PAPERS

Invisible but viable: recognising local markets for non-timber forest products

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SUMMARY

An emphasis on global markets for non-timber forest products (NTFPs) often overshadows attention to the local trade in many traditionally important products. Inattention to local markets can result in diminished appreciation of their role in supporting livelihoods and potentially lead to further marginalisation of the low-income groups involved. This paper draws on the literature and the research experience of the authors in three different regions of the world to demonstrate the significance of local markets for NTFPs and to build a case for recognising and strengthening support to them. Discussion includes: features of these markets and current trends favouring them; the benefits they bring to producers and traders; their comparative advantages and disadvantages in relation to their role in strengthening livelihoods; and the policy reforms and development support required to improve them. We conclude that a combination of both strong local and export markets permits diversification and choice, assisting poor local people to minimise livelihood risk due to dependence on any single market.

Keywords: NTFPs, local markets, global markets, rural livelihoods, non-timber forest products

Invisibles mais viables: reconnaître les marchés locaux pour les produits forestiers autres que le bois

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L'accent sur les marchés globaux pour les produits forestiers autres que le bois (NTPFs) obscurcit souvent l'attention qui devrait être portée au commerce local pour nombre de produits traditionnellement importants. Le manque d'attention portée aux marchés locaux peut résulter en une appréciation diminuée de leur rôle dans le soutien des populations locales, et ammener potentiellement à une marginalisation aggravée des groupes locaux à maigres revenus impliqués. Cet article puise dans la littérature et l'expérience de recherche des auteurs dans trois régions différentes du monde, pour prouver l'importance des marchés locaux pour les NTPFs, et pour former un dossier pour appeler à leur reconnaissance et leur fortification. Le débat inclut: les traits de caractère de ces marchés et les courants actuels les favorisant, les bénéfices qu'ils apportent aux producteurs et aux commerçants, leur avantages et désavantages reliés à leur rôle pour solidifier les revenus, et les réformes de politique et le support de développement nécessaire pour les améliorer. Il en est conclu qu'une combinaison des marchés locaux forts et des marchés d'exportation permet une diversification du choix, aide les populations locales démunies à minimiser le risque auquel leurs revenus sont vulnérables dû à leur dépendance sur un marché unique.

Invisibles pero viables: localización de mercados locales para productos forestales no maderables

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En cuanto a los productos forestales no maderables (PFNMs), un énfasis sobre los mercados globales hace olvidar a menudo la importancia del comercio local para muchos productos que tengan una importancia tradicional. Esta falta de atención a los mercados locales puede llevar a una infravaloración del papel que juegan en el sustento de los habitantes locales, y así podría exacerbar la marginalización de los grupos de bajos ingresos que están implicados. Este estudio utiliza la documentación existente y las investigaciones de los autores en tres regiones diferentes del mundo para demostrar la importancia de los mercados locales para los PFNMs, y para presentar los argumentos para reconocer y fortalecer el apoyo a estos mercados. El artículo trata los siguientes aspectos: las características de estos mercados y las tendencias actuales que los favorecen; las ventajas y desventajas comparativas de su papel en el apoyo económico de grupos desfavorecidos; y las reformas

políticas y el apoyo al desarrollo que se necesitan para mejorar los mercados. Se concluye que una combinación de mercados locales fuertes y mercados de exportación permitiría la diversificación y la libre elección, y así ayudaría a la población local pobre a minimizar los riesgos causados por la dependencia de un solo mercado.

INTRODUCTION

Many hundreds of millions of people across the developing world trade in a diverse range of non-timber forest products (NTFPs) everyday, which are marketed primarily in local and regional domestic markets (Scherr *et al*. 2004). Building materials, fuelwood, charcoal, indigenous foodstuffs, medicines, craft items (from wood, grass, reeds, and vines), farm and household implements, furniture, and other more specialised products such as resins, honey, oils and alcoholic beverages are examples of just some of the products that may be found for sale in the vast majority of rural markets and in nearby towns and cities. Many of these markets are growing through both the entry of new products and growth in existing trade. This expansion is being driven by both 'supply' and 'demand' factors. Poverty and hardship (Arnold 1998), the withdrawal of agricultural subsidies, increasing integration into the market economy, and the socio-economic impacts of HIV/AIDS, including the need for home-based income sources (Barany *et al*. 2005), are just some examples of factors pushing people into the trade. Demand factors include new groups of consumers amongst wealthier households as rural communities become increasingly stratified (Haggblade and Liedholm 1991), as well as growth in the demand for low-cost and/or traditional products amongst rapidly urbanising populations (Williams *et al*. 2000, Cunningham 2001, Shanley *et al*. 2002, Awono *et al*. 2002, Cocks 2006).

However, despite forest product activities forming a substantial component of the non-farm rural enterprise sector (Liedholm and Mead 1993) and local trade generally accounting for the bulk of NTFP sales (Arnold *et al*. 1994, Arnold 1998), local markets tend to be relatively poorly acknowledged, under-appreciated and often neglected. Certainly, detailed information on the magnitude and structure of the local NTFP trade is sparse and few statistics exist (Vantomme 2003, Molner *et al*. 2006). Arnold (1998) points out that most studies concentrate on products procured for export markets, but that these may not be "the most important in terms of contribution to rural income and employment, or of quantities involved". Additionally, the links between local markets and the opportunities these provide for urban dwellers are often overlooked. Stoian (2005) highlights that NTFP research and policies tend to focus on rural people, failing to document the potential of these goods as a livelihood option for the urban poor. His research in the Bolivian Amazon has shown that locally important forest products can make a significant contribution to income generation and poverty reduction in urban and peri-urban environments (Stoian 2005). The low profile of local markets and their disregard in research, policy and development spheres has been attributed to a number of factors including: the seasonal and sporadic production of many products; extremely localised production or consumption; dispersed production sources; the mixing of NTFPs with other goods; the limited visibility of producers and traders; trading systems that are mostly informal with no dedicated infrastructure; and the practical and cultural nature, and hence poor potential in alternative markets, of many products (Fereday *et al*. 1997).

