

A Country of Farmers: The Social History of Indigenous Knowledge and Rural Development in Botswana

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Abstract

This paper explores the varied and nuanced ways in which rural farming communities in Botswana have engaged with their environments for generations. For these farming communities, interaction with the physical environment is not just a narrow imperative to exploit material resources. Rather, the physical environment is a platform upon which social identities are organically constructed. The paper takes a socio-environmental perspective to the study of rural development in Botswana. Rural development, it argues, should be studied from the vantage point of the local communities in order to tap into their ideas, technologies and practices. The paper challenges the elitist rural development approach whereby very little about the ideas and technologies of the local rural communities is documented. The first part of the paper provides the history of the received knowledge about farming in Botswana, and how this impacted on indigenous systems of cattle keeping. The second part draws from historical insights to argue that social research should engage with the various forms of community knowledge about the environment in order to inform rural development policy in the country. The last part suggests methodologies, discursive and practical, of doing research on the interaction between ecosystems and rural development.

Introduction

This paper is about shifting research paradigms. It makes an attempt to illuminate the intersection between indigenous knowledge and rural development in Botswana. It also proposes alternative methodologies to the study of the synergistic relationship between ecosystems and rural development. Presently, while we value and internalise ecosystem's benefits into conventional decision-making processes, our focus is exclusively on the material utility of resources. As a result, exploitation, and of course overexploitation, is fundamental to global and national models of development, which more or less fail to account for the varied ways in which communities construct landscapes out of their physical environments. The point here is that, the landscape is not simply a supply depot of natural resources. It is also a space in which communities produce ideas of how to successfully live in and with their physical environments. It is only when scholars study rural development from the vantage point of the local communities that they can illuminate the power dynamics of indigenous knowledges and their role in shaping development policies.

The salience of indigenous knowledge for sustainable exploitation of the environment has dominated eco-history throughout Africa since the late 1980s (Richards 1985:41; Macdonald 2002; Schoenbrun 1998). Molosiwa (2013) has also explored socio-agro-pastoral systems across pre-colonial, colonial and post-colonial Botswana where, for generations, communities have engaged with their environments for purposes of social reproduction. The current paper builds on previous research by proposing the methods, theories and epistemologies of examining the contribution of indigenous knowledges of agro-pastoral pursuits in Botswana to the production of socio-cultural identities. The paper is particularly interested in the differentiated ways through which rural communities draw from their cultural repertoire to navigate a harsh environment of climate variability and disease and thus give social meaning to their agro-pastoralist identities.

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Against this background, the paper takes a socio-environmental perspective, which begins from the premise that the environments are people's environments: it is the community that modifies the physical environment (Jacobs 2003; Kreike 2004). As a result, communities control ecological succession, even though the physical environment determines the limits as to how far development can go. Ecological succession is a process of transformation in the structure of the ecosystem over time. This process may slow down or speed up as the environment reacts to the intensity and gravity with which communities exploit natural resources. As a result, exploitation of resources should take into consideration the fact that the landscape constitutes the home of the community. The landscape has always been the building block of the various communities in Botswana. In fact, historically the environment was an integral aspect of African society. Various African communities created laws to preserve this system, and herders, in particular, also ensured the environment was utilised in a sustainable way (Peters 1984:31; Kreike 2004; Jacobs 2003).

My proposition in this paper is the kind of research agenda that focuses on adaptive strategies, and generally on indigenous knowledge. Such research would inform the kind of rural development policy that, if adopted, would reduce over-reliance on manipulative strategies, or modern technologies. Worldwide, the overuse of modern technology borders on systematic destruction of the environment. One of the major threats of the global community's overreliance on modern technology, for instance, is the profound impact of climate change on natural habitats, particularly as this technology has contributed immensely to deforestation (Dolman *et al* 2003). To stem the tide of climate change, this paper argues that there is need to give indigenous knowledge authority in the extraction of natural resources.

