

**COMMUNITIES AND CONSERVATION: IN SEARCH FOR A WIN-WIN SITUATION
IN THE GREAT FISH RIVER RESERVE**

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ABSTRACT

Protectionism approach has become the most popular mode of conserving natural resources in Africa's parks and reserves. However, this mode of conservation has often been criticised as being detrimental to the surrounding communities whose livelihoods often depend on the resources to be protected. In this study we used questionnaires, focused group discussions, interviews and secondary data to identify socio-economic impacts and perceptions of the local communities surrounding the Great Fish River Reserve (GFRR) in the Eastern Cape, South Africa. Contestation of the reserve's resources is attributed to high population numbers surrounding the Protected Area (PA), forceful removals during the PA creation and widespread poverty. It is recommended that appropriate institutional structures to legitimise involvement of the surrounding local communities in the management of GFRR be established. These should involve physical and social infrastructural investments from the GFRR accruals and preference of surrounding community members for available employment opportunities. Improved literacy levels, identification of new income generating activities and strengthening of existing ones will significantly improve the current local communities' negative perception to the game reserve.

Keywords: Sustainable livelihoods, communities, conservation, perceptions.

INTRODUCTION

The first large scale protected area - Yellowstone National Park, was proclaimed in the United States in 1872. Since then, the number of protected areas around the world has increased significantly (Dixon and Sherman, 1990). In Africa, most of the protected areas were established during the colonial era. Despite having “sustainably” lived with nature for millennia, most of the protected areas were established without consultation with the surrounding communities whether they were by definition indigenous or long-term residents (Adams et al., 1993).

Since 1940s, many Africa countries have come up with impressive blue prints on how to involve local communities in collaborative Protected Area (PA) management and benefit sharing. However, conversion of these blue prints into action plans and consequent implementation has often been unimpressive (Dixon and Sherman, 1990). This has often resulted to problems of PA encroachments and resource use conflicts. In South Africa, the socio-ecological conflicts on PA resources can further be attributed to the legacy of forceful land dispossession, discriminatory allocation of resources and rural segregation during apartheid era (Fetsha, 2000).

The protectionism approaches commonly adopted by PA management systems have often restricted rural communities’ livelihood options (Adams et al., 1993). With rampant poverty, disempowerment and increasing population typical of most rural African populations, there has been a growing dissent to these modes of conservation from communities who have often paid high cost for the protection of natural resources (Tapela and Omara-Ojunga, 1999). This problem has further been exacerbated by lack of comprehensive strategies towards legitimising the local communities’ role in decision-making, resource sharing and appropriation of economic accruals from PAs (Ghimire and Pimbert, 1997).

According to Emerton (1999), community involvement in natural resource conservation involves a strong economic rationale. Local people’s involvement is premised on the argument that socio-economic benefits from natural resource management will lead to natural resources conservation and improvement of the communities socio-economic welfare (Emerton, 1999). To help understand the interaction between Great Fish River Reserve (GFRR) creation and surrounding local communities’, this study aims at assessing the socio-economic impacts and perceptions of the GFRR to the surrounding communities.

Conceptual Framework

This study is based on Sustainable Livelihoods Approach (SLA) described by Chambers and Conway (1992) and Carney (1998) as a livelihood that comprises the capabilities, assets and activities required for a means of living. A livelihood is sustainable if it can cope with and recover from stresses and shocks and maintain or enhance its capabilities and assets both now and in future, while maintaining or improving the resource base (Ashley and Carney, 1999; Carney, 1998).

McLeod (2001) and Lowe and Schilderman (2001) identify seven major elements in the sustainable livelihoods theory namely; natural (environmental) capital, physical capital, human capital, social capital, financial capital, institutional knowledge and political capital. According to Majale (2002), the efficacy of a livelihood mechanism is based on both availability and accessibility of assets, services and opportunities whose success is dependent on ecological factors, social structures or institutional processes. This approach is not restricted to complexity and diversity of localised livelihood but involve the broader social and environmental sustainability framework (Chambers and Conway, 1992).

Originally initiated to extend the traditional approaches to poverty eradication deemed to be too narrow as they mainly focused on low income, SLA has been extended to include other factors that promote or constrain livelihoods in economically, ecologically and socially sustainable manner (Krantz, 2001).

However, critics of the SLA argue that it lacks clarity on measurement and analysis of capital assets, does not fully recognise socio-economic, historical and cultural factors and is somewhat rigid (FAO, 2000). Despite these shortcomings, Pretty (1999) observes that sustainable systems as proposed by SLA have a potential to increase both social and natural capital. According to Davies et al. (2008), the strength of SLA lies in its acknowledgement that local outcomes with related environmental factors like natural resources are a crucial facet to the quality of people's lives.

