Biodiversity and Livelihoods Issues No. 6

Making a killing or making a living?

Wildlife trade, trade controls and rural livelihoods

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March 2002

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EXECUTIVE SUMMARY

Wildlife and international trade

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.

Wild species are traded internationally in many forms in order to produce a wide variety of products including: medicines, food, ornaments, clothing, pets and collector items, ornamental plants, manufacturing and construction materials. In general terms, the international trade in wildlife is very poorly documented in terms of the species or products involved, trade volumes and trade values. By virtue of the annual reporting requirements of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), an exception is provided in the case of information available on the legal trade in species covered by the Convention. The value of the international trade in non-wood forest products (NWFPs), which include animals as well as plants, has been estimated at US$11 billion, another estimate approaching US$15 billion for all wildlife products - forest-related or not. The value of the international trade has been estimated at nearly US$160 billion when timber and fisheries products are included. The trade in CITES-listed species reflects only a very small part of this much larger trade in wildlife resources.

The general direction of wildlife trade flows is from developing to developed countries. Amongst those countries for whom wildlife trade is commercially significant are included some of the poorest countries and some of the countries richest in biodiversity resources. According to the UN Food and Agriculture Organisation (FAO), major exporters of NWFPs include China, India, Indonesia, Malaysia, Thailand and Brazil while the European Union, United States and Japan account for the majority of imports. China is also an important importer of wildlife products, with trade flowing into as well as out of the country.

International wildlife trade regulations

Regulations governing international trade in wildlife may be international or domestic, imposed by the exporting or importing country, and may be direct (export controls, for example) or more indirect (e.g. resource access or harvest restrictions) but nevertheless affecting the ability of local people to export to international markets. CITES is the key international agreement relevant to controlling the international trade in wildlife. The trade controls established by the Convention require Parties to ensure that exports of species covered by the Convention are maintained within levels that do not threaten species survival, and that species considered to be endangered are not imported for 'primarily commercial purposes'. CITES Appendix I currently includes over 800 species while Appendix II contains over 4000 animal species and around 25 000 plant species.

CITES and other regulations that provide for controls on international trade in wildlife have governance implications for wildlife producing countries. Proposals to list species in the CITES appendices or to move species between appendices can be submitted by any Party, whether or not that Party is a range State for the species concerned. Proposals may be accepted via consensus or voted upon. While each Party has one vote, it would not be accurate to say that each Party has the same voice at meetings of the Conference of the Parties, since the size of delegations and experience with the Convention can vary enormously. Developed countries can generally afford to send significantly larger delegations than developing countries, and commit ongoing resources to following and influencing the development of the Convention's decision-making processes.

One of the more contentious issues in the CITES decision-making process is provided for under CITES Article XIV, which allows Parties to take stricter domestic measures than those required under the Convention. Few have argued over the right of Parties to ban exports of native species but the right of Parties to unilaterally ban imports is less widely accepted. Stricter domestic measures may have WTO implications.

Impacts of wildlife trade regulations

Examining the impacts of wildlife trade controls is not straightforward for a number of reasons. Wildlife trade is affected by a bundle of regulations governing access to resources as well as access to markets - some externally motivated, others long standing domestic requirements. The impacts of these and other regulations are further determined by the associated enforcement effort and effectiveness. Campaigns aimed at changing consumer behaviour, i.e. those directed at reducing demand for certain species or products, have a significant and often greater impact on trade patterns than do changes in trade controls. Changes in trade volumes and related livelihood impacts can also be entirely independent of any concerns related to the trade itself, e.g. as a response to changing fashion trends or economic conditions in countries of export or import. Nevertheless, it is possible to observe some general effects of increased trade controls on trade patterns, including modes of production. Shifts in the trade have consequent impacts on the livelihoods of collectors and traders as well as on the status of the target species.

Impacts on wildlife

CITES and other trade measures have had mixed effects on the quantities in trade of many species. In some cases trade has declined while in others there appears to have been little change. Where demand is elastic increased trade controls for one species can have a knock-on effect on the trade in other species used for similar purposes, as one 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.