Some observers believe that the informal, home-based handicraft sector has been similarly overlooked, with little meaningful data and information on its operation existing (Terry 1999, Marcus 2000, Rogerson 2000). In addition to similar reasons as those listed above, it has been suggested that this is perhaps because these activities are often viewed as 'survivalist' or part-time and therefore of restricted interest in terms of mainstream, market-based development and growth (Mead and Liedholm 1998, Marcus 2000, Rogerson 2000, 2004, Ellis 2001). The orthodox position is often one in which "only full-time, sector-based activities are seen as gainful employment and therefore worth considering as objects of research and supporting policies" (Ellis 2001). Indeed, the micro-scale, often individual or family-based, forest enterprises supplying local markets have been characterised by some commentators as subsistence activities and, consequently, of limited potential in fostering significant socio-economic development (Wunder 2001, Belcher 2005). Increasingly, the underlying narrative tends to be one in which development and poverty alleviation is seen to be achievable only through economic growth, private sector investment and participation in global value chains. This view is reflected in the portfolios of a number of donor and development agencies (e.g. IUCN 2005, USAID 2006), which indicate an assumption that participation in sophisticated global markets is likely to have the greatest impact on poor people's lives.

There are, however, concerns that this focus on the potential of NTFPs for international markets is overshadowing the very real enterprise, and opportunities, that can be found at the local level (Taylor 1999). At a recent international conference on forest products and enterprise development[1], the need to pay attention to national, regional and local domestic markets as well as export markets was repeatedly stressed in workshop sessions (FAO 2006). In particular, a case was made that local markets are often more stable and robust than industrial export markets, and do not have the long-term development horizons associated with the latter

[1] Small and Medium Forest Enterprise Development for Poverty Reduction: Opportunities and Challenges in Globalizing Markets, CATIE, Turrialba, Costa Rica, May 23-25, 2006.

(often between 5- 20 years – Clay 1996). Likewise, in the second edition of their seminal book on Asian NTFPs, De Beer and McDermott (1996) assert that any development initiatives aimed at NTFP commercialisation should explore local markets first, then domestic and regional markets and, only if these offer insufficient opportunities, then consider international markets. They contend that: "export markets are the most difficult of all: quality standards are high, the whims of fashion and moves of the competition are difficult to predict, while direct contact with customers, for instance, to discuss complaints or problems, is hardly possible." Wallace, Daly and Silveira (2002) correspondingly advocate strongly for more consideration to be given to researching and developing regional markets for a diverse range of locally appreciated NTFPs from south-western Amazonia, especially in the context of the considerable volatility of export markets for 'classical' Amazonian products such as Brazil nuts and rubber.

While appreciating that all scales of markets are important, we too propose that the local trade in NTFPs has advantages to offer and, consequently, merits greater attention by both the research and development community. Local markets can provide a guaranteed way of reaching some of the poorest people, and play a crucial role in strengthening livelihoods and improving income opportunities. Moreover, in favourable contexts and with appropriate support and intervention, such as increased access to market information or improved harvesting or processing techniques, we contend that it is possible to scale-up the relative returns to participants and/or pave the way for more people to participate. Thus, the primary purpose of this commentary paper is to build a case for greater recognition and support of the local trade in NTFPs. In particular, we aim to: a) demonstrate the importance of local markets for the livelihoods of the poor; b) evaluate their comparative advantages and disadvantages, with specific reference to their role in strengthening livelihoods; and c) consider their potential for development, including the policy reforms and actions required to improve them. To achieve this, we draw on the literature, which is particularly scant regarding local markets and biased towards exported products, and illustrative examples from our own long-term research experience in three different regions of the world, namely the humid tropics of Cameroon, the savannas of northeast South Africa and the Amazon basin in Brazil (Table 1). Throughout

TABLE 1 *Background information on some of the NTFP research undertaken by the authors in Amazonia, Cameroon and South Africa and used as illustrative material in this paper*

Research source#	Region/country Source of NTFPs	NTFPs considered	Supply chain participants
Ndoye, Ruiz-Pérez and Eyebe (1997), Ndoye (2005), Awono et al. (2002), Tieguhong, and Ndoye (2006), CIFOR (2005)	Humid forest zone of Cameroon Tropical humid forest, agroforests on farmlands	Dacryodes edulis (G. Don) Lam (safou), Irvingia gabonensis (Aubry. Lec. ex O. Rorke) and I. wombolu Verm. (bush mango), Cola acuminata (P. Beauv.) (noix de cola), and Ricinodendron heudelotii (Baill.) Pierre ex Heckel (njansang) – all important edible NTFPs	Traders in 28 informal markets
Shanley (1999), Shanley, Luz and Swingland (2002), Shanley and Gaia (2004)	Eastern Amazonia, Brazil – in particular the Capim River basin in the state of Pará, the cities of Paragominas and Belém (a of city of 1.3 million people with numerous open air markets) and Boa Vista, Acara Tropical humid forest, agroforests	Fruit, medicines, fibre and game, with a focus on popular fruits (virtually unknown outside of Amazonia) from three forest species – Caryocar villosum (Aubl.) Pers. (piquiá), Plantonia insignis Mart.(bacuri) and Endopleura uchi Cuatrec. (uxi)	Producers, wholesalers and processors/traders
Shackleton (2004, 2005a,b)	Bushbuckridge municipality (2,417 km^2 and 65 setttlements), Limpopo Province in northeast South Africa Dry forest, wetlands and wooded grasslands	Traditional grass and twig brooms, woodcarving and furniture manufacture, woven reed mats and marula (Sclerocarya birrea (A. Rich.) Hochst beer	Producers and traders

In all cases the authors have long-standing experience in the regions indicated, including involvement in prior and follow-up work.

the paper we attempt to provide a balanced viewpoint that takes cognisance of the fact that, in certain contexts and for some NTFPs, local markets may be limited and that our experiences and examples may not be similar to all locales.

In the next section we define what we mean by local markets and present some of their important characteristics. We then describe current regional and global trends that are likely to favour these markets now and in the future. Following this, we draw attention to the importance of the local trade in NTFPs for the livelihoods of the poor, supporting our observations with examples from our own work and the literature. In the final sections we consider the pros and cons associated with local markets providing examples of frequently encountered constraints, and then highlight the policy and development opportunities that exist which may assist in overcoming any limitations and improve outcomes for those participating in these markets. Once again, we make use of examples to illustrate what can be achieved.

LOCAL MARKETS IN CONTEXT: CHARACTERISTICS AND TRENDS

Definition and characteristics

For the purposes of this paper we have defined local NTFP markets to encompass immediate village markets, markets within neighbouring villages and local towns, roadside, harbour or junction selling points, and markets in the nearest large urban centres and cities. Based the literature and our own research, and taking into consideration the above definition, we have identified a number of important features and characteristics that typify local markets.

