

# Spatialising livelihoods: resource access and livelihood spaces in South Africa

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The livelihood concept remains consistently utilised within a number of research fields, including development studies, political ecology and conservation. Although there are differences in theory and application, these fields draw upon livelihood frameworks to understand how political and economic structures impact decisionmaking and present opportunities for social actors. Several themes have emerged from livelihoods research, including the importance of institutional frameworks and examinations of the conflicts surrounding resource access. While these have been valuable contributions, there has been less attention directed to the reciprocal relationships between space and livelihood. This article draws upon insights from human geography to show how the production and reproduction of livelihoods are interlinked with the processes producing and reproducing space. In order to accomplish this, the article details research completed in South Africa that examines the diversified resources individuals and households combine to generate livelihoods. It is argued that historical and contemporary geographies shape particular livelihood trajectories and social networks for rural residents, thereby making an explicitly spatial analysis necessary for understanding the processes driving social and environmental change. This article asserts that spatialising livelihoods is critical for understanding multiple issues central to livelihood studies, including the significance of diversification, intra-community differentiation, the structure and agency of livelihoods, and the effects of decisionmaking upon social and environmental systems.

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## Introduction

Whether comprising ‘the capabilities, assets and activities required for a means of living’ (Scoones 1998, 5), or the ‘everyday practicalities and diverse modes of making and defending a living’ (Long 2000, 186), livelihoods have been the object of research and policy for several decades (Carney 1998; Chambers 1987 1997; Chambers and Conway 1992; de Haan and Zoomers 2005; Ellis 2000; Francis 2000; Scoones 1998). Within geography, the livelihood concept has served as a major theme in several subfields including development studies (Bebbington 1999 2000; McSweeney 2004), political ecology (Batterbury 2001; Bury 2005; McCusker and Carr 2006; Robbins 2004) and conservation

(Leach *et al.* 1999; Neumann 1998; Zimmerer 2006). Although there are differences in theory and application, these subfields share an interest in using livelihoods as a point of entry for evaluating the impacts of economic neoliberalisation, the integration of rural areas into external markets and networks, or the processes driving social and environmental change. While it is clear that the structural constraints and social networks binding together livelihood systems operate differently across spatial and temporal scales, there has been less emphasis upon analysing the reciprocal relationships between space and livelihood. Because they depend upon the collection of resources, integration to social networks and the movement of labour and capital, livelihoods are inherently

spatial and thus require a spatial analysis to be properly understood.

The intention of this article is to draw upon insights from human geography to engage with emerging research and policy on livelihoods. As I argue in the article, livelihoods research has tended to concentrate upon how capital assets, social relations and organisations, institutions and access intersect in shaping livelihood opportunities for individuals, households and communities (Berry 2009; Chambers 1997; de Haan and Zoomers 2005; Ellis 2000; Leach *et al.* 1999; Ribot 2009). While these elements are critical to livelihood production, there remains a tendency in some analyses to theorise them as aspatial and in overly materialist ways that limit an understanding of how spatial processes structure and enable livelihood systems. Additionally, livelihoods research is often approached at the level of the individual or household, thus reifying a localisation of the production system. Yet, other work has shown that 'livelihoods that can appear spatially bounded are often reproduced precisely through the extralocal mobilization of resources' (McSweeney 2004, 655). Recent work within geography has helped demonstrate that space must be central to livelihood analyses in order to understand key processes that shape livelihood production and the opportunities available to poor people (Bebbington 2000; McSweeney 2004). Building upon these studies, I pay particular attention to emerging interest in networks and 'webs of relation' (Rocheleau 2008) to show how the production and reproduction of livelihoods are interlinked with the processes producing and reproducing space. This draws upon extended research in South Africa to show how a broadened conceptualisation of space changes the understandings of how spatial processes shape, and are subsequently shaped by, livelihood systems. In particular, I work to demonstrate how space and livelihoods intersect in two specific ways: the persistence of historical geographies in shaping access to natural resources, and how historical and contemporary spatial patterns produce intra-community clusters that shape livelihood possibilities in the contemporary era.

In order to accomplish this, the first section of the article provides a review of livelihood studies within the academic and policy literatures with particular attention to the theorisation of capital assets, access patterns and the institutional frameworks that shape decisionmaking. It is argued that spatialising livelihoods is needed in order to exam-

ine how livelihood systems are embedded in socio-spatial articulations that are constructed and reconstructed over time. The second section of the article provides a history of South Africa's colonial and apartheid spatial policies to demonstrate how space operates as an enabling and constraining mechanism for livelihood systems. Racial segregation was facilitated through particular spatial configurations that placed restrictions on human movement and production capabilities. The construction of the native reserves during colonialism, which was expanded through the bantustan system during the apartheid era, has had lasting impacts for rural and urban populations. The third section of the article introduces the case study, which details research completed since 2000 in northeast South Africa that examines processes of livelihood change and the impacts of conservation and development interventions following the 1994 democratic elections. The case study is utilised to argue that historical geographies remain persistent but are also being renegotiated by multiple actors and institutions. These spatial negotiations, and the specific livelihood opportunities they generate, reveal that the production of space is closely intertwined with the production of livelihoods. The fourth section concludes by arguing that spatialising livelihoods contributes to research and policy in providing specific detail on diversification, intra-community differentiation, the structure and agency of livelihoods, and the effects of decisionmaking upon social and environmental systems.

