compare species-specific causes for declines. Commercial poaching (for meat, hides, trophies and medicine) contributed heavily to extensive population declines for most species and subsistence hunting was locally significant for some small carnivores, leaf monkey, and deer. Workshops thus clarified which species were at highest risk of local extinction, where the most threatened populations were, and causes for these patterns. Most important, they advanced a shared problem definition, thereby unlocking opportunities for collaboration.

As a result, local people and sanctuary managers have increased communication, initiated joint monitoring and patrolling and established wildlife recovery zones. Using local knowledge was noted to have limitations, but the process of engaging local people was considered to promote collaborative action that large mammals in Southeast Asia need.

Five working principles were used to guide bridge building:

1. Provide stakeholders the opportunity to practice working together
2. Make values explicit
3. Be prepared to work with a small nucleus of people
4. Focus on one issue
5. Reframe management questions to focus on the problem and not on who to blame

Key factors leading to success or failure

- The local people consider the area in question to be their home;
- The local people were invited to help define and solve the problem;
- Facilitating joint fact-finding expeditions between local people and protected area staff can build the confidence to work together successfully at a later stage, such as in a workshop;
- Joint patrolling (local people and protected area staff) can inspire other villages to adopt the same system;
- The long term (six year commitment) involvement and persistence of a third party (e.g. NGO) were considered instrumental to success. Where mistrust and conflict predominate, and communication has broken down, a third party is often necessary to bring stakeholders together.

Future issues

- Many protected areas in Southeast Asia present similar opportunities;
- Wildlife workshops are more likely to be successful where local people have a long history in the area and a strong stake in the shape of their relationship with protected area authorities;
- Conflict between local people and protected area authorities has not disappeared, especially regarding agriculture, but there is fresh confidence to work together on wildlife issues;

- Approaches that incorporate local peoples' historical perspective and ecological knowledge generate a shared conservation assessment that leads to better planning.

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III. Trade in Live Animals and Plants

A. Seahorses (App. II)

Stricter domestic measures

Seahorses are an important ingredient in traditional medicines when dried, and have been increasingly in demand for the live aquarium trade. During the 1980s and 1990s, trade in seahorses swept around the globe, serially from one population to another, suggesting that as populations were depleted, the trade moved to new areas. This led to the Appendix II listing of seahorses which came into effect in 2004, to regulate trade to ensure sustainability. The entry into force was delayed for 18 months to allow Parties to establish necessary procedures and minimum size limits were established to assist in the making of non-detriment findings. A major concern was domestic legislation in the Philippines, where national legislation bans trade in Appendix II listed species. Trade data from the CITES database, indicates that reported imports to EU countries from the Philippines peaked in 2003 and declined from 2004 onwards (A. Rosser pers. obs).

Seahorses are collected by artisanal fishers and sold on. In some areas, "*Project Seahorse*" has been working with such groups, to develop alternative livelihoods and to encourage fishers to establish protected areas, to allow stock to increase. These approaches have met with some success, but the Appendix II listing is thought to have reduced livelihood opportunities in Philippines where stricter domestic measures means that export of Appendix II listed species are banned.

The Appendix II listing has also resulted in development of captive breeding of non-native species for export from Sri-Lanka. As export of captive-bred specimens is deemed simpler than making non-detriment findings for native species, local fishermen are often excluded from the trade, thus removing requirements for monitoring of local seahorse populations. Recent modelling with a European species suggests that increasing the minimum size of fish captured, could increase population viability and lead to longer-term increases in income. This is provided that fishers could be supported in the short short-term whilst changing their fishing habits and allowing populations to recover.

Key factors leading to success or failure:

- Stricter Domestic measures;
- Burden of non-detriment findings;
- Delay of listing entry into force, supposedly allowed Parties to make provisions for implementation;
- Community-based project have been developed with outside donor assistance.

Future issues

- Will captive breeding undercut the live market?
- How to support fishers in dealing with traders who now have permitting costs to meet?