Conservation-motivated trade controls assume that trade is or is likely to be a major factor causing the decline in a species. However, many other factors may be equally or more important with respect to the conservation status of species in trade. Increased trade controls may be successful at halting or restricting the export of wild species, but will not necessarily address the root causes of decline with the result that their conservation impact may be limited. There are examples where increased trade controls have coincided with an increase in wild populations of species subject to harvest pressure, for example in the case of Vicuña. There are also examples, however, where this has not been the case, the most frequently cited of these being rhinos. Although it is possible to draw attention to the fact that some species have declined in the wild despite being listed in the CITES appendices, it is not similarly possible to know what the situation would have been without added international trade controls. Similarly, it is not possible in most cases to attribute improvements (or at least reduced rates of decline) in species' wild populations solely to international trade controls, as other factors, e.g. increased enforcement effort in range States or decreased demand, may also have played a role.

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 on impacts of wildlife 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 based-income, whereas

collectors are likely to include wildlife trade as one element of a diverse livelihood strategy. However, for some of the poorest groups, especially in rural areas, wildlife trade may be one of the few opportunities to generate cash income which, even in small amounts, can make a critical difference to livelihood security.

Much of the discourse around the issues of wildlife trade and livelihoods concerns apparently 'unnecessary' restrictions on the trade in what some argue are abundant - or at least not threatened - species. What is generally overlooked, but potentially more significant given the number of species involved, is the livelihood impact of declining availability of wild populations of species that are important for subsistence use or income generation. In this case, the negative impact on rural livelihoods could stem from too little trade control, not too much. This is especially the case where local efforts to manage a resource sustainably and for local benefit, including through export to foreign markets, are being undermined by external access or illegal extraction for foreign markets. Furthermore, trade measures such as CITES can help increase the transparency of international trade and thereby better inform those who are seeking to benefit from it.

A total ban on commercial international trade in wild species or wildlife products, whether as a result of national trade controls or CITES, can have rapid and significant impacts on the incomes of people dependent on access to external markets as a part of their livelihood strategies. For some species however, even if trade is banned outright, livelihood impacts are limited since the benefits of the trade have traditionally been captured by the state, or the trade is only a small part of a much wider livelihood strategy. In many cases there is insufficient information and/or widespread disagreement about both conservation and livelihood impacts - positive and negative - of trade bans.

There is an increasing tendency within CITES processes to create measures to allow trade in species for which there is conservation concern to continue where there is clear evidence that it will not be detrimental to wild populations, and, more specifically, is likely to be beneficial. Mechanisms to transfer species from Appendix I to Appendix II under ranching and quota schemes are examples of such measures. In some of these cases clear evidence can be seen for both conservation and livelihood benefits.

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, which is often associated with increased trade controls, towards 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 entrepreneurs in developed 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 Convention on Biological Diversity (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

Experience from the East Usambara Mountains in Tanzania clearly shows a mixture of positive and negative monetary and non-monetary impacts resulting from changes to wildlife access and trade regulations at local, national and international levels. It is also evident that regulatory measures have varying impacts on different sectors of society due to the different roles in the wildlife trade played by the rich and poor, women, men, elders and youth. Men are most affected by regulations on the timber trade and youth most affected by regulations on the trade in wild animals. According to local perceptions, wildlife access and harvest regulations have had a greater overall impact than national and international trade controls. Further, evidence suggests that some trade regulations 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.

Do international wildlife trade controls result in a lose-lose for biodiversity and livelihoods?

From the literature reviewed and the case study conducted in Tanzania, it is apparent that conservation-motivated international trade controls, and specifically those required under CITES, usually do not result in a lose-lose scenario for a number of reasons:

- In general, different forms of trade control have had a positive, or at least not a negative, impact on species conservation;
- The harvest for commercial export of wildlife products is generally only one component of a larger natural resource based livelihood strategy, and does not necessarily make a substantial contribution to rural livelihoods given current trade structures;
- For many wild species, the impacts of national level restrictions on resource access or trade and shifts in markets are far more significant than international trade controls;
- International wildlife trade restrictions are increasing in variety and flexibility, with expanding emphasis being given to livelihood concerns during debates in CITES; and
- In some cases, the absence of trade controls can result in a lose-lose scenario since over-harvest can have livelihood impacts in the form of the declining availability of resources for subsistence needs and trade based incomes.

