ASSESSING THE IMPLEMENTATION OF THE ROBFORD CONSERVATION COMMUNITY BENEFIT CENTRE MODEL

by

ROBERT WILLIAM HICKS

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SUPERVISOR: MR K MEARNS

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DECLARATION

I, Robert William Hicks, hereby declare that Assessing the implementation of the Robford Conservation Community Benefit Centre Model is my own work and that all the sources that I have used or quoted have been indicated and acknowledged by means of complete references. This thesis has not been submitted nor will it be submitted to another university or any institution for the award of a degree.

15 February 2010

ABSTRACT

Ecotourism has often failed to deliver appropriate, tangible benefits to host communities living near protected areas in developing regions of Africa. The Robford Community Conservation Benefit Centre (RCCBC) model was developed as a means to overcome many of the common problems of community-based ecotourism and to enhance the range and flow of benefits to such communities by developing a suite of products and programmes aimed specifically at scientists, volunteer tourists and participatory environmental research tourists. This study tests the aims that the necessary tourism, geographic, social and research conditions are present for the implementation of the RCCBC model in a local community situated close to the Great Fish River Nature Reserve (GFRNR) in South Africa. Situational assessment fieldtrips determined that the GFRNR, its immediate tourism region and the ten settlements surrounding the nature reserve conformed to RCCBC development guidelines and were suitable for further detailed investigation. One of the settlements, Glenmore Village, conformed most closely to the RCCBC model's guidelines for selecting a preferred host community. A census survey of all households in Glenmore determined a demographic profile of village residents. A random sample survey of 70 Glenmore households established a social profile of the community's residents and their attitude to various aspects of the RCCBC model. A spatial analysis of the Glenmore precinct determined that sufficient, suitable land was available for the development of RCCBC products and programmes. The findings of the research indicated that the tourism, geographic, social and research conditions were present at Glenmore, the GFRNR and its surrounding tourism region for the implementation of the RCCBC model and the development of the model's proposed products and programmes at Glenmore Village. Implementation of the RCCBC model at Glenmore and the GFRNR as a pilot study could introduce a new way of bringing tangible, meaningful benefits to select communities located close to protected areas in existing tourism regions that have failed to benefit either completely or partially from traditional forms of ecotourism development in the past.

Key terms

Community-based tourism; Participatory Environmental Research Tourism (PERT); Community conservation; Benefit centre model; Robford Tourism; Volunteer tourism; Great Fish River Nature Reserve; Glenmore; Tourism related spatial assessment; Robford Conservation Community Benefit Centre Model

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The support and assistance that was offered and the knowledge that was shared by the management staff of the Great Fish River Nature Reserve, particularly Mr Brad Fike and Gavin Shaw, are most appreciated. Also to the regional scientist for the Reserve, Mr Dean Peinke, whose objectivity and positive criticism provided a welcome alternative perspective. Sadly, the lack of strategic foresight and competence of many of the executive staff of Eastern Cape Parks Board has to be acknowledged. These shortcomings will result in a wide range of lost opportunities for the people of Glenmore and the Eastern Cape and the long-term degradation of the natural tourism resources

of the protected areas that they oversee. It is this inability to optimise the full potential of our natural resource and wildlife areas through strategic, imaginative management that makes the implementation of initiatives such as the RCCBC model an urgent necessity.

The final acknowledgement goes to Tanya White, my fiancée, whose encouragement; support and numerous cups of tea have been of tremendous value and cheer over the past months. Furthermore, her fantastic competence as an editor and proof-reader has taught me about many new aspects of report writing and has enhanced the quality of this research document enormously.

ABBREVIATIONS AND ACRONYMS

ASP	Academic Support Programme
ATR	Amatola Tourism Region
CPP	Children's Play Programme
ECPB	Eastern Cape Parks Board
ESRI	Environmental Systems Research Institute
FREP	Family Roots Enhancement Programme
GIS	Geographical Information System
GPS	Global Positioning System
GFRNR	Great Fish River Nature Reserve
IDP	Integrated Development Plan
KRA	Key Result Area
KML	Keyhole Markup Language
LED	Local Economic Development
PERT	Participatory Environmental Research Tourism
PRA	Participatory Rural Appraisal
PA	Protected area
RRA	Rapid Rural Assessment
RPR	Research Projects Register
RCCBC	Robford Community Conservation Benefit Centre
SCP	Seniors Care Programme
SPCSP	Single Parent Child Support Programme
SPSS	Statistical Package for the Social Sciences
SMP	Strategic Management Plan
TIFF	Tagged Image File Format
TSSP	Teenager Sports and Social Programme

TDA	Tourism Development Area
TDZ	Tourism Development Zone
UNDP	United Nations Development Programme
USAid	United States Assistance for International Development
VSO	Voluntary Service Overseas
VCP	Volunteer Crèche Programme
WGS84	World Geodetic System 1984
YASTP	Young Adult's Skills Training Programme
YASCP	Young Adult's Social and Cultural Programme

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CHAPTER 1 BACKGROUND

1.1 Introduction

International development agencies have for the past thirty years promoted tourism as a popular means of socio-economic upliftment for rural communities. However, many of the tourism development programmes of these agencies have underperformed or failed to deliver the expected benefits to host communities in many of Africa's rural areas (2005, Binns and Nel, 1999, Tsaur et al., 2006). Consequently, the confidence of host communities in tourism as a vehicle for rural upliftment has diminished as tourism fails to meet their expectations of meaningful, sustained tourism-related benefits (LaFlamme, 1979).

African governments frequently state that biodiversity conservation and the management of their threatened natural environment is important and needs to be addressed seriously (Gadd, 2005). As a result, land with high conservation value is commonly proclaimed by government statute as formally defined protected areas (Binns and Nel, 2002). However, Ainslie (1999) notes that proclaimed protected areas frequently provide little or no sustainable benefit to local people living in close proximity to proclaimed protected areas. Protected areas that contain high quality wildlife and natural tourism resources can, in many instances, attract large numbers of nature-based visitors if the necessary tourist experiences, tourism products and infrastructure requirements are put in place (Ainslie, 1999). These visitors may contribute significantly to the local and regional economy in which the protected areas are located due to their presence and associated needs.

Protected areas in South Africa that have high tourism value are expected to perform a number of different functions. In South Africa, the government has stipulated that these functions include: conserving the biodiversity and natural assets contained within the protected areas; contributing to the regional economy in which they are located through tourism (Binns and Nel, 2002); creating sustainable opportunities and benefits for local communities (Loon and Polakow, 2001); contributing to scientific knowledge through continued research; and providing quality wildlife and nature-based experiences for

visitors and recreationists to protected areas (Viljoen and Tlabela, 2007). The implementation of these functions has been largely successful in South African National Parks (Cousins and Kepe, 2004). Local and district municipalities in South Africa, however, have been less successful in implementing these functions, although they are clearly defined in most municipal Integrated Development Plans (IDPs). The consequence of low levels of implementation is an under-delivery of sustainable benefits to recipient communities. Similarly, many other African countries have been generally unsuccessful in implementing these functions with the consequent loss of associated benefits for host communities (Loon and Polakow, 2001).

A broader, holistic approach is required for protected area-based tourism. Such an approach will have the potential to deliver meaningful host community benefits that go beyond simply conserving the natural history of reserves and parks for tourism purposes (Dharmaratne et al., 2000). This approach should strive to establish specific opportunities that provide clearly defined benefits for local communities living in proximity to protected areas (Archabald and Naughton-Treves, 2002).

Robford Tourism, a South African firm of consulting tourism development planners, has identified some of the primary factors for under-delivery of local community benefits from protected area-based tourism in southern Africa. To overcome some of these negative factors, Robford Tourism has established a model that strives to optimise the benefits based on international volunteer tourism and scientific research-based tourism to selected protected areas. This model, referred to as the Robford Conservation Community Benefit Centre (RCCBC) model, focuses on extracting community benefits from the common linkages between conservation, scientific and social research, tourism, volunteerism and rural development. The RCCBC model comprises two components: a “Benefit Centre” and “Benefit Programmes”. The “Benefits Centre” involves the construction of a complex of structures by volunteers comprising a research and resource centre, a multi-functional visitor centre and accommodation for long and short-term visitors. “Benefit Programmes” comprise a suite of social, economic, research and conservation projects and

programmes implemented by volunteer visitors and researchers in a structured, orderly and phased manner (Robford Tourism, 2005).

The RCCBC model requires the establishment of an integrated resource and research compound, strategically located adjacent to a protected area of high tourism value, yet close in proximity to an impoverished rural settlement. Scientists are invited by means of a focused marketing campaign to undertake scientific research in the protected area and social scientists to undertake social, economic and agricultural research in the communal areas around the protected area. Researchers reside in and work from the RCCBC compound specifically designed and established for this purpose. A corps of field and research assistants, selected and trained from the local, host community, supports the scientists and social researchers in their research. Volunteer tourists are sourced via the rapidly increasing number of commercial volunteer tourism organizations spread throughout the world. These volunteer tourists also reside and work out of the RCCBC compound, while participating in a range of social upliftment programmes operated in the host community and other communities in the sub-region.

Researchers and volunteers reside in the RCCBC compound for one to twelve months. These visitors will contribute to the economy of the local community through rental and the consumption of local goods and services. This semi-permanent population of visitors provides the minimum number of visitors necessary throughout the year to support a financially viable range of hospitality and tourism products, thus overcoming many seasonality-related problems that often ruin small-scale rural community-based tourism ventures. Tourism products linked to the hospitality facilities in turn create further economic and entrepreneurial opportunities for local service providers from the host community, which contribute further to their local economy (Robford Tourism, 2005). The spatial layout and linkages of this model are depicted conceptually in Figure 1 below.