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B. *Amazona aestiva* (App. II)

Stricter domestic measures

The Blue-fronted parrot *Amazona aestiva* was an important flagship species for an innovative programme of the Argentine government that aimed to contribute to local livelihoods. The programme of regulated trade of blue-fronted amazons *Amazona aestiva* from the Chaco region, was designed to replace a high volume and poorly regulated trade that yielded only minor revenues to local people. As a result of the project, the regulated trade was much reduced from the unregulated levels. Moreover, revenue from the programme reportedly financed three strictly protected areas of the species habitat, and provided almost 20% of annual family income for peasant landowners, countering pressures for agricultural intensification and conversion to soybeans. However, the issue of stricter domestic measures in the US and the European ban on imports of wild birds, designed to protect Europe against the introduction of bird flu have impacted the programme removing conservation incentives and livelihood contributions from the project.

Key factors leading to success or failure

- Investment by the government;
- Discussions and support for stakeholders;
- Open market for the live birds.

Future issues

- Availability of other markets?
- Illegal trade?

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C. Bulb Propagation *Galanthus* (App. II)

In the mid 1980s the trade in *Galanthus* spp. bulbs from Turkey was believed to be unsustainable. A project was developed to work with villagers to develop cultivation of the bulbs as a means of contributing to local livelihoods and reducing the impact of wild collection on the species. Villagers collected bulbs from necessity rather than preference, and collection was both organized and *ad hoc*. Villagers received less than 1% of the final sale price. Bulbs were exported by five main traders to Netherlands for re-sorting and dispatch to the UK, US and Germany. The project organized the donation of seed bulbs by the exporters. These were wild collected bulbs that were too small to export. Villagers planted these bulbs in marked areas around the village and after three years, the bulbs were harvested and the small daughter bulbs replanted for subsequent harvest in three years time. The exporters paid a premium for artificially propagated bulbs and eventually villagers were getting 12% of the final market price.

In all, three villages of over 250 people were ultimately involved with the project. The project used existing trade structures, complied with regulation through national legislation, and undertook monitoring of overseas suppliers, and awareness raising with customers about conservation issues. In particular the project worked to provide rural development support, local horticultural training, and worked on international legislation, fair-trade, and environmental consumer issues.

Key factors leading to success or failure

- An integrated approach to local development issues;
- Support from international donors & national government;
- Customer awareness raised and price premium sought;
- Existing trade structures used;
- Project improved husbandry techniques;
- Discussion over classification of production techniques as ranching/propagation;
- Increasing capture of value;

- Trade restricted to relatively few traders.

Future issues

- Could certification help to generate revenue for the local community?

References

Entwistle, A., S. Atay, A. Byfield and S. Oldfield. 2002. Alternatives for the bulb trade from Turkey: a case study of indigenous bulb propagation. *Oryx* (2002), 36:4:333-341.

D. Orchids, Cacti & Succulents (App. I)

Artificial propagation is recognized as a means of reducing collection from the wild but allowing trade in specimens of species listed in Appendix I (Res Conf 9.19 Rev CoP13 on Guidelines for Nursery Registration). So this mechanism would allow species listed in Appendix I to contribute to livelihoods. However, whilst there are now 108 nurseries registered to export Appendix I listed specimens these are from only 11 countries. Of these, 10 nurseries are from European countries, 91 from India and the remaining seven from the high biodiversity countries of Chile, Colombia, The Democratic Republic of Congo, and Malaysia and Myanmar. Thus the majority of options for CITES to contribute to livelihoods is through trade of Appendix II listed species as so few nurseries are registered to export Appendix I specimens.

More work may be needed to register nurseries in range states that can contribute to livelihood generation.

