

**TRADE, BIODIVERSITY AND LIVELIHOODS:
The Impact of International Wildlife Trade Legislation on Local Livelihoods**

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Research Report

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Background and Objectives

Many rural households in developing countries depend heavily on wildlife resources, both plants and animals, for subsistence purposes and income generation. Indeed, many rural households derive a significant part of their cash income from sales of wildlife products. In most cases this commercial trade in wildlife supplies markets within the country where the products originated. For some wildlife species and products, however, a significant segment (if not the majority) of products traded are ultimately destined for foreign markets.

Governments have implemented a variety of measures to control access to, and trade in, wildlife products. These regulations may be international or domestic and may be focussed directly the trade (eg export controls) or they may be more indirect controls (eg resource access or harvest restrictions) which nevertheless affect the ability of local people to trade on international markets. This study focuses on the impacts of regulations controlling the international trade in terrestrial wildlife and wildlife products and the associated economic contributions of the trade to the livelihoods of first tier collectors and traders. A primary focus is placed on the assessing the economic impacts of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), the key international agreement relevant to controlling the international trade in wildlife. However, as will be shown, the impacts of CITES cannot be considered in isolation of national level access and trade controls, campaigning by NGO and industry groups, and/or changes in markets, which may or may not be linked to activities associated with the Convention.

Concerns have been raised that trade controls and resulting changes in the wildlife trade can have a negative impact on the livelihoods of those earning an income as a result of wildlife harvests, and specifically the rural poor. The most vocal objections have been raised in response to CITES prohibitions on the commercial trade in products from African Elephants that took effect in 1990. Some have argued that not only do such controls reduce the actual or potential economic benefits that could be realised from sales of wildlife products, but they also have little positive or even a negative impact on the conservation status of the species concerned.

Research examining the impacts of trade controls and specifically CITES has, to date, focused primarily on the effectiveness of these controls in reducing the threat to species posed by international trade. Although the rhetoric surrounding the need to secure basic benefits for people living close to wildlife has been expanding since the early 1990s, far less research attention has been given to the impacts on livelihoods or national economies of conservation-motivated trade controls such as those required under CITES. This study is intended to be a first step to address that knowledge gap.

Methods

Research for this report was conducted in two parts. A desk-based review of available literature on the scale of the international wildlife trade, associated contributions to rural livelihoods and impacts of conservation-motivated trade controls was undertaken. A number of case studies were prepared for a range of species subject to significant changes in trade controls within the past two decades.

An in-depth case study, based on field research was undertaken in Tanzania. Here, participatory research was carried out in three villages in the East Usambara Mountains to determine the importance

of wildlife trade to local livelihoods and the impacts that trade restrictions have had on them. Two of the three villages border the Amani Nature Reserve, and one village borders the Mtai Forest Reserve. The villages remain anonymous in published reports since information was gathered on sensitive issues including illegal trade and the purpose of the research was to understand livelihood dynamics rather than precipitate enforcement action. The three villages are referred to simply as A, B and C.

To achieve a background understanding of wildlife trade dynamics in Tanzania and to identify suitable villages, initial work focused on a review of existing literature and trade data, interviews with key stakeholders and wildlife department officials. The major part of the fieldwork was subsequently conducted over two periods in August and October 2001. Five villages were visited during the first trip to the East Usambaras and three during more detailed work on the second trip. The participatory techniques employed included interviews with key informants, community consultations, meetings with different stakeholder groups, transect walks, resource maps, ranking and matrix scoring exercises. These techniques were structured in a way that allowed four stages of analysis: stakeholder analysis, product analysis, financial analysis and a livelihoods analysis. All currency conversions from Tanzania shillings to U.S. dollars were made using average yearly exchange rates and U.S. inflation correction rates. A more detailed field-based case study was undertaken in Tanzania that generated primary data to test out and illustrate some of the issues raised by the desk study

Findings

The literature review undertaken for this study demonstrated clearly that documentation of the local significance of international trade in wild species is poor, often anecdotal and generally extremely site-specific. It is therefore difficult to make summary judgements regarding the importance of international trade in wildlife products to local livelihoods. This is especially true for wild species covered by CITES, as these species are frequently not widespread, abundant and/or highly used relative to many other wild species of commercial value (e.g. rattans, palms) and therefore are poorly studied from a socio-economic standpoint.

Given the lack of information on the livelihood contributions of wild species in trade, it comes as no surprise that documentation of the *impacts* of related international trade measures is even worse. Much of the literature concerns the impacts of the CITES Appendix I listing on the export of African Elephant products, especially from southern Africa (Zimbabwe in particular). Additional information is available concerning the impacts or predicted impacts of import bans on marine mammal products (especially furs) and furs from countries using leghold traps. It is important to bear in mind that these import restrictions were taken unilaterally, not under an international agreement, and, in the latter case particularly, reflect a response to animal welfare concerns.