Consumers of locally marketed forest products may include local people, poor urban residents or 'outsiders' such as tourists passing through an area (e.g. in the woodcarving case undertaken by Shackleton 2005b). In many situations the local trade and corresponding markets tend to be informal with relatively short, although not necessarily simple, supply chains. Sometimes the same individuals perform all functions along the supply chain from harvesting to final sales (as for woven mats and marula beer in Bushbuckridge, South Africa – Shackleton 2005a), while in other cases intermediate wholesalers, processors and traders may provide the link to consumers (as for forest foods in Cameroon and Brazil – Ndoye, Ruiz-Pérez and Eyebe 1997, Shanley *et al*. 2002). Like producers, these intermediaries and traders are also often representative of the poorer sectors of society, with poor urban and peri-urban women being a particularly important group benefiting from regional markets (e.g. Ndoye, Ruiz-Pérez and Eyebe 1997, Padoch 1988, Shanley, Luz and Swingland 2002, Dold and Cocks 2002, Stoian 2005, Mander and le Breton 2006). The production of NTFPs for local markets can be a part-time, seasonal, occasional or full-time, year round activity, with this varying across products, locations and individual households.

In contrast to many export markets, which are often driven by externally imposed, project-based interventions, local trade in NTFPs has generally evolved with remarkably little external support from governments or development agencies and often in spite of significant obstacles and constraints. These 'endogenous' markets are consequently commonly based on long-standing traditional knowledge and skills and are the result of considerable local initiative, innovation, self-reliance and a continuing demand for the products offered. Indeed, given that markets tend to be guided by policies that favour large-scale, corporate interests that frequently conflict with local priorities and values (Schmink 2004), local markets can potentially offer a more appropriate socio-cultural fit than their global counterparts. Despite a strong cultural basis, local markets are seldom static as is often assumed, but show evidence of constant adaptation and experimentation in resource management, transport, processing and sales. It not unusual, for example, to find new commodities such as wild fruit flavoured ice creams and 'bio-jewellery' (Shanley *et al*. 2002), or modified traditional products such as reed mats decorated with colourful waste materials (used as wall hangings) and carved wooden bowls that appeal to outside consumers (Shackleton 2005a,b) for sale in these markets.

Dynamics and trends

Generally, local markets are believed to have limited capacity for development and growth and often face problems of over-supply (Wunder 2001), and some local trades have been shown decline and disappear (Mead and Liedholm 1998). However, while this may sometimes be the case it is not the rule. Much depends on the local socio-economic context and on the strength of the local and national economy. The NTFP trade is often constrained by conditions that typify underdeveloped areas, including isolation, limited local buying power, inadequate infrastructure, poor exposure and access to markets, weak political power, high transportation costs, communication problems, and inadequate education and levels of organisation amongst producers and traders (Sunderland, Harrison and Ndoye 2004, Belcher 2005, Belcher, Ruiz-Pérez and Achdiawan 2005). But, these problems are neither ubiquitous nor insurmountable, and in some instances, local markets can offer more than reasonable returns (Padoch 1992, Awono *et al*. 2002, Shanley *et al*. 2002, Shackleton 2005a, Marshall *et al*. 2006). This is particularly so if the overall economic environment is healthy and products are widely marketed.

Haggblade *et al*. (2002) and Scherr *et al*. (2004) maintain that when economies are buoyant and expanding then considerable potential exists for growth in local and regional small-scale enterprises and markets as benefits trickle down to a more local level. The growing strength of developing country economies has convinced some economists to portray these nations as the new emerging drivers of the global economy (Woodall 2006). Certainly for the Asian countries of China and India and for Latin America, in particular Brazil, this holds promise for the development

and expansion of local markets for a range of forest products into the future (Scherr 2004). While it has been argued that such economic development could result in the displacement of low-investment, traditional activities (e.g. Ruiz-Pérez *et al*. 2004) and the substitution of NTFPs with either cheaper imported substitutes or more expensive alternatives as incomes rise (e.g. Godoy and Bawa 1993), there is also evidence to indicate the contrary. In many situations, including in first world regions such as the USA and Europe, NTFP processing and trading activities continue to prosper and traditional products continue to be appreciated and even favoured by the rich and poor alike (De Beer and McDermott 1996, Emery *et al*. 2002, Ruiz-Pérez *et al*. 2004, Cocks 2006, Emery *et al*. 2006).

In most developing nations, and in Africa in particular, rapid urbanisation is taking place and this is not confined to the major cities. For instance, the African continent is characterised by an urbanisation rate of 3.5% per year (the world's highest) (UNEP 2002), which includes an expansion in the number of major urban centres. Currently, there are 40 cities in Africa with populations of over one million; these are projected to increase to 70 by 2015 (UNEP 2002). Similarly, in other regions such as Amazonia, there are strong urban demands for forest products from "large and growing numbers of rural migrants who continually forge new supply links between the forests and the cities" (Alexiades and Shanley 2004). A study of 'rainforest cities' in Amazonia concluded that expanding urban growth comprised close to 60% of the population (Browder and Godfrey 1997). However, much of this urbanisation is not necessarily associated with increasing affluence (UNEP 2002). Thus, there is a burgeoning market demand for low-cost forest products, in particular construction timber, wood-based fuels, foods (bushmeat, fruits, wild leafy vegetables, alcoholic beverages) and traditional medicines within urban markets (Arnold 1998, Ruiz-Pérez *et al*. 1999, Wiggins and Holt 2000, Williams *et al*. 2000, Scherr 2004, Stoian 2005). This is well illustrated by the huge expansion in urban charcoal demand in many parts of Africa. Such a situation presents new opportunities to strengthen and develop sustainable local markets for NTFPs. The following description of the seasonal forest fruit markets of Belém illustrates how busy and vibrant these growing markets can be: "The markets and street corners of the downtown swell with vendors selling bags of fruit to passing vehicles at stoplights, and temporary fruit stalls are crammed onto sidewalks along major avenues" (Shanley *et al*. 2002). The important function local markets serve in providing low-income consumers with valued cultural, low-cost and often highly nutritious products is a facet of these markets that is rarely appreciated.