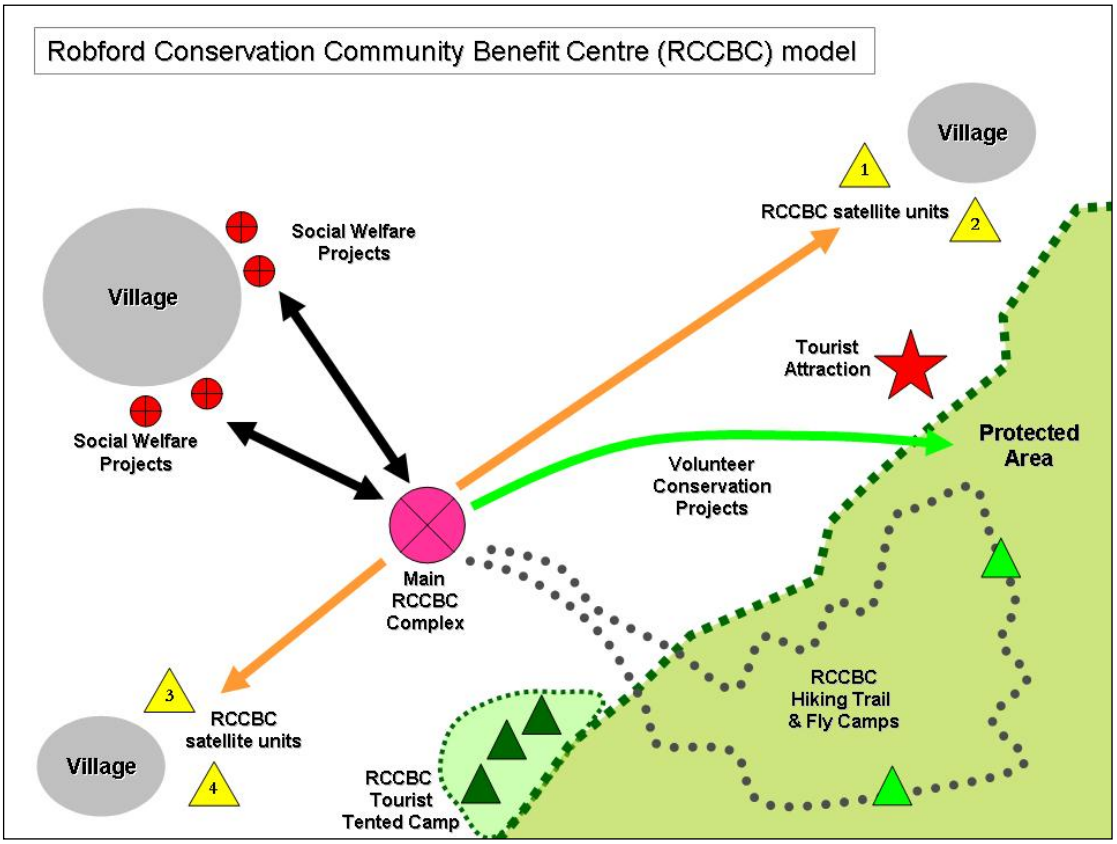

Figure 1 A hypothetical layout plan of Robford Conservation Community Benefit Centre model depicting functional and spatial linkages between the various components of the model.

The end result of the RCCBC programme is that (a) the scientific body of knowledge is increased and enhanced by researchers undertaking studies in and around the protected area; (b) philanthropically orientated volunteer tourists contribute to the educational and social wellbeing of the local community through a range of carefully planned and implemented social, cultural and sports empowerment programmes; (c) volunteers, backpackers and responsible tourists contribute financially to the local economy through the purchase of goods and services and also contribute to the creation of jobs and entrepreneurial opportunities for local people; (d) conservation management of the protected area is enhanced through the contribution of time and effort by volunteer tourists who undertake conservation management type activities coordinated by trained, local research assistants or guides; and (e) visitors get the opportunity to have a meaningful outdoor, nature-based experience through their participation in a number of activities offered by local

service providers, such as river rafting, mountain biking, donkey rides, guided hikes, and cultural entertainment (Robford Tourism, 2005).

Glenmore is a small, rural community situated adjacent to the Great Fish River Nature Reserve (GFRNR) in the Eastern Cape Province of South Africa. Glenmore was established as a resettlement village in 1979 when approximately 4500 people were moved there (Birch, 2000) to be resettled under the dictates of the South African Apartheid government and the Ciskei homeland government (Hallett, 1984). Glenmore is economically and socially impoverished as there are few businesses, little economic activity and minimal social tradition in the settlement (Murray, 1989). This village is characterised by an out migration of people of an economically active age, high unemployment amongst remaining residents, dysfunctional families due to parents living elsewhere in order to earn a living, and a youth desperate to obtain skills and experiences that will benefit them when they leave Glenmore in the future.

This research process has identified The Great Fish River Nature Reserve as being a protected area that seems to comply with the guidelines for the establishment of a RCCBC model. Glenmore has been identified as a community and location that may be suitable for the development of a RCCBC resource/research compound and associated programmes due to its strategic location, infrastructure, tourism resources and impoverished community.

This research aims to study the small, rural Eastern Cape community of Glenmore to establish if the necessary tourism, geographic, social and research conditions are present for the implementation of this RCCBC model.

1.2 Research question

The RCCBC model is designed to deliver a range of positive benefits to researchers, protected area management agencies, volunteers and members of the host community. In order to deliver these benefits the conditions and guidelines defined by the RCCBC model must be met. The research question

is whether Glenmore has the required tourism, geographic, social and research conditions necessary to effectively implement the RCCBC model.

1.3 Justification for the study

The RCCBC model has been developed theoretically as a concept and has been refined into a model for tourism development on paper. This model has yet to be tested in practice[1].

Motivation and justification for this research is to establish whether or not the tourism, geographic, social and research conditions necessary for the future implementation of the RCCBC model are present in the study area.

1.4 Study area

The greater study area is defined as the area within a 50 kilometres radius of the boundaries of the Great Fish River Nature Reserve, which is situated in the Eastern Cape Province of South Africa. This greater study area has been identified for the purposes of assessing the RCCBC conditions that are required to be assessed within a regional context. The local study area refers to the area within a four kilometres radius of the settlement that is identified appropriate for the assessment of the RCCBC local community conditions. The research process will determine that the appropriate local community for this study is Glenmore, a small village in the Eastern Cape Province of South Africa (see Figure 2 and Figure 3). Therefore, the local study area is defined as an area within a four kilometre radius of the centre of the village.

Glenmore is situated to the south of the Great Fish River Nature Reserve and halfway between Grahamstown and Peddie (see Figure 4). Glenmore lies approximately one kilometre south of the Great Fish River on a gravel road that links the R67 to the R345 (see Figure 5). Glenmore was established in 1986 as a resettlement centre during the Apartheid period of forced removals. Glenmore Township comprises 747 erven of which 571 contain residential

[1] The first RCCBC facility is to be established in 2010/11 at Ruhija village, which is situated adjacent to Bwindi Impenetrable National Park in Uganda, as a pilot project to test the robustness and viability of the RCCBC model.

dwellings that have been built by the State either under the Ciskei government or the pre-1994 South African government.

Figure 2 Photograph of Glenmore Village looking north towards the Great Fish River Nature Reserve.

Figure 3 Aerial photograph of the village of Glenmore.

Figure 4 Location map depicting Glenmore in relation to the Great Fish River Nature Reserve and other protected areas in that region of the Eastern Cape Province.

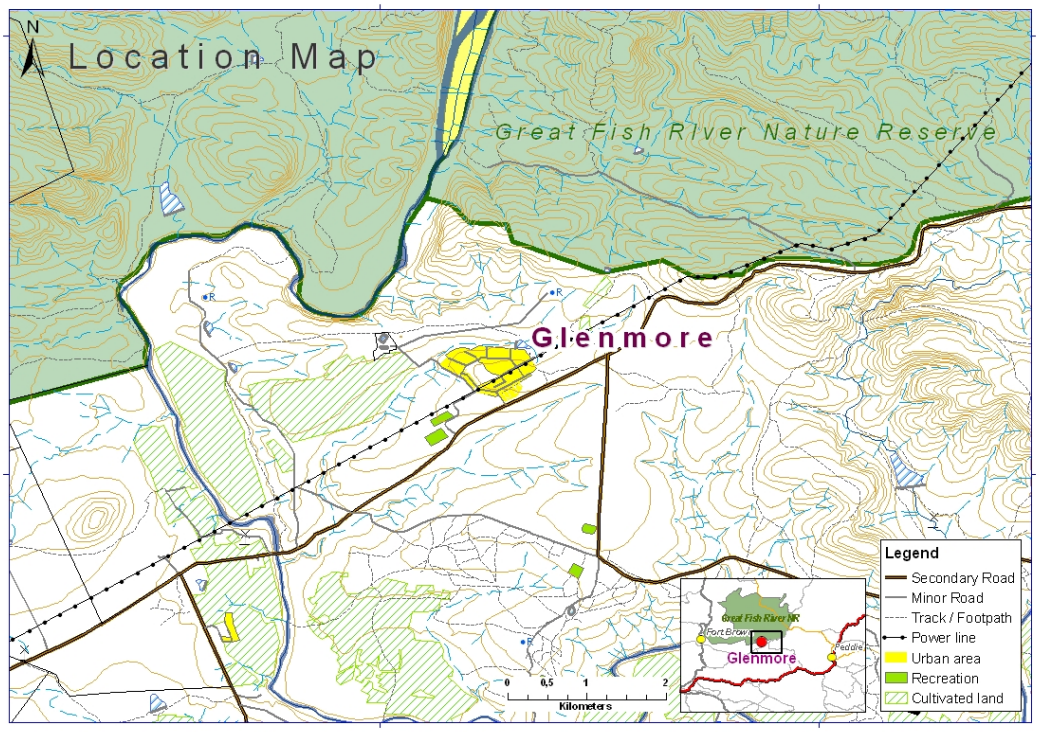

Figure 5 Location map depicting Glenmore in relation to the Great Fish River Nature Reserve and surrounding farmlands.