### Spatialising livelihoods

While the concept of a livelihood varies within specific fields, there is general consensus that the production of livelihoods involves several critical elements. Specifically, capital assets, social relations and organisations, institutions and access are identified as important variables to most livelihood analyses.<sup>1</sup> Many understandings of livelihood derive from agrarian studies, development studies and human-environment research where livelihoods are conceptualised as the possession and employ of specific assets. Assets are theorised as stocks of capitals (Ellis 2000) or endowments (Leach *et al.* 1999) that can be utilised by individuals depending upon structural constraints and opportunities. There are generally five main categories of capital assets identified as ingredients to livelihood production: natural, physical, human,

financial and social capital. As Ellis (2000) notes, natural capital is the stocks of the natural resource base (land, water, biological resources) while physical capital (also referred to as human-made capital) is the assets created by economic production activities such as infrastructure, tools and agricultural technologies. Human capital is the education level and health status of individuals and populations, and financial capital refers to stocks of cash or credit. Finally, social capital is understood as the social networks and trust operating between individuals and communities.<sup>2</sup> Access remains a central theme to livelihoods research since the ability of individuals to accumulate resources and other forms of capital is considered a critical variable in moving out of poverty and engaging in sustainable decisionmaking (Bebbington 1999; Berry 2009; Ellis 2000; Ribot 1998 2009). Ribot and Peluso define access as 'the ability to benefit from things – including material objects, persons, institutions, and symbols' (2003, 153) and work to expand access beyond property analysis to understand the bundle of powers that are held by social actors. In one study, Ribot (1998) uses access mapping with commodity chain analysis to examine the distribution of benefits from Senegal's charcoal trade and the multiple market mechanisms operating within this distribution. He argues that charcoal benefits are derived from direct control over forest access, as well as through access to markets, labour opportunities, capital and state agents and officials.

In addition to access, other studies utilise entitlements to understand the role of institutions, including rules and customs, land tenure and markets. Entitlement frameworks build upon the work of Amartya Sen (1981), who argued that poverty and hunger are a consequence not of the availability of resources, but of the application of these resources within specific political and economic contexts. Sen's work has been expanded to address community environmental management to consider how political economy mediates local decisionmaking around natural resources (Leach *et al.* 1999). Within the environmental entitlements framework, endowments refer to the rights and resources that social actors have within a given context, while entitlements refers to the legitimate effective command over alternative commodity bundles, or command over environmental goods and services. Leach *et al.* expand the idea of institutions from new institutional economics (de Janvry *et al.* 1993; Harriss *et al.* 1995; Mearns 1995) and define them as 'regu-

larized patterns of behavior that emerge from underlying structures or sets of "rules in use" (1999, 237). Institutions, then, are understood as the network of rules and patterns of behaviour that condition local resource use and decisionmaking.<sup>3</sup> Taken together, capital assets, access and institutions are viewed as integral components to livelihood systems that intersect to provide constraints and opportunities for individuals, households and communities.

Livelihoods research has been particularly effective in evaluating livelihood production systems within larger structural constraints while addressing the role of institutions in shaping access and opportunities. Regardless of these contributions, I have two concerns with how livelihoods have been theorised within a number of these studies. First, there remains a tendency to present livelihoods in overly materialist ways that overlook symbolic and cultural norms and practices. In making this point, Bebbington cautions that assets are not merely the material through which individuals produce particular outcomes but are also the basis of an 'agent's power to act and to reproduce, challenge or change the rules that govern the control, use and transformation of resources' (1999, 2022). McSweeney (2004) argues that the concept of a livelihood needs to be expanded to include not only economic dimensions, but also cultural, historical and spatial dynamics. These studies assist in demonstrating that a livelihood system must be interpreted beyond the material conditions necessary for survival to include the meanings imbued in everyday experience and decisionmaking capacities. Capital assets, for example, are not just material entities but are also symbolic constructs that involve cultural and gendered norms, politics and contestation, and the influence of powerful institutions operating across time and space. As will be shown, asset regimes can be constructed by the production and manipulation of spatial patterns in ways that remain persistent. This has implications for studies of access as well, since the ways that individuals access certain resources differs across space, which can also restrict the exercise of decisionmaking power and livelihood possibilities.

My second concern is that livelihoods are often presented in overly structured and hierarchical terms. This has been a feature of some commodity chain analyses, which can appear to be unidirectional and deterministic in showing how local livelihoods are structured by external actors and

institutions. As one example of this, access patterns are evaluated across hierarchical scales, but the contestations over access and resource distributions are seemingly detached from space. Rather, it must be inferred where different actors along the commodity chain acquire the resources and how access is spatially contested. Ellis, for example, explains that when rural and urban households pursue multiple livelihood strategies it becomes 'unclear who, spatially, are the gainers and losers of economic policy changes' (2000, 4). Scoones suggests that 'different livelihood strategies may be spread over space or over time' (1998, 10), but does not show how space operates as an enabling and constraining mechanism for livelihood systems, or how livelihoods potentially rework spatial patterns. There is also a tendency in some studies, particularly the more materialist analyses, to understand space as location, such that the location of an individual or community is the critical ingredient in understanding access regimes and the effectiveness of particular livelihood strategies. While location is certainly a factor shaping livelihoods, it is only a beginning point to theorising the complex relationships between space and livelihood. In analysing the canoe trade in the Mosquitia region of Honduras and Nicaragua, McSweeney (2004) helps show how livelihood systems are embedded within markets and social relationships that extend well beyond the narrow community borders that categorise some research. Similarly, in a study from the Andes, Bebbington argues that place histories are helpful for tracing 'actual processes of livelihood and landscape transformation and the institutional interventions that have accompanied them' (2000, 496). Within political ecology research, there has been a move from linear or vertical hierarchies to 'complex assemblages, webs of relation and "rooted networks"' (Rocheleau 2008, 724). These contributions assist in theorising livelihoods as fluid systems that are entangled in horizontal and vertical linkages that are constructed and reconstructed through relationships that are often spatially and temporally variable.