Botswana is home to a diversity of ethnicities with varied indigenous technologies, or the local strategies, epistemologies and practices that, if adequately documented, can help to frame development policies crafted from below. The primary objective for rural development in Botswana has always been 'to regulate land use, and to secure access for all citizens access to and control over land' (Saugestad 2001:124). But this objective has often disadvantaged some communities, especially the Basarwa, who, unfortunately, the country still sees with the colonial lens of Africans as an integral part of the environment. Taking cognizance of the diversity of indigeneity that this country is endowed with would help policy makers to avoid designing top-down policies with the hope that such policies would somehow trickle down to the rest of society. The Botswana government has since independence occasionally designed prescriptive development policies that ignored the indigenous knowledges of the local communities. The 1970s Tribal Grazing Land Policy is one well-known example of a good proposition gone wrong. Another is the Remote Area Development Programme, and recently the imposition of livestock keeping on the Basarwa communities at New Xade. This paper therefore proposes a research agenda that explores the varied and nuanced ways in which Botswana's rural communities have engaged with their environments for generations, not just to exploit material resources, but also to construct and produce identities. Drawing from studies on human ecology, the paper argues that rural development should be studied from the vantage point of nature-society research in order to tap into the indigenous knowledges of the local communities (Gordon and Krech 2012).

State Epistemologies, Grazing Land and National Identity: Historical Insights

In 1926, anthropologist Melville Herskovitz (1926) designed a rather primordial theory that cast African herding as an irrational imperative driven by the desire to accumulate livestock for mystical reasons at the expense of the environment. This theory became popular in the 1930s as European colonial governments used it as the blueprint for grazing land policies across Southern Africa where cattle hoarding was disparaged for its purportedly deleterious effects on the environment (Beinart 2000:280-2). Across Southern Africa, colonial governments infused Herskovitz's theory into existing ideas of

progress being exclusively Eurocentric to design land policies that sought to protect natural resources from the perceived predatory character of African farming and therefore promote sustainable capitalist developments.

Not to be left behind, colonial Botswana also used this hegemonic discourse of the irrational African herder to engage on a massive programme of borehole drilling in order to reduce the country's overreliance for water on a rainfall pattern that was very erratic (Peters 1994). Noble as it appeared, this programme was highly elitist. It stipulated the number of cattle one needed to own in order to qualify for a borehole. Farmers whose numbers of cattle qualified them for ownership of a borehole were entitled to fence areas surrounding their boreholes to instill a sense of rationality and therefore keep stocking rates within the carrying capacity of the land (Peters 1984). Partial privatisation of the commonage in turn pushed farmers whose herds fell below the numbers required for borehole ownership into lands of marginal quality, leading to huge losses during times of ecological shocks (Parson 1981). The devastating impacts of these socio-ecological re-engineering projects became particularly damaging for communal farmers between 1957 and 1966 when a prolonged and insidious drought combined with an outbreak of Foot and Mouth Disease to obliterated large numbers of cattle (BP Annual Reports 1960-66; Campbell 1979:98-109).

Just when Africans thought the collapse of colonial empires in the late 1960s would usher in national governments who would understand their need to have free access to the commonage, a new discourse, albeit premised on the "cattle complex" theory, emerged. Post-colonial governments became proponents of the received knowledge about the synergistic relationship between land degradation and African pastoralist pursuits. This misplaced concept owed its birth to Garret Hardin's (1968) rather essentialist ideas of the commons property theory. Hardin's theory reconstructed livestock herding on the commons as a greedy and wasteful pursuit systematically orchestrated to overexploit the commonage. He argued that to curb the vice of degradation of the environment, it was imperative to force communal herders to reduce their stocking rates in tandem with the carrying capacity of the land.

As the quintessential common denominator for range management policies of the time, the commons property theory was embraced by the post-colonial Botswana state as an instrument of instituting agricultural reforms. From 1970 official rhetoric centred on encouraging Batswana men to channel their energies to rural farming rather than migrating to urban areas where employment was not certain (*Kutlwano* 1970; Khama 1980:322-324). President Seretse Khama's policy statements on agricultural production, in particular, valorised the socio-economic virtues of cattle farming and demonised male rural-urban migration for its purportedly deleterious effects on rural enterprise (Khama 1980:322-324). Casting aspersions on the ability of the emerging mining industry to provide gainful employment, Khama stressed that 'Botswana must remain a nation of farmers.... [Our] hopes of general prosperity rest on the development of agriculture and animal husbandry' (*Kutlwano*, May 1970:6). Official discourse of a masculine cattle-producing nation gained support from the ruling Botswana Democratic Party (BDP) activists in the 1970s. They wrote to *Kutlwano*, Botswana's first official magazine, warning of the potentially damaging effects of urbanism on Tswana cultural values and extolling the virtues of a masculine rural enterprise (Magang 2008:212-213, 352; *Kutlwano* October 1974:31).