Nevertheless, there are examples where international trade controls have reduced the income available to rural communities without bringing about any obvious conservation benefit. Such controls are likely to further undermine future efforts to improve local benefits from wild species through community-based management of wildlife resources.

Increasing the contribution of wildlife trade controls to sustainable development

Discussion is increasing regarding the potential for CITES and other trade controls to be used as a tool to increase the livelihood contributions associated with trade in wild species. In the case of CITES, this reflects the evolution in thinking that has taken place between the agreement of CITES in 1973 and the CBD nearly 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 their basic premises: that wild species are important to development, 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 decisions regarding the use of biological resources and the treatment of genetic resources. More fundamentally, however, CITES is essentially a conservation convention, while the CBD is concerned with the much broader goal of sustainable development.

Despite its conservation focus, CITES incorporates some valuable mechanisms that could be adapted to take into account socio-economic issues and enable the Convention to more effectively contribute to sustainable development. Realising the full potential of CITES as a tool for securing development as well as conservation objectives requires actions on a number of fronts:

- Sensitising the 'CITES community' and consumers to the livelihood issues associated with the international wildlife trade, and consumers and industry to the fact that CITES does not universally ban international trade.
- Modifying CITES decision-making processes to include consideration of livelihood issues by including

information on the socio-economic aspects of harvests and trade in significant trade reviews and the supporting statements of CITES-listing proposals, and considering that information when designing and recommending remedial measures.

- Avoiding blanket bans on trade without taking into account the differing status of national populations and management regimes, and considering 'split listing'.
- Expanding the linkages between implementation of CITES and the CBD including: 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 wildlife resources, including the products resulting from the use of genetic resources, and to prevent unsanctioned export of genetic resources; and, where appropriate, to meeting conservation and livelihood objectives, increasing capacity for intensive management to increase production within range States.
- Ensuring that learning resulting from research on community-based wildlife management and NTFP development is brought into and informs discussions of and decisions taken regarding the international wildlife trade in order to increase the potential for achieving conservation and development aims.
- Examining the potential for synergy between CITES and voluntary certification and labelling schemes.
- Acknowledging that different stakeholder groups have different perceptions of the values of natural resources, that different priorities may have equal validity and that effective management needs to reconcile these perceptions and priorities.

Further research requirements

As this study showed, there are currently more questions than answers with regard to the contribution of the wildlife trade to rural livelihoods and the impacts of related trade controls. In order to address the lack of detailed information and increase the contribution of the wildlife trade to sustainable rural livelihoods, further research is needed in a number of key areas.

- Detailed case studies to determine the significance of wildlife trade to rural livelihoods compared to other uses of wildlife.
- Supply chain analysis to determine where gains and losses are made for different commodities and how supply chains might be modified to be more pro-poor.
- A systematic evaluation of CITES listing proposals submitted over time in order to explore the governance issues associated with CITES decision making processes.
- Case studies including livelihood impact analysis of trade regulations and the livelihood diversification strategies adopted by people confronted with trade restrictions including a comparative analysis of differential impacts along the supply chain.
- Comparative analysis of the various factors influencing the significance of livelihood impacts associated with trade controls including land tenure and resource access rights, different forms of trade regulations, enforcement, proximity to markets, foreign interest in locality/resource, etc
- Analysis of differential benefits and conservation impacts of alternative modes of production (e.g. captive breeding, ranching, cultivation) compared to wild harvesting.

ACKNOWLEDGEMENTS

This study was made possible through funding provided by the Social Science Research Unit of the UK Department for International Development, whose support is gratefully acknowledged.

Thanks are due to a number of individuals who have provided advice, comments and inputs at various stages of this study including: Izabella Koziell, Josh Bishop and James MacGregor at IIED; Steven Broad, Julie Gray, Kim Lochen and Maija Sirola at TRAFFIC International; Tom Milliken at TRAFFIC East/Southern Africa; Bernardo Ortiz at TRAFFIC South America; Peter Paul van Dijk at TRAFIC Southeast Asia; Jon Hutton and Barney Dickson at Resource Africa; John Caldwell and Gemma Smith at UNEP-WCMC; Ruth Barreto and Frank Vorhies at IUCN - the World Conservation Union; Daniel Wilson and Martin Jenkins.