1.5 Aims and objectives

1.5.1 Aims

This research aims to establish whether or not the tourism, geographic, social and research conditions necessary for the future implementation of the RCCBC model are present in the study area.

1.5.2 Objectives

The aims of this study will be realized through the following five objectives:

Objective 1: Potential to conduct scientific research

To determine whether or not there is the potential to conduct sustainable, ongoing research programmes in the Great Fish River Nature Reserve, that are appropriate for the implementation of the RCCBC model.

Objective 2: Suitability of tourism resources of protected area

To determine whether or not the tourism resources of the Great Fish River Nature Reserve and its region are appropriate for the implementation of the RCCBC model.

Objective 3: Selection of host community

To determine which of the local communities located on the periphery of the Great Fish River Nature Reserve comply most favourably with the host community location criteria of the RCCBC model.

Objective 4: Selection of development area for RCCBC products

To determine whether or not the spatial and geographical preconditions are present in the precinct of the community identified in Objective 3 above for the establishment of the RCCBC model's core products and programmes.

Objective 5: Social assessment of host community

To assess the demographic and social nature of the community identified in Objective 3 above for compliance with the demographic and social criteria defined by the RCCBC model for preferred host communities.

1.6 Chapter outline

The purpose of this chapter outline is to guide the reader through the five chapters that comprise this dissertation.

The first chapter describes the background and justification for the study in terms of tourism development as an agent of rural development, the role of protected areas as generators of ecotourism benefits for local communities and how volunteer and research-based tourism may influence the nature, extent and range of such benefits. A tourism development model, the RCCBC model, is discussed briefly as a potential model that may enhance benefits from protected area-related tourism to local communities.

The next chapter, Chapter 2, explores and discusses the literature relevant to the study and the RCCBC model. It explores whether or not tourism is an appropriate mechanism for rural development in third world countries and investigates the underperformance of community-based tourism in Africa. A review of ecotourism and protected area-based tourism is also undertaken to assess the benefits that such tourism passes on to local communities. Volunteer tourism and Participatory Environmental Research Tourism (PERT) are reviewed as forms of tourism appropriate to the RCCBC model.

This review of literature provides a basis for the next chapter, Chapter 3, which describes the Robford Community Conservation Benefit Centre model. This model has been specifically developed to optimise potential benefits from tourism for poor communities living adjacent to protected areas in popular tourism regions in Africa. In this chapter the history and vision of the RCCBC model are discussed. The various elements that comprise the model, the benefit programmes, benefit centre and tourism facilities are discussed in detail. This discussion provides the background and description of the RCCBC model necessary for the understanding of the various criteria defined in the model against which communities adjacent to the Great Fish River Nature Reserve will be assessed for appropriateness. The methodology used to assess this appropriateness is discussed in the next chapter, Chapter 4.

This methodology includes manipulating the RCCBC model for relevance to the Eastern Cape context. The methodology that is used to undertake a census of Glenmore to establish a universe, from which a statistically valid sample can be drawn, is discussed, as are the different types of sampling techniques. The methodology required to undertake an interview survey of a representative sample of household heads is discussed, as well as the factors that inhibited the implementation of the survey. Factors that need to be assessed to identify potential RCCBC development sites are discussed, as are the methods to undertake this assessment. Methods and mapping techniques that were used to establish detailed maps and associated relational databases are discussed in this chapter. It further describes how they were used to evaluate potential RCCBC development sites for applicability against the criteria defined by the RCCBC model for this purpose. Data capture techniques, methodologies and how data is inputted into the RCCBC model is discussed. The final section of this chapter describes how output data from the RCCBC model is synthesised for analysis and evaluation in the next chapter.

Chapter 5 presents an analysis of the data collected and provides a discussion of the results. These results are discussed in terms of the scientific research conditions, tourism conditions, geographic conditions, product development conditions and social conditions of the study area. These conditions are determined by the RCCBC model and applied to the Great Fish River Nature Reserve and to the selection of a local host community and site for the development of the benefit centre and associated programmes.

Chapter 6, the final chapter, concludes that the aims and objectives of this research study have been realized. It is further concluded that the necessary tourism, geographic, social and research conditions are present in a local community situated in close proximity to the Great Fish River Nature Reserve for the implementation of the RCCBC model.

CHAPTER 2 LITERATURE REVIEW

2.1 Introduction

There are two focuses in the review of literature for this research study: firstly, factors that influenced the establishment of the RCCBC model and, secondly, the opportunities provided by two specialist tourism markets needed to drive the RCCBC model, namely volunteer tourism and participatory environmental research tourism (PERT).

2.2 Tourism as a vehicle for rural development

Many governments in Africa perceive tourism as being a feasible option for rural economic development (Cawley and Gillmor, 2008: 2). Tourism is regularly and enthusiastically promoted as a vehicle for rural economic development by African governments (Mafunzwaini and Hugo, 2005). Many politicians and development agencies in Africa have promised that tourism would increase the economic viability of marginalised areas, stimulate social regeneration and improve living conditions of rural communities (Briedenhann and Wickens, 2004). Many attempts have been made to achieve these promises where tourism has been championed as an alternative economic development strategy to conventional, agriculture-based rural economic development strategies (Petrzelka et al., 2005). However, social scientists differ in their justification for the adoption of tourism as an economic development strategy. Perdue *et al.* (1987) are of the opinion that tourism is a basic industry that only provides local employment opportunities and tax revenues for rural communities. Fleischer and Felsenstein (2000) have a less optimistic claim that small-scale tourism exists in rural areas often due to the lack of any other viable economic alternatives. Briedenhann and Wickens (2004) are positive that tourism can offer an alternative to the trend of declining rural economic activity. This decline, they claim, is characterised by the restructuring of the agricultural sector, dwindling rural industrialization and the out-migration of higher educated youth from rural areas.

Many local governments consider primarily the economic benefits of rural tourism development in their desire to optimise promised benefits from rural tourism development (Binns and Nel, 2002) while showing modest interest in

the social and environmental costs of tourism development (Perdue et al., 1987). Fredrick's (1993) perception is negative, claiming that tourism development is a fiscal burden for many small, rural governments and that such development puts severe strain on the local service base. A regularly quoted criticism is that tourism income generated in rural areas is often not retained in the rural areas but leached out of the region of generation (Bird, 1992). Briedenhann and Wickens (2004), also identified the paucity of revenue and complain further of the inequality in the distribution of benefits and perceived costs to rural communities. Fredrick (1993) points out that tourism, while generating jobs, is also responsible for creating low wages and seasonal employment. He continues more positively that rural tourism provides the opportunity for the establishment of small tourism-related businesses, such as bed-and-breakfast establishments, that have low barriers to entry, employ existing and underutilized people from the region and place modest demands on public resources. However, Fleischer and Felsenstein (2000) contests that the small scale nature of such establishments render them marginal to significantly improving welfare in rural areas. This perspective is supported by Briedenhann and Wickens (2004) who are of the belief that tourism development must mean a clear improvement of the life and livelihood of members of the host community. Massyn's (2004: 2) criticism is specific in this regard suggesting that "tourism potential remains underexploited and that more could be done to encourage beneficial linkages between rural communities and tourism businesses".

However, irrespective of the negative aspects of rural tourism, it still remains the preferred development option (Reithand and Blakewood), especially amongst desperately poor rural communities seeking any hope for a better existence (Briedenhann and Wickens, 2004).

2.3 Tourism development planning process

Halstead (2003) has noted that community-based tourism products may be initiated from within a rural community or by an external source. Local 'champions' or enthusiastic entrepreneurs within rural communities, he claims, often drive the process of developing tourism products. However,

‘champions’ and community entrepreneurs frequently lack the necessary skills, understanding of tourism development practices and knowledge of planning procedures to compile appropriate plans that lead to effective tourism products. These shortcomings regularly result in unrealistic host community expectations exacerbated by inflated claims of tourism-based benefits made by the local ‘champions’ (Ashley and Roe, 1998). Tourism products developed in this manner are often inappropriate, unsuccessful tourism products and many eventually fail (Robford Tourism, 2007). Donors and non-governmental organizations have long been aware of this problem and provide technical support for the planning and start-up phases of community tourism initiatives in order to minimise this problem (African Wildlife Foundation, 2009).