This concerted male elitist rhetoric about the centrality and masculine gender of farming coalesced with official epistemologies about the beef industry and perceived benefits of privatisation of the pastoral resource base to shape policy on grazing land. In 1973, a government White Paper granted exclusive rights to individuals over the lands they wished to fence for ranching purposes throughout the country (National Policy for Rural Development 1973). Moreover, the White Paper did not force these individuals to relinquish their 'traditional' rights to unfenced pieces of communal pastures (Picard 1980:329). The new grazing land policy thus disadvantaged communal farmers as the

so-called progressive farmers released their herds into the already compromised commonage (Picard 1980:329).

The underlying reasons for launching a land reform effort in Botswana were later spelled out in a Government White Paper published in 1975, which instituted a new grazing policy called the Tribal Grazing Land Policy (TGLP). With its primary objective being to build an internationally competitive beef industry, the TGLP criticised the communal land tenure system for being 'a free for all' and in need of restructuring to give herd owners 'complete control over the areas where they graze their animals' for sustainable land use (TGLP 1975:5). It also stipulated a reduction to manageable size of animals raised on communal lands to bring stocking rates in line with the carrying capacity of the land in order for farmers to make real progress. Such prescriptions, however, profoundly impacted on the hitherto existing forms of indigenous herd and range management, and stifled household subsistence production (Arntzen, et al 1996).

Indigenous Herd Management Systems: Contesting State Epistemologies

The Botswana state's epistemologies and practices of commercialised and individualised pastoral resources were based on a colonial blueprint, which promoted the partial privatisation of the commons (Peters 1994). In the indigenous herd management traditions of Botswana's rural communities, however, such individualised visions of land ownership and the accompanying scientific requirements of carrying capacity were unacceptable because they alienated the land from its rightful or traditional owners. They were also a food security threat. Living in an environment of high climate variability, the Botswana generally kept drought-resistant Tswana cattle breeds that acted as a buffer against the increasingly perishable rain-fed arable agriculture. As a result, reducing stocking rates in a country cursed with frequent periods of rain scarcity, droughts and disease could predispose whole communities to famine.

Prescriptions of carrying capacity were also anathema to the traditions of socially circumscribed usage through which autonomous communities had gained access to range resources for generations prior to the rise of nation-states, and which outlived colonial rule. To understand better this process of indigenous resource management, a case study will suffice. Among the Batswapong and Babirwa of the eastern Botswana the kin-based control mechanism of *mahudiso*, or pastures, gave kin herders restricted access to resources and therefore enabled communities to manage grazing without having to reduce stocking rates. The *batswakwa*, a word that literally translates into 'those who come from far unknown places', or foreigners, had to make an application called *go kopa mahudiso*, asking for pastures, in order to be accorded access to grazing. But such requests could be denied. Those whose requests were denied seldom encroached onto another group's *mahudiso* for fear of transcendental retribution, which it was believed could cause them to incur huge losses (Molosiwa 2013:86).

Grazing one's cattle without permission in the pastures of other herders was therefore akin to trespassing on a kraal, an offence described as *go ralala lesaka* (trespassing on a kraal). All cattle that grazed on a certain area were bound to that piece of land through doctoring by powerful dingaka tsa dikgomo, ethno-veterinary medicine specialists, in a ritual called *go thaa lesaka*, or fortifying the kraal. The ritual of *go thaa lesaka*, which depended on rapport between people and plants (in the form of medicines), was intended to repel misfortunes caused by witchcraft, tie the cattle to the kraal and therefore protect them against thievery and straying (Molosiwa 2013:214-216; Schapera 1994 [1938]:142). This symbolic affinity between people and plants provides glimpses into the profound significance of nature to cattle keeping. That is, the power of nature was harnessed for protection, for wealth acquisition and for warning the *batswakwa* against trespassing into other farmers' grazing areas.

