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Harvesting of communal resources by 'outsiders' in rural South Africa: a case of xenophobia or a real threat to sustainability?

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SUMMARY

The harvesting of communal natural resources by 'outsiders' (i.e. harvesters from other villages or towns) was investigated in ten rural villages in South Africa. Participatory Rural Appraisal (PRA) techniques were used to collect data in focus groups in each village. A case study quantifying the outflow of fuelwood was also conducted in one of the villages. Harvesting by outsiders was reportedly widespread and, in the case of fuelwood, a cause for concern. Of 13 recorded resources, the three most commonly harvested by outsiders were fuelwood, plants for traditional medicine and river sand for brick-making. An increase in harvesting by outsiders over the last decade was widely reported. This was related to socio-economic changes, largely associated with the first democratic elections in 1994. Key socio-economic drivers of this increased harvesting were: 1) the breakdown of institutional control of resources, 2) rising unemployment, and 3) a pervasive sense of entitlement associated with new-found political freedom and democracy. Evidence suggests that the increased harvesting by outsiders is a reality, rather than a xenophobic accusation, and that it poses a threat to the sustainability of communal resources in rural areas. This is discussed within the context of South Africa as a society in transition.

INTRODUCTION

It has become widely established that natural resources play a vital role in the livelihoods of rural communities in southern Africa (Cunningham, 1985; Shackleton, 1995; Campbell *et al.*, 1997; Shackleton and Shackleton, 2000; Twine *et al.*, 2000; Letsela *et al.*, 2002), even in relatively developed villages (Shackleton *et al.*, 1999). It is also well documented that these communal resources are coming under increasing pressure, and that in some cases, current extraction levels are not sustainable (Griffin *et al.*, 1993; Banks *et al.*, 1996; Desmet *et al.*, 1996; Grundy *et al.*, 2000; Luoga *et al.*, 2002).

Although not complete, a body of data is

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accumulating on rural household consumption rates of natural resources in the region (see references cited above). Less information is available on the external demand for these resources, whether they be urban or rural communities. One exception is medicinal plants, which have been shown to be in high demand, even in cities, giving rise to a chain of suppliers from rural harvesters to urban traders (Cunningham, 1988; Mander, 1998; Williams *et al.*, 2000). Some South African medicinal plant species are severely threatened by over-exploitation (Cunningham, 1988).

The issue of sustainability is a serious one, because it not only impacts on biodiversity in rural communal lands, but also on the quality of life of the very communities dependent on these natural resources. The use of natural resources in these communities has significant socio-economic dimensions which need to be considered when planning or implementing sustainable resource management strategies, particularly Community-Based Natural Resource Management (CBNRM). However, we currently have a poor understanding of the socio-economic drivers of resource use in these areas.

In our experience, rural communities in South Africa frequently express the sentiment that non-local harvesters ('outsiders') (i.e. people from other villages or towns) contribute significantly to the unsustainable harvesting of natural resources from their village commons. However, to the best of our knowledge, there is little or no published data on this. This paper explores the harvesting of natural resources from rural village commons by outsiders, and examines how political and socio-economic change has directly influenced the extent and impact of such harvesting.

METHODS

Study villages

This study was conducted in ten rural villages across the eastern *lowveld* savannas of South Africa (Table 1). These were selected to represent a range of cultural, socio-economic, and ecological settings. Every village was situated in an area which previously fell under the Apartheid homeland system.

Data collection

Data on the incidence, extent, intensity, origin, and trends of harvesting of natural resources by outsiders were collected in focus groups. The term *outsider* is used here to refer to any person not residing in the village in question. Semi-structured interviews and Participatory Rural Appraisal (PRA) techniques, such as ranking, were used to collect data.

Independent focus groups were held with different stakeholder groups or segments of the local population: women, men, youths, cattle owners (sometimes combined with the men's group), traditional healers, traditional authorities and other community structures. Meetings with mixed groups were also held in some of the villages. These data were collected from August 2001 to January 2002.