The remainder of this article builds upon these studies to show how a broadened conceptualisation of space changes the understandings of how spatial processes shape, and are subsequently shaped by, livelihood systems. In order to accomplish this, the article draws upon research that has been completed in northeast South Africa since 2000 to assess how the democratic transition is reshaping

demographic patterns, livelihood decisionmaking, and the institutions of environmental governance within rural areas. This research utilised a combination of quantitative and qualitative methods including 50 semi-structured interviews and 478 structured surveys completed with randomly selected households. These interviews were completed over the course of one year from August 2001 to August 2002, and were conducted whenever possible with multiple members of the household. Additional fieldwork was completed in the study area in 2004 and 2006. For the purposes of this article, particular attention is directed towards how households access a host of assets to construct livelihoods, how those livelihoods have changed over time, how livelihoods are differentiated within the community, and how livelihood differentiation is linked to historical and contemporary spatial formations.

### Separating space in colonial and apartheid South Africa

South Africa has experienced centuries of social and spatial regulation that make it a particularly fitting example of the complex and reciprocal links between space and livelihood. Since the onset of colonialism in the 17th century, which was expanded significantly by the British in the 19th century, racial classification and spatial segregation were instruments regularly employed by national authorities for the purposes of maintaining control of rural and urban areas. The colonial system laid the groundwork for racial segregation through the use of native reserves, which were demarcated by colonial authorities as the officially sanctioned territories for the majority African population. African 'locations' or reserves were first established in British colonial Natal under Diplomatic Agent to the 'Native Tribes', Theophilus Shepstone. Colonial administrators employed indirect rule, which emphasised traditional authorities as the administrative unit for political decisionmaking (Hart 2002). The Natives Land Act of 1913 extended the reserve system by outlawing rent tenancy or sharecropping by Africans outside of reserve territories, which prompted some scholars to suggest that its main contribution was the establishment of capitalist agriculture through labour tenancy (Bundy 1979; Hart 2002; Morris 1976). The Natives Trust and Land Act of 1936 further expanded racial segregation through the use of the native reserve

system and the role of traditional authorities. One feature of the Act was the purchase of additional land or 'released areas' to consolidate the reserves. The permission to occupy (PTO) system was established to force rural populations to apply for land through the apparatus of the state. As Ntsebeza (2000) explains, the government could remove PTO holders if it deemed necessary, sometimes without payment, and PTOs were not recognised by financial institutions. The PTO system was instrumental in establishing land tenure and governance systems that would later be exploited by the apartheid state in furthering racial segregation.

The victory of the National Party in the 1948 general elections brought a sweeping set of policies designed to classify the population by race and exercise rigid spatial segregation. The native reserves and use of the traditional authorities during the colonial period became the socio-spatial framework that the apartheid government utilised to enforce minority rule. The construction of the homelands, or bantustans, was a primary vehicle through which the landscape was racially divided. The Bantu Authorities Act of 1951 established tribal, regional and territorial authorities based on 'traditional methods of tribal government' that would later be presented as 'national structures' (Malan and Hattingh 1976, 8). The bantustans were discursively justified through developmental language that represented African populations as undeveloped, tribally affiliated and culturally distinct (King 2007a; King and McCusker 2007). As the South Africa Department of Information stated,

It is a fact of South African life that the vast majority of Blacks are still tribally connected. Tribal loyalties are still extremely strong and traditional life-styles continue to be a powerful formative and socialising influence in Black society. (1967, 47)

This social architecture was spatialised by the apartheid system since these 'distinctly disparate ethnic groups' possessed a 'traditional homeland that serves as the geo-political nucleus of the relevant group's national development' (State Department of Information 1974, 26). The Bantu Authorities Act was expanded by the passage of the Promotion of Bantu Self-Government Act of 1959 that recognised eight 'black national units'. The Act included language that emphasised a national commitment to move these units towards self-governing status (Malan and Hattingh 1976). This formed the basis of the apartheid govern-

ment's 'separate development' strategy, in which the bantustans were presented as nascent states that would become independent through the realisation of their distinctive development path (King and McCusker 2007).

Development discourses were regularly employed by the apartheid government to justify the construction of the bantustans in order to maintain control over social and environmental landscapes. Within the former KaNgwane bantustan, livelihoods were presented as entirely dependent upon agriculture and pastoralism rather than intertwined with the economies of surrounding peri-urban and urban centres (Development Bank of Southern Africa 1985 1987; Malan and Hattingh 1976; South Africa Department of Information 1967). Livestock were idealised in apartheid-era documents as a critical asset commercially, but also because of their cultural significance to the purportedly homogenous Swazi population. KaNgwane was presented as a rich and viable agricultural location, regardless of the fact that the prime agricultural lands were removed from the African population and given to white commercial farmers (Rangan and Gilmartin 2002). In addition to producing and privileging certain livelihoods within KaNgwane, the apartheid system utilised traditional authorities for managing rural landscapes and peoples. This resulted in a political infrastructure within the bantustans that emphasised, and in some cases strengthened, the authority of traditional systems in rural areas (Ntsebeza 2000; Ramutsindela 2001). As the next section details, these patterns would have lasting impacts upon land tenure systems, gender dynamics and local economies in the contemporary era.

### **Social and environmental change in contemporary South Africa**

The transition to democratic rule generated a flurry of interest in South Africa's rural spaces, with particular attention directed towards understanding the lingering effects of apartheid for emerging spatial economies (Hart 2002; King 2005 2007a 2007b; McCusker and Ramadzuli 2007; Pickles and Woods 1992; Ramutsindela 2001; Weiner *et al.* 1997), gender dynamics (Bob 2001; Rangan and Gilmartin 2002; Walker 2008) and livelihood diversification (Francis 2002; Kepe 2008; Shackleton *et al.* 2001; Slater 2002; Twine *et al.* 2003). These studies have worked to uncover the 'political, economic and

spatial transformations occurring that have implications for the future of rural change and development' (King and McCusker 2007, 6). In order to examine the reciprocal dynamics between space and livelihoods, the remainder of this article utilises a case study of the Mzinti community, which is located in territory that comprised the KaNgwane bantustan. Because of the high poverty rates within the former bantustans, particularly when compared with other regions in South Africa, these territories have been targeted for development interventions such as tourism, conservation and sugar-cane farming. These initiatives are being pursued by national and provincial governmental agencies, including the Department of Agriculture, Conservation and Environment (DACE), Department of Land Affairs (DLA) and the Mpumalanga Tourism and Parks Agency (MTPA). The study region has been identified by the national government as a spatial development initiative (SDI), which positions specific areas for infrastructure development and foreign direct investment through economic neoliberalisation (Mitchell 1998; Rogerson 2001). The Kruger National Park, which is the centrepiece of the national park system, is located in the area and contributes in making nature-based tourism a prized revenue-generator for South African National Parks (SANParks). Figure 1 shows the study area.