But the doctoring of cattle was not simply spiritual. It was largely based on temporal considerations as it had immense material utility. The Batswapong and Babirwa communities, as did other communities who raised their cattle in the commonage, believed that this doctoring ensured

that the cattle did not leave their land, particularly through theft, straying or falling prey to predators. These control mechanisms were based on mobility and access to dispersed range resources. They were therefore sustainable forms of land use suitable for the highly adaptable indigenous breeds of cattle and a fragile ecology characterised by an unpredictable climate (Batisani and Yamal 2010).

Generally, the Tswana breed is well adapted to semi-arid conditions and it can withstand long drought periods because of its ability to survive on less feed. This hardy animal also has the tenacity to walk long distances between grazing and drinking and it has low water requirement. During the rainy season, when dispersed pools provide water all over the range, and cattle are at risk of going astray, herders practice intensive herding. Every herder is required *go di tshwara ka megatla* (to hold on to cattle's tails), which is a metaphor for 'following the cattle closely'. *Go di tshwara ka megatla* is, nonetheless not always a year-long process. During the dry season, the people practice a less intensive herd release management system in which the cattle are released to look for grazing far afield only to come back after two or three days for water. Ninety-year old Gaotwaelwe Mooketsi of Mogapi visualised this shifting herd management system:

Under normal circumstances, herders follow cattle out into the veld so that we could drive them back to the kraal in the evening. Spending the day at the pastures helped us to keep them together and identify those that calved. It was a lot of work. During droughts there was very little to do. Our cattle were watered after every three days. After watering them, we would simply drive them away and spend most of our time doing leisure activities, such as playing games, setting traps and hunting. But once the dry season became prolonged, wells dried up and pastures deteriorated, we would move with our cattle to find better grazing and water elsewhere (personal communication with Gaotwaelwe Mooketsi, December 2013).

This testimony is a poignant example of the complexity of a sedentary herd management system punctuated by periods of mobility, depending on climate variability and the availability (or lack) of water and grazing.

Such mobility and herd dispersal in unpredictable ecologies has always been the cornerstone of open range farming in many African pastoralist communities (Boonzaier et al 1996; Schoenbrun 1993). It also serves as a useful corrective to theories of the overexploited commons property advanced by earlier environmental histories of Southern Africa (Vail 1977). Botswana rural communities resisted the TGLP's attempts at forcing them to reduce stocking on the commonage because the socio-economic and cultural benefits of their cattle were, as existing works demonstrate, not strictly measured in environmental costs (Kreike 2009). As Beinart (2000), aptly notes, for poor livestock herders in Africa, unrestricted access to the commonage was 'vital for multiple uses such as draught, milk, meat as well as exchange'. Political Scientist, Richard White (1993) also characterises the Tswana breed as a 'general purpose animal'. These breeds of cattle represent a concrete expression of wealth. They are central to rites of passage, social networks, food production, commercial and subsistence transactions, as well as being insurance against famines (Kuper 1982; Gulbrandsen 2014:109-135). The material utility of cattle in an environment prone to shocks, together with the cultural and symbolic importance attached to them, has necessitated hoarding even under unfavorable environmental conditions.

Among the Babirwa who identify themselves as the Bakgomong (people of the cow), for instance, social identity revolves around the idea that the universe is largely shaped by cattle rearing (Molosiwa 2013). This worldview is also expressed countrywide in the Tswana's reference to a cow as *modimo yo nko e metsi* or 'a god with a wet nose'. Contrary to classical works that represented Tswana cattle keeping exclusively in mystical and cultural terms (Schapera 1940:116-26; Alverson 1978:124;

Kuper 1982), the expression, *modimo yo nko e metsi*, speaks to the fundamental role, which cattle play in supporting livelihoods, and in line with Botswana's Agricultural policy of promoting rural livelihoods-based development (National Policy on Agricultural Development 1991).

In fact, the broader Tswana cultural ideology equates cattle with total wellbeing; that is, cattle as the nurturers of both the spiritual and temporal worlds. Because of dependence on cattle for everyday livelihoods, cattle imagery dominates the language in idioms, proverbs and speech of the rural peoples in Botswana. This symbolic affinity between cattle and people is part of the multiple ways in which cattle have been important components of rural and national development. In fact since colonial times the beef industry has always been one of the premier foreign exchange earners for Botswana (Mazonde 1994).