A case study quantifying fuelwood being harvested for use in other settlements was conducted in *Welverdiend* (see Table 1). Four local women

Table 1 Ten villages surveyed in this study

Village	*Province*	*Co-ordinates*	*Dominant language*
Damani	Limpopo	22° 50' S; 30° 31' E	Venda
Ha-Mphaila	Limpopo	22° 54' S; 30° 09' E	Venda
Dididi	Limpopo	23° 01' S; 30° 31' E	Venda
Welverdiend	Limpopo	24° 34' S; 31° 20' E	Tsonga
Gottenburg	Limpopo	24° 36' S; 31° 26' E	Tsonga
Wales	Limpopo	24° 42' S; 30° 57' E	Pedi
Umvangatini	Mpumalanga	25° 19' S; 31° 13' E	Swati
Lupisi	Mpumalanga	25° 25' S; 31° 16' E	Swati
Dantje	Mpumalanga	25° 27' S; 31° 12' E	Swati
Kwa-Jobe	KwaZulu-Natal	27° 36' S; 32° 20' E	Zulu

were employed to monitor the movement of vehicles transporting fuelwood to and from the village. Each woman was positioned on one of the four access roads to *Welverdiend*. They were stationed where these roads intersected the periphery of the recognized communal lands of *Welverdiend*. Each data collector recorded every vehicle which passed laden with wood. They recorded the type of vehicle and the direction it was travelling. This was done for 8 h a day, on seven consecutive days in November 2001.

Data analysis

Frequency of harvesting of each resource by outsiders was determined across all ten villages, and expressed as percentage of villages per resource. A resource was counted if mentioned in at least one focus group meeting in a village. The same method was used when analyzing frequency of sale of resources by locals.

In the analysis of the ranking of resources in each village, the average rank per resource across focus groups was calculated. This mean rank was then divided by the number of times (groups) in which it was listed, thus giving a score which was not unduly biased (e.g. high rank but only mentioned by one group). The mean scores per resource were then averaged over the ten villages and these were used to determine the final ranking order of resources. The score and rank value was inversely related to intensity of harvesting by outsiders (i.e. 1 = most intensive/severe).

The origin of non-local harvesters was divided into four categories: nearby rural, nearby urban, distant rural, and distant urban. Rural referred to other rural villages, while urban referred to 'locations', towns, and cities. 'Nearby' was arbitrarily defined as being within a 30 km radius of the study village. The frequency of non-local harvesters from each of the four categories was determined by pooling data for each resource over the ten villages. These were expressed as percentage of all responses. A resource was counted in a non-local harvester category if mentioned in at least one focus group meeting in a village.

The year in which a noticeable increase or decrease in non-local harvesters first started was assessed by counting the number of times a date and a reason for the change was mentioned across all groups, in all villages. The reasons for change were categorized into broad categories of reasons, and the frequencies were expressed as a percentage of the total number of recorded responses.

All monetary values (e.g. fines) were converted from South African Rands into US Dollars, assuming an exchange rate of US$1 = R10.

The *Welverdiend* fuelwood case study yielded a conservative estimate of wood leaving the village. Because *Welverdiend* had four access roads, it was difficult to ascertain if the village was the final destination of vehicles entering it, or if they were just passing through. Similarly, it was not possible to determine if vehicles leaving on one of these roads had left from *Welverdiend* or had just passed through. Therefore, the number of vehicles transporting wood which had been harvested from the commons of *Welverdiend* was estimated by subtracting the total number of laden vehicles entering the village commons from the total number of laden vehicles leaving. The dry mass of wood accounted for by the net number of vehicles leaving the village was calculated using conservative estimates of the mean capacity of a *bakkie* (Light Delivery Van) (0.5 tonnes) and a truck (2 tonnes).

RESULTS

Is harvesting of resources by outsiders a problem?

The harvesting of resources by people who were not from their village was regarded by all groups interviewed in all ten villages as being a problem, reflected by comments like 'We are crying' and 'We are painful about this'. Degree of concern over this harvesting differed, depending on the resource, stakeholder group, and village.

People repeatedly described how the harvesting of resources by outsiders (fuelwood, sand and traditional medicine in particular) was causing a decline in the availability of these resources. It was commented on numerous occasions that outsiders are making money out of these resources while the locals are losing their resources and getting nothing in return. In some cases, this had caused friction between neighbouring villages. Nevertheless, some respondents said that they also harvested resources from

