

Final Report

**Global Markets, Rural Communities and
Natural Resource Products: The Case of
Devil's Claw in Southern Africa**

**Barney Dickson
Fauna & Flora International**

**A research project funded by UK
Department for International
Development
(Social Science Research Project: R8006)**

**Fauna & Flora International
Great Eastern House
Tenison Road
Cambridge CB1 2TT**

Disclaimer

The UK Department for International Development (DFID) supports policies, programmes and projects to promote international development. DFID provided funds for this study as part of that objective but the views and opinions expressed are those of the author alone.

CONTENTS

Background and objectives	2
Methods	3
Findings	4
Part I Harvesters and their livelihoods	4
Part II The Devil’s Claw market chain	6
Part III Policy options	8
Dissemination	11
Appendix 1	12
Summary of proposed paper ‘Three arguments linking biodiversity conservation and poverty reduction’	
Appendix 2	16
Outline of proposed report on Devil’s Claw, to be published by Fauna & Flora International	
Appendix 3	19
Report on methodological detail of research	

1. BACKGROUND AND OBJECTIVES

Background

In Southern Africa, in and around the Kalahari desert, around 16,000 people, many of them women, are engaged in the seasonal harvest of the wild plant known as Devil's Claw or grapple (*Harpagophytum* spp.). The harvesters are extremely poor, and typically live in remote, under-resourced communities. Many of the harvesters in Botswana and Namibia are San, one of the most impoverished and marginalised ethnic groups in southern Africa. They harvest the root of the plant and sell the dried root slices. The price they receive is often low and their income from it is small but, for them, significant. The root slices are sold, sometimes via intermediate traders, to exporters, who export them mainly to Europe. There the material is processed and marketed as a treatment for rheumatism and arthritis. The value of the export trade in 2002 was around US\$3.5 million.

Devil's Claw comprises two species, *Harpagophytum procumbens* and *H.zeyheri*. The former is currently the most important in the trade and the three main range states for this species are Botswana, Namibia and South Africa. The role that harvesting plays in the livelihoods of the harvesters has been recognised in all these states and attempts are under way to improve the returns to the harvesters.

The volume of trade has increased in recent years and this has led conservation agencies to express concern about over-harvesting, at both national and international level. A proposal to use the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) to regulate the trade have been discussed, although it proved too controversial to win agreement.

There are on-going attempts to develop commercial cultivation of the plant – a venture that, if successful, could have profound implications for the structure of the trade and the distribution of benefits from it.

Objectives

The objectives of the research are to provide an account of the trade and its role in the livelihoods of the harvesters and to analyse the policy options for improving the returns to the harvesters. It is intended that this synthetic overview will be of value to all stakeholders concerned with the livelihoods of the harvesters and assist them in making policy choices. The research also provides lessons for the role of CITES and other conservation agencies in relation the livelihoods of those who depend on the harvesting of wild species.

2. METHODS

This has been a largely desk-based, synthetic and interdisciplinary study. It has drawn on a great deal of 'grey' material, produced by NGOs, governments and international agencies.

It has commissioned research by NGOs in Namibia and Botswana, including a questionnaire of harvesters in Botswana. This project has also established links with

other on-going research, including research in South Africa on conservation and livelihoods issues relating to the harvesting of Devil's Claw there, and research in Namibia and Germany on the possible use of certification.

The research has utilised the livelihoods approach for characterising the place of Devil's Claw harvesting in the livelihoods of the harvesters. In its characterisation of the Devil's Claw market chain it has made use of the commodity chain literature, although the Devil's Claw market chain differs significantly from the type of commodity chains studied in that literature.

3. FINDINGS

Part I Harvesters and their livelihoods

Botswana

There are up to 3,000 people engaged in harvesting of Devil's Claw in Botswana. Most are living in remote communities in arid or semi-arid areas of the Kalahari desert in Kgalagadi, Kweneng and Southern Districts. In recent years around 50 such communities have been involved in harvesting the plant, although there are likely to be less in any one year. These settlements are often without electricity, telephones, postal services, tarred roads or public transport. Most have a primary school and health clinic.

Most harvesters are women. Issues of ethnicity are not straightforward and, particularly because of the apartheid legacy in the region, can be sensitive. Nevertheless, a high proportion of the harvesters are San. The San are sometimes described as constituting an 'under class' in Botswanan society and typically are the poorest of the rural poor, with a history of dispossession. Their access to land and water within the rural settlements is limited and often a source of conflict. Typically they do not own cattle, although some own smaller livestock. Illiteracy rates can be as high (over 75% in some cases) and their health status is generally poor, with significant incidence of malnutrition, alcohol abuse and HIV/AIDS.

The livelihoods of harvesters are typically dependent on government support (drought relief, pensions, destitute rations), gathering of veld products, sale of crafts and occasional work such as herding cattle for wealthier community members.