The Study Area

This study focused on villages on the northern, eastern and south-eastern part of the GFRR in the Eastern Cape Province, South Africa (Figure 1). The GFRR is surrounded by eight village settlements accommodating approximately 20,000 people at an average density of 70 people per Km². The western part of the reserve is surrounded by commercial game farms and was not included in the survey.

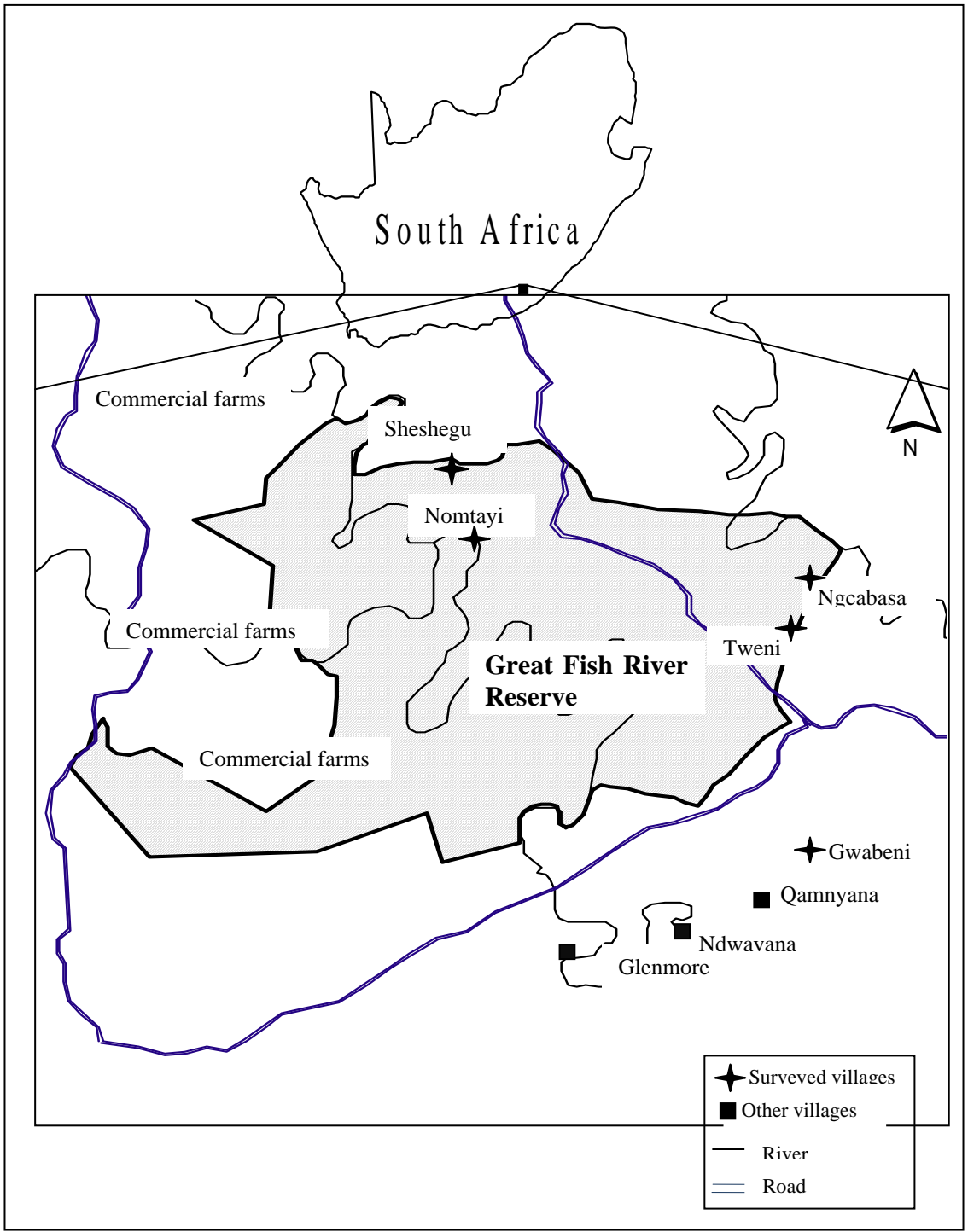


Figure 1: Location of the Study

Local Peoples Claim for the Reserve

Communities around the GFRR claim the whole area of land taken up by the reserve. Recorded history traces the local people's ancestral settlement to mid seventeenth century. According to Ainslie (1994), the claims based on this historic settlement were violated when the land adjacent to these villages was surveyed and leased out to white settlers from the 1870s onwards. It is this settler farms that were later transferred to conservation authorities and farm workers relocated to the surrounding communities.