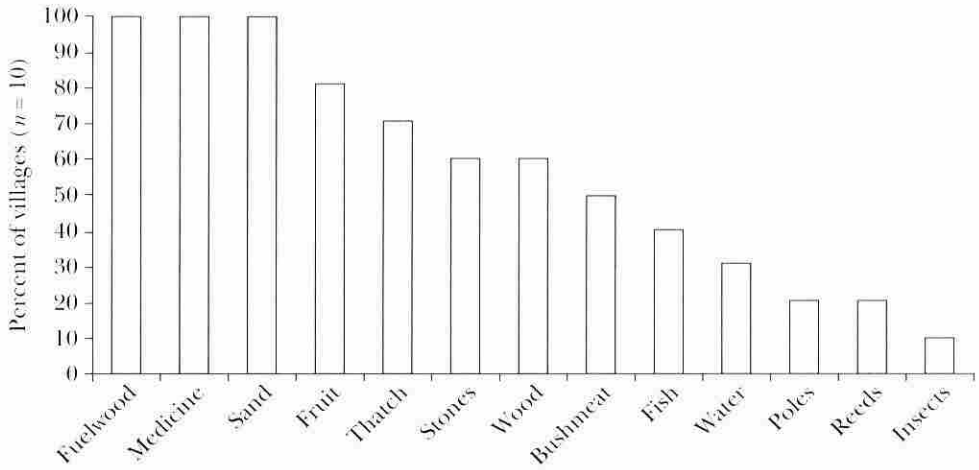

Figure 1 Extent of harvesting of resources by outsiders across ten villages. 'Wood' refers to that used for carving and furniture-making

around other villages when they were in need. In a few cases, this was viewed as being reciprocal, and therefore a tolerable situation.

Extent and intensity of harvesting

Between four and nine different natural resources were harvested from the commons around each of the study villages by outsiders (Table 2). Across all ten villages, this comprised a total of 13 resources (Table 3). Fuelwood, medicinal plants, and river sand for brick-making were the most extensively harvested resources (all villages), followed by wild fruit, thatching grass, stones for construction, wood for carving and furniture, and bushmeat (Figure 1). Fish, water, indigenous poles, reeds, and edible insects were harvested by outsiders in less than half of the villages studied. The remoteness or degree of development of the villages did not seem to have strong effect on results. For example, *Dantje* was large, well developed, and close to a large urban area, and yet villagers identified as many resources harvested by outsiders as those in the remote and relatively under-developed *Gottenburg*.

Fuelwood, river sand and medicinal plants were the highest ranking resources when analyzed across all ten villages (Table 3). These resources were those perceived to be harvested most intensively by outsiders, and were the ones about which local residents were most concerned. Thatch, wood for carving and furniture, wild fruit, and stones followed the top three resources. There was relatively little concern about harvesting of bushmeat, fish, water, poles, reeds and insects.

Table 2 The Number of resources harvested by outsiders

Village	*Number of resources*
Umvangatini	9
Ha-Mphaila	9
Dantje	8
Welverdiend	8
Kwa-Jobe	8
Gottenburg	8
Wales	8
Lupisi	7
Damani	6
Dididi	4

Table 3 Ranking of resources harvested by outsiders. High ranking resources (e.g. 1) were those about which locals were most concerned. Score was calculated by dividing mean rank across villages by the number of villages in which a resource was listed

Resource	*Score*	*Rank*
Fuelwood	0.27	1
Sand	0.27	1
Traditional medicine	0.60	2
Thatch	0.69	3
Wood for carving and furniture	1.06	4
Wild fruit	1.28	5
Stones	2.00	6
Bushmeat	2.44	7
Fish	3.00	8
Reeds	3.00	9
Indigenous poles	5.00	10
Water	8.00	11
Insects	13.00	12

Rural–urban vs. rural–rural linkages

Most non-local harvesters came from neighbouring or nearby rural villages (59%), followed by those coming from nearby towns (23%) (Figure 2). Harvesters coming from distant towns and rural villages made up 14% and 4% respectively. Thus, a total 63% of harvesting reported across ten study villages and 13 resources was by people coming from other rural areas, while 37% was by harvesters from urban areas.

From Figure 3, it can be seen that all resources were primarily harvested by outsiders from other nearby rural villages. However, fuelwood, medicinal plants, and wood for carving and furniture were also commonly harvested by outsiders from nearby urban areas. Medicinal plants were the only resource commonly harvested by people from distant urban areas.

Change in frequency of harvesting by outsiders over time

An increase in the frequency of harvesting by outsiders was reported in 80% of the study villages. Most (70%) of the villages reported a noticeable increase in outsiders harvesting around their village in or just after 1994 (Figure 4). Other periods of noticeable increase were in the early 1980s and the late 1990s.