In these circumstances, the income derived from the sale of Devil's Claw can be of some significance. In 2002 the NGO, Thusano Lefatsheng, which purchases most of the Devil's Claw from harvesters, paid around US\$1.30 per kg. Assuming a total harvest of 50 tonnes and 3,000 harvesters, this is equivalent US\$21.67 annual income per harvester for the sale of Devil's Claw.

Namibia

In Namibia there are many more people (around 10,000) harvesting a much greater volume of Devil's Claw (over 1,000 tonnes of dried root slices exported in 2002) than in either Botswana or South Africa. However, since the vast bulk of this material is sold neither to an NGO (as in Botswana) nor under the direct supervision of a provincial

conservation authority (as in South Africa), there is much less known about the circumstances of the harvesting and the harvesters. The harvesters typically sell to traders operating in the informal sector, who then sell on to other traders or directly to exporters. In some cases these traders may play a role in organising the harvesters and transporting them to harvesting areas. The possible illegality of some of this activity – especially when harvesters are harvesting on land without the permission of the landholder – contributes to the difficulties of gaining information about it.

Nevertheless, recent research carried out under the Namibian Devil's Claw Situation Analysis, together with information generated by a small project where an NGO is involved, as well more general research on the ethnic groups involved in the harvesting, allows a picture to be built up.

Harvesting takes place in parts of the north of the country (mainly *H.zeyheri*) and the central and eastern regions (mainly *H.procumbens*). A significant proportion of the harvesters are probably from the San ethnic group, but other ethnic groups, such as the Damara are certainly participating. As in Botswana, the San tend to be the poorest of the rural poor. They live in remote settlements with limited physical infrastructure, and restricted access to key components of natural capital such as land and water. Numeracy and literacy levels are low and their health status is often poor. Again alcoholism, HIV/AIDS and malnutrition are key problems. Opportunities for cash income are few, and they rely on food for work schemes, pensions, and occasional work for others.

Reliable details on the price received by most harvesters is not available. It has been estimated that in 2002 the majority of harvesters were receiving between US\$0.56 and US\$1.40 per kg of sliced and dried tubers, with most harvesters at the lower end of this range. If we assume that 10,000 harvesters were responsible for the 1,038,205kg that were exported in 2002, this suggests a harvester who harvested the average amount of 103.82 kg would have received between US\$58.13 and US\$145.34 for this, with most receiving nearer the lower end of this range.

South Africa

The situation has changed rapidly and recently in South Africa, with a big increase in the amount of harvesting going on and in the number of harvesters. This has come about through a project initiated by the North West Department of Agriculture, Conservation and Environment.

There are currently thought to be around 3,000 harvesters in spread across 105 villages in the communal areas of North West Province (formerly the Bophutaswana Homeland). The majority are Tswana, and most are women between 40-60 years old.

The livelihood options are limited as the climate is harsh with low rainfall. The main livelihood option is livestock production for subsistence. Some crops (maize, beans and watermelon) are grown but only on a very small scale. The area is far from urban centres,

limiting the opportunities for paid employment. In a small survey, half the harvesters said that they depend solely on Devil's Claw to provide them with a cash income.

In 2002 the harvesters registered with the North West Province Department of Agriculture, Conservation and Environment were paid US\$1.78 per kg on average for dried root slices and they earned US\$74.26 on average from their harvest.

Part II The Devil's Claw Market Chain

1. Introduction

The Devil's Claw market chain is complex, not well understood and subject to on-going changes as a range of actors attempt to influence the outcome of the harvest and trade in this commodity. The nature of the chain shapes the opportunities to increase the returns to the harvesters

2. The transformation and movement of the commodity

Devil's Claw is subject to a series of transformations as it moves from the Kalahari desert where it grows to the retail outlets in the consumer countries. The main stages are as follows: harvesting; initial processing (slicing, drying, storing); transfer to an urban centre; processing for the domestic market (grinding), packaging and delivery to a retail outlet, or preparation for export; export, chiefly to Europe; storage, sorting, re-packing; extraction of the active ingredients; manufacture of medicinal preparations; packaging and delivery to retail outlets.

3. The market chain in exporting states

The market chain in the three range states is significantly different. In Botswana, one NGO, Thusano Lefatsheng, has been responsible for purchasing most of the harvested material from the harvesters. Thusano Lefatsheng is committed to working with remote rural communities. It processes some of the material for the domestic market and exports the rest. Thusano Lefatsheng has had difficulty in establishing direct relations with importers in the countries of final destination and tends to sell to exporters in Namibia and South Africa who then export to Europe and elsewhere.

In Namibia, the great bulk of Devil's Claw is purchased from the harvesters by traders who then sell to other traders or to exporters. While some of these traders play a role in organising the harvesters, it appears that most harvesters do not have a stable relationship with particular traders and similarly while some traders have established connections with individual exporters, this is often not the case. Some exporters export directly to Europe, while others export to South African companies who then export to Europe. In most cases Namibian exporters do not have stable relationships with importers, with importers switching suppliers quite frequently.