Much of the discourse around the CITES and livelihoods debate concerns restrictions on the trade in what some argue are abundant (or at least not threatened) species. However, perhaps even more relevant given the number of species involved are the livelihood impacts of trade-induced declines on wild populations of species important for subsistence use or income generation. In this case, the negative impact on rural livelihoods may stem from too little CITES control, not too much, especially in cases where local efforts to manage a resource sustainably and for local benefit are being undermined by external access or illegal extraction for foreign markets. Again, however, the information is largely lacking.

The task of assessing livelihood impacts is complicated further by the difficulty in teasing apart the effects of internationally agreed and imposed trade measures such as CITES and domestic measures regulating access to resources, resource use, and trade. The latter measures may have been in place prior to any CITES listing coming into affect, and/or be a response to CITES processes. National or local level legislation may not be trade specific (e.g., access restrictions associated with state-owned land such as protected areas, harvest bans, licence and permit requirements, etc.) but nevertheless have a major impact on trade volumes and associated livelihood opportunities.

Yet another complicating factor is assessing the effects of regulations versus those associated with a shift in demand. Such shifts can be a result of changing fashions, for example a recent increase in demand for medicinal plants in response to the growing herbal products sector, or reflect negative consumer campaigns such as those that have taken place in Europe and North America around the trade in ivory, furs and wild birds. In the latter case, CITES can and has provided a forum around which to focus (and debate) such campaigns. The inter-relationships between markets and regulatory processes go further, with markets potentially shifting in response to perceived threats to future access to resources brought about by CITES listing proposals. This can reflect concern that the species is declining and therefore will soon be unavailable, that exporting countries will limit exports and/or that transaction costs will increase.

Nevertheless it is possible to observe some general effects of increased trade regulations on trade patterns, including modes of production. These shifts have consequent impacts on the livelihoods of collectors and traders as well as on the status of the target species. The level and distribution of benefits are in turn affected by the mode of production of species, the species harvested, and the legal or illegal nature of the trade.

Impacts on wildlife

CITES and other trade measures have had mixed effects on trade volumes of many species. In some case trade has declined while in others restrictions appear to have had little impact - with the exception that the trade has moved from being legal to illegal. Where demand is elastic trade controls on one species can have a knock-on effect on the trade in other species as one product is substituted for another. Where species occur in more than one range State, increased trade controls and therefore reduced exports from one country may be offset by increased exports from another. A further impact can be a shift in wildlife production from wild capture or collection to ranching, captive-breeding, cultivation and artificial propagation.

As conservation-motivated trade controls assume that trade is the major factor causing the decline in a species, other factors at play may be overlooked. Increased trade regulations may be successful at halting or restricting the export of wild species, but will not necessarily address the root causes of species decline with the result that their conservation impact can be limited. However, those who draw attention to the fact that some species have declined in the wild despite being listed on CITES appendices, e.g. rhino, generally fail to speculate on what the situation would have been without added international trade controls. Similarly, those that draw attention to improvements (or at least reduced rates of decline) in species' wild populations following a CITES listing may not take into account other factors, e.g. increased enforcement effort in range States or decreased demand.

Impacts on people

Despite the dependence of many rural populations on wildlife few attempts have been made to investigate the effects that restricting trade in wildlife can have on local livelihoods. In the course of this study very little documentation was found of the knock-on effects of trade controls on local livelihoods other than general statements relating to increased human-wildlife conflict and loss of economic incentives to conserve. Impacts on traders are likely to be more significant than on collectors since traders are likely to be more dependent on wildlife whereas collectors are likely to include wildlife trade as one element of a diverse livelihood strategy. However, for the poorest groups, wildlife trade may be one of the few opportunities for cash income which, even in small amounts, can make a critical difference to livelihood security.

For some species, even if trade is banned, livelihood impacts are limited since the benefits of the trade have traditionally been captured by the state. However, in countries where authority for wildlife resources has been devolved to the local level, communities can and do own wildlife products that could be traded.

Controlled trade can often generate a win-win situation for both conservation and for livelihoods if the conditions are right for producers to capture a significant share of the rents from the sale of wildlife:

a limited number of producer countries; limited scope for domestication or cultivation; market access with limited reliance on middlemen; knowledge of trade restrictions and opportunities. However, controlled trade is usually associated with increases in bureaucracy and transaction costs – particularly with respect to the need for permits and licences for harvesting or collecting of resources and for exports

The general lack of information regarding the livelihood benefits of harvest for export of wild species precludes any quantitative assessment of the impacts on livelihoods of a shift in production strategies toward more highly managed and concentrated systems, e.g. captive breeding. However, such systems often result in a change in beneficiaries. Captive breeding programmes tend to be developed in consumer states rather than producer states and the benefits are thus captured by northern entrepreneurs rather than developing countries. There is no requirement that source countries for species produced in non-range States benefit from captive breeding or propagation programmes; the issues of access to genetic resources and benefit sharing, which are at the core of the CBD, have yet to be addressed in any significant way within CITES. While ranching programmes retain a greater share of economic benefits within range States than captive breeding, benefits seem likely to shift away from the original primary harvesters to land owners or farmers.