In Tanzania, we would like to thank the Tanzania Forest Conservation Group for their participation in this work, particularly through the efforts of Simon Mosha. Community members from the villages in the East Usambaras who gave their time and experience to the study are gratefully acknowledged although not individually named for reasons of confidentiality.

ACRONYMS

ANR	Amani Nature Reserve
CAWM	College of African Wildlife Management
CBD	Convention on Biological Diversity
CIFOR	Centre for International Forestry Research
CIS	Commonwealth of Independent States
CITES	Convention on International Trade in Endangered Species of Wild Fauna and Flora
CoP	Conference of the Parties
DFID	Department for International Development (UK)
DRC	Democratic Republic of the Congo
ESA	Endangered Species Act (US)
EUCAMP	East Usambaras Catchment Area Management Project
FAO	Food and Agriculture Organization of the United Nations
FBD	Forestry and Beekeeping Division (Tanzania)
FINNIDA	Finnish International Development Agency
GDP	Gross Domestic Product
GNP	Gross National Product
IIED	International Institute for Environment and Development
IPPC	International Plant Protection Convention
ITC	Intra-African Trade Promotion Programme
LDC	Least Developed Country
NCAA	Ngorongoro Conservation Area Authority
NGO	non-governmental organisation
NTFP	non-timber forest product
NWFP	non-wood forest product
OECD	Organization for Economic Co-operation and Development
OIE	Office International des Epizooties
SHDC	Sustainable Harvest of Devil's Claw Project
SSM	Sikh Saw Mills (T) Ltd.
TANAPA	Tanzania National Parks
TWICO	Tanzania Wood Industries Corporation
TAWICO	Tanzania Wildlife Corporation
TAWIRI	Tanzania Wildlife Research Institute
TDL	Trophy Dealer Licence
UAE	United Arab Emirates
UN	United Nations
UNCTAD	United Nations Conference on Trade and Development
UNEP	United Nations Environment Programme
UNEP-WCMC	UNEP-World Conservation Monitoring Centre
WD	Wildlife Division (Tanzania)
WHO	World Health Organization

INTRODUCTION

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 both within countries and internationally, frequently citing conservation concerns as the driving factor behind such measures. An international agreement specifically aimed at reducing the threat to wild species posed by international trade was discussed by representatives of 88 governments in Washington DC in 1973, and the final text agreed and opened for signature. The resulting Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) currently has 156 Parties. CITES has had significant impacts on both domestic and international wildlife trade controls, which in turn have affected trade volumes and patterns.

Concerns have been raised that trade controls and resulting changes in the wildlife trade are having 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 attention 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 was undertaken by the International Institute for Environment and Development (IIED) and TRAFFIC, with funding from the UK Department for International Development (DFID) Social Science Research Unit as a first step toward addressing this knowledge gap.

Scope of this study

The wildlife trade is multi-faceted and encompasses many dimensions and scales. Wildlife may be sold and used locally, transported for sale in urban centres, sent across national borders to markets in neighbouring countries or shipped half way around the world. The trade involves thousands of species which are variously used for food, fuel, construction, healthcare, decoration, companionship and other purposes. Wildlife in trade may undergo no processing prior to sale to end consumers, e.g. live birds sold as pets, or be highly processed, e.g. medicinal plants used in pharmaceutical development. The number and characteristics of actors involved in the trade vary with the species and products involved. Trade chains between harvester and end consumer are often highly complex.

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**. The regulations themselves may be international or domestic and may be focussed directly on the trade (e.g. export controls) or they may be more indirect controls (e.g. resource access or harvest restrictions), which nevertheless affect the ability of local people to export to international markets. A primary focus is placed on the assessing the impacts 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.