To help deal with PA resource contestations, the GFRR management has often engaged on and off donations like providing game meat to community members (Ainslie, 1994). Whereas this has occasionally helped to pacify the surrounding communities, it has failed to address their long-standing local socio-economic concerns (Ainslie, 1994).

RESEARCH METHODOLOGY

Primary field data from the local communities was gathered by use of questionnaires, interviews, a focused group discussion and field observations. Secondary data sources among others official provincial reports, policy documents, government publications and published literature were also used.

Five villages; Sheshegu, Nomtayi, Ngcabasa, Tweni and Gwabeni were selected and surveyed from the available eight villages (see Figure 1 and Table 1). Sheshegu and Ngcabasa were chosen to represent close but not adjacent villages to the reserve. Other villages under this category were Qamnyana, Glenmore and Ndwayana. Nomtayi and Gwabeni villages were chosen to represent the views of respondents who were relocated from the game reserve and live just outside the game reserve fence. Tweni village was selected to represent respondents who still stay in the reserve boundary and are awaiting relocation.

Table 1: Description of Village Categories Vis-à-vis Surveyed Villages

Description	Category	Surveyed villages
Close but not adjacent to GFRC	Sheshegu Ngcabasa Glenmore Qamnyana Ndwayana	Sheshegu Ngcabasa
Adjacent to GFRC	Nomtayi Gwabeni	Nomtayi Gwabeni
Within GFRC	Tweni	Tweni

Sixty questionnaires were randomly distributed to household heads in the villages chosen for the study (see Figure 1). An interview with the game reserve manager and a focused group discussion of twenty two members from the villages surrounding the GFRR were also conducted.

RESULTS

There were more females (56%) than males in the five villages. Four percent of the households had 1-3 members, 53% had 4-7 members, 42 % had 8-11, while 1 % had over 12 members. Unemployment levels averaged (68%). However, in Tweni employment levels at 50% were relatively lower than the rest of the surrounding villages. Most of the respondents in Tweni village were employed by the GFRR as the reserve abattoir workers and game rangers or in surrounding citrus farms. Most respondents (86%) both employed and unemployed engaged in subsistence small-scale stock farming to supplement their income. Majority of the households were also dependent on monthly pension grants from elderly family members and from relatives working in urban areas. Fifty four percent of the respondents earned an equivalent of between 0-50 US dollars, 37% earned between 50-200 US dollars while the remaining 9% earned over 200 US dollars monthly.

Based on the focused group discussion, some community members viewed the reserve negatively because they were no longer allowed to hunt, access medicinal herbs and wild fruits or to graze their livestock in it. Respondents from Tweni, Nomtayi and Gwabeni felt the reserve management should give them unlimited access to the reserve for firewood collection. Generally, community members from all the villages felt herbalists should freely access the game reserve while 99% of the respondents surveyed from all the villages desired a community hunting quota. There was also general affirmation (78%) that the communities should share part of the GFRR accruals through direct monetary allocations to households, establishment and support of social amenities or any other local investments that would help create jobs and provide sustainable income.

According to the game reserve manager one of the main challenges to the PA was the mounting land claim by the surrounding communities. Although he observed that the local communities view the game reserve with 'respect', the 'respect' seemed to be on local communities respect for nature rather than the existence of the GFRR.

Most respondents (74%) felt more jobs for the community members and a vigorous involvement of the GFRR in the communities' social and economic development would change their negative

perception. Most respondents from Sheshegu and Ngcabasa preferred a structured grazing program to give them access to grazing land in the game reserve. Tweni community members wanted the reserve boundaries to be shifted to exclude their village, while most Gwabeni community members wanted more jobs.

Positive perception from respondents was linked to the anticipated tourism expansion related income benefits from local craft merchandise, employment and anticipated improvement of physical and social infrastructure like roads, schools, community halls and water supply. Forty two percent of the respondents felt tourism had played an important role in communities' social and economic development while 58% didn't think tourism had improved their livelihoods. Those who thought tourism had a positive impact cited employment of game rangers, guides and lodge attendants while those who thought otherwise said the local communities are not given GFFR employment priority. Most respondents (96%) however believed tourism related activities have potential in improving their livelihoods. During the focused group discussion, most respondents suggested opening of craft shops run by the surrounding communities to enable them benefit from tourism, while others suggested that the game reserve management should encourage tourists to visit the surrounding local communities as part of their tourism adventure.