The Mzinti community was selected as a case study for this research for a number of reasons. First, the community partners with the MTPA in managing the Mahushe Shongwe Game Reserve, which was the first community conservation project initiated in the KaNgwane bantustan. Mahushe Shongwe was established in 1986 by the then KaNgwane Parks Corporation with the stated intention of providing employment and revenue for the community. Second, Mzinti is located near peri-urban centres such as Malelane and Komati-poort that provide formal and informal employment opportunities for some residents that contribute to livelihood diversification within the community. One of the features distinguishing Mzinti from other rural communities in the region is the construction of a government-funded housing project that was initiated as part of the national Reconstruction and Development Programme (RDP). The RDP was written by the African National Congress (ANC), the South African Communist Party (SACP) and the Congress of South African Trade Unions (COSATU), and set the ini-

tial priorities for the national government. The RDP houses were completed in 2001 as part of the larger 'Tonga View' project, which encompasses 1800 total units that were constructed over the course of 5 years. At the time the household survey was completed in 2002, there were 1027 units on the Mzinti side, of which 980 were built for housing. These houses are made of concrete blocks and have metal roofs with three rooms in total. Electricity was only recently provided to the RDP residents and the houses are tightly organised, making agricultural production very difficult.

In order to examine livelihood systems, Mzinti was divided into 12 zones that were modelled on the national census completed in 2001. Each enumerated area (EA) contained an estimated 60–80 houses, of which 30 were sampled.<sup>4</sup> The RDP housing section was surveyed as one EA. One hundred and twenty-eight households were surveyed within the RDP to reflect the larger number of homes in this community section, although it is worth noting that at the time of the research roughly half of these structures were unoccupied. Figure 2 is a map of the community with the RDP houses located to the northeast. The Mahushe Shongwe Game Reserve is situated on the western edge of the community.

Livelihoods were analysed at the individual and household level to understand how they are embedded within social, economic and political processes that produce and reproduce space. The household was theorised as a dynamic collective of individuals that pools together resources through a range of activities, whether it be the collection and use of natural resources, engagement with formal and informal markets, or dependence upon remittances from external household members. The following sections highlight two specific examples of how space and livelihoods are interlinked within the study area. In particular, I concentrate upon outlining the persistence of historical geographies in shaping contemporary livelihood systems, especially in terms of natural resource access, and how historical and contemporary spatial patterns produce intra-community clusters that shape livelihood possibilities for community members.

#### *Historical geographies and natural resource access*

Recent scholarship on livelihood systems in South Africa has worked to show that rural households continue to rely upon a diverse set of strategies in the post-apartheid era (Francis 2002; King 2007a

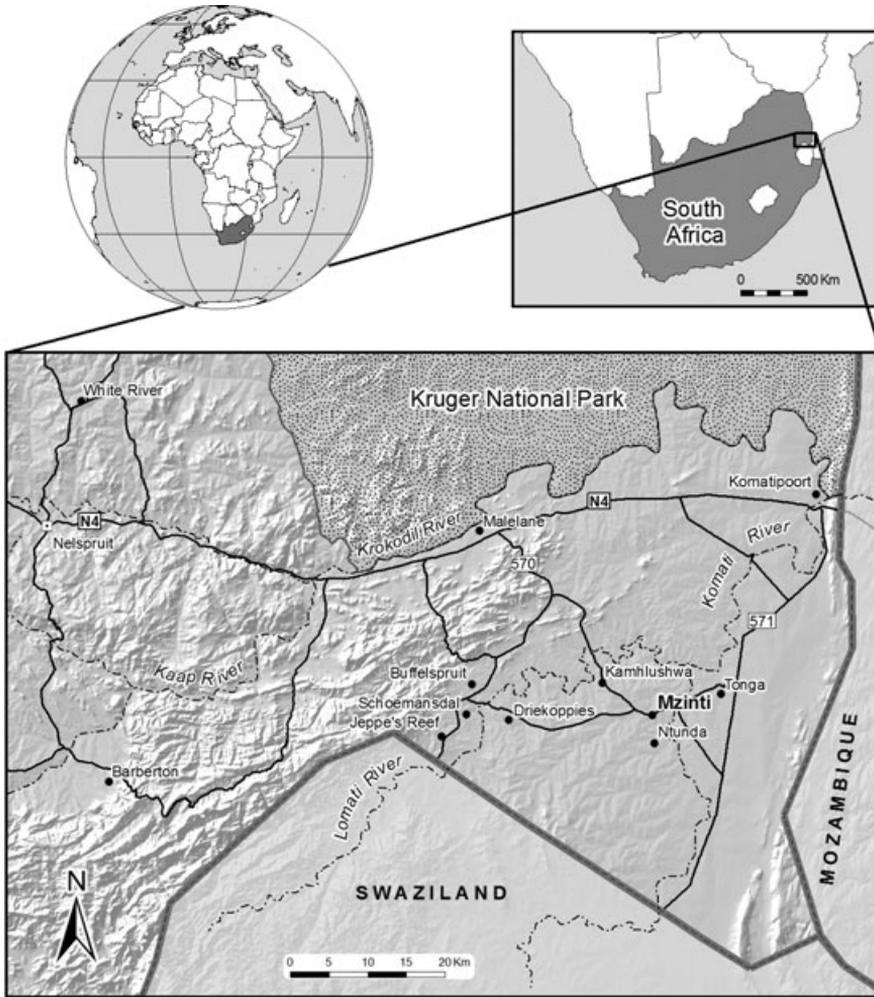


Figure 1 Map of the study area

Source: Cartographic work by Manuel Peralvo

2007b; Shackleton *et al.* 2001; Slater 2002; Twine *et al.* 2003). Although agriculture and pastoralism were regularly cited by apartheid agencies as critical to livelihoods within KaNgwane, they were not widely practised within Mzinti or the surrounding region. This demonstrates one of the central contradictions of apartheid spatial planning, as agricultural production was simply not viable due to the forced removal of prime areas and high population densities within the bantustans. As evidence of this, Murphree (1990) reported a human population density in the communal areas of Zimbabwe of 5–10 people per square kilometre, while in contrast, in the same year the human population density in