South African traders have played a role in buying from Botswana and Namibia and then selling on to Europe and other destinations. Until recently there seems to have been a very low level of harvesting in South Africa itself. However, this has changed recently, with the promotion of harvesting by the Provincial conservation authority in North West

Province. The Department of Agriculture, Conservation and the Environment trains harvesters in sustainable harvesting techniques and supervises the sale of the dried root tubers to two main buyers at agreed prices.

4. Values, volumes and destinations

The prices paid to harvesters varies from country to country and, in Namibia, within country as well. In 2002 in Botswana, harvesters were paid around US\$1.30 per kg. In Namibia, the small minority of harvesters in an NGO initiated project were receiving around US\$1.87 per kg, while the vast majority of harvesters were receiving at the lower end of the range US\$0.56 – US\$1.40 per kg. In South Africa, harvesters received around US\$1.78 per kg.

In 2002 the export price was thought to be around US\$2.83 – US\$3.02 per kg for average quality material. Namibia reported exports 1,038,205kg in 2002 (an increase of 43% over the 2001 exports), implying a total export value of around US\$3 million. Botswana's export figures for 2002 have not been released and for previous years are unreliable. If Botswana exported 50,000 kg this would have been worth around US\$150,000. South Africa does not keep export figures at the national level, but it is known that the North West Province project sold about 90 tonnes to exporters which would have been worth about US\$270,000. In addition there was probably some material exported from cultivation projects and other sources in South Africa. Thus for 2002 the exports of Devil's Claw from southern Africa were probably worth in the region of US\$3.5 million.

Just as there are no stable relations between exporters and importers, the country of import varies. Until recently France was an important importer, but most Devil's Claw is currently exported to Germany. Switzerland and the UK are also importers, either directly or from the country of initial import. The markets in the Far East and the United States are said to be developing, although it is not clear to what extent they are importing directly from southern Africa or from Europe.

5. The market chain in importing states

The market chain in Europe is complex, with different companies involved in different stages of the processing of Devil's Claw. In Germany there are at least eight companies importing Devil's Claw, with two companies accounting for the majority of the imports. Subsequently the active ingredients are extracted and finished products manufactured. There is a significant amount of trading and re-export of both the raw material and the extract. There are 46 companies marketing Devil's Claw products in Germany. Until recently these products were sold as accredited medicinal preparations in pharmacies. But they are being increasingly sold in health food stores, and supermarkets. The market is shaped to a significant degree by pharmaceutical and medicinal regulations at the national and European Union level.

6. CITES

At the Eleventh Conference of the Parties to the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), Germany tabled a proposal to list Devil's Claw on Appendix II of the Convention. This would have subjected Devil's Claw

to a degree of international regulation. This proposal faced considerable opposition from some of the stakeholders in the range states particularly those concerned with livelihoods. The proposal was withdrawn, partly in response to this opposition. The Parties have since retained an interest in Devil's Claw, through the work of subsidiary bodies such as the Plants Committee. In carrying out this work, greater attention has been paid to the impact of the trade on rural livelihoods. Nevertheless, it remains the case that the formal regulatory structure of CITES makes little provision for taking account of the impact of regulatory decisions on the livelihoods of harvesters and others involved in the trade.

7. Cultivation

The on-going attempts in Namibia, South Africa and elsewhere to develop the commercial cultivation of Devil's Claw have the potential to significantly change the distribution of benefits the trade. It is possible that demand for wild harvested material (and the returns to the harvesters) could be severely reduced if commercial cultivation is successful. While significant quantities of cultivated material are now entering the trade (some estimates put it at 5%), its commercial viability is not yet proven.

8. Summary

The Devil's Claw market chain displays a high degree of 'disorganisation'. There are many links in the chain from the harvesters in southern Africa to the retail outlets in the importing countries and the relationships between the participants are often unstable and temporary. Many participants in the chain lack knowledge and understanding of how other parts of the chain function. Most of the value is captured in the importing countries and the primary harvesters in the exporting countries receive poor returns.

A range of actors is intervening in the market chain in order to promote particular outcomes. Some European companies in the industry are seeking to alter the supply, by such means as the development of commercial cultivation. Conservation agencies seek to regulate the harvesting and trade in Devil's Claw, for conservation purposes and some governmental and non-governmental agencies seek to improve the returns to harvesters. These interventions provide lessons (and part of the background context) for the consideration of further options for improving the returns to harvesters.

Part III Policy options

This part outlines some of the key options available for increasing the benefits received by harvesters from the trade in wild-harvested Devil's Claw.

1. Interventions in the market chain at the range state level.

Since the market chain varies from range state to range state, these are considered individually.

a) Botswana

- Improved business skills for NGOs who buy from harvesters

The NGOs involved in Devil's Claw trade would benefit from improved capacity to operate in a commercial environment and this could help them deliver improved returns to the harvesters.