IV. Products – Medicinals & Aromatics

A. Medicinal - *Harpagophytum* Potential Listing & Certification

Harpagophytum or Devil's claw (*H. procumbens* and *H. zeyheri),* is collected manly from three Southern African countries, Botswana, Namibia and South Africa and exported, to Europe, to treat rheumatism and arthritis. It is estimated that around 9,000 of the poorest people in the region depend on wild collection, in some cases as their only source of cash income, thus their continued involvement in the trade is crucial to their livelihoods (Wynberg, 2004). However, concern over sustainability of the wild resource led to a proposal by Germany to list the species in CITES Appendix II in 2000 (CITES, 2000). Meanwhile a desire to standardize the chemical properties of collected material has led to experimentation with domestication. The withdrawal of the listing proposal under heavy pressure from Namibia was subsequently followed by a process of consultation and reviews of information by the CITES Plants Committee and ongoing work, by consumer nations, range states, conservation agencies and NGOs to support local communities. This consultative process let to the development of methods to: improve sustainability of wild collection, and to empower local resource holders to implement harvesting restrictions (D. Newton, pers. comm.).

Although poor communities continue to benefit from this industry it is clear that government oversight in combination with strong NGO involvement is required to implement sustainable harvesting techniques and to encourage industry to pay premiums for material harvested in a sustainable manner. As is typical of any free-market system, the fact that some poor harvesters and middlemen cannot be drawn into a co-ordinated national or regional marketing or trade plan and are willing or forced by circumstance to buy and sell at lower prices undermines efforts to pay premium prices to communities implementing sustainable harvest methods.

Another lesson from this case study is that the international attention focused on the Devil's Claw resource for about five years through the CITES Plants Committee and a regional Devil's Claw Working Group, assisted range state governments with their planning and conservation interventions without the species ultimately being listed on CITES. This highlighted an issue sometimes overlooked by CITES Parties that listing complements domestic management of resources rather than replacing it and therefore in some cases a CITES-listing may not add sufficient ongoing management value for it to be adopted. This is despite the value of CITES to provide a trade monitoring mechanism allowing range states to track international and domestic trade trends for management purposes.

According to Cole (2006), the proposed listing of *Harpagophytum*, reduced interest from niche markets, since the proposed listing suggested concern over sustainability issues; it reduced harvester prices by reducing the numbers of buyers and it further stimulated domestication projects. The proposed listing also stimulated interest in certification projects, with the possibility that CITES could become a seal of sustainability.

Key factors leading to success or failure

- Dialogue allowed projects and reporting structures to be put in place with the intention of safeguarding livelihoods, but not apparently before harm had been done to the market. It is not clear whether the damage arose from the listing proposal - at most it was one of several factors influencing the market, the other being normal market fluctuation (since that time the price has fluctuated up and down several more times), and the presence of many other poor people and traders in the market who do not participate in certification schemes, who sell at lower prices and hence undermine attempts to bring more certainty into the price structure (D. Newton, pers. comm.).

Future Issues

- *Harpagophytum* provides a useful case study of a species that has been proposed for, but not included in, the CITES Appendices.
- Need to re-assure the market that CITES listing can be positive. This was not done in Namibia, the main focus during the proposal discussions was highly negative towards the proposal with little time given to the positive aspects of a listing. This reaction was not unreasonable as the proposal came as a surprise and gave little time for proactive engagement. In hindsight, a process of engagement six months before the proposal was submitted could have allowed time for careful consideration of the facts, including livelihoods, and produced a different result. The attitude toward the *Hoodia* listing was very much more positive perhaps because the NA government was trying to proactively build in a livelihood based annotation.
- Need for harvesters etc to have a voice. In the case of Devil's Claw, the harvesters' voices were largely through NGO's. In reality the communities were guided by the NGO's rather than the other way round. CITES and its effects were simply not understood by most people involved in the community end of the industry and at the time of the listing proposal there was too little time to generate the data necessary to improve understanding. Perhaps greater collaboration between Germany and Namibia before the listing was presented could have solved this. Obviously it is important for poor people to have a voice but it needs to be based on informed consultation and understanding – a very challenging goal to achieve given the very isolated and desperate circumstances that some communities find themselves in. In Namibia it is often only the NGO's, and very rarely government staff, that are able to get into distant parts of the country to meet with poor communities (D. Newton, pers. comm.).