Other factors such as rising fuel prices and technological advances also call attention for greater consideration of local markets for forest products. With growing concerns regarding carbon emissions, the costs of aviation fuel and airfreight are likely to rise in the future (Harvey 2006) possibly impacting negatively on exported NTFPs. Furthermore, the movement to encourage the purchase of more local goods with short travel distances in order to minimise carbon emissions (know as the "food miles" concept) may alter consumers' behaviour with potentially negative consequences for NTFPs imported from developing regions (MacGregor and Vorley 2006). These developments suggest that a cautionary approach with regard to a focus on international markets may be well advised.

A technologically driven trend that may assist producers and traders operating in local and regional markets is the considerable advances in accessible communication technology especially cellular phones. For example, in Africa, the mobile telecommunications sector has grown by an average of 78% per annum over the last 10 years. This is providing new opportunities for improved flow of information and better linkages between producers, traders and the markets. In a study from Ghana it was concluded that access to cellular phones had decreased informal traders' transaction and transport costs, created a higher profit margin for them, increased their efficiency, and enhanced trust building within trade networks (Overa 2006).

Given these rapid dynamics underway, it would be imprudent for policy makers, researchers and donors to ignore domestic markets and the locally, driven informal sector in favour of concentrating on global markets (Haggblade *et al*. 2002).

LIVELIHOOD IMPORTANCE OF LOCAL MARKETS

Importance for marginal groups

Findings from a wide range of sources have shown that it is generally poorer and more marginalised households who engage in the local trade in NTFPs, with this being a particularly important activity for women (Neumann and Hirsch 2000, Kaimowitz 2003). In South Africa, a comparison of households trading in four diverse NTFPs, i.e. traditional mats, hand brooms, woodcarvings and marula beer, with a random household sample drawn from the same study site demonstrated that trading households were significantly poorer and had fewer land holdings and livestock than the general population (Shackleton 2005a, Shackleton *et al*. forthcoming). Moreover, for products traded by women, a high proportion of participants (45-50%) headed their own households (Shackleton 2005a). This percentage of female-headed households is higher than the regional and national average of 30%. Similarly, in Cameroon the trade in four popular edible NTFPs was dominated by women. The majority of harvesters and 94% of some 1,100 traders were female (Ndoye, Ruiz-Pérez and Eyebe 1997). Wholesalers were, however, often men (Awono *et al*. 2002). In eastern Amazonia both poor men and women farmers benefited from the collection and sale of several forest fruit species, whereas in the city markets most fruit wholesalers were men (Shanley *et al*. 2002). Forest fruit processing, on the other hand, was undertaken primarily by poor urban women. Significant numbers of female traders sold juices, ice cream and frozen popsicles made from forest fruits from pavement stalls and in open air markets across the city of Belém. This

pattern is repeated across many products, with the local NTFP trade tending to be one area where women are free to earn income with little interference or threat of take over from men (Schreckenberg *et al*. 2006). Furthermore, the participation of women can make the commercialisation of some NTFPs economically viable in many rural areas where the opportunity cost of their labour can be relatively low.

Some argue that it is the fact that products traded in local markets are of low value that makes them accessible to the poor, with the more well-off diversifying in higher paying markets and activities (Dove 1993, Neumann and Hirsch 2000). While this is to a large extent true for many but not all products, it does not deny the reality that the local trade has numerous advantages that allow participation by the poor and those with limited skills or education and with few other choices. Firstly, there are few barriers to entry and minimal capital is required to begin trading. Often raw material can be harvested at little or no cost other than labour time. Secondly, for many of the products, people already have the skills required for harvesting and processing. Indeed, the local trade is often built on rich indigenous knowledge, technologies, and skills, which, in turn, may provide inspiration for the development of new externally facilitated products and markets, often linked to tradition and culture (e.g. as demonstrated by the NTFP Exchange Programme for South and South East Asia, see http://www.ntfp.org). Thirdly, a market exists, albeit sometimes limited, and producers and traders generally have a reasonable understanding of what is required by this market. Moreover, local markets tend to be open and dynamic, changing with the seasons, allowing producers and traders to diversify across a range of NTFPs thus reducing the risks associated with any one product and permitting participants to stabilise their income over the year.

The local trade thus provides an opportunity for a segment of society who would otherwise struggle to compete in the formal employment sector and in more high value markets. Indeed, there is often less threat of take-over by elites in these markets than in export markets (Dove 1993, Belcher and Schreckenberg 2007). Many households increasingly require flexible local income earning opportunities that allow space for other responsibilities such as child care, nursing the ill, maintaining the home and crop production. In southern Africa there is evidence that households affected by HIV/AIDS (amongst the most vulnerable of rural households) are turning to home-based enterprises including the sale of forest products in local markets for income generation (Barany *et al*. 2001, Shackleton 2005a, Shackleton 2006, Wiegers *et al*. 2006). Given the scale and impacts of the HIV/AIDS pandemic, there is a pressing need, both moral and practical, to seek ways to support and expand the opportunities this offers as well as to mitigate the potential impacts of increased exploitation on the natural resource base. In the Amazon, in the context of diminishing farming profits, local NTFP markets can assist small-scale farmers to stay on the land by providing the opportunity for them to diversify their income base and to fill income gaps during the course of the year (Wallace *et al*. 2002). In such situations, it is not necessarily typical 'business' or economic measures such as large profits, specialisation, or growing enterprises that count, but rather how the trade fits with people's existing livelihood portfolios and how easily it might be taken up by cash-poor, rural producers (Scherr 2004). Thus, "for many poor forest-based people, who lack knowledge, skills, inputs, capital and connections, local NTFP markets will continue to be important and a good place to build local entrepreneurial capacity" (Scherr *et al*. 2004). What is more, these markets may ultimately provide the entry point into more lucrative opportunities and the formal sector as has been the case with some craft products in South Africa (Rogerson and Sithole 2001).

Livelihood contributions

Financial benefits

Generally average financial returns from the local trade in NTFPs tend to be modest; one of the reasons why it is thought to have little potential for poverty reduction and rejected as an area for potential investment and support. However, Alexiades and Shanley (2004) note, "in spite of their low turnover, the cumulative value of hundreds of these small-scale forest commodities is considerable, forming the monetary base for millions of harvesters, processors and traders". Furthermore, wide extremes in individual and household income can be found, with some producers and traders doing well enough to raise their standards of living and invest in household assets (Shackleton 2005a, Schreckenberg *et al*. 2006). This important finding is often obscured when data are summarised and aggregated (Shackleton *et al*. 2007). That fact that some producers are able to achieve reasonable incomes suggests that products traded in local markets may have more potential as revenue earners than is sometimes assumed.