Externally driven planning processes may also be problematic. According to Salafsky (1999), they are often characterised by poor consultation with community members and stakeholders. Rapid Rural Assessment (RRA) was a popular method of consultation for rural development products in the late 1970s and early 1980s (Chambers, 1994). RRAs generally involved brief visits to the planning domain by urban-based professionals, who extracted information as cost effectively as possible from host communities before leaving the planning domain. However, Binns *et al*. (1997) claim that this traditional ‘top-down’ rural development approach has generally been unsuccessful in most parts of Africa. A recent and positive trend in tourism and rural development strategies is a more democratic ‘bottom-up’ approach (Binns et al., 1997). This ‘bottom-up’ approach comprises an array of rural research methodologies collectively known as ‘Participatory Rural Appraisal’ (PRA) (Chambers, 1994). Chambers (1994) considers PRA to be more generated, analyzed, owned and shared by local people as an integral part of a process of their empowerment. Sautter and Leisen (1999) stress that all persons affected by a proposed tourism development need to be actively involved in its development planning process. Sautter and Leisen (1999) have identified eight distinct stakeholder groups (Figure 6) with which tourism planners need to consult.

Figure 6 Tourism stakeholders that contribute to the community-based tourism planning process (Sautter and Leisen, 1999).

Timothy (1999) argues that, as tourism development must contribute to improved human welfare and environmental quality, there is a need for greater community involvement and environmental sensitivity. The participatory tourism planning model that Timothy proposes suggests strong involvement of local community members in decision making and directly in the benefits derived from tourism at a local level (Figure 7).

Pearce (1980b) declares that planning for tourism development should not be undertaken in an insular manner and should be integrated with other forms of social and economic development. Inskeep (1991) supports this opinion and provides definitive guidelines to assist tourism planners to integrate tourism planning with other forms of social and economic development.

Although the PRA approach as applied to community-based tourism has democratic merit, many development organizations have had problems implementing it in practice (Campbell and Vainio-Mattila, 2003).

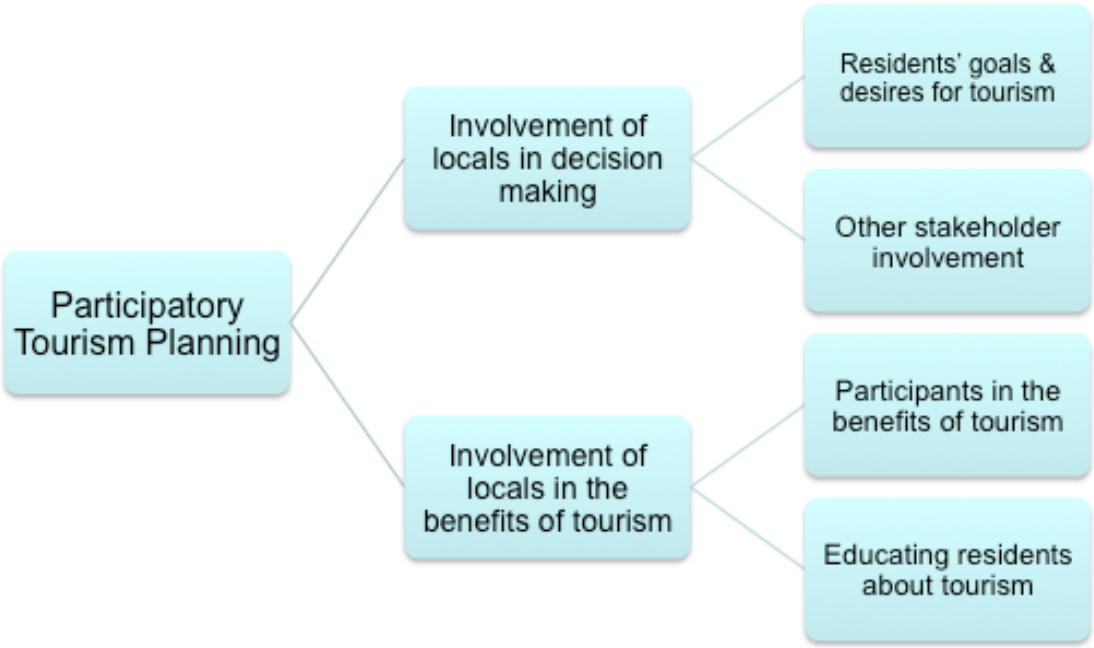

Figure 7 Normative Model of Participatory Tourism Planning described by Timothy (1989).

Davies (2007) claims that implementation and transaction costs are high for a PRA approach to community-based tourism when associated with protected areas. He continues that these costs are particularly high for conservation authorities tasked with implementing the PRA process and to private sector investors supporting the process. Volunteer tourism and participatory environmental research tourism emerged in the early 1990s, partly as a means to lower implementation and transaction costs of tourism in protected areas, but also as a means to cross-subsidise high operational costs of conserving the natural history of protected areas (Clifton and Benson, 2006).

2.4 Emergence of volunteer tourism

Mass tourism to developing countries has been criticised for entrenching dependencies (Brown and Morrison, 2003) and failing to deliver promised benefits from tourism development (Sin, 2009). Ecotourism emerged as a new form of tourism in the late 1980s in response to the impacts that mass tourism was having on the natural environment of popular tourist destinations (Butler,

1990, Callanan and Thomas, 2005) and areas of natural beauty and wildlife concentrations in developing countries (Coghlan, 2005, Wheeller, 1991).

Ecotourism has been defined by the World Conservation Union's Commission on National Parks as "environmentally responsible travel and visitation to relatively undisturbed natural areas, in order to enjoy and appreciate nature (and any accompanying cultural features-both past and present) that promotes conservation, has low visitor negative impact and provides for beneficially active socio-economic involvement of local population" (Tsaur et al., 2006).

Ecotourism had become the international tourism industry's fastest growing sector by the mid-1990s (Jones, 2005). Wheeller (1991: 91) describes this growth as 'an invasion of developing countries by an uncontrolled flood of tourists from alien industrialised nations' resulting in environmental destruction and heightened social tensions and cultural differences in tourist destination areas. This rapid growth of ecotourism also led to a wide range of negative impacts on host communities in undeveloped parts of the world and raised considerable concern amongst social scientists (Coghlan, 2006). The philosophies of 'responsible tourism' and 'sustainable tourism' emerged in response to this concern so as to avoid the risk of 'too much tourism killing tourism' (Budeanu, 2005). However, the concept of responsible tourism was soon questioned by social scientists with respect to whether or not host communities received optimal benefits from responsible tourism (Jones, 2005). Khan (1997) clearly believed that the nature and extent of benefits from responsible tourism for host communities were inadequate. To enhance the flow, nature and extent of tourism benefits to host communities, the principles of responsible and sustainable tourism were definitively described by the Ecotourism Society as a guide for tourism developers, tourism operators and tourists (Budeanu, 2005). However, not all social scientists were convinced that the benefits of responsible tourism were reaching host communities. This doubt led Ross and Wall (2004) to state that ecotourism theory and guidelines have not increased benefits to host communities and have often not been successfully put into practice. Growing disillusionment

with ecotourism and the rising popularity of responsible tourism provided a fertile environment for the emergence of commercialised volunteer tourism in the late 1990s (Brightsmith et al., 2008).

2.5 What is Volunteer tourism?

Although volunteerism dates back to ancient time, the popularity of the Peace Corps and Voluntary Service Overseas (VSO) as philanthropic movements in the 1960s provided volunteer tourism with a blueprint that would expand dramatically in the early 1990s (Tomazos and Butler, 2009). From these early beginnings, volunteer tourism has grown into an increasingly commercialised tourism activity with more than 300 organizations actively offering over 3000 volunteer projects in more than 150 countries in 2008 (Tomazos and Butler, 2008). It appears, according to Tomazoz and Butler (2008), that early volunteers were mature individuals who saw the opportunity to 'give something back' to less advantaged groups in the Third World. However, Rogers (2007) believes that modern day volunteer tourists are travellers who seek a tourist experience that contributes to their own personal enjoyment and development, but also positively affects the host culture and community that they visit. Volunteering Australia describes volunteering as 'an activity which takes place through not-for-profit organizations and projects', which benefits the community and the volunteer, is unpaid and free of coercion and takes place in designated volunteer positions' (Holmes, 2008: 1).

Wearing (2001: 116) describes volunteer tourism as 'a field of tourism in which tourists volunteer in an organised way to undertake holidays that involve projects in the local community'. Volunteer tourism may therefore be considered to be a vehicle to bring about changes in the lives of the developing nation communities as well as the developed nations' volunteers (Wearing, 2001). Sin's (2009) focus is singular in that volunteer tourism should bring about significant positive impacts to the local people of the host-destination.

Systematic academic research into volunteer tourism is considered to be in its infancy by Brown and Lehto (2005). However, they are of the opinion that volunteer tourism can take two different forms based on participants'

mindsets: the ‘volunteer-minded’ versus the ‘vacation-minded’. Brightsmith *et al.* (2008) consider that many ‘volunteer-minded’ tourists are motivated to be ‘tourists with a conscience’ on ‘conservation holidays’. Volunteer-minded individuals tend to devote most of their time at their destination location to volunteer activities. Vacation-minded individuals spend a small proportion of their vacation time on volunteer work activities and appear to attach a higher value to bonding with local families and educating local children (Wood and Coghlan, 2008). Vacation-minded volunteer tourists, according to Wood and Coghlan (2008), are driven by a sense of adventure, novelty and desire for exploration.

However, managing volunteer tourism requires understanding the motivation behind the decision making process of volunteer-minded and vacation-minded tourists to embark on a volunteer holiday (Robford Tourism, 2005). Studies of volunteer-minded tourists have revealed that they want an opportunity for cultural immersion, the desire to aid conservation, the chance to gain research experience and to enjoy the camaraderie characterised by volunteer vacations (Brightsmith et al., 2008). These motivations are central to the concept of ‘conservation holidays’ (Brown and Lehto, 2005). Further research undertaken by Pearce (1980a) indicates that volunteer tourists undertaking volunteer work want their effort to be valued and their talents and skills utilized appropriately and effectively. Mustonen (2005) states that a need exists for more extensive research on ‘tourists with conscience’ as a separate type of contemporary tourism in order to better understand their motivation to volunteer. Clearer knowledge of this motivation will lead to a better use of this market in the promotion of conservation efforts in protected areas in developing parts of the world.