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Cole**,** D. 2006. Devil's Claw: The Namibian Experience, CRIAA SA-DC, Namibia. CITES and Livelihoods Workshop 2005*.*

Wynberg, R. 2004. Achieveing Fair and sustainable trade in Devil's Claw *Harpagophytum* spp. In Sunderland, T. et al. Forest Products, Livelihoods and Conservation. Case studies of Non-Timber Forest Product Systsems. Vol 2. Africa. CIFOR, Indonesia.

B. Medicinal - *Prunus africana* (App. II)

Prunus africana bark is used internationally in the production of medicines to treat prostate problems, and is used locally for medicine and timber products. The species was listed in Appendix II in 1994, and has been the subject of significant trade reviews and recommendations by the Plants Committee. In 2009 five Parties had issued quotas (four of which were zero quotas).

A review of the trade notes that, following extensive debarking or felling of whole trees, the species was listed in Appendix II in 1994. However, despite significant efforts in Cameroon, the source of most trade from mainland Africa, from government, business and local communities, problems remain in many areas including tenure arrangements, enforcement, sanction mechanisms, corruption, accountability, incentive structures and sustainable use. The greatest benefit of management efforts have been the creation of a broad awareness of the need for sustainable use of forest resources (Abensperg-Traun, 2009).

One study in Cameroon reported how commercialization of *Prunus* sp. collection has contributed to local livelihoods, contributing to community infrastructure projects as well as to individual livelihoods (Ndam & Marcelin, 2004). Bark collection is seasonal, and attracts migrant workers, however wild collection from state

forests is gradually being complement by domestication with the aim of further supply from village lands. The local harvesters receive a small percentage of the final price, and although organized in harvesters associations, require further support in this regard. The study concluded that further work is needed on regulation, recognizing customary rights and sharing of benefits and on technology and development of scientific basis for non-detriment findings.

TRAFFIC South Africa and the CITES Secretariat facilitated a *Prunus africana* workshop to guide the governments of the main range states in the direction of a management plan for the species. The issue of livelihoods was not addressed due to time constraints, although the topic was raised numerous times. Ideally some sort of simple management plan, accompanied by practical facilitation is needed, but this is only likely to be effective if all parties work in a collaborative manner (D.Newton, pers. comm.).

Key factors leading to success or failure

- The combination of a high value product and absence of a simple management system to regulate the trade has lead to unsustainable harvest;
- More sustainable collection methods;
- Donor support;
- Seasonal harvests do not clash with agricultural year;
- Harvester organisations are needed to control trade.

Future issues

- Recognition of customary rights and benefit sharing.
- Development of a simple management system.

Reference

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C. Medicinal - *Hoodia* spp. (App. II)

Hoodia spp occur in southern Africa. Certain species, such as *H. gordonii* produce a complex of substances that have appetite suppressant properties, they are also used as ornamental plants.

Trade in the genus reached a peak during the period 2003 to 2007 causing widespread damage to wild populations of *H. gordonii* and to a lesser extent other *Hoodia* species. Consequently, in 2004, the genus *Hoodia* was listed in Appendix II with an annotation that indicated that CITES permits would not be needed for products produced from controlled harvesting and production operations collaborating with the CITES authorities in Botswana, Namibia, and South Africa (Anon 2008a.). Effectively this would require that trade not managed by the range state authorities would be subject to CITES controls. According to the proponents the intent was to encourage pharmaceutical companies to deal directly with range states to deliver added value in the countries of origin. However, whilst recognizing the importance of supporting livelihoods, Switzerland placed a reservation noting that the annotation goes beyond the remit of CITES, regulating in effect only material from artificially propagated sources, or sources not working with the range state authorities (Swiss CITES MA, 2005). None of the range states have thus far entered into commercial agreements with companies and so in effect trade in the entire *Hoodia* genus is controlled under Appendix II with no exceptions.