the communal areas of the Limpopo and Mpumalanga Provinces was calculated at 174 people per square kilometre (Els 1996). The diversification of livelihoods was therefore a necessity due to apartheid spatial planning, with households engaging in a variety of formal and informal activities, including the sale of fruits and vegetables, repair work, security and manufacturing. Temporary, seasonal and permanent migration occurs with remittances sent back to supplement household income. Although a variety of natural resources are utilised by community members, the collection of wood, sand, thatch grass and medicinal plants, and use of communal space for livestock grazing, are



Figure 2 Map of the Mzinti community

Source: Cartographic work by Brian King and Manuel Peralvo

generally the most important to household economy. Only 10 per cent of Mzinti households reported owning livestock, either cattle or goats, and only 3 per cent reported owning agricultural fields beyond small gardens located adjacent to the household. By contrast, the collection of wood is one of the most common uses of natural resources within the community, and the utilisation pattern parallels other regions of South Africa (Eberhard 1990; Shackleton 1994 1998). Fifty-eight per cent of households cook with wood at least once a month and 50 per cent report using wood as their primary energy fuel.<sup>5</sup> The majority of wood collectors gather wood using 'head loads' or wheelbarrows and collect at least once a week, although some residents hire trucks or tractors to assist in collection, or purchase wood directly from others in the community.

The Mzinti community remains under the jurisdiction of the Matsamo Tribal Authority, which is headquartered in Schoemansdal. One of the decisions made by the ANC following the 1994 democratic elections was to include in the interim constitution some continuity of the role of the tribal authorities in rural areas, which designated a special role for chiefs as 'ex officio members of local government structures' (Levin and Mkhabela 1997, 169). This formalisation of the tribal authorities in the post-apartheid era continued with the

establishment of the municipality system throughout the country that worked to interface traditional authorities alongside democratically elected ward councillors in some decisionmaking procedures (Ntsebeza 2004). The consequence is that the Mzinti representative for the tribal authority, the *induna*, is responsible for many day-to-day procedures including the granting of permits for wood cutting, collection of medicinal plants or selecting individual residents who will benefit from development projects in the community<sup>6</sup> (King 2005). The Matsamo Tribal Authority works in conjunction with the municipality in identifying areas for new home construction and has remained insistent that communal spaces north of the road be maintained for livestock grazing, which the *induna* asserted during an interview was a traditional livelihood practice. The significant needs within the community for various economic and natural resources, including land for farming or grazing, place the *induna* in a challenging position. As he explained,

All these young people they say they want to farm because if they go around looking for jobs they cannot find jobs. Every job is blocked, no one is finding a job to work ... They are all from Mzinti and the others are looking for a place. They say the *induna* must give them a place to farm and there is no place for them. (Interview 26 February 2002)

The consequence is that livelihood possibilities in the contemporary era remain constrained by historical spatial economies, including the political processes that govern land ownership and resource access.

The strategies by which community members access wood and other resources from communal areas serves as a point of entry for addressing the reciprocal relationships between livelihoods and space in contemporary South Africa. In terms of wood collection, the expectation is that collectors gather 'dry wood', which may be taken from the ground or removed from trees. In order to cut trees for building, residents are expected to obtain a permit from the tribal authority, which attempts to manage this resource by specifying the types of trees that may be cut and the length of the collection period. The cutting of living trees, or 'wet wood', is not allowed and the Wildlife Protection Service (WPS) of the MTPA is playing an increasingly active role in arresting and fining local residents. The surveillance from the WPS intensified following the passage of the Mpumalanga Nature Conservation Act in 1998, which placed new restrictions upon wood collection, medicinal plant collection and fishing. It was common during the research period to observe arrests and fines along the main road, and a number of interviewed households contained members that had been arrested for collecting natural resources. In one observed case, a truckload of wood and hand saws were confiscated from two collectors, both of whom were fined R400 each for violating rule 72 of the Mpumalanga Nature Conservation Act that outlaws the cutting of indigenous trees near a public road. As one WPS officer explained to me after I had approached him about the confiscated materials, community members can only cut dry wood, otherwise they are destroying the *veld*. Nearly all Mzinti residents complained about the difficulty in collecting wood and cited the presence of sugar-cane farming and the Mahushe Shongwe Reserve as key factors constraining natural resource access.