2.6 Research ecotourism and PERT

Participatory environmental research tourism (PERT) has been described by Ellis (2003a) as volunteers who undertake short-term travel to undertake a hands-on role in flora and fauna research. These tourists are known in the tourism industry as ‘research ecotourists’ (Galley and Clifton, 2004). Research ecotourism is considered a relatively new form of ecotourism providing visitors

with the opportunity to focus principally on research into the natural environment of developing countries (Clifton and Benson, 2006).

The earliest forms of PERT resulted from severe budget cuts that afflicted many European and American scientific research agencies during the early 1970s (Ellis, 2003a). Many scientific research agencies capitalised on the opportunity to use volunteer tourists to partially fund research activities but also as a source of cheap or free labour for research and monitoring activities (Clifton and Benson, 2006). The result was increasing levels of partnership between the tourism industry and not-for-profit agencies that developed into the highly active niche PERT market of today (Ellis, 2003a). Currently non-specialist volunteer researchers are used to conduct baseline surveys and work in monitoring programmes in many conservation-orientated projects worldwide (Darwall and Dulvy, 1996) resulting in significant scientific benefits, as well as providing a wide range of social, civic and capital benefits (Robin, 2001).

The Earthwatch Institute was established in 1971 as an international non-profit organization that supports scientific field research through the use of volunteers (Brightsmith et al., 2008). Campbell and Smith (2006) are of the opinion that the Earthwatch Institute is perhaps the best known organization offering research ecotourism opportunities having placed 90 000 participants in participatory environmental research tourism positions since its founding (Earthwatch Institute, 2009). The success and popularity of the research studies and volunteer programmes of the Earthwatch Institute has resulted in it limiting the number and extent of new research projects due to limited sources of funding for research projects (Earthwatch Institute, 2009). The Earthwatch Institute is one example of a successful PERT non-profit organization but many others also exist, most of which are located in the United States and United Kingdom (Wood and Rumney, 2009). However, natural resource managers, governments, scientists, universities, commercial tour operators and not-for-profit agencies are also active in PERT (Ellis, 2003b), with not-for-profit agencies playing a dominant role. Ellis (2003b) continues that the PERT subsector is relatively small in size, but with strong

growth prospects as consumers become increasingly more familiar with the nature of the subsector.

2.7 Emergence of RCCBC model

The unfulfilled promises for host communities of tangible, sustainable economic benefits resulting from rural tourism and ecotourism, encouraged social scientists in the new millenium to seek alternative ways to deliver on those promises by concentrating on the opportunities presented by emerging niche tourist markets (Robford Tourism, 2005). It was within this short period of optimism that the Robford Community Conservation Benefit Centre model emerged as a potential development model for small scale, market specific tourism products, social upliftment programmes and conservation-based research tourism (Robford Tourism, 2005). This model takes cognisance of and strove to avoid the many, well-documented pitfalls of poorly planned, unfocussed rural and community-based tourism development described in academic literature. These warnings were instrumental in defining the form and structure of the model so as to avoid well-known problems, lower the risk of failure, minimise unwanted impacts on host communities and negative effects on the environment. However, it is the emergence of commercialised volunteer tourism and participatory environmental research tourism that provided the demand needed to drive the RCCBC model as a sustainable, appropriate and financially viable tourism development model. This model is described in the Chapter 3.

CHAPTER 3 RCCBC MODEL

3.1 Background

The Robford Community Conservation Benefit Centre model was designed in 2005 by consultants of Robford Tourism, a firm of tourism development planning consultants based in Cape Town, South Africa. The design of this model was in response to their experiences as tourism development planning consultants in protected areas throughout southern and East Africa over a fifteen year period (Robford Tourism, 2005). These experiences highlighted the wide range of tourism development opportunities available if an innovative, “out of the box” approach was taken to tourism development as a vehicle for rural upliftment. Similarly, these experiences also brought into sharp focus the lost opportunities and many failures of development aid projects so evident in the tourism resource-rich areas in which they worked. These failures could be attributed to lack of strategic vision, leadership and management, donor disorganization and discontinuity, apathy, corruption and greed of a rapidly growing indigenous, rural population (Robford Tourism, 2005).

Many tourism development programmes and initiatives in these areas were supported by non-governmental organizations and funded by international aid agencies, such as the United Nations Development Programme (UNDP), United States Assistance for International Development (USAid) and others. However, these programmes frequently collapsed when foreign assistance and funding diminished or ended (Roux et al., 2006). Consequently, besides the waste of resources and funds, there was the additional loss of the intellectual capital and knowledge associated with these projects. The cause of these losses could frequently be attributed to poor or unsystematic management of data, information and knowledge collected during the course of a project (Robford Tourism, 2005). The numerous different institutions, organizations and individuals associated with a project during its lifespan, compounded this problem. Frequently, within a short period the data and knowledge associated with the project would disappear when it closed and

the individuals associated with it moved away from the project area (Robford Tourism, 2007).

An example of this situation was a three-year mapping project of Mnazi Bay Ruvuma Estuary Marine Park in southern Tanzania. The non-governmental organization managing the project employed specialist consultants from Belgium to undertake the assignment. When the consultants returned home at the end of their three-year contract, they left an established, comprehensive and functional computerised geographical information system (GIS) database of the study area. However, within one year of the completion of the project, the desktop computer on which the GIS system and data had been stored was stolen and backup data lost. Furthermore, most of the technical staff associated with the project, both local and from abroad, had moved away from the study area resulting in the further loss of institutional knowledge and project history. The only remaining record of this project that had cost several hundred thousand Euros was a few outdated hard-copy reports. These reports only indicated the nature and extent of the research and work that had taken place during the course of the project. None of the digital spatial databases or raw data survived and was lost to future use (Robford Tourism, 2005).

It was also not uncommon for the same or similar programmes to be revived later by another NGO or aid agency. These agencies would then re-commission the same baseline studies. In many instances, the new aid workers and consultants were completely unaware of the previous studies and the possible existence of detailed base and historical data.

A similar situation is also common with scientific research undertaken by scientists and academic researchers in protected areas with weak or disempowered management agencies (Robford Tourism, 2005). Lack of good management and technical skills compounded by inadequate financial resources are the primary reasons for poor knowledge management and conservation (Newmark and Hough, 2000, Roux et al., 2006). The consequence is the loss of considerable knowledge, which in many instances is irreplaceable. The lack of historical knowledge hinders and limits strategic

planning for such protected areas and renders time series studies less reliable or completely inaccurate. This loss is considerable in financial terms and significant to the long-term management and development of the protected area and to the scientific community.

Robford Tourism's consultants found that baseline data was unreliable or mismanaged in many, if not most, of the areas in which they worked. Not only was this fact frustrating to the consultants, but also the knowledge that their work too could likely be lost, frustrated them immensely. This frustration led them to contemplate a concept designed to improve the management of research and knowledge in African protected areas and result in improved benefits to local communities (Robford Tourism, 2005).

During the same period that Robford Tourism's consultants were considering different means to improve knowledge management, new phenomena were emerging in the international tourism economy. These phenomena were volunteering, VolunTourism (Billington et al., 2007) and Participatory Environmental Research Tourism (Ellis, 2003a) which are described in Chapter 2. These phenomena had one thing in common: they brought educated and skilled volunteers from developed countries to work in protected areas of the third world. The Robford Tourism consultants realised that, if established, marketed and managed correctly, these volunteers could provide a sustainable source of educated, skilled human resources that could assist in part in overcoming the knowledge management problems common in most African protected areas. Furthermore, volunteers could also provide a range of philanthropic services to poor, rural communities located adjacent to protected areas. These services could include childcare; skills training and teaching; sport and recreation; health and welfare; business incubation and entrepreneurship mentoring; and construction training programmes. The provision of these social services by volunteers and associated tourists attracted to the protected area would consequently encourage community members to support biodiversity conservation in their local protected area in order to maintain the flow of tourism related social benefits to the host community. However, the financial viability and sustainability of this concept

would be enhanced if it were applied to tourism rich protected areas where a range of appropriate tourism products could be established for volunteers and commercial tourists (Robford Tourism, 2005). The merging of these concepts ultimately became the Robford Community Conservation Benefit Centre model, which is discussed in detail in the following sections.

3.2 RCCBC Vision

The vision of the Robford Tourism consultants was the establishment of an international philanthropic organization that develops Community Conservation Benefit Centres at selected protected areas in Africa. The aim of this international organization would be (i) to promote scientific and social research in and around participating protected areas; (ii) to promote knowledge management for the protected area; (iii) to provide social and educational services and benefits to host communities through philanthropic programmes operated by volunteers; and (iv) to create entrepreneurial and job opportunities for local people around the Benefit Centre. Benefit Centres were aptly named as it was envisaged that they would provide the base or hub from which a range of benefits would emanate to the international research community, protected area management agencies, local communities and volunteer tourists (Robford Tourism, 2005).