DISCUSSION

There were higher numbers of females compared to males in the villages surrounding the GFRR. This was attributed to emigration of males to urban areas in search for employment. Consequently, the potential of women (by the strength of their numbers) as key actors in sustainable community/PA management should be recognized. The survey further established that women had the main responsibility of meeting household needs and were therefore major decision makers in determining natural resource consumption trends. Based on Chambers and Conway (1992) and Carney (1998) descriptions of sustainable livelihood approach, female residents in villages around the GFRR make up an important asset that cannot be ignored in developing sustainable and ecologically sound consumption patterns. Important to a sustainable conservation/local community relationship framework would therefore be recognition of women as major actors in pursuit for harmony between communities and conservation. The larger number of females coupled with their roles as link between households and

ecological resources make them an important constituency with potential social capital to be harnessed to ensure socio-economic and ecological harmony.

Large households in the villages surrounding the GFRR have led to increased natural resource demand for subsistence. According to Madulu (2001), increased populations surrounding PAs will lead to pressure on PA resources and therefore conflicts. Little and Brokensha (1987) further argue that resource shortages associated with high population densities create perennial competition and tension that the existing community and conservation management institutions may be unable to resolve. Consequently, the large households in villages surrounding the GFRR can be viewed as a stress to the PA with potential to cause ecological, institutional and livelihood shocks in both short and long time frames. Any efforts to address resource use conflicts should therefore consider stabilizing current population numbers which will in turn reduce demand on PA resources and help communities and the PA management cope with existing and potential stress.

According to McLeod (2001) and Lowe and Schilderman (2001), natural (environmental) and financial capital are key facets in the sustainable livelihood framework. Income opportunities in the areas surrounding the GFRR are generally limited. Monthly income earnings in villages surrounding the GFRR are generally low (over 91% of residents earn below US\$200 per month). The key income earning activity in these villages is small scale livestock farming, however, this source of livelihood is fast becoming unviable due to overstocking and degraded rangelands. Pension earning that is often too little is also an important source of income in the area. Additional income streams, particularly those related to GFRR are therefore important in augmenting the few existing income opportunities.

According to Barbier (1992), benefit sharing can take different forms among others allocation of a portion of revenue from conservation related activities like tourism and commercial culling, direct employment, support of local handicrafts and investments in social and physical infrastructure. However, Majale (2002) notes that the success of such approaches will depend on ecological sustainability as well as institutions and institutional processes that manage them. When looking for communities/conservation success, it should be acknowledged that local communities have for long used the resources before their protection. According to Brown (1998), key resources under protection but important to local communities livelihoods should be identified and usage be allowed on a sustainable basis. This could be through structured access of non-wildlife products like wood, medicine and wild fruits (Shackleton, 1996).

Most people living within the study area perceive the existence of the GFRR negatively. This can be attributed to the strict protectionism approach adopted by the GFRR management and the relevant national and provincial conservation authorities. According to Trakolis (2001), success in PA management depends not just on government support and related organizations; it also depends on reaction, perception and involvement of the local people. Trakolis (2001) further observes that communities around PAs often have long standing material or non-material relationships with the protected resources that have often shaped their livelihoods. Strong formal or informal institutional frameworks have often backed these relationships. According to Majale (2002), institutional processes are a key element in SLA and play an important role in communities-conservation relationships. Consequently, natural resource management efforts that lack established institutional processes to involve the users of protected resources will likely be negatively perceived. Although majority of the respondents perceived natural resource protection positively, a much lower percentage did not like the establishment of the GFRR. This was attributed to the apparent apprehension to access of the resources within the reserve. However, some community members in the study area were aware of the potential opportunities that come with PA creation notably tourism related jobs and related spin-offs.

Due to perceived alienation of the local communities from the management of the GFRR, the surrounding communities feel the game reserve could be used for some other forms of land use. As suggested by McLeod (2001) and Lowe and Schilderman (2001), noticeable accumulation of financial capital as part of the wider SLA forms a crucial element in community support for conservation initiatives. In the study area, the reserve is perceived by local communities as a hindrance, rather than an opportunity to their socio-economic welfare. This is attributed to preference of other forms of local economic activities like crop and animal farming that yield more returns compared to the “negligible” benefits they get from the GFRR. This “denied opportunity” to improve their livelihoods has been a major basis for previous claims for the area occupied by the GFRR.