Table 2 presents the range in gross and net annual incomes for four products from South Africa traded in local markets. While mean annual incomes were low, and below benchmarks such as the minimum wage (US$1,316 per annum), they were comparable to the cash earned from other small-scale activities and local wage rates (US$277 – 577 per annum) (Shackleton 2005a). Closer inspection of the range in individual incomes indicated that some entrepreneurs were obtaining incomes above the minimum wage. In other cases, the combined income from the NTFP trade and other sources was enough to pull households up into a higher income category. Thus, while not lifting the majority of households above the poverty line, the local NTFP trade can have an income equalising effect reducing disparities between households (Fisher 2003, Shackleton 2005a).

On the other hand, in West and Central Africa the incomes earned from selling NTFPs in regional markets were significant, often providing weekly returns of more than double the minimum wage and sometimes even rivalling the salaries of teachers (Awono *et al*. 2002, Ndoye and Awono 2005). In Cameroon, traders earned net incomes between

TABLE 2 *Range in annual cash incomes per household (US$) derived from the sales of four NTFPs in Bushbuckridge, South Africa – unlike superscripts denote significant differences between mean incomes for product types based on non-parametric (Mann Whitney U) pair-wise tests at p <0.005 (reduced by the number of pairs in the comparison). US$1 = R6.50*

	Mat producers	Broom producers	Broom traders	Marula beer sellers	Woodworkers	Kruskal-Wallis test
Gross income						
Mean	**189**^{cd}	**423**^{b}	**336**^{bc}	**106**^{d}	**2,270**^{a}	
Median	123	276	283	79	1,329	H or χ^2 = 124.1 df = 4, p< 0.0001
Maximum	1,108	2,309	2,954	410	7,503	
Minimum	12	55	7	13	771	
SD	211	394	467	83	2,274	
SE	22	48	76	13	630	
Net income						
Mean	**154**^{b}	**308**^{a}	**168**^{b}	**80**^{b}	**1,143**^{a}	
Median	90	200	133	71	985	H or χ^2 = 52.1 df = 4, p<0.0001
Maximum	887	2,295	1,477	354	2,974	
Minimum	4	4	4	5	246	
SD	175	367	233	72	920	
SE	18	46	38	11	255	

Source: Shackleton (2005a)

US$16 and US$160 per week from selling fresh edible NTFPs during the season, while the returns to producers were about 50-75% of this (Awono *et al.* 2002). Overall, the revenues generated from the sale of nine NTFPs in 28 markets across the humid zone of Cameroon amounted to US$1.94 million in 1995 (Ndoye *et al.* 1997). In the Democratic Republic of Congo, trade in charcoal and palm wine can earn traders US$216 and US$166 per month respectively (Ndoye and Awono 2005), way above the gross national product per capita for the country. In much of Cameroon revenues from local trade in fresh NTFPs were often as high as those from cash crops such as cocoa and coffee (Tieguhong and Ndoye 2006). However, the seasonality of some of the most popular NTFPs does limit incomes to certain months of the year.

In the markets studied by Shanley, Luz and Swingland (2002) in Belém, sales of the three most popular fruit species (Table 1) amounted to over US$4 million in 1994. While incomes accruing to different actors in the supply chain were not determined, prices for wild fruits had risen steadily (3-6 fold) from 1994-2000 due to escalating demand, offering profitable returns to both producers, even those from distant harvesting areas, and traders. In the peri-urban community of Boa Vista, Acara some households generated up to 20% of their annual income from a relatively understudied fruit, *Endopleura uchi* (Shanley and Gaia 2004). For this area and communities surrounding Belém, the four month fruiting season generated the bulk of household cash income and was the time when yearly supplies of school books, clothes and manufactured goods were purchased.

The conventional wisdom is that export markets earn participants higher incomes and provide more full-time employment than the sale of NTFPs in local markets. However, this is not necessarily always the case, and often the benefits obtained by producers are very similar to those achieved in local markets. For example, in the dry forest countries of West Africa, shea butter (*Vitellaria paradoxa*) is a major export crop providing opportunity to hundreds of thousands of rural women. However, in Benin this product was found to contribute on average only 2.8% of total household income (Schreckenberg 2004). Local value addition through processing could assist in enhancing returns, but to extend this to all the women involved would be logistically difficult if not impossible. Phytotrade Africa, a trade association operating in southern Africa is developing novel markets for oils extracted from the nuts of several wild species and creating new opportunities for thousands of women, but actual returns per producer tend to be modest and supplementary to other income (L. Welford pers. comm., www.phytotradeafrica.org). In Bushbuckridge, South Africa the local trade in marula beer brought in higher returns per individual than the sales of fresh fruit to the company supplying the distillers of the well known, internationally marketed liqueur Amarula Cream (Shackleton and Shackleton 2005). However, in all these cases global trade did provide an additional market option for producers.

The large variation in individual incomes earned, particularly for the same product, are often a reflection of the way in which these endogenous trading activities are incorporated into the livelihood portfolio rather than a feature of the product or markets *per se* (Shackleton 2005a, Wiersum and Ros Tonen 2005-6, Schreckenberg *et al.* 2006). Local trading activities provide considerable flexibility in the way they may be combined with the range of livelihood strategies in which households participate. For example, the case studies from South Africa showed that some people engaged in the local trade relatively full-time and were able to earn reasonable returns, while others did not seek to earn more than a supplementary income and only participated to

the extent they felt was necessary to meet their specific cash needs and to fit with other household activities (Shackleton 2005a). In other cases, households may trade in NTFPs only in times of hardship, with this activity forming an important safety net or fallback option (McSweeny 2004, Takasaki *et al.* 2004). In contrast, the demands of the export trade and formal markets, particularly in terms of quantity of product delivered, seldom allow the same degree of flexibility. Flexibility should thus be viewed as a strength rather than a weakness of local markets (Nel *et al*. 2000).