- Further development of the domestic market
The domestic market in Botswana offers good returns and is better understood by the NGOs who buy from harvesters. There may be potential to increase sales in this market, with fewer risks than the international market.
- Reforming the regulatory system
The permit system (and data collection from it) appears not to function successfully. There is scope to improve the efficiency of the regulatory system and to ensure that it contributes to both sustainable harvesting and rural livelihoods.
- Increased volume of harvesting
Subject to an improved understanding of the resource level, there may be scope for a considerable increase in the current level of harvesting in Botswana.

b) Namibia

- Development of institutions able to deliver an improved price to the majority of harvesters
Most harvesters in Namibia receive a low price for their product and operate in an informal sector which is poorly understood. The development of appropriate institutions is a pre-condition of improving the returns they receive. The Namibian government is currently proposing to support organisation by the harvesters into simplified conservancies.
- Creation of a marketing board
Emerging from the Devil's Claw Regional Conference in 2002, the proposal to create a forum to bring together actors in the Namibian industry to organise their interests is a significant development. This could enable Namibian actors to secure greater benefits from the international trade.

c) South Africa

- Greater empowerment of harvesters through the development of appropriate institutions in collaboration with local government, NGOs, CBOs and other.
The current project being implemented by the North West Province Department for Agriculture, Conservation and the Environment provides income-generating opportunities for the harvesters, but does not give them many opportunities to organise the harvest or the sale Devil's Claw on their own behalf.

2. Interventions in the market chain at the regional (southern African) level

Stakeholders in all three range states have expressed support for a Regional Devil's Claw Working group, and potentially this could provide the vehicle for cooperation at the regional level. Two sorts of cooperation potentially significant

- Development of regional marketing arrangements of Devil's Claw

At present the three exporting countries are competing against each other. If attempts are made to bring more organisations to the market chain within the exporting countries, an important question is whether this is done at the national or the regional level

- Cooperation in research

There are a number of issues on which stakeholders in the exporting countries could benefit from research. These include research on the market chain, the progress of commercial cultivation and the possible development of 'wild cultivation'.

3. Interventions in the market chain at the international level

a) CITES

- Social impact assessment of listing proposals

The Devil's Claw case illustrates the desirability that all listing proposals to CITES should include a social impact statement which would describe the likely impacts on livelihoods of the proposed listing. This could be broadened to cover other regulatory actions by CITES.

b) Certification

- Development of a certification scheme

A certification for Devil's Claw has been discussed amongst some stakeholders. Questions remain regarding its viability given the current 'disorganisation' of the market chain, and who would benefit from certification.

4. Conclusions

There are opportunities, through the interventions outlined above, to increase the returns to harvesters. Such interventions are more likely to be successful if supported by governmental, non-governmental and private sector bodies.

There is an inherent tension in making such interventions. On the one hand, the interventions are designed to bring about outcomes that, in the absence of such interventions, the market would not deliver. In that sense they involved altering the way in which the market operates. On the other hand, all such interventions will need to acknowledge the constraints that the market itself imposes if they are to be successful.

There are risks associated with a market-based programme for poverty reduction, particularly if it is based on one, internationally traded commodity. There are many changes, outside the control of the harvesters that could reduce or eliminate the demand for their product. These changes include the development of alternative sources of supply, whether through commercial cultivation, or through increased consumption of *H.zeyheri*; and the loss of consumer demand, which itself could occur for a variety of reasons.

In addition to this, and most importantly of all, the focus on one commodity can only be one part of a strategy of poverty reduction for a group who suffer from extreme poverty and who are low in all five types of capital recognised by the livelihoods approach.

4. DISSEMINATION

1. Fauna & Flora International will publish a detailed report based on this research, entitled *The trade in Devil's Claw: livelihoods and conservation*. A draft of this report will be circulated to key stakeholders for comment at the end of September 2003, with a final version to be published subsequently. It will be widely circulated. The outline of this report appears in Appendix 2.
2. A trip by the author to southern Africa to discuss with stakeholders and decision makers the conclusions of this research. This trip to coincide with other Devil's Claw meetings where possible. It will build on contacts already established.
3. One journal article, 'Three arguments linking biodiversity conservation and poverty reduction' to be submitted to *Oryx: The International Journal of Conservation*. The article will make particular reference to the trade in Devil's Claw. A summary of this article appears in Appendix 1.
4. One journal article on using the trade in wild species as a tool for poverty reduction.