Development is both a gendered, class and identity phenomenon whereby communities, men and women, masculinities and femininities, elites and the underclass despite being autonomous productive categories, converge to reshape national policy. Within these social identities are imbedded diverse indigenous knowledges that can frame national policy. Drawing from such differentiated indigenous knowledges to inform strategies and policies on rural development can have an interdisciplinary trickle-down. It will benefit researchers from across the interdisciplinary spectrum by providing them access to the ideas, practices and technologies of the local communities.

Being Creative: Alternative Methodologies of Doing Social Research

For a country like Botswana, comprising varied ethnicities with many languages and cultures, the realities of fieldwork research can be very challenging. A geographic and cultural outsider, for instance, may find it very hard to communicate with the local peoples. There is ample evidence elsewhere in Africa that researchers often consider the cultures and local traditions as very important aspects to observe and pay attention to when carrying out social research in the rural areas (Falola and Jennings 2003). In this way the common values that the communities cherish can be illuminated. Once a researcher is familiar with the language and cultures of the subjects of study, they would not have only empowered themselves but their study subjects too.

Because of the paucity of written sources, doing research on indigenous knowledges in the local communities of Botswana requires innovative methodologies. There is a lacuna in Botswana's historiography with regard to the socio-environmental history of indigenous farming despite the historical salience of this resource in the production of the country's development policies. The existing scholarship presents a political economy that narrowly reflects the domination of elite commercial farmers and their interests (Picard 1980; Peters 1994; Parson 1981). Thus, what exists is scholarship that is done in the interest of the elites and the state. Such class-driven perspectives reify the material utility of resources and obscure the differentiated ways in which local communities construct their landscapes or the changing meanings and lenses with which people conceptualise their environments. It forecloses on the non-visual and textual landscapes of obscure rural communities.

Designing new methodologies to do research that empowers rural communities has the potential to change society. It is a positive way of diverging from the reified binaries of poor and wealthy. As the rural communities get empowered, social differentiation is collapsed and the poor/wealthy divide is bridged. The cliché, 'poverty amidst plenty', has become common in livelihoods scholarship on Botswana's rural development trajectory (Wikan 2004; Gumbo 2010). This is a serious concern that research should address adequately. Being creative about the methodologies of doing social research thus resonates very well with a research agenda of empowering communities to draw from their indigenous knowledges and therefore frame development policies. Socio-agro-pastoral research, particularly doing research on Botswana's rural livelihoods and development policy, fits in very well with this ideology.

Research on rural development should be about the multiple ways in which communities engage with their man-made and natural environments in order to achieve social reproduction. Such research requires an approach that utilises the voices and stories of the rural communities in order to gain access to emic (insider) perspectives. Orality as a methodology became the prime resource for social historians and anthropologists following Vansina's (1985) pioneering work on oral traditions, which shaped the evolution of African historical methodology. Socio-environmental history, with its varied and rich field experiences, is well placed because it utilises the oral source material to explore larger processes of ecological and social change in local places.

Challenging land degradation theories of the 1970s that placed African farming methods at the centre of environmental vulnerability, socio-environmental histories have stressed the need to give the lived experiences of the local peoples authority in social research (Leach and Mearns 1996; Kreike 2004). Most importantly, the histories of rural peoples are imbedded in the stories they tell. For instance, van Onselen in his portrait of a black South African sharecropper, brings our attention to a history told from the perspective of a marginalised people (van Onselen 1996). Thus stories that emerge from people's voices represent the differentiated ways in which communities speak for themselves. These stories are entrenched in personal testimonies, folk tales, songs, idioms and proverbs, rumour and gossip, which all constitute a different way of telling the story of a people. These texts are identity narratives because they reveal the varied ways in which local rural communities represent their encounters with environmental and social change. They amplify oral testimony transfigured into unconventional forms, which can only be retrieved by listening to people's voices.

Listening to the voices of rural people enables the social historian to focus and pay attention not only to their research but also to the people involved in the research project. This engagement does not only generate information for the study. It also generates valuable lessons, ranging from the ability to communicate to dealing with socio-cultural barriers encountered in the project. This process reveals the hidden transcript of how they deal with the complex terrain of ecological and social change. Orality has its own truth, accuracy and reliability. By telling the story in a manner that makes sense to the local communities, researchers can challenge the oft-reified assumptions of the unreliability of the oral text and the accuracy of evidentiary history (Portelli 1988; Monson 2003).