Whereas the surrounding communities acknowledge that the number of jobs offered by the PA has some positive impact on their socio-economic status, high unemployment levels and low economic activity in the surrounding communities has led to a demand for more jobs in the GFRR. They suggest a higher employment quota in GFRR.

According to Kariro and Juma (1991), accruals from conservation related activities are mainly realised by the government, provincial authorities and tourism entrepreneurs in urban areas. However, incomes from tourism need to filter down to local people whose livelihoods have been affected by PAs

(Barnes et al., 1992). Local communities can benefit from proceeds of PAs while having a positive impact on biodiversity preservation and economic development (Fabricius and Burger, 1996). In the GFRR, possible tourism related activities like sale of crafts and community based cultural promotion remain unexplored. To help change the surrounding communities' negative perception, it is therefore important that tourism related income activities be fully identified and local communities be mobilised and empowered to take advantage of such opportunities. If carefully organised, tourism can help offset the impact of unemployment.

Lack of opportunities to share PA resources may not only lead to negative perceptions but may also encourage local people to illegally acquire protected resources or support outsiders in illegal protected resources acquisition (Barbier, 1992). This problem can be avoided by fully utilizing locally available human and social capital and institutional knowledge based in communities to augment PA policing. Since it is unlikely that the surrounding communities will accept these without any form of reciprocation from the GFRR management, such a scheme will have to be put within the wider framework of conservation authorities contribution towards local communities social, institutional and financial assets. Ultimately, a combination of conservation authorities enforced sanctions and community based incentives will provide a sustainable solution to community/wildlife conservation problems (Metcalf, 2000).

Too often, external planners consider existing land use systems as inappropriate or destructive and attempt to develop technical classifications (Knight et al., 1997), however, this may prove impractical as they fail to take into account critical natural and social capital as well as institutional knowledge. Moreover, such schemes reduce opportunities for local communities to influence activities that affect them and to develop control over "their" resources (Knight et al., 1997). Initiating communities/conservation programs require local endorsement and vibrant locally organized grass-root representation that is a true reflection of the local communities' wishes. However, it will be impossible to achieve this objective without first filling the institutional vacuum and establishing a popular and adequate representation between the surrounding communities and the GFRR. Knight et al. (1997) suggests participatory approaches as viable alternatives that can be used to establish and consolidate necessary institutions to manage the resources that might be contested.

There are however still many areas in which external support may be vital. These may include among others information collection and validation, information sharing, skills development, mediation and legitimization of outcomes. In many cases, local resources for such activities are often insufficient;

consequently, assistance from local or central government structures or donors will be essential (Tyler, 1999).

CONCLUSION AND RECOMMENDATIONS

High population numbers around the GFRR with limited economic options coupled with historical claims to the PA has led to the surrounding local communities' negative perception towards the GFRR. Establishment of local institutions that will encourage involvement of local communities in the management of GFRR, structured and sustainable GFRR resource use, employment opportunities and opportunities to benefit from tourism related activities will all help improve the surrounding communities' perception. Such efforts will in the long run lead to socio-economic and ecological sustainability.

It is therefore recommended that there is need to establish and strengthen community based conservation and development institutions. These institutions should aim at among others, harnessing local people's potential in natural resource management through participatory management. At the grass root level, the GFRR management together with relevant stakeholders should encourage identification and formalising of community based institutions to facilitate community participation. Adequate training of members of such institutions should augment provision of funds with particular emphasis on managerial and mobilisation capabilities.

Conservation authorities should consider returning some of the benefits to the local communities especially the accruals from the GFRR. Stakeholders should also aim at initiating projects that are financially and ecologically sustainable. Programs that provide direct and tangible benefits to local people should be combined with those that are designed to educate them. Where possible, surrounding local communities should be given preference in job allocation arising from the GFRR. Group benefits should also be facilitated. These should aim at converting the available benefits into long-term sustainable benefits like schools, physical infrastructure, health facilities and water.

It is important that the current conservation efforts tap on the wealth of experience and knowledge on local natural resource management. Consequently, involvement of the surrounding communities should be considered a norm rather than an exception. In return, conservation authorities should identify means for sustainable usage of PA resources by the local communities. Priority should also be given to designing social and economic structures that will enable surrounding communities

improve their socio-economic welfare. Within the GFRR context, adoption of the sustainable livelihood approach provides a viable option to socio-ecological harmony.

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