Appendix 1

**Summary of proposed paper:
'Three arguments linking biodiversity
conservation and poverty reduction'**

A summary of a paper to be submitted to *Oryx: The International Journal of Conservation*

Three arguments linking biodiversity conservation and poverty reduction

Barney Dickson

Introduction

There is currently considerable debate about the relationship between biodiversity conservation and poverty reduction and it is frequently asserted that the two should be linked. Three different arguments in support of this link can be distinguished. Each argument starts from a different set of commitments, relies on different empirical claims and arrives at similar, but distinguishable conclusions. Each argument is typically aimed at a different audience. It is suggested here that the third argument provides a sound basis for why conservation agencies should undertake conservation in a pro-poor way. The three arguments – or, more accurately, argument sketches – will be illustrated by reference to the harvesting of the southern African medicinal plant, Devil’s Claw (*Harpagophytum spp.*).

1. The rural poor depend on – and can benefit from – biodiversity

The first argument starts from a commitment to poverty reduction. It makes the empirical claim that the rural poor are often dependent on biodiversity to support their livelihoods. It then arrives at the conclusion that the conservation of biodiversity can be important for poverty reduction.

This argument will not provide a justification for all conservation, only for actions that conserve the components of biodiversity that are used by the poor and that do so in a way that ensures they are able to continue to use them.

This argument is typically aimed at development agencies and seems designed to ensure they accept that (some sorts of) biodiversity conservation are important for poverty reduction.

A critical issue for this line of argument concerns the shift from the empirical claim about the *current* dependence of the poor on biodiversity to the conclusion about conservation being important to poverty reduction. In some circumstances it might be the case that longer-term poverty reduction will involve a *lessening* of direct dependence on biodiversity.

One variant of this argument is that the rural poor can benefit from commercial activities based on biodiversity. In this latter version the argument can be applied to the harvesting of Devil’s Claw. Poor harvesters benefit from the sale of Devil’s Claw, it is almost certainly possible to increase those benefits and this provides *a* reason why the resource should be conserved in a way that allows the harvesters to continue to harvest it.

2. Conservation – to be effective – must benefit the rural poor

This argument starts from a commitment to conservation. It makes the empirical claim that if conservation is to be effective it must benefit the rural poor. It then arrives at the conclusion that therefore conservation must provide benefits to the rural poor.

This argument is typically directed by the advocates of community-based conservation at the proponents of protectionist conservation policies that do not provide benefits to the rural poor.

Questions have been raised about the scope of the empirical claim on which the argument rests. The claim is often supported by noting that if rural poor people do not have incentives to conserve biodiversity, and wild animals in particular, they will often hunt that wildlife unsustainably, or convert the wild habitat to agriculture. However, these claims may not be true in all cases and where it isn't true the conclusion will not follow.

In the case of Devil's Claw it is hard to maintain the claim that conservation must benefit the harvesters if it is to be successful. For example, tough restrictions on harvesting and trade would probably reduce whatever pressure there is on existing populations of the plant, while having a negative impact on the harvesters. Because of where the plant grows and the patterns of land tenure and use, it would be unlikely that the plant would be affected by habitat conversion. In this case, the conservation strategy would not have to benefit the poor to be effective.

3. Pro-poor conservation

This argument starts from a commitment to conservation *together with* an acceptance of the importance of poverty reduction. It makes two empirical claims: that conservation activities frequently have an impact on the rural poor; and that it is often possible to do conservation in different ways – in ways that benefit the poor and in ways that do not. The conclusion of the argument is that where it does have an impact on livelihoods of the poor conservation should be done in such a way as to ensure that impact is a positive one.

This argument has real purchase in the case of Devil's Claw. It has already been indicated that it is possible to conserve the plant in a way that has negative impacts on the harvesters, and it is also possible to implement a conservation strategy that has the opposite impacts. This argument will favour doing conservation in a way that contributes to poverty reduction.

Conclusion

The third argument provides a case for conservation agencies to carry out conservation in a pro-poor way. Unlike the first argument, which is directed at those who are already committed to poverty reduction as their chief concern, it addresses itself to conservation agencies that have conservation as their primary goal. Nevertheless, it assumes that these agencies can also recognise the legitimacy of poverty reduction and that this can then shape *the way in which* they pursue their primary goal. Unlike the second argument it does not rely on a questionable empirical claim about what is needed for effective conservation – a claim that may only be true in some circumstances. It provides an

argument for why conservation, whenever it impacts on the poor, should always be done in a pro-poor way.

Appendix 2

Outline of proposed report on Devil's Claw

**To be published by Fauna & Flora
International**

Outline of proposed report on Devil's Claw:

The trade in Devil's Claw: livelihoods and conservation

To be published by Fauna & Flora International

Introduction

Background

1. Biology and conservation status of *Harpagophytum* spp.
2. Medicinal properties of *Harpagophytum* spp.
3. History of the harvesting, trade and use of Devil's Claw

PART I HARVESTERS AND THEIR LIVELIHOODS

1. Introduction

2. Botswana

- a) The harvesters – numbers, communities, location, ethnicity, gender
- b) The livelihoods of the harvesters
 - Natural capital
 - Financial capital
 - Human capital
 - Social Capital
 - Physical capital
- c) The role of harvesting in their livelihoods