One example of how space and livelihoods intersect within the study area can be seen by analysing the geography of tribal authority permits for wood collection. Of the households that collected wood for construction, there is an observable variation in the degree of permit application throughout the community. Households in closer proximity to the town centre, which is also

near to the *induna's* house, were more likely to apply for a permit than residents of the newer community sections in the eastern part of the community. Interviews with some of these residents demonstrate a range of opinions as to this variation. One explanation is that households further removed from the potential surveillance of the tribal authority felt less obligated to apply for a permit. In other cases, residents claimed not to know about this particular rule and others showed less interest in satisfying the tribal authority's directives. Residents that had moved from another village under the jurisdiction of a different tribal authority also showed less inclination to follow the mandates of the local *induna*. In speaking with me, the *induna* openly complained that people were coming and harvesting trees without approaching him for permission, although he emphasised that these were people from other communities. The contestations over resource access in the communal areas are but one example of the intersections between space, political authority and livelihood production in contemporary South Africa. As one MTPA officer explained in talking about the current role of traditional authorities,

The new people do not care about the *induna*. They have come to him for their plot of land but after that, [screw] him. Because they are not interested in him they sideline themselves. It is happening everywhere in all of our villages. (Interview 26 June 2002)

Similarly, the *induna* complained to me that the national government and local communities were no longer valuing the role of the tribal authorities, explaining that 'today people are taking the tribal authority down as if they do not play an important role in development' (Interview). The variability in terms of choosing to adhere to tribal authority mandates suggests that livelihood production and resource access in communal areas is being contested, and potentially renegotiated, in the contemporary era. This contributes to new understandings of political authority in communal spaces, which have been historically constructed and governed through specific institutional systems. As the case of the collection permits suggests, communal spaces are not just locations, but are also social constructions that involve institutional understandings that are spatially variable and politically malleable. As social actors rework access to natural resources critical for livelihood

production, this has the potential to reshape spatial configurations and perceptions of political legitimacy within the communal areas and surrounding region.

While historical geographies remain persistent, the landscape is being transformed in the contemporary era, as irrigation schemes, sugar-cane farming, conservation projects and other attempts to develop the region are encroaching upon the community. These changes are being driven by a number of governmental agencies including DACE, DLA and the MTPA. Generally, the traditional communal land surrounding Mzinti is being converted into conservation and agricultural projects that directly impact households that rely upon natural resources for livelihood production. Plate 1 shows some of the varied land uses surrounding the Mzinti community.

The collection of wood and other natural resources demonstrates the complex and shifting dynamics between historical and contemporary systems that shape the relationships between livelihoods and space in the post-apartheid era. Access patterns remain embedded in historical governance systems that structure the ways that community

residents collect certain resources for livelihood production. These patterns, however, are also being transformed as a variety of organisations are participating in reshaping governance systems throughout the region. The consequence is that the collection of natural resources, which serves as a central element to many livelihood systems in the community, is dependent upon rules of access that have been constructed over time and through the production of space. Traditional authorities continue to assert jurisdiction over territory within the rural areas and remain powerful stakeholders in shaping access regimes for local residents. The power of traditional authorities in shaping access patterns remains embedded, however, within historical spatial patterns that were often created and exploited by colonial and apartheid governments. This generates resentment within rural areas and there is continuous pressure by national and provincial agencies to assert their power by reworking institutional frameworks. Additionally, community members elect to participate or challenge the authority of the chieftaincy, thereby making the communal spaces a terrain of political negotiation. The contestations and potential transformation of



**Plate 1** Competing land uses in the area. In the foreground of the photograph is a small garden plot next to a household. To the north in the upper left are communal lands where natural resource collection occurs.

To the upper right are sugar cane fields that were established in 2001

Source: Photograph by Brian King

these systems has significant implications for the available livelihood opportunities for residents, while simultaneously reworking the spatiality of resource access in the future.

#### *Community clusters and livelihood possibilities*

The second example of how space and livelihoods intersect is through the ways that historical and contemporary spatial patterns produce intra-community clusters that contribute in shaping livelihood possibilities for residents. Spatialising livelihoods within the Mzinti community reveals that there are distinct clusters that are tied to household demographics and histories. These livelihood clusters exist because of the varying dependence upon natural resources and economic employment that reveal community differentiation across time and space. One of the major intra-community variations exists between the RDP housing project and the rest of Mzinti. In asset terms, the RDP houses generally contain the poorest members of the community, as the goal of the programme was to identify the most economically needy. Generally speaking, residents of the RDP are younger, have received more formal education, and are more inclined to participate in economic activities. The average respondent age for the RDP was 31 compared with 46 for non-RDP households. The average RDP household contains three members and only 12 per cent of respondents have had no formal education. In comparison, 41 per cent of respondents have passed their *matric*, which is the equivalent of a high school diploma in the United States. Receipt of the *matric* is an important educational measure, as national and provincial governments consider it necessary for future employment. There are measurable differences in natural resource use and engagement with formal and informal economies within the Mzinti community. Residents of the RDP houses depend less upon the natural resource base, as their primary energy fuel is paraffin and they lack access to land for farming. These households do not own livestock, report using traditional medicine infrequently and do not use wood for cooking or building to a significant degree (King 2006). Although this is particularly pronounced within the RDP, it applies to other sections that have recently expanded within Mzinti.

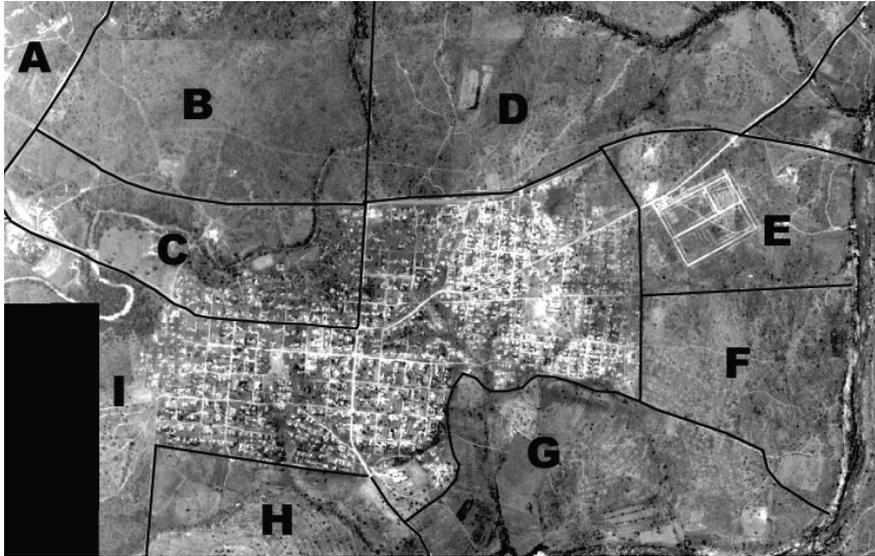
In addition to broad differences between the RDP and non-RDP households, spatialising livelihoods allows for an examination of micro intra-community variations that contribute in shaping

livelihood systems. The use of natural resources, for example, remains closely linked to the processes shaping the expansion of the community and its engagement with external markets that offer economic opportunities. In order to understand the spatiality of these resource collection patterns, Mzinti and the surrounding area were divided into nine resource zones, which were separated using infrastructure and natural boundaries, such as rivers. Plate 2 shows the resource zones.