Non-financial benefits

Financial capital is not the only livelihood contribution of the local trade in NTFPs. In all three regions, our research revealed significant non-financial benefits that were important in reducing vulnerability and improving the quality of life of the individuals and families involved (Shanley 1999, Awono *et al.* 2002, Shackleton 2005a). Independence and self-esteem, psychological well being, identity and a sense of purpose, new and extended social networks, and the perpetuation of traditions were all reported as significant social benefits from trading in NTFPs. Trading also provided women with their own source of income, which they invested in food and other household needs and, most importantly, used to pay school fees. In some cases income was invested in other income generating activities, thus contributing to livelihood diversification and risk reduction. Engagement in the local trade also provided an opportunity to work from home; a necessity for some and a quality of life decision for others. Generally the NTFP trade permitted producers and traders to set their own pace with their rewards directly related to the effort they put in. Producers and traders also gained a range of entrepreneurial skills that could be applied in other spheres. In contrast to the export and facilitated trade, the local trade rarely created the unhealthy dependencies on external agencies that often typify the former (Clay 1996).

Another important indicator of the value of local NTFP markets for communities, and an example of how the trade can strengthen non-financial livelihood assets in particular natural capital, is the evidence of intensified production and domestication of some of the species in all three regions (Shanley *et al.* 2002, Awono *et al.* 2002, Leakey *et al.* 2005). One expectation from domestication is its ability to raise the productivity of NTFPs higher than that obtained in natural forests (Ndoye 2005). In Cameroon (and elsewhere in West Africa), safou (*Dacryodes edulis*) is widely cultivated in cocoa agroforests and trees already show evidence of selection for desired fruit characteristics (Leakey *et al.* 2002). In the previously forested areas surrounding Belém, smallholders are effectively transplanting and managing bacuri (*Plantonia insignis*), piquiá (*Caryocar villosum*) and uxi (*Endopleura uchi*) in home groves, despite the latter having being described as an economically unviable species not conducive to domestication or management in agroforestry systems (Cavalcante 1991). Such local management innovations have resulted in a diverse natural forest cover composed of over 20 economically valuable fruit trees and palms (Shanley and Gaia 2004). In Bushbuckridge, South Africa many households have planted marula trees in their home gardens and fields (Shackleton *et al.* 2003), with trees around settled areas showing distinctive traits that suggest a long process of selection (Leakey *et al.* 2005). This investment in intensified management is a direct response to increasing demand and an illustration of the viability of the local markets in which these species are traded.

PLACING LOCAL MARKETS IN PERSPECTIVE: RELATIVE ADVANTAGES AND DISADVANTAGES

While we point out above that many local NTFP markets are important for the livelihoods of the rural and urban poor and thus deserve more support, this does not mean they are without problems. In this section we highlight some of the constraints of these markets and then elaborate on their advantages and disadvantages relative to global trade.

Due to the sometimes small size of the consumer population or limited amounts of cash circulating in the local economy (van Rooyen, Mavhandu and Van Schalkwyk 1997, Arnold 1998), saturation and internal competition are often features of local, and, to a lesser extent, regional markets, especially since low entry barriers often encourage many participants. This situation is illustrated for three of the products studied from South Africa, namely traditional brooms, woven mats and marula beer (Shackleton 2005a). The current trend appears to be one in which more people are benefiting (due to new entrants) from the trade in these products, but the income share per individual or household is declining (Shackleton 2005a). Producers and traders mentioned that products often took longer to sell than previously, resulting in a greater allocation of their time to sales. On the other hand, the main source of competition for woodcraft, the forth product studied, was the flood of low cost imports from neighbouring countries onto the market following the lifting of trade embargoes (Shackleton 2005b). The challenge for local woodcarvers is thus to produce quality products using innovative designs that can compete effectively with these imports. Although, in all four examples, immediate local markets were becoming oversupplied, these continued to be reliable and there still appears to be potential to market further afield, including in regional and national urban centres, with some producers already managing to do this quite successfully.

The problem of market saturation however is less likely to apply in larger markets, such as that for wild fruits and fruit products in Belém (Shanley *et al.* 2002). Here, market size and demand were not the constraining factors. Instead the main problems related to poor transport infrastructure, the high costs to get fruit from the distant outlying areas to the city markets, perishability of the fruits, logging of valuable fruit and medicinal oil trees, and a lack of information as to price and sales options (Shanley *et al.* 2002). Similar constraints applied to wild food markets in Cameroon with additional problems including poor infrastructure and conditions in the markets (including theft), erratic supplies,

weak communication infrastructure and limited information flows, poor organisation amongst producers and traders, and problems with storage (Ndoye, Ruiz-Pérez and Eyebe 1997, Awono *et al.* 2002, CIFOR 2005). A major concern related to the numerous road-checks in which traders were required to pay 'informal taxes' (bribes). These taxes created a disincentive and obliged traders to transfer the additional expense in the form of lower prices to farmers and harvesters and higher prices to consumers (Ndoye 2005). Other common problems across all three regions, and in other studies, included a lack of working capital and access to credit; limited business acumen and skills; unsupportive government, particularly municipal, officials; and a general lack of awareness and invisibility of the trade amongst important stakeholders (conservation bodies, local government, development NGOs, etc).

Another commonly articulated limitation of local markets is the high potential for substitution of traditional ('inferior'), locally traded products with commercial substitutes (Fereday *et al.* 1997, De Jong *et al.* 2000, Clark and Sunderland 2004). This was, however, not a feature encountered in the three research regions. With the exception of woodcraft in South Africa, the products detailed in this paper continue to hold a key position in local culture, are often unique and unsubstitutable, are widely used and appreciated (especially the foods), and are often preferred to commercial alternatives when these are available. In addition, prices of locally marketed forests goods are frequently more competitive than substitutes (e.g. traditional versus conventional factory produced brooms), thus providing an important option for consumers with limited purchasing power (Arnold *et al.* 1994, Shackleton 2005a). These factors suggest a certain stability of local NTFP markets and income, as demand for a wide range of products is likely to persist.

While local markets are characterised by the constraints mentioned above they also have numerous advantages. In Table 3 we consider some of the advantages and disadvantages of local markets relative to export markets, and expand on some of the points made in this table below.