3. Namibia

- a) The harvesters – numbers, communities, location, ethnicity, gender
- b) The livelihoods of the harvesters
 - Natural capital
 - Financial capital
 - Human capital
 - Social Capital
 - Physical capital
- c) The role of harvesting in their livelihoods

4. South Africa

- a) The harvesters – numbers, communities, location, ethnicity, gender
- b) The livelihoods of the harvesters
 - Natural capital
 - Financial capital
 - Human capital
 - Social Capital
 - Physical capital
- c) The role of harvesting in their livelihoods

5. Summary and conclusion

PART II THE DEVIL'S CLAW MARKET CHAIN

1. Introduction

2. The transformation and movement of the commodity

3. The market chain in exporting states (including national permit systems)

- a) Botswana
- b) Namibia
- c) South Africa

4. Volumes, values and destinations

5. The market chain in importing states (including medicinal regulations)

6. CITES

7. Cultivation

8. Summary and conclusion

PART III POLICY OPTIONS AND BROADER LESSONS

1. Introduction

Policy options

2. Actions in the range states

- a) Botswana
- b) Namibia
- c) South Africa

3. Actions at the regional level

4. Actions at the international level

- a) Certification
- b) CITES
- c) CBD and benefit sharing

5. Actions in the consumer states

6. Cultivation

6. Research

8. Conclusions

Broader lessons

9. CITES, conservation and poverty reduction

10. Methodological issues

CONCLUSION

Appendix 3

Report on methodological detail of research

Report on methodological detail of research

Summary

This has been a largely desk-based, synthetic and interdisciplinary study. It has drawn on a large amount of 'grey' material, produced by NGOs, governments and international agencies. This material has included conference papers, conference proceedings, magazine articles, websites, project documents (final reports, evaluations, proposals), newsletters, CITES documents, postgraduate dissertations and workshop reports.

The project has commissioned research by CRIAA SA-DC (Namibia) and Thusano Lefatsheng (Botswana), including a questionnaire of harvesters in Botswana. The terms of reference for this commissioned research were developed in conjunction with the two NGOs and are reproduced below. This project has also established links with other on-going research, including research in South Africa on conservation and livelihoods issues relating to the harvesting of Devil's Claw there, and research in Namibia and Germany on the possible use of certification.

The research has utilised the livelihoods approach for characterising the place of Devil's Claw harvesting in the livelihoods of the harvesters. In its characterisation of the Devil's Claw market chain it has made use of the commodity chain literature, although the Devil's Claw market chain differs significantly from the type of commodity chains studied in that literature.

Commissioned research in Botswana

This research was carried out by the Botswanan NGO, Thusano Lefatsheng. The work came in three parts.

Part A: Questions about Thusano Lefatsheng and its role in the Devil's Claw trade.

Thusano Lefatsheng were asked to answer the following questions about their own role in the Devil's Claw (grapple) trade.

Basic data

1. How much grapple has Thusano Lefatsheng bought from harvesters in each of the last 10 years? How much was paid for the grapple in each year? In years where other traders or organisations were also buying from harvesters please indicate (if you know) what proportion of the total was bought by Thusano Lefatsheng.
2. How much grapple has Thusano Lefatsheng exported in each of the last ten years? At what price? To where?
3. How much grapple has TL sold onto the domestic market in each of the last ten years?

Thusano Lefatsheng and the harvesters

4. How many communities do you currently work with? Can you give a rough indication of where they are situated? How has this changed over the past ten years?

5. Please describe the arrangements for purchasing from harvesters. What processing is carried out by the harvesters before TL buys the grapple? Does TL buy all the grapple that the harvesters produce? Or does TL buy only a fixed amount? If so, how is that amount decided and how are the harvesters informed? What are the arrangements for collecting the grapple? How is the price determined? When are the harvesters paid?

6. Quality. What is the quality of the grapple TL buys from the harvesters? Are there any problems with quality? If so, what are they (Insufficiently dried? Dirty? Includes tap roots? Inclusion of other species?) How do you deal with these issues?

7. Training and other support. Does TL provide training to the harvesters? If so, please describe the type of training provided. On what sort of scale is the training provided? How many harvesters do you train? Please describe any other support that TL provides to the harvesters. Please describe the training and support provided by other agencies (Government, NGOs, private sector).

8. How could TL's role in supporting the harvesters be strengthened?

Thusano Lefatsheng and the export of grapple

9. Please explain the process by which TL exports grapple. How has this changed over the last 10 years? Does TL have an established relationship with importers? How is the price agreed? Have any problems arisen with regard to the quality of the grapple supplied by TL? Has TL tried to establish direct contacts with European importers? Why was this not successful? Would a separate marketing organisation help?