The objectives of these benefit centres would be (i) to provide modern, well equipped research centres from which ecological and social research could be undertaken in the neighbouring protected area and community areas; (ii) to establish a knowledge management system, data depository and library at each centre that identifies, conserves and manages knowledge from research and planning undertaken in the protected area and its surrounding communal areas; (iii) to develop a volunteer resource centre from which international volunteers may (a) participate in environmental research programmes in association with researchers and scientists based at the Benefit Centre; (b) assist with environmental and ecological monitoring programmes managed by the protected area's scientists and management; and (c) participate in social and educational development programmes aimed at the local, host community or communities organised by local and international volunteer

agencies; (iv) to accommodate scientists, researchers, volunteers and tourists in carefully designed, multi-functional accommodation; (v) to create a small, local tourism plant targeting the volunteer tourists and researchers, their friends and family and other niche market sectors; and (vi) to create employment for local people from the host community (Robford Tourism, 2005).

3.3 Description

The Robford Community Conservation Benefit Centre comprises two elements, Benefit Programmes and a Benefit Centre. Benefit Programmes are a range of carefully established scientific, environmental and social programmes designed to provide clearly defined benefits to the scientific community, protected area management agencies and local, host communities (Robford Tourism, 2005). The benefit Centre is a compound, located outside but adjacent to a selected protected area within close proximity to a selected host community where a defined range of appropriate facilities and services are constructed from which the Benefit Programmes operate.

These two elements of the RCCBC model are described in further detail in the sections that follow.

3.3.1 Benefit Programmes

Benefit programmes consist of three types of programmes, Scientific Research Programmes, Volunteer Conservation Programmes and Volunteer Social Programmes.

Scientific Research Programmes

The Scientific Research Programmes are focused on scientists and post-graduate students needing to undertake scientific research in protected areas where Benefit Centres exist. These scientists and students purchase a research package appropriate to their research needs from RCCBC organization. Such packages would include a contract to undertake research in the protected area, accommodation for the researcher in the Benefit Centre compound, use of the Research Centre and its facilities, and access to

volunteers and their labour to the Volunteer Conservation Programmes. A condition of the contract is that all research material and data is made available for future researchers at the Research Centre. This data is categorised and stored in an appropriate format in the Research Centre's database and archive system.

Volunteer Conservation Programmes

The Volunteer Conservation Programmes are research and monitoring programmes established jointly with the protected area management agency. These programmes are divided into long and short-term programmes.

Long-term Volunteer Conservation Programmes

Long-term programmes are undertaken in partnership with scientists from partner universities, research institutions and the local protected area management agency. Funding is sought from external sources to fund these programmes to ensure that the necessary equipment is purchased and maintained; the project achieves its stated objective within its timeframe; and that qualified supervisors may be employed, if necessary, to ensure that appropriate standards are maintained. Volunteers or Participatory Environmental Research Tourists participate in these long-term programmes for periods of one year or longer. These volunteers are required to be educated or skilled in the subject matter of the particular research project and usually go through a vigorous screening process to ensure that volunteers of the appropriate calibre are selected for the project.

Short-term Volunteer Conservation Programmes

Short-term Volunteer Conservation Programmes are programmes that are mainly designed around the needs, demands, desires and trends of "gap year" volunteers. Although not only aimed at young school and university leavers, these programmes are predominantly orientated around environmental monitoring programmes. These programmes require the repeated collection of a set of data over an extended period. These volunteers purchase a "volunteer conservation research package" offered by the programme in the area of research or monitoring that is of most interest to them. These packages are managed by fulltime volunteer programme

managers but are supervised in the field by trained research assistants and field guides from the host community. Consequently, these volunteers obtain a “self-experience” (United Nations, 2001) and contribute to the body of scientific knowledge for the protected area as well as create employment for some members of the host community. These packages would be marketed to individual volunteers and groups of volunteers from universities and other social organisations through retail volunteer recruitment agencies, most of which operate via the internet.

Volunteer Social Programmes

Volunteer Social Programmes function in a similar manner to the Short-term Volunteer Conservation Programmes with the exception that the programmes focus on the social welfare needs of the host community and people of the sub-region. Similarly, these programmes are targeted at the gap year volunteer tourist market and other volunteer agencies that recruit volunteers, such as Voluntary Services Overseas, a United Kingdom based volunteer recruitment organization.

These volunteer programmes focus on the provision of childcare; skills training; sport and recreation; health and welfare; business and entrepreneurship; and construction programmes predominantly in the confines of the host community. These volunteers are not accommodated in houses in the community but in the Backpacker’s Lodge in the RCCBC compound. Volunteers walk on a daily basis from the RCCBC compound into the host community to participate in the social welfare programmes. The purpose of accommodating these and the other volunteers in the Backpacker’s Lodge is to enhance its occupancy levels and therefore its financial viability and sustainability. Increasing occupancy levels is particularly important during the low tourist season when occupancy levels are traditionally low and threaten the existence of community operated tourism products .

All social programmes are established, operated and managed in partnership with the relevant authorities and leaders of the host community.

3.3.2 Benefit Centre

A Robford Community Conservation Benefit Centre is a facility that comprises a research centre, a resource centre, tourism facilities and housing and hospitality services for researchers and volunteers.

Research Centre

The research centre would house the following facilities:

- A wet laboratory specifically designed for biodiversity studies typical of the region in which the Research Centre is located;
- Individual offices for researchers. Research offices would be designed around the typical needs of researchers providing the standard range of facilities required by researchers while ensuring high levels of security;
- An administration office in which general administration and knowledge management is undertaken;
- Store rooms for equipment and strong rooms for valuable equipment.

Resource Centre

The resource centre would house the following:

- A multi-purpose room with a minimum floor area of 70 square metres that could be used for lectures, meetings and conferences.
- A “business centre” that provides:
    - Broadband internet access;
    - Networked computer facilities with printers, scanners and appropriate software;
    - Photocopy services;
    - Administrative services;

- Library and archive with fire-proof strong room for literature and research reference material, maps and electronic data;

- Interpretation and education displays.

3.3.3 Tourism facilities

Tourism facilities associated with Benefit Centres would need to be assessed on a site specific basis according to the nature and characteristics of the particular location, the protected area, access, existing tourism markets, tourism flows and tourist routes to and within the region in which the Benefit Centre is located. However, within the context of South Africa and South African protected areas the following tourist facilities and products could be assessed for viability:

Backpacker lodge

This accommodation is designed to be multi-functional and to be established in phases over time. The accommodation would consist of two types of facilities: single and double en-suite bedrooms and dormitory accommodation comprising one or more 4-bed or 6-bed units. This accommodation would be designed to be appropriate for volunteers, backpackers, budget tourists and responsible tourists[2]. This accommodation would be designed as independent modular units that could be developed over time depending upon demand and funding. Due to this modular design, it could also be used for small conferences and overnight accommodation for business tourists on government and business visits to the area.

Campground

The campground has its own communal ablution facility and is designed for open camping, i.e. not confined to specific campsites. This campground is aimed at the ultra-budget backpacker market, the safari market and overlander tours that are equipped for camping. Campers would be encouraged to use the restaurant and bar facilities in the lodge.

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2 Those visitors wishing to experience non-commercial tourist destinations, activities and experiences as part of a "responsible tourism" vacation experience.

Restaurant, "sun-downer" bar and lounge area.

These services would be supported by the appropriate support facilities such as a kitchen, scullery, wet and dry storeroom, refrigeration facilities and administration office. The operation of the restaurant and bar services would be outsourced on a concession basis to appropriately trained and skilled entrepreneurs from the host community as part of the empowerment and entrepreneurial programme of local people. Researchers and volunteers would be encouraged to make optimum use of these facilities.

Overnight hiking trail

An overnight hiking trail would be established in the adjacent protected area with cooperation from the protected area authority. Trained safari guides from the host community would guide this fully serviced trail. The nature and length of the trail would be tailored to suit local conditions specific to the protected area.

Overnight base camp

An overnight base camp for the hiking trail, in the form of a traditional tented safari camp would be located in close proximity to the Benefit Centre. This tented camp is designed to be multifunctional as it provides (i) a base camp for the hiking trail; (ii) rustic "in-the-bush" style accommodation for commercial tourists; and (iii) additional accommodation for conferences that may be held at the Benefit Centre.

3.3.4 Tourism and recreation activities

A range of tourism and recreation activities that could include:

- Short walking and hiking trails guided by trained local guides in the protected area, the host village and its surrounds;
- Mountain bike hire and guided mountain bike trails in the protected area and rural areas surrounding the host community;
- River-based activities, where appropriate, that may include canoeing and rafting;
- Horse riding and donkey cart rides;

- Traditional dancing exhibitions, story telling evenings, traditional art and craft making.

3.3.5 Accommodation

Accommodation would be provided for researchers and volunteers in the Benefit Centre compound. The nature of housing for long-term researchers would be in freestanding housing units that comprise one or two bedrooms, a lounge with small kitchenette and a bathroom and toilet. Volunteers would be accommodated in the Backpacker lodge.

The spatial relationships between the Benefit Centre, the protected area and the host community are important factors in determining the site at which the centre is located. These site-determining factors will be discussed in detail in Chapter 5.

3.4 Implementation of the RCCBC Model

The Robford Tourism consultants converted their vision into a development model, which they have documented (Robford Tourism, 2005). This model will be tested as a pilot project for Ruhija, a small rural community that is situated on the eastern boundary of the Bwindi Impenetrable National Park in Uganda, which is well known for its mountain gorillas. An assessment of the Great Fish River Nature Reserve and surrounding tourism region as a suitable location for the implementation of the RCCBC model is undertaken in the next chapter.