The primary reasons given for the increase were: 1) a decline or total cessation in policing by the chiefs' rangers since 1994, 2) increased unemployment which motivated people to harvest resources to sell, 3) freedom to do as people wished as a result of democracy following the 1994 elections, and 4) people ignoring the chiefs following the 1994 elections (Figure 5). Many respondents agreed with the notion that freedom and democracy implied unrestrained access to natural resources. They therefore felt that they could not stop outsiders from harvesting their resources. The lack of respect for the chiefs was linked to this perception. The increase in the 1980s in two of the villages was ascribed to the arrival of Mozambican refugees. The increase in

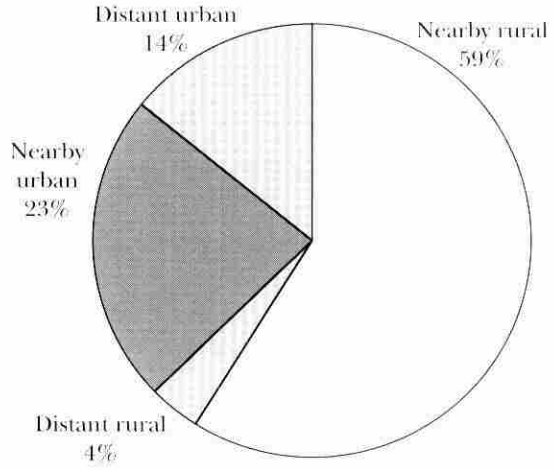

Figure 2 Origin of non-local harvesters across ten villages and 13 resources

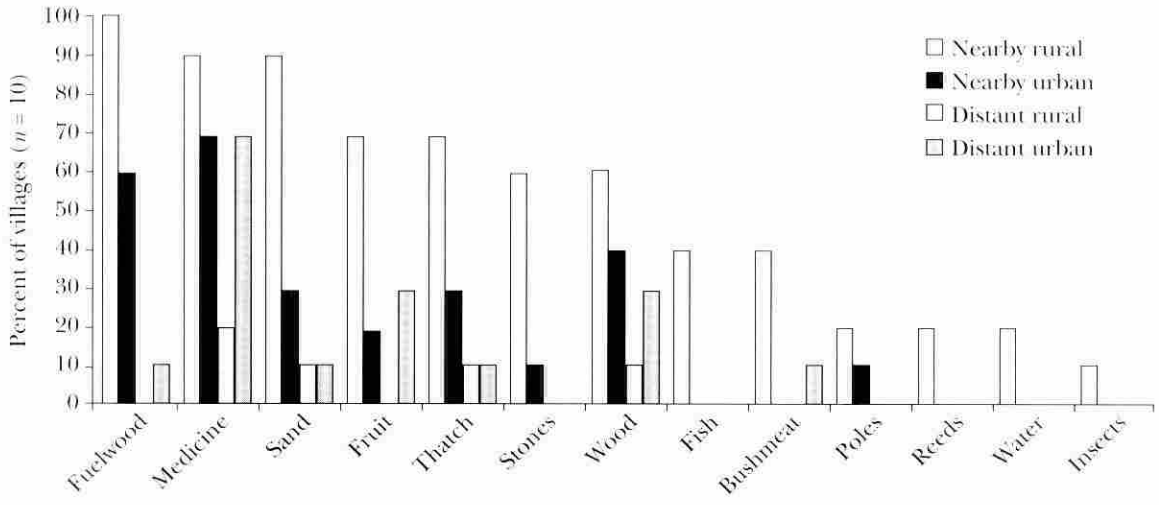

Figure 3 Origin of non-local harvesters across ten villages per resource. 'Wood' refers to that used for carving and furniture-making

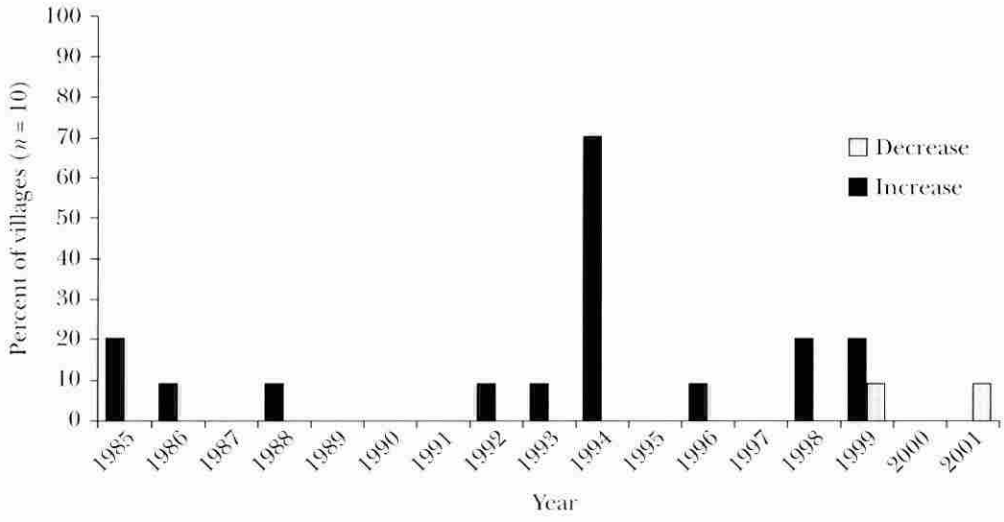

Figure 4 Year in which an increase or decrease in harvesting by outsiders *started*, as observed by locals (more than one year for some villages)