Thusano Lefatsheng and the domestic market

10. Please describe the TL's involvement in the domestic market for grapple. Who are the main actors involved? Who carries out the processing of grapple? In what form is grapple retailed in Botswana? Who is retailing grapple? What are the prices received at the different stages?

Thusano Lefatsheng overall involvement in harvesting and trade in grapple

11. How many staff members does TL have? What are their job titles?

12. Briefly outline the involvement of each staff member in TL's work on grapple. What percentage of their time is spent on grapple-related activities?

13. Does the income received from the sale of grapple, cover the costs involved (including cost of purchase, staff time, etc)? If yes, is there a surplus? If no, how big is the shortfall?

14. In your view what are the strengths and weaknesses of TL's involvement in the harvesting and trade in grapple? What improvements could be made?

Permit system

15. What is your view of the current permit system in Botswana for the harvesting of and trade in grapple? Does the permit system serve a useful purpose? Are there any problems with the current permit system? Are there any ways in which the permit system could be improved?

16. In your view is there any harvesting and trade in grapple which takes place without the required permits? If so, what is the approximate size of this illegal trade (as a percentage of the total trade)? Could you describe the main features of this illegal trade?

CITES

17. In 2000 there was a proposal to list grapple on Appendix II of CITES. This proposal was withdrawn after objections from the range states and other stakeholders. What was your view of this proposal? What would have been the consequences, for the resource and the harvesters if the proposal had been passed? Do you think that it would be a good idea to list grapple on CITES Appendix II in the future?

Cultivation

18. Please describe TL's trials of cultivation of grapple (in the 1980s?). What results were achieved? Is TL still involved in the cultivation of grapple now?

19. Are you aware of any attempts at the commercial cultivation of grapple in Botswana?

20. What is the Government of Botswana's attitude towards the commercial cultivation of grapple?

21. In your view what would be the consequences for the harvesters of wild grapple if commercial cultivation were to succeed?

Other issues

22. In your view, what are the main changes that are needed (at local, national, regional or international level) to ensure that the trade in grapple provides significant and sustainable benefits to the harvesters in Botswana?

23. Are there any important issues relating to the harvesting and trade in grapple that are not addressed in the above questions, but you would like to comment on?

Part B: Community questions

Thusano Lefatsheng were asked to answer the following questions about three harvesting communities.

Introduction and context

1. Please give the name and location of the community (administrative district and approximate location within the district)
2. What is the ethnic composition of the community?
3. What is the current population?
4. Brief history of the community. Have they always been settled there?
5. What infrastructure is there in the community? (Road, water, school, church, meeting house, health services, mill; access to markets)
6. Outline the social structure of the community (including the general well-being, education and health levels of the community and the degree of differentiation between households with regard to well-being, education and health)
7. What support services exist in the community? (Community organisations, women's groups, church groups, etc; government extension services; NGOs; private sector;)

Land tenure

8. What is the land tenure in the community?
9. Are there significant variations by ethnic group, age, and gender for land tenure?
10. What are the main land uses in the community?

Income and expenditure

12. What are the main income-generating activities in the community? What are the significant variations, by gender, wealth, ethnicity, and age? What is the significance of grapple, compared to other income generating activities?
13. What are the main items of expenditure within the community? (Agricultural inputs? Food? Entertainment? Education? Health? Transport? Household goods? Building materials?) Are there significant variations for different groups of people?

Labour

14. What are the main labour activities in the community? Who is doing what? How are labour allocation decisions taken in the household?
15. Are there any significant seasonal variations in labouring activities?
16. Do any community members make use of hired labour?

Grapple

17. What is the history of grapple harvesting and trade in the community?
18. Where is grapple located in relation to the community? Who has access to it? Do different groups have different access to the resource? Do all households in the community engage in harvesting, or do some do more than others?
19. How are the processing and storage of grapple carried out in the community?
20. What are the advantages and disadvantages to the community of the harvesting and trade in grapple, compared to other labour activities carried out by the community?
21. Is there any evidence that the level of the resource is changing as a result of harvesting activities?
21. Are there any other wild species harvested by the community? What are they?

Trade

- 22. By what route does the community market its grapple?
- 23. Do any different marketing routes exist?
- 24. Do local people understand national policies and legislation in relation to grapple?
- 25. Does the state system support or contradict traditional practice?
- 26. Are there any other wild species products traded by the community? What are they?

Part C: Harvester questions

Thusano Lefatsheng were asked to conduct this questionnaire with ten harvesters in each of three harvester communities.

Name of community or village where the harvester lives.....

Date of interview.....

1. Sex (tick appropriate box):

Male	Female

2. Age (tick appropriate box):

Age group	
14-20	
20-30	
30-40	
40-50	
50-60	
60-70	
Older	

3. How many adults live in your household?

.....

4. How many children live in your household?

.....

5. To what ethnic group do you belong?

.....

6. How many years ago did you start harvesting grapple?

.....