By 2009 the wild collection industry had virtually shut down because of a glut of artificially propagated material and a decision by Unilever to pull out of the industry which benefited relatively few people, mostly farmers and business people in the medicinal plants industry in Namibia and South Africa. The only poor people to benefit were farm workers (local and imported from the cities) and this was curtailed by seasons and cancellation of permits to harvest wild plants. The only exception to this was the agreement signed with the SAN Council that allocated them (a trust fund) a portion of profits from the business based on their intellectual knowledge relating to use of the plant as an appetite suppressant (see the extensive work by Rachel Wynberg 2008 and 2009). Now that the industry has gone into decline, due to Unilever pulling out, the value of this agreement is questionable. There is still a demand for *Hoodia* but mainly for rough medicine and it is unclear how much benefit will accrue to poor people.

Key factors leading to success or failure

Unilever's decision to cease trade in *Hoodia* has lead to a dramatic decline in the industry and its future remains uncertain. The continuation of the industry will depend on how much value is attributed to the inherent medicinal value of the plant and to some extent its ongoing use as a rough medicine driven by its perceived or actual medicinal value and whether any other large industry players enter the space left by Unilever. The decline of the formal medicine market represented by Unilever leaves the future of the industry largely in the hands of the rough medicine market which does not add a huge value to the product in South Africa or Namibia as it is mainly dried plant material that is exported and value added in the importing country. Income from this is likely to be small in comparison and income streams to poor communities and the San Council will also decline. Unless value is added by entry of other large companies it is hard to envisage a more lucrative future for the industry and beneficiaries. As the annotation for this species is based on commercial agreements, its future without substantial corporate interest seems somewhat uncertain; and this similarly seems to limit livelihood options (D. Newton, pers. comm.).

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D. Aromatics – Agarwood (App. II)

Agarwood is an aromatic material used in the production of incense. It comes from fungal infections of trees in the genera *Aquilaria* and *Gyrinops*. In 1995, *Aquilaria malaccensis* was listed in CITES Appendix II, and in 2005, the remaining species in the genera *Aquilaria* and *Gyrinops* were also included in Appendix II. Mostly, agarwood harvesting is done by organised groups, but there may also be some opportunistic harvesting. The majority of the harvest is likely to be destined for international trade. Studies in Lao PDR suggest that harvesters obtain a comparatively high proportion (20%) of the final sale price at national level compared to other NTFPs. This high price means that agarwood makes a significant contribution to livelihoods. However, the resource seems to be declining in all range states and more time is required on harvesting trips to gain comparable returns, even though prices are increasing in line with scarcity of the resource.

Since the CITES listing, plantations have been developed in some countries ranging from small scale home gardens to larger commercial enterprises, have generally increased with levels of scarce supply, particularly for higher quality grades.

Key factors leading to success or failure

- High Value;
- Lack of enforcement;
- High proportion of final price captured by harvesters;
- Donor and Business investment in experimental inoculation and plantation.

Future Issues

- Sustainability;
- Tenure & Governance.

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V. Products - Timber

A. *Dalbergia melanoxylon* Proposal for App. II

Dalbergia melanoxylon, Mpingo, is used as a specialist wood in the manufacture of wind instruments and so can command a relatively high price. *Dalbergia* was proposed for inclusion in CITES Appendix I in 1994, but the proposal was defeated. Following this, a project was established to work with the local community to develop participatory forest management for a sustainable supply of the wood. The project was developed on the rationale that if the stocks can be rebuilt, then the community stands to benefit substantially from a managed certified trade, in this high value product. The project has already helped to empower the community to seek funds from mineral prospectors, and to seek grants for alternative small scale enterprises etc.

Key factors leading to success or failure

- Unsuccessful listing proposal;
- High value product;
- External donor support;
- Community willingness to participate.