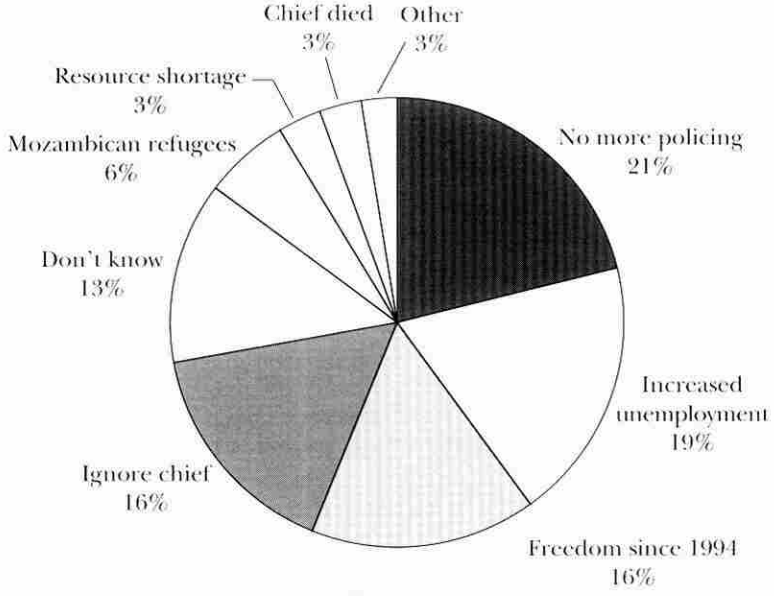

Figure 5 Reasons cited for the increase in non-local harvesters

the late 1990s was primarily ascribed to increased unemployment. Respondents in only one village recognized the depletion of resources in other areas as a reason for increased harvesting by outsiders from around their village.

In two villages, respondents indicated a decrease in non-local harvesters in recent years. In the first, this was ascribed to the fact that officials of the provincial conservation agency had arrested some outsiders who were harvesting teak *(Pterocarpus angolensis)* illegally. This was after villagers complained to their headman, who reported the matter to the chief. The headman had also spoken to some outsiders who were harvesting resources, requesting them to co-operate. In the case of the second, the decline in non-local harvesting of sand may have been as a result of frequent complaints by locals to the chief.

Case study of fuelwood harvesting in *Welverdiend* village

Over a seven-day period, a total of 32 *bakkies* (LDVs) and five trucks left the village commons

Table 4 Mass of wood transported from *Welverdiend* in a week, extrapolated from numbers of vehicles observed carrying wood

Vehicle	*Number*	*Assumed capacity (tonnes)*	*Calculated wood mass (tonnes)*
Bakkies (LDVs)	32	0.5	16
Trucks	5	2.0	10
Total	37	–	26

of *Welverdiend* laden with wood which had been harvested from the village commons. This equated to a total of 26 tonnes of fuelwood (Table 4). It was not possible to determine the relative proportions of non-local harvesters and local villagers who had harvested wood to sell it elsewhere, as vehicle drivers were not interviewed due to the sensitive nature of the fuelwood issue.

Informal interviews with commercial fuelwood harvesters from the region indicated that most fuelwood was sold in the large nearby village of *Hluvukani*, as well as large settlements such as *Acornhoek*, *Cottondale* and *Greenvalley*, approximately 25 km away. The commonly given reason for fuelwood being sold in these areas was that the resource was 'finished' around those settlements.

Institutional control of access to resources: past and present

Traditional authorities (chiefs, headmen and traditional councillors) were historically responsible for controlling access to natural resources on communal lands. They enforced laws concerning the harvesting of resources, such as preventing the cutting of live trees, and violation of these laws was punishable by a fine. The commons were patrolled by 'tribal rangers' or 'chiefs police'. Traditional authorities are theoretically still responsible for management of natural resources in their communities, and some still do so effectively.

However, a pervasive observation across all ten villages was that the traditional authorities no longer exercised the same level of control over resource harvesting as they had in the past. This was frequently attributed to the perception that people no longer needed to respect the traditional authorities due to democracy and freedom following the 1994 elections. Outsiders were never recorded as having obtained permission from local authorities to harvest. Interviews with traditional authorities themselves indicated that indifference by community members and budget cuts by the government had made it more difficult for the traditional authorities to patrol the resources. Because of the importance of these findings, comments made about institutional control are presented for each of the ten villages below. Letters of the alphabet are used in place of village names in order to ensure confidentiality (not in same order as in Table 1).