CHAPTER 4 METHODOLOGY

4.1 Introduction

This chapter presents the methodology and survey procedures used to test the aims of this research study. In order to set this study appropriately in the context of the RCCBC model, the location guideline or guidelines of the model are reviewed. This review focuses on one part of the larger RCCBC model, namely the RCCBC location assessment model. The six general categories of the RCCBC location assessment model, which influence the objectives of this research study, are described in the next section. This review is followed by a description of the research programme and the methodology used to investigate the five research objectives that were identified for this research study.

An initial field visit was made to the Great Fish River Nature Reserve and its sub-region in May 2007. Upon the successful completion of this field trip, a research programme needed to guide this research study was drafted. Field research started in June 2007 and was completed by December 2007. During this time, seven field visits of varying duration were made to the Great Fish River Nature Reserve, its surrounding sub-region and Glenmore Village. The results of this fieldwork are described later in this chapter.

4.2 RCCBC location assessment model

The RCCBC location assessment model clearly defines the spatial and location parameters necessary to establish a new RCCBC product and its associated programmes. These parameters fall into six general categories: (1) the ability of the preferred protected area to sustain scientific research in and around the protected area through time; (2) the attractiveness of the preferred protected area to tourists; (3) the location and role of the preferred protected area and associated host communities within the regional tourism economy; (4) the history, current state and potential growth of the associated or targeted community's economy; (5) the demographic nature and composition of the targeted community that will host the RCCBC facilities and programmes; and (6) the quality of the site proposed for the location of the RCCBC facilities and associated programmes.

The research objectives of this study are distilled from these spatial and location parameters as defined by the RCCBC model. Consequently, five specific research objectives give focus to this study. These objectives, which are clearly described in Chapter 1, shaped the design of the research programme for this study. However, the initial research programme was amended during the second field visit to the study area in response to/recognition of a number of local factors that had not been evident on the first visit. The research programme that was finally used for this study is reviewed in the next section.

4.3 Research programme

The research programme consisted of four phases: (a) a fieldwork phase; (b) a data capture phase; (c) a data assessment and evaluation phase; and (d) a report writing phase. Each of these phases will be discussed briefly in the following sections. The methodology used during the fieldwork and analysis phase is reviewed in detail later in the methodology section.

4.3.1 Fieldwork

Fieldwork took place in the Great Fish River Nature Reserve, its surrounding tourism region and Glenmore village between May and December 2007. A fieldwork programme was established to coordinate fieldwork activities for each of the seven visits to the study area.

The fieldwork programme was designed around the data collection requirements considered necessary to effectively attain the five research objectives of this study. These requirements are discussed for each of these objectives in the methodology section below.

A research assistant assisted the researcher during the fieldwork and data capture activities by a research assistant. A vehicle was allocated to the research assistant for the duration of the fieldwork to facilitate transport around the study area and surrounding tourism region. A house was rented in the village of Glenmore for the duration of the fieldwork as a field office and accommodation for the research assistant (see Figure 8).

Figure 8 The research assistant was accommodated in this Glenmore rented house for the duration of the fieldwork in the village.

The research assistant was given additional training in the software programmes that were necessary to undertake fieldwork and data capture effectively. Communication between the researcher and the research assistant was by cellular telephone and email when not together during the fieldwork phase.

Further aspects of the fieldwork undertaken during this phase are discussed in detail in the methodology section.

Data capture

As a field office had been established in Glenmore, most data collected during fieldwork was captured on site. Data collected in the field, by hand or on hard-copy questionnaires, was transferred into an electronic database. Data capture templates were created for each aspect of data capture that required such a template to enhance and ensure the systematic capture of data. An example of such a template appears in Figure 9

Fieldwork was completed by early December 2007 resulting in the closure of the Glenmore field office and the return of the equipment to the researcher's home office in Swellendam.

4.3.2 Analysis

Initial analysis of data collected took place in the field and during the first six months of 2008 in Swellendam. Various software programmes were used in

the analysis process including Microsoft Access and Excel for database and spreadsheet requirements; ESRI's ArcGIS 9.2 and 9.3; Google Earth, Garmap's Mapsource and GPS Utility for spatial analysis; JMP version 7 and SPSS for data manipulation and statistical analysis; Google Scholar, Google Books, Zotero and EndNote for the sourcing and management of literature and Internet references.

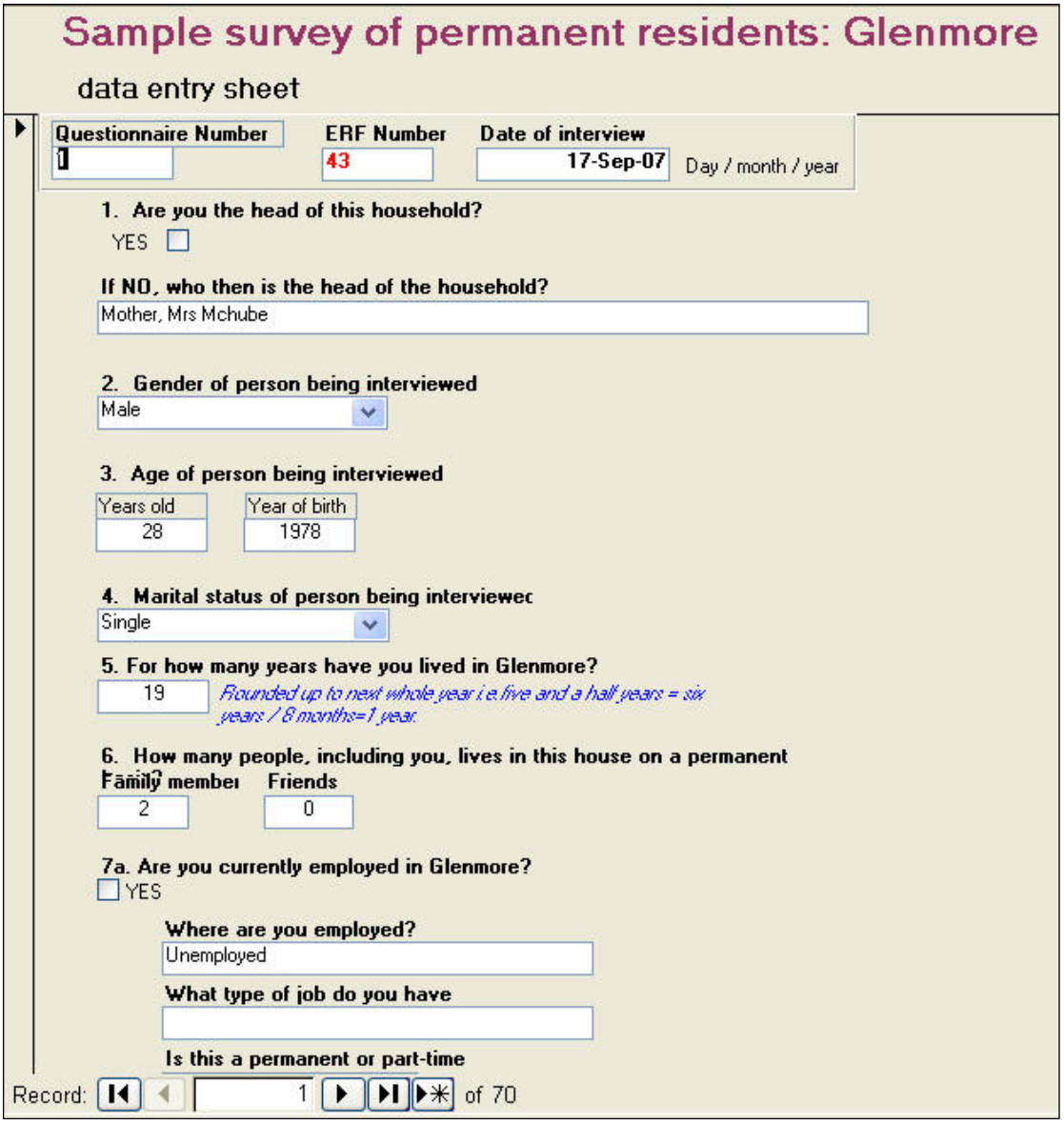


Figure 9 Database data entry template for sample survey of permanent residents in Glenmore.

Analysis was undertaken in a phased manner based on the five research objectives of the research study. Each phase formed the foundation for the

next phase of the analysis culminating in a statement of whether necessary tourism, geographic, social and research conditions are present in any of the local communities situated in close proximity to the Great Fish River Nature Reserve for the implementation of the RCCBC model.

4.3.3 Report writing

The literature review, methodology and research outcomes were drafted into a report between January and November 2008. Microsoft Word was used as a word processor in conjunction with EndNote referencing software to manage citations and graphics. The final report was completed for submission in March 2010.

The next section describes the methodology used to undertake this research study.

4.4 Overview of Research Methodology

The methodology used to address the five research objectives of this study are discussed in the sections to follow. An attempt has been made to describe in detail the research procedures followed, the problems encountered and the results obtained. As a considerable amount of research was undertaken, an overview of the methodology used is first presented to the reader to enhance comprehension of the research process and methodology. This overview is then followed by a comprehensive discussion of the methodology used to address each of the five research objectives.

An overview of the research methodology used to address the five research objectives of this study is described briefly in this section.

Research Objective 1: Potential to conduct scientific research

The first research objective was to determine whether the potential exists to conduct sustainable, ongoing scientific research programmes within and adjacent to the Great Fish River Nature Reserve and whether it is appropriate for implementation of the RCCBC model.