'Wildlife' is used here to refer to all specimens of wild animal, plant and fungal species, both terrestrial and aquatic species, that continue to occur in the wild in a non-domesticated form, regardless of whether or not domestic varieties have been developed. This definition incorporates products classified as "non-timber forest products" (NTFPs), which have been defined by de Beer and McDermott (1996) as "all biological materials other than timber which are extracted from forests for human use", or, alternatively, as 'non-wood forest products' (NWFPs), defined by the UN Food and Agriculture Organisation (FAO) as "products of biological origin other than wood derived from forests, wooded lands and trees outside forests" (FAO 2001). However, the term 'forest' itself has no single definition, and NTFP/NWFP are increasingly applied to species (primarily terrestrial) from a variety of habitats. The majority of species covered by CITES can be considered NTFPs, and much of the wider literature on the commercialisation and trade of NTFPs would appear to be applicable to the trade in many CITES-listed species.

'Trade' is used here to refer to commercial transactions in goods between two or more individuals or entities. While recognising that the separation is somewhat arbitrary, the intent is to differentiate between the subsistence use of wildlife products and exchange of those products for goods, services and/or cash income.

'Wildlife trade' refers to the sale or exchange of physical products produced by and/or derived from wild species. Commercial transactions in conjunction with wildlife services, e.g. those associated with wildlife tourism, are not considered under the use of this term.

The trade in aquatic and marine species is not generally considered here. Relatively few of these species have thus far been covered by CITES (the reasons for which will be touched on briefly below), and these species are frequently subject to a different suite of national and international access and trade measures. The trade in timber species is similarly not covered in detail.

Structure of this report

Part One of this report provides a global overview of trade-related issues. Chapter One reviews the importance of wildlife to rural livelihoods including an analysis of the types and uses of different wildlife products, the overall significance of wildlife resources and the significance of international trade as an element of wildlife use. Attention is focused on the direct economic returns from sales of wildlife products rather than national-level income, foreign exchange earnings, etc.. Chapter Two provides an overview of the international wildlife trade - its scale, the species and products in trade, the countries involved and the structure of wildlife trade supply chains. Chapter Three describes the different types of regulatory measures directed at controlling the international wildlife trade. These include domestic measures that govern resource access and use, transport and sales as well as international measures controlling international trade - of which CITES is the most significant. Chapter Four then examines the impacts of these measures in terms of changes in trade patterns and volumes, changes in production methods, changes in the conservation status of target and non-target species and impacts on rural livelihoods - financial and non-financial.

Part Two is a case study of three villages in the East Usambara Mountains in north-eastern Tanzania. Chapter Five provides an overview of the wildlife trade in Tanzania - including the trade in timber, live and dead animals and medicinal plants, and introduces the case study site. Chapter Six describes current and historical patterns of wildlife trade in the three villages while Chapter Seven examines the effects that various regulations - domestic and international - governing resource use and access, harvesting and exporting have had on wildlife trade and the subsequent

impacts in changes in the trade on conservation of target species and the livelihoods of resource-dependent communities. Chapter Eight concludes this section, providing a summary of the impacts and recommendations for follow-up work in Tanzania.

Part Three concludes the report. Chapter Nine addresses the research hypothesis on which this study is based - that conservation-motivated trade regulations can result in a lose-lose scenario for both conservation and rural livelihoods. Chapter Ten provides recommendations as to how regulations - specifically CITES - could be modified to move beyond a pure conservation agenda and to take socio-economic considerations into account in decision-making.

Methodology

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

In Tanzania, participatory research was carried out by TRAFFIC East/Southern Africa - Tanzania, the Tanzania Forest Conservation Group and IIED in three villages in the East Usambara Mountains to determine the importance of wildlife trade to local livelihoods and the impacts of trade restrictions. Two of the three villages border the Amani Nature Reserve, and one village borders the Mtai Forest Reserve. The villages remain anonymous in this report 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 and 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 and three during more detailed work on the second trip. The participatory rural appraisal techniques 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 livelihoods analysis. All currency conversions from Tanzania shillings (TZS) to US dollars (US$) were made using average yearly exchange rates and US inflation correction rates. A more detailed field-based case study was undertaken in Tanzania, which generated primary data to test out and illustrate some of the issues raised by the desk study.