Village A

The local headman still exercised control over harvesting of resources, including that by residents of the village. Villagers were not happy with him for trying to prevent them from collecting live wood for fuel. People found cutting live trees were taken to the chief for prosecution, where they could be fined up to US$10, depending on the amount of wood cut. Their cutting equipment could also be confiscated. The headman had discussed the issue of harvesting by outsiders with headmen of neighbouring villages. This appeared to have kept the degree of such harvesting at a low level.

Village B

Residents noted that before the 1994 elections, outsiders used to obtain permission from the traditional authorities to harvest resources around their village, but that this had ceased. The older residents also felt that the youth no longer respected the traditional leaders (since 1994 elections).

Village C

In the past, the chief had police who arrested people who harvested resources illegally. Villagers were unhappy with this, but now that policing had ceased (since 1994 elections), there had been a noticeable increase in outsiders who were harvesting their resources.

It was alleged that outsiders bribed the chief to have access to resources around this village. A non-local businessman allegedly paid the chief US$50 for the right to collect sand unhindered. Another had bribed the chief with furniture to be allowed to harvest wood for his furniture-making business. Residents complained that the chief did not live in their village. The money received from outsiders for the right to harvest resources therefore did not benefit the people of the village which was losing resources. Locals also complained that they were forbidden to collect and sell sand, while outsiders collected sand from around their village. They had raised their concern with the chief, to no effect. Evidently, conflict between the chief and the headman of their village compounded the problem.

Village D

The chief was responsible for natural resources, and he used to have many 'tree police' (possibly 20). However, these were reduced to three in 1998, due to budget cuts by government. Residents, including youths, generally felt that the tree police system had been an effective one. If a person was caught harvesting illegally, he was fined US$15 by the chief. If he could not pay, he had to work at the chief's offices.

A young member of the local civic association pointed out that although it had been a good system, the tree police should have talked more with the people instead of just arresting them. If re-imposed, the system would have to be handled differently. However, it was pointed out by others that since the 1994 elections, people no longer respected the traditional authorities. Therefore, if the tree police came to a village, they would be stopped and intimidated by villagers. The headman had been threatened with a firearm when he attempted to apprehend a non-local loading fuelwood onto a vehicle.

At present, as in the past, people are required to pay for a permit at the chiefs office for permission to cut a living tree. These were very cheap (e.g. US$0.20 to cut a tree, US$0.10 to cut a pole and US$2.0 for *bakkie*-load of wood). However, most people, local or otherwise, disregard this, especially since it was no longer enforced. Villagers also felt that this permit system was unfair, as the chief collected revenue while the local villages suffered. They felt that it would be more fair if the local headman collected the revenue and the money was used for the benefit of the community. The chief stated that the permit system was a good and effective one and that non-local harvesters were not a problem. The local headman said that they had repeatedly reported the problem to the chief but he had done nothing. The headman had even recorded the registration numbers of offenders and handed them to the chief but nothing had been done.

Little confidence was placed in the ability of local government to solve the problem of non-local harvesters. Conflict between the chief and local government hampered progress. However, there was good co-operation between the local headman and various structures such as the civic association and development committee within the village. Most residents felt that the headman, rather than the chief should be responsible for the natural resources, and that he should manage these in partnership with the civic structures.

Village E

The headman was theoretically responsible for controlling access to resources. However, villagers complained that he accepted bribes from outsiders to collect resources. According to a respondent who had worked for the headman, outsiders had paid him an initial amount of US$15 and then monthly amounts of US$5 to collect sand. Some respondents even alleged that the headman had sold village land to outsiders so that they could collect sand in those areas. Outsiders who had been given permission by the headman had threatened residents with firearms when they had tried to stop them from collecting sand. The money collected by the headman did not benefit the community, and

residents felt that outsiders should rather pay the local civic association for the right to collect resources. This money could be set aside for village development projects.

Village F

In the past, people had to get permission from the chief to collect resources. However, since the 1994 elections, a common attitude was, as one respondent put it, 'South Africa is for all of us, so nobody can tell us we can't harvest this or that'. In the words of another; 'Now nobody is bigger than the other one'. Nevertheless, residents still felt that increased control by the chief was a solution to the problem of non-local harvesters.