A key advantage of local markets is that they are familiar; while export markets tend to be both socially and geographically worlds apart from what producers and traders know (Philip 2002). Rural producers have little knowledge on how to make contact with buyers and of the quantity and quality of material or products required. Consequently, external facilitation is usually required to break into new niche markets. Such support often, in turn, becomes a weak link, creating unhealthy dependencies on external agents and facilitators. For example, it was found at the close of an externally facilitated project with weavers in KwaZulu-Natal, South Africa that weaving groups were no nearer to the point where they could market their own products than they were at the beginning (Institute for Natural Resources 2003). This meant that they were compelled to become dependent on commercial marketing agents, placing them at risk if these agents stopped operating and forcing them to accept often poor, wholesale prices. A further problem in targeting export markets is that the small scale of local production makes it difficult to guarantee quantity and quality on a consistent basis, something that is required by these markets. In describing key lessons regarding forest product marketing, Clay (1996) notes, "no single forest group can provide enough commodity for even a small company in north America or Europe". For example, an entire year's production of one Brazilian community's nut-shelling operations (70 metric tons) would be required for an eight hour shift at a United States sweet manufacturing plant. Local markets also have the advantage of 'already existing' providing immediate returns, while it may take up to ten years to develop an export market. This is of little help to those producers and traders in desperate need of income.

It is these, and the issues outlined in Table 3, that need careful consideration before advocating for global markets, particularly as an alternative to what producers and traders are already using and know. However, that said, it is also necessary to recognise that there may be circumstances in which the disadvantages associated with local markets outweigh the advantages, and effort would be better spent assisting participants to shift into alternative markets or other livelihood activities.

BUILDING ON AND ENHANCING BENEFITS FROM VIABLE LOCAL MARKETS

While in many situations viable local markets for NTFPs exist, producers and traders rarely have the technology, resources, access to credit, levels of organisation, contacts and skills to overcome many of the constraints encountered or to grow their trading activities much beyond their current level. However, with well-placed, but modest, external support and investment and favourable policy reforms (see Table 4), we believe that many local markets could be strengthened, conditions improved, economic and ecological sustainability enhanced, and incomes smoothed or even raised for both producers and traders. Often relatively small interventions can result in significantly improved outcomes for participants, build new skills and expand opportunities as illustrated in the examples that follow.

In South Africa, marketing and product development support provided by an NGO to local women weavers resulted in them being able to obtain an income throughout the year rather than just for the peak seasons in local markets (Pereira *et al.* 2006). In the extensive medicinal plant markets in Durban, South Africa, the provision of two hammer mills by the municipality to grind dried plant material into a fine powder increased the value of the end product by an average of 198% (CP Wild 2006). Assistance with hygienic packaging of material in response to consumer demand also added to the price traders, mainly poor women some of them also harvesters, could fetch. In Cameroon, basic training and capacity development provided to NTFP producers and traders (using much of the information generated in the research by O. Ndoye and others) increased their ability to organise, access market information, bargain, record their transactions, expand their markets and set their prices thus

TABLE 3 *Comparative advantages and disadvantages of local markets relative to 'facilitated' export markets – information for this table was drawn from the authors' own research, Dove (1993), Dewees and Scherr (1996), Taylor (1999), Arnold (2002), Philips (2002), Institute of Natural Resource (2003) and Schreckenberg (2003).*

Advantages of local markets	Disadvantages of local markets
Existence value: Local markets exist, and may be relatively large, while export markets often have to be developed.	**Limited growth:** Local markets may show limited potential for growth or grow more slowly than export markets, but this does not apply to all products.
Stable: Local markets are relatively stable and guaranteed while export markets are often fickle, uncertain and demonstrate 'boom and bust' characteristics.	**Saturation:** Local markets can quickly become saturated, limiting opportunities for new entrants, impacting on incomes and constraining expansion of individual businesses.
Self-reliance: Participants in local markets are often independent, whereas various dependencies are created for export markets increasing the risk of benefit capture away from local beneficiaries and collapse if any of the actors withdraw.	**Neglected and invisible:** Local markets have poor external visibility and are often neglected by policy makers and development planners receiving little support.
Low technological requirements: Low-cost appropriate technology is often adequate for local markets, whereas sophisticated export markets may require a very different level of processing, quality control and grading.	**Low research investment:** Local markets and products lack research and development (e.g. extending shelf life, resource ecology and management) relative to emerging internationally marketed products.
Fewer regulations: Local markets are relatively unregulated with less bureaucracy as compared to the complex regulations for exported products.	**Lack of support:** Producers often lack the technology, credit, contacts or skills to develop their businesses and have little access to external support.
Lower risk of appropriation: Because of the lower value of goods sold in local markets there is less risk of takeover by elites or displacement by large-scale cultivated sources.	**Deficit of information and sales options:** Rural areas may have scant access to market intelligence and may be beholden to historical trade patterns.
Low barriers to entry: Local markets have low barriers to entry compared to export markets allowing poor, unskilled and marginalised community members to engage in the trade.	**Less opportunity for diversification:** Local markets may show less potential for product diversification to reduce risk in the long-term (due to technology constraints for example), whereas this is often a feature that is developed for export markets.
Low investment: Minimal intervention and capital investment is required to support local trade and enhance livelihood benefits.	**Marginalisation:** Informal traders may face problems establishing themselves in the market place and frequently encounter harassment. The conditions under which they operate are often poor.
Cultural value: The cultural value of many locally traded products provides market stability and can be used to expand markets amongst urban communities with strong rural roots. Many of the products having value in local markets may be have limited potential in export markets.	**Time consuming supply chain:** Producers supplying local markets may be constrained by performing all or most functions along the trade chain. At the same time, however, such horizontal integration could be seen has having positive benefits including more control, realisation of more benefits, less dependency, etc.
Economies of scale: The economies of scale of local markets can be appropriate in remote areas where some products are more effectively supplied locally.	**Geographically dispersed:** Producers supplying local markets are often dispersed over large areas making it difficult to target interventions and build collaboration.
Control and flexibility: In local markets, participants may have greater control, setting their own prices, selling where and to whom they wish, and determining their own work pace to fit in with other household activities.	**Low purchasing power:** Consumers located near local markets are often poor and have limited buying power keeping prices low. Products in specialised export markets can often fetch high prices.
Local knowledge of markets: Local producers and traders understand the needs of local markets, the quality standards and expectations. Export markets tend to be socially and geographically foreign.	**Lack of consumers for new goods:** There may be few buyers in local markets for producers who are creative and produce high quality, unusual goods.
Accessible: Local markets are accessible and close to producers/ traders reducing transaction costs relative to export markets.	**Isolated:** Local markets are often located in marginalised areas characterised by poorly developed transport and communication infrastructure.