The resource zones were based on information gathered from the semi-structured interviews, which identified the primary areas where resource collection occurs. The household surveys probed where specific resources were being collected in order to understand the dependence upon specific zones for the collection of wood and thatch grass, and the location of livestock grazing, for each surveyed household. This offered a number of findings regarding the geography of resource collection within the Mzinti community. First, rather than relying on a few sites, residents collect resources at a variety of communal areas surrounding the community. At first glance this could be interpreted as being driven by location, since residents will primarily collect wood in close proximity to their houses. Yet drawing from the household interviews and participant observation within the community, it is clear that this is not the only variable shaping natural resource collection. Rather, resource availability and conflicts between traditional authorities and provincial conservation agencies, such as the WPS, influence where and how natural resources are being collected. Interviews completed with individuals that collect wood to sell indicate that they often travel far from the community to avoid confrontations with the WPS. In speaking with one individual who depended upon the selling of wood that he collected with his vehicle, he explained that he regularly drives south of Mzinti towards Ntunda and Bosfontein to avoid WPS officers. As he explained,

I collect wood for one week and bring them back here at home. I deliver to the people the following week because I cannot afford to collect and deliver at the same time, because it is too far where I am collecting the wood. (Interview 24 June 2002)

Similarly, another community member who had been arrested previously for collecting wood and for fishing in the Nkomazi River complained that



**Plate 2 Resource collection zones. The nine resource zones, A–I, were produced by separating the area using infrastructural and natural boundaries**

*Source:* 1997 aerial photograph provided by the Mpumalanga Rural Development Programme (MRDP) and cartographic work by Brian King

the WPS should concentrate upon managing the Mahushe Shongwe Reserve. As he stated,

They said we should pay for the wood then only to find that we do not get wood at the reserve. But we get them from the bush so we refuse to pay for wood. We cannot be arrested for our wood which is not in the reserve. (Interview 8 April 2002)

The collection and use of natural resources as a component of livelihood systems within Mzinti has placed pressures upon resource availability and access patterns over time. These spatial pressures can produce socio-political negotiations, such as the instance that occurred between livestock owners and the tribal authority in 2002. Mzinti cattle owners identified the expansion of agriculture, particularly sugar-cane farming, as a direct threat to the amount of grazing land available to them and responded by working with the tribal authority to establish a fenced area solely for grazing. As one cattle owner explained:

The problem is during the dry winter months most of our cattle die due to a lack of grass. During the rainy season there is grass and there is no problem. The problem is only there for three or four months. Since they have started with the sugar cane project, the grazing

land is becoming smaller than before and grazing will become a problem to us. (Interview 18 December 2001)

Another prospective cattle owner argued:

I am afraid that I am interested in farming because now the issue of farming is taking all of the areas for grazing and the MTPA has taken that other area. Now, what will it mean in a few years is there will be no grazing for cattle ... If we form an association and we want to farm cattle maybe for dairy or for beef, we will have a problem, so this project will not last other than sugar farming. (Interview 26 March 2002)

While only 10 per cent of Mzinti households own cattle, the economic and cultural importance of livestock enabled these residents to lobby the tribal authority and other provincial agencies to safeguard communal space for grazing. Because their livelihood strategies remain tied to traditional cultural practices, livestock owners had an advantage over other resource collectors and were more effective in taking control over territorial negotiations. The transformation of available communal space for agriculture and conservation projects produced a conflict over access that was framed in cultural terms that would have greater sway with the tribal authority. What emerged was a seeming paradox,

whereby a livelihood system invoked by the apartheid government to justify separate development was reinvented in the post-apartheid era as a way to claim territory and restrict access to communal space from competing resource users. Livestock owners, while representing only a fraction of the community, were able to draw upon social networks that invoked the concept of cultural preservation to ensure that they had access to territory at the expense of other resource collectors. In essence, the social networks binding these actors together, which were largely shaped through their shared livelihood strategies, was effective in producing a new space that benefited their particular needs. As this example demonstrates, the benefit of analysing livelihoods spatially is that it assists in revealing local variations and micro-politics that reproduce and potentially rework historical spatial processes. Spatialising livelihoods reveals that historical and contemporary processes remain meaningful in producing particular spatial configurations that will influence livelihood possibilities in the future.

### **Conclusion: spaces of livelihoods and livelihood spaces**

The intention of this article has been to draw upon insights from human geography to show how the production and reproduction of livelihoods are interlinked with the processes producing and reproducing space. In this section, I want to conclude by highlighting how spatialising livelihoods informs future research and policy on livelihoods.

#### *Diversification and access*

The first point from this article is that making space more explicit to livelihood analyses is helpful in addressing several concepts that have become more central to livelihoods research in recent years, particularly diversification and access. Research on livelihood diversification, for example, would benefit from understanding how diversification is often produced by spatial processes that necessitate new strategies to generate income and support households. The South African case demonstrates that historical spatial patterns remain meaningful in shaping land tenure systems and local economies. The production of livelihoods in the contemporary era simultaneously operates within these structural constraints, but also provides opportunities to challenge and rework the parameters and rules that shape livelihood deci-

sionmaking. The negotiations over livelihood systems and resource access that are occurring within the communal areas simultaneously rework understandings of space by challenging existing institutional systems and formations. The case study also shows that it is critical to analyse livelihood diversification not only at the household level, but also within particular communities. As has been documented in several fields, external interventions can benefit certain community members at the expense of others (Agrawal and Gibson 1999; Carney 1996; Schroeder 1997). Often these differences are livelihood-based, as communities often contain significant variabilities that produce diverse benefits from external interventions. As Scoones explains, 'socio-economic differences, of course, exist within any site, and these also have a major impact on the composition of livelihood portfolios' (1998, 11). The challenge, therefore, remains to spatialise these differences to understand how they contribute in shaping livelihood systems within particular locations.