Village G

People still had to get permission from the chief to cut down a tree. However, the law forbidding the chopping of live trees was no longer obeyed. In the past, illegal harvesters were arrested by the chief's police and were punished. These police no longer existed, or were no longer patrolling the villages as they did in the past. It was suggested that the new government should make money available to the chief to employ people to police the area.

Village H

Outsiders were allowed to harvest in the area if they had a letter from the chief. The village headman checked that they had such letters. The headman was still active in looking after resources around this village. As a result, it was one of only two villages where the harvesting by outsiders had decreased. People reported non-local harvesters to the headman, who then approached these people and spoke to them. He explained that their resources were being depleted and requested their co-operation. When villagers reported outsiders harvesting teak in the area, the headman had alerted the chief. The chief reported the incident to the provincial conservation authorities, who made some arrests.

Village I

The chief was responsible for controlling access to resources. However, he did not do much, even though locals had complained about non-local harvesters. Villagers assumed that outsiders had permission from the chief but he did not let them know and they do not check. The local headman did not apprehend non-local harvesters, although he admitted that he should.

In the past, people had to get permission from the chief to cut trees. If they did not get permission, he would apprehend them. People complained that since the 1994 elections, the chief had less power and nobody was caring for their resources. People no longer listened to their chief or respected him. However, an old man pointed out that people started disregarding the chief as far back as 1986, when the young 'comrades' started an uprising against the chief, doing as they pleased.

Village J

The chief was responsible for controlling access to resources. However, since the 1994 elections, people had started ignoring the chief and everybody did as they wished. Before 1994, the chief or local headman would arrest people for cutting trees without a permit. This no longer happened. The chief still had his police, but they did not patrol as often as they used to. There were also much fewer now than in the past. The chief now had three or four police who had to patrol 13 villages. As one respondent put it: 'Before '94, people were afraid to come here because the law was enforced, but now they are not fined or arrested'.

Some people felt that the headman should be given more power, and that it is he who should give permission to harvest. Others felt that the local government should be responsible, but there was much uncertainty over the roles and responsibilities of local government. The headman responded that now that there are district municipalities, there was also confusion over the roles of the other original structures such as traditional authorities. Thus, both the people and the traditional authorities themselves were uncertain of who was responsible for natural resources. The local civic association and com-

munity development forum felt that they, in partnership with the headman, should be responsible for resources. They suggested that non-local harvesters should pay them for permits so that money could be used for local development projects instead of going to the chief who did not live in the village.

DISCUSSION

Outflow of natural resources from rural village commons

The harvesting of communal woodland resources from around rural communities by outsiders was both widespread and substantial. This conclusion is drawn essentially from secondary data, i.e. people's reports, rather than directly observed harvesting by outsiders. However, the trends in reports were remarkably consistent across diverse communities distributed over a large area. Although it was not possible to make accurate estimates of the amounts being harvested, anecdotal evidence from respondents and data from the *Welverdiend* fuelwood case study indicate that amounts removed are considerable for some resources.

It could be argued that outsiders are an easy scapegoat, and that they may be used as an excuse to cover up extensive resource harvesting by locals from within the villages. This may be true to a degree, but even in villages which still had abundant and well managed resources, such as *Umvangatini*, harvesting by outsiders was still recognized as being a problem. In addition to this, some of the communities such as *Dididi*, *Gottenburg* and *Umvangatini* had expressed concern about this issue to their chiefs and other authorities prior to this research project, suggesting that it was a problem with which some communities had already started to grapple.

The outflow of resources from around villages appears to be regionally localized and primarily rural–rural, as opposed to rural–urban. All resources were predominantly harvested by people from neighbouring or nearby villages. In some cases, people from nearby towns were also identified as having a significant impact. Thus, although individual villages experienced a net drain of certain resources, the regional outflow may be relatively low. Medicinal plants are clearly the one exception. Urban areas across the country, and even further afield, appear to be a major sink for this resource.

Resources with strongest rural–urban linkages were traditional medicine, fuelwood, and wood for the curio and furniture industry. The commercial demand for these commodities in developed or developing urban areas is clearly having a significant impact on the rural resource base. All three of these resources were highly ranked by locals in terms of impact by outsiders, and were also harvested from around all or most of the villages sampled. They also represent a multi-pronged impact on trees in general.