Experience in Tanzania

Field research in the East Usambara Mountains in Tanzania clearly shows a mixture of positive and negative monetary and non-monetary implications of wildlife access and trade regulations at local, national and international levels. It is also evident that regulatory measures affect different sectors of society due to the different roles in wildlife trade played by the rich and poor, by women, men, elder and youth. Men are most affected by timber trade regulations and youth most affected by animal trade regulations. According to local perceptions, wildlife access and harvest regulations have had a greater overall impact than national and international trade regulations. Further, evidence suggests that the effect of some trade regulations (notably reducing commercial logging) have actually led to significant positive impacts on local livelihoods, whilst subsequent wildlife access regulations have caused the most negative impacts. Overall, wildlife access and trade restrictions in the East Usambara Mountains have had a significant financial effect on local people.

Increasing the livelihood benefits from the international wildlife trade

Discussion is increasing regarding the potential for CITES to be used as a tool to increase the livelihood contributions associated with trade in wild species. This reflects the evolution in thinking that has taken place between the agreement of CITES in 1973 and the CBD 20 years later, in 1992. Although CITES and the CBD have a different emphasis and scope, they also have much in common, and do not conflict in some of their basic premises: that wild species are important to development, when used, should be used sustainably, are best conserved at the local level and national level, and international co-operation is required in this regard. Key points of disagreement regard sovereignty of rights over biological resources and the treatment of genetic resources. Realising this potential requires actions on a number of fronts:

- Sensitising the 'CITES community' and consumers to the livelihood issues associated with the international wildlife trade.
- Modifying CITES decision-making processes to take into account livelihood issues – for example: providing information on the socio-economic aspects of harvests and trade in the supporting statements of CITES-listing proposals, and consideration of that information in discussions of those proposals; increasing attention to the socioeconomic dimensions of the wildlife trade within CITES CoP policy discussions and work programmes under the Animals and Plants Committees; increasing the voice of rural communities engaged in harvest of CITES-listed species within CITES decision-making processes and broadening the application of the precautionary principle within CITES to take socio-economic factors into account in decision-making.
- Avoiding blanket bans on trade in certain species without taking into account the differing status of national populations and management regimes.

- Expanding the linkages between implementation of CITES and the CBD: increasing the attention paid to wildlife trade issues within CBD policy discussions and work programmes and within national biodiversity action plans developed under the CBD; developing national trade controls and reporting mechanisms that support both CITES and CBD objectives; using CITES to support the CBD through increasing the transparency of the international trade in biodiversity, including the products resulting from the use of genetic resources, and to prevent unsanctioned export of genetic resources.
- Where appropriate to meeting conservation and livelihood objectives, increasing capacity for intensive management to increase production (e.g. ranching, enrichment planting, captive breeding, cultivation, etc.) within range States. Encourage technology transfer among range States and from consumer countries to range States in this regard.

Many of the above recommendations are equally applicable to species that are not subject to CITES proposals or listings. In fact, ideally, steps should be taken to ensure sustainability in sufficient time to eliminate the need for CITES listings, using both market and regulatory forces. Attention is drawn to the need to consider the wider lessons being learned through projects aimed at NTFP product development, community based wildlife management programmes, and other efforts directed toward linking wildlife conservation and rural development.

Next steps

To address the lack of detailed information on the links between wildlife trade and sustainable rural livelihoods further research is needed in a number of key areas. In particular detailed case studies are required to determine the significance of wildlife trade compared to other uses of wildlife at the local level and to assess the livelihood impact of trade regulations (including a comparative analysis of the factors influencing livelihood impacts to tease apart the many variables such as resource access rights, proximity to markets, enforcement, different forms of regulations, international interest in locality/resource) and the livelihood diversification strategies adopted by people confronted with trade restrictions. A comparative analysis of differential impacts along the supply chain and the coping strategies adopted at different levels of the chain would also highlight how supply chains could be adapted to make them more pro-poor.

Dissemination

A full report of this project has been published jointly by IIED and TRAFFIC in IIED's *Biodiversity and Livelihoods Issues Series* and is being distributed through Earthprint to networks of the two organisations. The full report has also been submitted to IIED and TRAFFIC webmasters and will be available to download from both organisations' websites.

Articles based on the report will be published shortly in TRAFFIC Bulletin (circulation 4000) and World Conservation - the IUCN periodical.

Articles based on the Tanzanian case study have been submitted to:

- Oryx
- East African Journal of Natural History
- Miombo
- Arc (Journal of the Tanzania Forest Conservation Group).

The report will also be distributed at the Global Biodiversity Forum (April 5-8th) and the Conference of Parties to the Convention on Biological Diversity (April 8 - 19th) at The Hague and to the Annual Meeting of the Society for Conservation Biology in Canterbury, July 14-19th.

Dilys Roe, IIED, 25th March 2002