TABLE 4 *Types of support needed to build and enhance the value and sustainability of local markets where they are viable*

Recommended support and actions
Raise the status of local and national NTFP trade
• Integrate NTFPs into national surveys for statistical documentation of volumes and values generated by agricultural and forest goods, and into household income and expenditure surveys.
• Communicate trade statistics to increase awareness of the size, value and significance of the trade amongst key stakeholders such as traditional authorities, local government structures and municipalities, conservation agencies, forestry officials, retailers, consumers and the general public.
• Seek political backing for the local and national trade in important indigenous products.
• Raise the status of collectors/producers/extractors and remove associated stigmas.
• Recognise, affirm and facilitate development based on existing knowledge.
• Identify and support cultural links to forest products.
• Promote locally produced products through, for example, special markets, fairs, etc.
• Facilitate multi-stakeholder fora to support development of NTFP markets.
• Seek to integrate NTFPs with other development sectors to form part of a holistic approach to development and poverty alleviation – NTFPs on their own are often limited in their potential for livelihood support and other forms of income generation are also necessary.
Address sociocultural, environmental, political, technological and infrastructural constraints
• Recognise the specificity of the local context and its implications for supporting policies and interventions, as well as the fact not all situations are necessarily viable and sometimes it may be better to support a shift away from NTFPs into other activities.
• Document sources and status of widely used NTFPs and sustainable management practices.
• Facilitate improved organisation amongst producers and traders and support creation of locally-based associations and groups to increase efficiency and provide these groups with a voice.
• Improve conditions in the market place.
• Offer education and training to improve marketing strategies and incomes.
• Improve access to micro-credit.
• Undertake research to develop appropriate technology to process and store products.
• Facilitate linkages to regional, national and international markets.
• Eliminate policy and legislative barriers (e.g. road taxes, complex bureaucracy, restrictions on informal trading).
• Invest in extension on NTFPs and provide training on appropriate harvesting, resource management and domestication techniques to improve sustainability of the resource base. Indeed, no development opportunities will be sustainable unless underpinned by ecologically sustainable activities.

strengthening their position in the market place and boosting their returns (CIFOR 2005). For instance, results of an impact assessment carried out on a sample of 72 traders revealed that on average the provision of market information enabled 81% of traders to increase their incomes by an average of 55% (CIFOR 2005).

Municipal initiatives in Rio Branco in southwestern Amazonia have demonstrated how local urban markets for NTFPs can be stimulated with fairly modest financial support and infrastructure (Wallace *et al.* 2002). Firstly, government and NGOs organised an annual NTFP fair to stimulate awareness of the potential of these products and to bring different actors together. Secondly, the municipality created a weekly city centre market (the *Feirinha*) and nine satellite markets in more peripheral neighbourhoods for fresh fruit products, and, lastly, they provided assistance with transport to these markets. In South Africa, the construction and maintenance of low cost but safe, fenced, covered and serviced informal roadside markets near to key tourist destinations (waterfalls, viewpoints) by a parastatal forestry company and the provincial conservation authority expanded the number of outlets available to local woodcarvers and other craft producers, and created more stability for previously itinerant handicraft traders (mainly single women) (Shackleton 2005b). The state of Amapa, Brazil has provided support for artisanal processing of açai fruit (*Euterpe oleractheea* Mart.) and facilitated linkages with processing industries and international distributors to aggregate value to existing regional production (Brondozio 2004). In this case a substantial contribution by the state was the sociocultural valorisation and acknowledgement of açai producers (Brondozio 2004). Public recognition and political backing is something that could be beneficial to the trade in numerous forest products (see Table 4). In a progressive move, at a national level, in mid 2006, the Brazilian Environmental Protection Agency revised legislation to allow transport of an array of NTFPs (i.e. ornamental, medicinal, aromatics, roots, fibres and leaves) without an authorisation document regarding origin, thus reducing unnecessary and time-consuming bureaucratic barriers.

Potential also exists to build on existing initiatives and expand local markets to national level, with neighbouring countries or internationally. For example, over a 20-year period, açai palm fruits transformed from being a traditional

food of riverine farmers to the most important contemporary economic system of the Amazon estuary. Based solely on local management practices, production increased six-fold, with the state of Para estimated to export close to 10,000 tons per year with production for both strong national and incipient overseas markets expanding (Brondozio 2004). In other cases, for example for products based on oils extracted from indigenous fruits (e.g. marula oil which is marketed by Phytotrade, Scheckenberg 2003), medicinal oil trees such as *Copaifera spp.* (Leite 1997), or high quality craft items, it may be possible to reach high value export markets, but rarely without significant financial investment for further research and development. In these cases it is important to continue to support existing as well as new markets, and monitor any potential developments that could displace intended beneficiaries and disrupt local processes as happened following the industrial development of the Argan oil trade in Morocco (Lybbert *et al.* 2002).

The above represent just a few specific examples of where impact has been achieved. Other recommendations to support sustainable local markets and enhance benefits for participants are presented in Table 4. These range from raising the status of locally traded products to addressing institutional, ecological, political, technological and infrastructural constraints.

CONCLUSIONS

In this paper we have attempted to highlight, using examples from several products and regions, the size, importance, viability, robustness and potential of local markets for NTFPs. In particular, we have illustrated their key role in providing an opportunity for hundreds of thousands of poor forest dwellers and unemployed peri-urban and urban men and women to strengthen their livelihoods. While global markets are important to the trade in NTFPs, a bias towards these, and the characterisation of anything 'local' as having restricted research and development potential, has and will continue to have negative consequences for the people operating in these markets, and could result in missed opportunities to improve the livelihoods of both the rural and urban poor. Relative to the research, support and investment required for export markets, particularly those launching new products, the inputs needed to overcome some of the obstacles facing participants trading in local markets are likely to be considerably less. Indeed, the relative 'returns to investment' in terms of delivering sustainable livelihood outcomes from interventions at different scales of NTFP markets could be an interesting area for further investigation. Often, for local markets, simple policy reforms that reduce commonplace hurdles may be all that is required to extend opportunities and facilitate trade. Furthermore, local markets are often a pragmatic starting point for expanding trade to national, cross-border and international markets. Several commentators have stressed that to be sustainable any new direction should ideally build on local initiative and self-reliance (Clay 1996, Taylor 1999), i.e. on what already exists at the local level, a core principle also advocated in the small, medium and micro-enterprise literature (Nel et al. 2000, UNDP South Africa 2003). Ultimately, a combination of both strong domestic and export markets that allow for diversification and choice will assist in minimising livelihood risk due to dependence on and fluctuations in any single market (Terry 1999).

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