Reference

FFI. 2008.Participatory Forest Management: Mpingo Conservation Project, Tanzania. In FFI. 2008. Biodiversity Conservation and Human Needs: A Compendium of Case Studies, Lessons and Recommendations.

B. Mahogany (App. II)

In the Maya Forest of Mexico – land is managed communally, by ejidos. These areas are used for timber production s well as farming. Mahogany, is the most valuable product, commanding higher prices that the softwood and other hardwoods produced in the region. The ejidos now have management plans and operate a 25 year cutting cycle. In addition, experiments on mahogany regeneration have shown that collecting seeds, producing seedlings and replanting in large areas of disturbance is beginning to show positive results. These locally managed forests are contributing to local livelihoods.

Reference

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VI. Products – Fibre & Skins

A. Vicuna fibre (Apps I & II)

As a native species, the vicuna is perfectly adapted to the harsh climatic conditions of the region, making it ideal as a renewable animal resource. The species also plays a very important role in the ecosystem (I. Sanchez, pers.comm.).

Vicuna populations were included in Appendix I in 1975 as numbers had been driven to low levels by competition with livestock, and poaching. Following the listing in Appendix I, the species has shown dramatic population recovery, resulting in some conflict with local people over grazing competition. During the late 1980s and 1990s, many populations were moved to Appendix II, latterly for the purposes of live shearing and allowing trade in this wool and products made from it, provided that such products are marked with the range state origin (all other products remain in Appendix I). This shearing is reportedly also successful in delivering benefits from wool sales to local people. The management differs between range states depending on their socio-economic climate and policies.

In Bolivia and Peru, the traditional Inca Chakus or round-ups are used. In contrast in Argentina, where land is generally in private ownership, the vicuna are maintained on ranches and in Chile there is a mixture, with Chakus on communal lands and ranches on private lands. There are concerns that the development of these fenced areas in some countries could lead to population fragmentation and genetic erosion. In Peru, the live capture and shearing has been shown not to adversely affect population status. There have also been issues about distribution of benefits, role of privatization, and issues associated with the marketing boards. Modelling studies have recently warned that if community based conservation is not implemented carefully, its impact can be perverse.

National censuses carried out by various bodies (PEURV, INRENA and CONACS) showed that vicuna populations increased in Peru from a few thousand individuals in the 1960s to around 120,000 by 2000. In 1994, local communities were permitted to use vicunas sustainably. Ensuring the conservation of the species, however, remains the responsibility of The Government (I. Sanchez, pers. comm.).

Law No. 26496 officially recognised over 600 local community organisations as entitled to sustainably use the species. This has been a successful experience where local communities manage the trade and it has placed Peru as a leader in the recovery and sustainable use of a threatened species. It has also had a positive impact on the cohesion of local communities, as the whole community, including men, women and children, needs to get involved (I. Sanchez, pers. comm.).

Despite the social and economic importance of vicunas to local poor and very poor communities in Peru, lack of infrastructure, including access roads to areas where shearing takes place is a common problem to fibre producing organizations, limiting their ability to profit from the trade. In 2008 the national market price for kilo of dirty wool was between US$350 and US$380. Combed fibre can reach US$650 per kilo. Local women are responsible for combing the wool, receiving US$70-140 per kilo. Export prices per kilo are much higher, from $400 for dirty wool, to US$1,575 for combed wool (I. Sanchez, pers. comm.).

More than 5,680 communities (>2 million people, or 40% of the total rural population) control 39.8% of agricultural land, mostly natural pasture in the high Andes. Most of these people live in conditions of extreme poverty. To ensure sustainable development, these communities need to be officially recognised and allowed to benefit as much as possible from the trade in vicuna wool (I. Sanchez, pers. comm.).

Lichtenstein (2009) notes that despite the high international commercial value and world demand for vicuña products, benefits for local communities remain elusive and that intermediaries capture much of the value of the production chain. In addition the vicuña fibre market comprises a few large buyers and a large number of sellers (oligopsony), which puts control of the trade and most of the profits with the buyers. Lichtenstein reports that a key issue in tackling poverty alleviation is to secure exclusive usufruct rights of vicuñas to Andean communities.