Similarly, access remains a central concept to research on livelihoods in development studies, conservation and political ecology, and as been pointed out, the 'physical circumstance (location or stature)' is one mechanism shaping access (Ribot 1998, 310). As this article demonstrates, access can be traced spatially to understand where specific resources are collected and how access is structured by social relationships expressed by and through space. Yet, access is not simply produced by location, but also by the social processes that converge in particular places. The interplay between traditional authorities and new governmental agencies in rural South Africa speak to the reality that communal spaces are a terrain upon which social, economic and political engagements and conflicts unfold. The creation of the sugar cane fields and the Mahushe Shongwe Reserve impacts households differently within the community, not just because of where families are located, but also because of the livelihood system employed by residents. Households that are more dependent upon wood collection, for example, face more significant livelihood constraints by these projects than those less dependent upon this particular resource. Additionally, livestock owners have utilised historical governance systems and contemporary development discourses, including invoking cultural tradition in understanding livelihood and space, to advantage their interests

by demarcating communal territory for grazing. Contestations over resource access, therefore, have the potential to rework understandings of space, either in terms of renegotiating access to particular areas or in the formation of new spatial configurations. Livelihood frameworks need to interpret access as spatially constructed, and negotiations over access as one way that socio-spatial relations come to be produced, reproduced and potentially renegotiated over time.

### *Structures and networks*

A second contribution of spatialising livelihoods is that it assists in identifying structural constraints and social networks that are important in enabling and constraining livelihood decisionmaking and the production of space. One of the central criticisms of the asset concept is the tendency to divorce them from the structural forces that influence their availability and employ within particular contexts. Theorising assets not simply as material constructs, but also as embedded in social networks assists in providing a more robust narrative of the access patterns and the agency of households to produce livelihoods. Making these social networks more spatially explicit also assists in understanding the forces that produce networks and that allow them to have continued influence. Additionally, understanding livelihoods as interrelationships between actors and structures makes the differentiation and inequities within particular places more transparent. Social networks are not evenly distributed across space and there are differential patterns within households, communities and regions. Finally, theorising livelihood systems as embedded within social networks also assists in engaging with critiques of the household as a unit of analysis. As Ellis indicates, a 'more spatially extended understanding of the household is required than that provided by the conventional definition' (2000, 19).

Lastly, this article addressed the geography of the differentiated livelihoods to assert that understanding the community as a spatial, as well as a social, unit allows for greater attention to the geographic variance in livelihood patterns. Spatialising livelihoods supports an awareness of the existing networks within and between households and varied locations. It reveals the household to be the dynamic unit that it is by understanding it not as bounded in space and time, but as a site for flows of activity and exchange. Migration and remit-

tances are not seen as exogenous processes that then impact local livelihoods; rather, they are interpreted as integral to the production and maintenance of livelihoods systems across space (McSweeney 2004). This assists in keeping the household as an object of analysis while addressing the critique that it is often presented as temporally and spatially fixed. Spatialising livelihoods demonstrates that communities need to be rigorously examined in order to appreciate the socio-spatial livelihood variations that exist within specific places. Additionally, it assists in interpreting the competing forces driving land cover change and the institutions of natural resource access. Spatialising livelihoods helps demonstrate that rural households within the Mzinti community employ a diverse range of livelihood strategies that have spatial implications for livelihood production, future livelihood possibilities and the effectiveness of development interventions in the post-apartheid era.

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## Notes

- 1 It is not my intention to gloss over points of disjuncture in the livelihoods literature, as there are clearly differing conceptualisations of livelihoods. Long (1984), for example, was an early advocate for 'livelihood strategies', while de Hann and Zoomers (2005) suggest the need to evaluate livelihood styles and pathways. Other scholars have drawn upon the idea of mapping, either in terms of access mapping (Ribot 1998), livelihood mapping (Carter and May 1999; Erenstein *et al.* 2007; Kristjanson *et al.* 2005), or poverty mapping (Alderman *et al.* 2002; Hyman *et al.* 2005). My focus here is to emphasise dominant themes in the literature, particularly studies that concentrate directly upon the relationships between space and livelihoods.
- 2 Social capital owes its popularity to Putnam's (1993) study of social organisations and regional development in Italy, which asserted that the areas with more effective governments and economic development were characterised by 'horizontal' social relationships based upon trust and shared values. According to the World Bank's social capital working group (Woolcock and Narayan 2000, 226), social capital refers to the 'norms and networks that enable people to act collectively', although other implementations of the social capital concept are utilised and hotly debated (Bebbington 1998; Bebbington *et al.* 2006; Fine 1999; Harriss and De Renzio 1997; Woolcock 1998).
- 3 It is worth noting that the idea of formal and informal institutions also represents a challenge to Hardin (1968), who argued that the absence of private property rights results in incentives to degrade the natural resource base. Institutional analyses have worked to demonstrate that common property systems often have tight and well-understood rules governing resource use and access.
- 4 EA 10 is a section of the community that has significantly expanded from within the community and from neighbouring regions. Ground-truthing and interviews with census enumerators revealed there were fewer households in this EA, so only 20 were surveyed to have proportional representation with the rest of the community.
- 5 Data reported in this section are from the structured survey of 478 households that was completed in 2002.
- 6 At the time of this interview, Mr Thikuni Shongwe was the *induna* for the Mzinti community. He retired shortly thereafter due to illness and his son assumed the position of *induna*.

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