Historical linguistics teaches us that the retention of words and the construction of new meanings enable social historians in their bid to retrieve the memories that would otherwise get lost when people die or forget (Schoenbrun 1998). Such retrievals of memories can bring the social histories of eco-human encounters into the present and thus help communities to deal effectively with contemporary developmental challenges. Elsewhere researchers who focus on linguistic innovations have identified the multiple arenas in which rural communities experience and adapt to social and ecological change over time (Schoenbrun 1998; Feierman 1990). Through the oral text, social researchers on Botswana's rural society can capture the socio-economic struggles of communities across pre-colonial, colonial and post-colonial temporal spaces. Oral histories can capture both the changes and continuities in the work patterns of communities within the broader context of the ordered space today called Botswana. This methodology will enable the local communities to select important aspects from their fluid pasts and tell them in a manner that could make an invaluable contribution to the crafting of rural development policies in the country.

Weise (2003), using myth as a historical source, has cautioned historians against unwittingly alienating history from the local peoples by twisting the meaning and context of preserved interpretations of centuries old struggles to survive in an ever-changing socio-ecological milieu. This paper draws inspiration from such insights as Weise's to propose a research methodology that practically engages local communities, not just as research subjects, but as partners in the research project. Historians, in particular, can utilise this methodology to fill the existing scholarly gap by analysing how linguistic

change and continuity illuminates that hidden social transcript of the struggles and survival strategies of the rural communities in Botswana. The fact that indigenous knowledges are imbedded in a community's language can benefit researchers across the disciplinary spectrum as language communicates the ideas, practices and technologies of the local communities. It is through talking to the local peoples, giving their voices centrality to the narrative in our work, and listening to their stories and lived experiences that we will be able to tap into their indigenous knowledges and skills. Through this process research can produce work that will inform rural development policy as it relates to global challenges, such as climate change and adaptation, poverty, food security, disease and health.

For these reasons, the evidentiary basis of Botswana's rural development research projects should consist of the lived and learned experiences of the rural communities to weave together their creative struggles and adaptations to environmental and social change. Researchers should take into account the personal testimonies of, among others, men and women, herders, indigenous medical specialists, and spiritual leaders. Social historians should also draw on unconventional modes of expression, such as rumour, folklore and myth, which are an important component of the social transcript of community life in Botswana. Studies of African criminality and social protest have variously demonstrated that these sources are powerful modes of expressing and revealing the hidden transcript of the socio-cultural transformations of non-literate rural communities (Crummey 1986; Whittaker 2014). Since community stories do not appear in official documents, orality provides information about the everyday lives, fluid pasts and insights into the mentalities of the rural communities and captures the changes and continuities in their work patterns. All this information illuminates the varied ways in which communities imagine, animate and reshape rural development policy.

Conclusion

Central to rural development policy in Botswana is the common basic need of controlling land. In the struggle for land, different conceptions of the environment always shape distinctive and overlapping ideas about land between the local communities, elites and government policy. These conflicting ideas of land are worthy of historical and ethnographic inquiry. That, way research can contribute to the development of sound policies that can address emerging socio-environmental challenges impacting the lives of rural communities in the frontline of rapid urbanization. This paper has addressed the prominence of ideas surrounding the struggle and renegotiation of land to rural development policy on agriculture, food production and distribution, as well as adaptation to climate, environmental and social change.

The paper has demonstrated that development policy is an angle of vision; a way of seeing and perceiving the world. It is about the strategies through which a nation organizes its ideas that answer questions such as, Who are we? What knowledge do we have of our natural environments? What ideas, practices and technologies are appropriate for our development? These questions are expressions of development policy as a national ideology that must incorporate ideas, knowledges and technologies across each and every community that makes up Botswana. It is important that policy documents reflect the fact that Botswana is not an ethnic monolith, but a country constituted of varied ethnicities and other social identities. As a result, we should frame our research on, but by no means limited to the multiple ways in which different communities re-appropriate their cultures to shape and communicate national policy. Cultures shape national development policy in that they interpret experiences, determine and animate the majority of the local peoples' daily activities.

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