7. How far do you travel to harvest grapple?

Distance travelled	
Up to 1 km	
1-5 km	
5-10 km	
More than 10km	

8. How long does it take you to get there?

Time to harvesting area	
Up to 30 mins	
30mins – 1 hour	
1-2 hours	
More than 2 hours	

9. How do you get there?

Answer	
Walking	
Car	
Other (please specify)	

10. When you are harvesting how long do you usually spend harvesting each day?

Time spent harvesting	
Up to 2 hours	
2-4 hours	
4-8 hours	
More than 8 hours	

11. In which months of the year do you harvest grapple?

Month	
January	
February	
March	
April	
May	
June	

July	
August	
September	
October	
November	
December	

12. How is harvesting organised?

Answer	
Individually	
Household	
Group	
By outsiders	

13. How did you first learn to harvest grapple?

Answer	
From parents	
From other people in community	
From training provided by outside agency (NGO, government, etc)	

14. When you are harvesting grapple do you harvest only the secondary tubers or do you harvest the tap root as well?

Answer	
Harvest only the secondary tubers	
Harvest secondary tubers and the tap root	

15. When you are harvesting grapple do you replant the grapple after harvesting?

	Yes	No
Replant the grapple after harvesting?		

16. When you are harvesting grapple, who does which things?

Activity	Women	Men
Finding		
Digging		
Replanting		
Transporting		
Cutting		
Drying		
Storing		

17. Who controls access to the harvesting area?

.....

18. In the last 5 years do you think there has there been a change in the number of grapple plants?

Answer	
There are more grapple plants than 5 years ago	
There are fewer grapple plants than 5 years ago	
There are about the same number of grapple plants as 5 years ago	

19. Do you get a permit for harvesting?

	Yes	No
Get a permit for harvesting?		

20. Is it easy to get a permit?

	Yes	No
Easy to get a permit for harvesting?		

21. How much money do you, together with other household members, make each year from selling grapple? If it varies, indicate the maximum and the minimum that you make in a year.

.....

22. How much money does your household make each year (from all sources)? If it varies, indicate the maximum and the minimum that you make in a year.

.....

23. What are the things you rely on most to survive? Tick the three most important things

Answer	
Pension	
Government food aid for work	
Selling grapple	
Your own cattle	
Your own goats	
Working for someone else for money	
Working for someone else for food	
Growing food to eat	
Collecting wild food to eat	
Other (please specify)	

--	--

24. Who keeps the money from the sale of grapple?

Answer	
Yourself	
Spouse	
Oldest female person in the household	
Oldest male person in the household	
Jointly	

25. Who decides how to spend the money from the sale of grapple?

Answer	
Yourself	
Spouse	
Oldest female person in the household	
Oldest male person in the household	
Jointly	

26. How is the money from selling grapple spent? Tick appropriate boxes

Answer	
Food	
Shoes/clothes	
Medicines/health clinic	
School fees	
Alcohol	
Tobacco	
Transport	
Savings	
Other (please specify)	

Commissioned research in Namibia

CRIAA SA-DC were commissioned to undertake research studies in Namibia and in Europe. The terms of reference for this research are reproduced below.

‘As part of Fauna & Flora International’s (FFI) research-based project on Devil’s Claw, CRIAA SA-DC will undertake research studies in Namibia in the following areas (the ‘Namibian work’):

- a) the current and potential impact of Devil’s Claw cultivation on rural livelihoods in Namibia. This study will look at the present status of Devil’s Claw cultivation in the region, the current levels of production and supply to the market, the cost of production, issues surrounding product quality of cultivated Devil’s Claw, and future trends in cultivation and its production potential; and
- b) the current structure of the formal and informal marketing system of Devil’s Claw in Namibia from producer communities to exporters. This study will focus on the role of “middle men” in the marketing chain, and identify opportunities and weaknesses within the current market structure in maximising income levels to rural communities. It will also explore the potential for the establishment of a consolidated marketing organisation within Namibia that sells Devil’s Claw under a specific marque, which upholds explicit standards in quality, reliability, sustainability and equity.

As part of FFI’s research-based project on Devil’s Claw, CRIAA SA-DC will prepare a report on the Devil’s Claw industry in Europe. This report will:

- a) Identify the main firms importing, processing and marketing Devil’s Claw and products derived from Devil’s Claw. Wherever possible details of volumes and prices will be supplied.
- b) Supply the names and details of the contacts and relationships already established with companies by CRIAA SA – DC
- c) Identify the key issues, opportunities and obstacles with regard to encouraging significant sectors of the European industry to commit to purchasing, processing and marketing Devil’s Claw from sustainably managed, fairly traded, wild harvested sources in the range states
- d) Make suggestions for further research (by the FFI project, in close collaboration with CRIAA SA-DC) investigating the circumstances in which significant sectors of the European industry will commit themselves to purchasing, processing and marketing Devil’s Claw from sustainably managed, fairly traded, wild harvested sources in the range states.’