Key factors leading to success or failure

- Ban in trade contributed to long-term population recovery;
- Split-listings allowed some experimentation with novel approaches to develop sustainable collection methods;
- High value product;
- Marketing board restricts supply and keeps prices high;
- Donor investment in projects to develop the new approach.

Future issues

- Need for consumer marketing of sustainable products;
- Need for in-situ production, and review of captive husbandry;
- Equitable sharing of benefits with the poor;
- The vicuña provides a particularly relevant case study for future consideration of livelihoods impact.

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B. Ranched Crocodilian skins (Apps I & II)

Following large population reductions in a number of crocodilian species populations (although the status of some species were contested), many species were included in Appendix I in the early days of the Convention, banning commercial trade. However, a number of trading states were non-parties and continued to trade and others took reservations for the particular species which allowed them to continue to trade. So application of the Appendix I listing was patchy, allowing some trade to continue. In addition, the Convention allows specimens of Appendix I species bred in captivity to be traded as Appendix II specimens, thus encouraging a switch from wild caught to captive-bred specimens. In the meantime, as the definition of bred in captivity was tightened, so the procedure for transferring crocodilians to Appendix II for ranching purposes was brought in and this effectively resulted in split listing of several taxa. Ranching of crocodilians increased during the 1980s and 1990s, but is increasingly turning to captive breeding, which has very reduced linkages to wild populations. As ranching and captive breeding have grown, producers have faced some difficulties in marketing their products, particularly in the face of public perceptions that crocodilians are endangered, and some prices are declining. Meanwhile, in livelihood terms for the poor, there is concern that entry barriers in terms of investment are too high, for the programmes to benefit local people except through seasonal egg collection and employment. Interestingly, a recent study in Cambodia has shown how crocodile farming has increased demand for water snakes as a food source for the crocodilians, and snake harvesting now contributes to seasonal smoothing of vulnerability of the poor, although the impacts on snake populations may be of concern in the future. If crocodilian production is to continue to contribute to conservation and to livelihoods of the poor, marketing of sustainably produced crocodilian products to consumers coupled with better sharing of benefits with the poor will be required.

Key factors leading to success or failure

- Ban in trade contributed to Population recovery;
- Reservations to Appendix I listing allowed some trade;
- Ranching provisions;
- Split listings;
- Individual/ commercial investment in crocodile facilities;
- Some to luxury goods market.

Future issues

- Need for consumer marketing of sustainable products;
- Need for in-situ production, linking production with the poor;
- More equitable sharing of benefits with the poor.

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C. Peccary skins (App. II with zero quotas)

Peccaries are included in Appendix II and produce a high grade leather in international demand. Following significant trade reviews in the 1990s, and concern over the high level of export of peccary skins, trade was banned from many range states. Thus those involved in the trade lost much of their revenue. Meanwhile, subsistence hunting – which was the main source of benefit for the poor continued despite the lack of value for the skins. In Peru, projects to develop added value for the skins in exchange for implementation of sustainable forest management have been developed with the assistance of donors and NGOs. Communities are working to develop management plans and to regulate their hunting of forest animals and collection of plant products to sustainable levels. Once sustainable harvests are in place and verifiable, then pelts can be certified as emanating from forests that are managed for sustainable use. Peccary pelts provide a specialist high end leather product and as such it is anticipated that a certification programme should increase benefits to local communities. However, the development of such programmes requires substantial financial and human inputs and may do so for some time.

Key factors leading to success or failure

- Population recovery; reduced consumption; investment in experimental projects
- High value skins;
- Local communities have rights to use natural resources;
- But in neighbouring logging concessions, wildlife hunting is likely to be unsustainable.

Future issues

- Individual returns on skins uncertain;
- Management of hunting for sustainability should allow continued hunting, but at lower levels than in the past.

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