The outflow of fuelwood, medicinal plants, and wood for carving and furniture, is cause for particular concern. Although the *Welverdiend* fuelwood case study was a short and localized 'snapshot' survey, and therefore limited in its value for making generalizations, the results do suggest that large amounts of this resource are removed from the woodlands around villages on a weekly basis. Such levels of extraction are certainly unsustainable. Similarly, large amounts of medicinal bark, roots, bulbs, and whole plants, are being harvested from around villages, and large, slow growing trees are being felled for making furniture. In addition to being widely harvested by outsiders, fuelwood and wood for carving and furniture were also commonly sold by locals to outsiders. Given the external demand, the methods of harvesting and the plant life-forms involved, these resources are most threatened with over-exploitation.

Socio-economic dimensions of resource exploitation by non-local harvesters

One of the key issues highlighted in this study is the control of access to natural resource on rural communal lands by traditional authorities. Although flawed, the permit and policing system under the traditional authorities was generally recognized as being effective in limiting the impact of non-local harvesters. This system has changed with political change in the country.

Lack of clarity on the role of the traditional authorities in the new dispensation, budget cuts by government, internal corruption, and inefficiency all contributed the weakening of their control. However, the issue of traditional

authorities is not a simple case of change in the system, but also involves a change in perception of the people under their jurisdiction. A common perception across villages was that people no longer recognized the authority of traditional structures, whether they still functioned or not. It was widely believed that the coming of democracy indicated the end of the rule of traditional authorities, especially among the youth.

This highlights a second issue relating to the increase in harvesting by outsiders, namely the widespread belief that political freedom and democracy imply an unbounded freedom in which people are entitled to harvest as they wish. Linked to this is a commonly held view that freedom and democracy mean that resources have become the common property and right of all. This misunderstanding of new-found freedom and democracy could prove disempowering for communities. If communities believe that anybody has the right of access to resources around their village, they will be poorly placed to take stewardship of these resources. This is an obstacle which will need to be overcome through education if community-based natural resource management is to be successfully nurtured in the context of rural South Africa.

Third, increased unemployment has motivated increasing numbers of people to harvest resources to sell as processed products (e.g. marula beer) or as raw materials (e.g. fuelwood). Most respondents indicated that unemployment had increased in the years subsequent to democratic change in the country, although few could account for this observation. One possible explanation, encountered by Giannecchini (2001) in her discussions with local villagers in the region, is the reduction in labour-intensive temporary jobs which were created by the homeland governments under the Apartheid system. Commercial harvesting has become easier with the weakening of control of access to resources, and as the narratives from the study villages illustrate, many do so with impunity.

Understanding harvesting trends in the context of a society in transition

In many senses, South Africa is a society in transition. Inevitably, dramatic political transition in a country translates into a variety of other changes, both positive and negative. Undoubtedly, transition into a new democracy has dramatically changed the lives of millions of South Africans for the better. However, the birth of a new democracy has not been one without pain. Our results show that socio-economic changes, primarily associated with the political change experienced in South Africa, have been significant drivers of change in resource harvesting patterns with serious implications for sustainability in rural communal lands. (Figure 6).

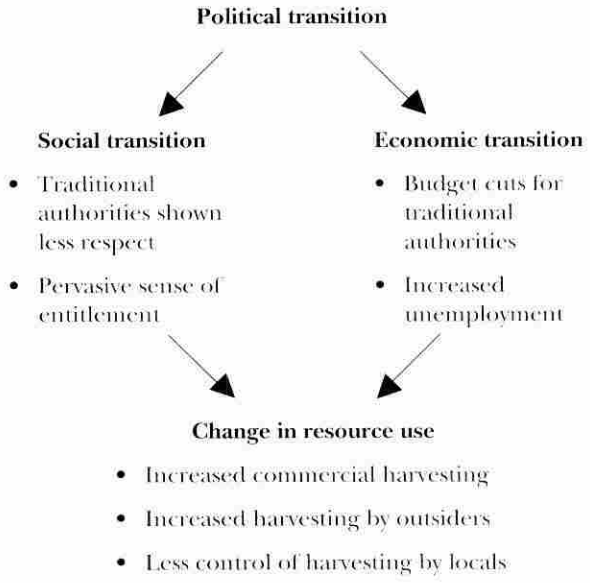

Figure 6 Simplified representation of some of the relationships between political, social and economic change, and change in resource harvesting patterns in rural South Africa

However, it is important to note that this is not necessarily a permanent situation, especially within the context of political, social and economic fluxes. The roles of traditional authorities and local government in management of local natural resources has yet to become clear. The country's economy is still developing, and the difficult challenges of poverty and unemployment have yet to be solved. A common understanding of the basic tenets of freedom and democracy, new concepts to millions of South Africans, has yet to be established. These factors are not static, but will change with time. Nevertheless, what this illustrates is that periods of transition may be periods of vulnerability to unsustainable harvesting of natural resources.

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