To achieve this objective the following fieldwork activities were programmed: (a) personal interviews with the Reserve's management staff and appropriate staff of the Scientific Services Division of the Eastern Cape Parks Board (ECPB); (b) a review and assessment of the Register of Scientific Projects for ECPB reserves (see Appendix A); (c) a search of South African research and university libraries for scientific studies and literature pertaining to the Great Fish River Nature Reserve and its surrounds; and (d) an intensive Internet search for scientific and research references to the Great Fish River Nature Reserve and immediate surrounding areas in scientific and academic journals, papers and other sources.

Research Objective 2: Suitability of tourism resources of protected area

The second objective of the research programme was to determine whether the tourism resources of the Great Fish River Nature Reserve and its surrounding tourism region were appropriate for the implementation of the RCCBC model.

To achieve this objective, a spatial assessment of the Great Fish River Nature Reserve in the context of the regional tourism plant was undertaken, as well as a detailed assessment of the Reserve's tourism resources, attractions, facilities, services, infrastructure and plans for future tourism development.

Research Objective 3: Selection of host community

The third objective of the research programme was to determine which of the local communities located on the periphery of the Great Fish River Nature Reserve comply most favourably with the host community location guidelines of the RCCBC model.

To achieve this objective, all local communities within four kilometres of the boundary of the Great Fish River Nature Reserve were assessed against a set of guidelines defined by the RCCBC model. The community that complied most favourably with these defined guidelines was to be selected for further assessment in accordance with the objectives of the research study. This

community was to be known as the preferred host community for the purposes of this study.

Research Objective 4: Selection of development area for RCCBC products

The fourth objective of the research programme was to determine whether the spatial and geographical preconditions were present in the precinct of the preferred community for the establishment of RCCBC products and programmes.

To achieve this objective the precinct of the preferred host community was to be mapped in detail using GIS mapping software. A minimum of two potential tourism development zones (TDZs) was to be identified within this precinct. TDZ identification was based on RCCBC guidelines defined for identifying development zones suitable for its primary products and programmes. The identified TDZs were to be compared using a TDZ assessment model. This assessment model uses weighted variables to compare TDZs in order to identify the TDZ most suited for the potential development of the RCCBC products and programmes.

Research Objective 5: Social assessment of host community

The fifth objective of the research programme was to assess the demographic and social nature of the preferred host community for compliance with the demographic and social guidelines defined by the RCCBC model for preferred host communities.

To achieve this objective the preferred community needed to be mapped and a census undertaken to identify a research population on which to base a detailed sample interview survey. A questionnaire was drafted based on the RCCBC model's guidelines for assessing the demographics, nature and attitude of residents of the preferred host community. The purpose of this survey was to determine the attitudes of members of the host communities to specific issues considered important for the optimal functioning of the RCCBC model. A random sample of households was identified from the research

population of households in the preferred community. A detailed interview survey was undertaken with the head or spokesperson of each of the households identified in the random sample. Data collected in this survey was analysed and assessed to determine the host community's level of compliance with RCCBC model's demographic and social guidelines for a suitable host community.

This section has provided an overview of the research methodology used in this study. A more comprehensive, detailed description of this methodology is contained in the next section of this report.

4.4.1 Detailed description of research methodology

A comprehensive, detailed discussion of the research methodology used to achieve the five research objectives of this study follows below. An attempt has been made to provide an objective assessment of the methodology by describing the successful and unsuccessful aspects of the methodology adopted. This assessment of methodology will be described for each of the five research objectives successively in the sections below.

Research Objective 1: Potential to conduct scientific research

The first research objective was to determine whether the potential exists to conduct sustainable, ongoing scientific research programmes within and adjacent to the Great Fish River Nature Reserve and whether it is appropriate for the implementation of the RCCBC model. This objective is guided by the outcomes of the research undertaken on PERT by Ellis (see section 2.6).

The methodology used to achieve this research objective consisted of three different activities: (a) interviews with ECPB staff; (b) an assessment of the Research Project Register maintained by the Scientific Services Division of the ECPB; and (c) a literature and reference search of academic libraries and the Internet-based Google Scholar. These three activities are discussed individually in detail below.

Interviews with ECPB staff

The first activity consisted of conducting in-depth interviews with selected staff from the Great Fish River Nature Reserve and Eastern Cape Parks Board's Scientific Services Division. Interviews were conducted with the Great Fish River Nature Reserve's regional manager Mzwabantu Kostauli and reserve managers Brad Fike and Gavin Shaw. Further interviews were conducted with the Head of Scientific Services, Dr David Balfour and scientist for the Great Fish River Nature Reserve, Mr Dean Peinke. The purpose of these interviews was to establish the extent and nature of scientific research that had been undertaken in the Reserve, as well as the opportunities for and constraints pertaining to scientific research in the Reserve in the future.

These interviews were personal interviews based on the methodology described in Sewell's (2000) Interview Guide Approach. An outline of the topics that were to be discussed was compiled before the interviews. The researcher undertook the interviews face-to-face or telephonically. Detailed records of the interviews were scripted after the interviews. The advantage of this approach is that the data collected is systematic and comprehensive while allowing the interview to remain fairly conversational and informal. A second round of interviews was conducted telephonically with the above ECPB staff members, with the exception of the Regional Manager. These interviews were considered necessary to clarify issues arising from the outcomes of the Internet-based literature and reference search described below.

Research project register

The second data collection activity under Research Objective 1 was to review and assess the Research Projects Register for ECPB reserves (see Appendix A). This register takes the form of a Microsoft Access database. Of the forty research projects registered in this database, sixteen research projects have been registered in the Great Fish River Nature Reserve. Seven of the research projects registered in the Great Fish River Nature Reserve have been completed, two abandoned, five are currently in progress and one is in the contract phase of being registered (November 2007). These projects were

catalogued and then assessed for suitability as scientific research projects that could support the RCCBC model's volunteer research and monitoring functions.

Literature and reference searches

The third data collection activity was to undertake detailed literature searches for references to research studies undertaken in and around the Great Fish River Nature Reserve. EndNote software was used to search ten South African academic libraries for references to research undertaken in and around the Great Fish River Nature Reserve. EndNote software is an online search tool that searches online bibliographic databases and retrieves references directly into EndNote databases located on the researcher's computer. University libraries that were interrogated include Cape Town, Fort Hare, Nelson Mandela Metropolitan, Pretoria, Rhodes, Stellenbosch, Western Cape, Walter Sisulu and Witwatersrand. The OASIS Internet library search system was used to interrogate the library of the University of South Africa for similar references.

The Internet search engine, Google Scholar, was used to search for references to research undertaken in and around the Great Fish River Nature Reserve. A total of 210 references were identified for the Great Fish River Nature Reserve based on a range of appropriate reserve name keywords. These keywords included Great Fish River Nature Reserve, Andries Vosloo Kudu Reserve, Sam Knott Nature Reserve and Double Drift Game Reserve, which are the historical names of the protected areas that have been combined to form the modern Great Fish River Nature Reserve.

The purpose of this Internet search was to get an indication of the extent to which scientific research had been undertaken in the Great Fish River Nature Reserve in the past. Based on the Reserve's historic ability to attract scientific research, a value judgement would be made as to the Reserve's future ability to support the RCCBC's Scientific Research and Volunteer Conservation Programmes.

The outcomes of these interviews and literature searches are discussed in Chapter 5.

Research Objective 2: Suitability of tourism resources of protected area

Research Objective 2 strives to determine whether the tourism resources of the Great Fish River Nature Reserve and its region are appropriate for the implementation of the RCCBC model.

The RCCBC model provides guidelines for assessing the tourism resources of the protected area to determine its suitability for the location of a Benefit Centre. These are listed in Table 1.

Table 1 RCCBC guidelines for assessing the tourism resources of the protected area to determine its suitability for the location of a Benefit Centre.

Guideline #	Regional Guidelines
1	Protected area (PA) should be situated in an existing, popular tourism region.
2	PA should be located within 50 km of an existing popular tourism destination.
3	PA should be located within 25 km of an established tourist route that has a medium to high rate of tourist flow.
4	PA should be located in a region well known for nature-based tourism.
5	PA should be accessible by road to 2x4 sedan vehicles.
6	Potential should exist to link PA to closest tourist destination by means of public tourist transport suitable for backpackers and independent tourists.
	Protected Area Specific Guidelines
7	PA should have at least one primary, draw-card tourist attraction that sets it apart from other protected areas in the region.
8	PA should have an existing tourism infrastructure within the PA.

The RCCBC model does not, however, provide any quantitative measure by which to determine suitability of the protected area other than strong and appropriate motivation. Consequently, the researcher established a methodology to assess such suitability. The methodology used in this research study to assess the Great Fish River Nature Reserve as a host

protected area according to the RCCBC guidelines, is described in the following section.

Guideline 1: Protected area should be situated in an existing, popular tourism region.

The methodology used to apply this guideline required an evaluation of the tourism plants of the Eastern Cape and the tourism region within 50 kilometres of the boundary of the Great Fish River Nature Reserve. This region is referred to as the "GFRNR 50 kilometre tourism zone" in this document.

The methodology required (a) a review of relevant tourism statistics for the Eastern Cape and Amatola region; (b) identification of existing tourist destinations and attractions in the GFRNR 50 kilometre tourism zone; and (c) an evaluation of competitive and complementary protected areas within the GFRNR 50 kilometre tourism zone.

The first action required the collection and assessment of tourism statistics for the province and Great Fish River Nature Reserve. These statistics were gathered from various sources. Tourism statistics for the Eastern Cape Province and Amatola region were sourced from the Director of the Tourism Research Unit of the Nelson Mandela Metropolitan University in Port Elizabeth. Statistics pertaining to tourism in Eastern Cape Parks Board nature reserves were obtained from the Commercialization Department of the Board. An assessment of these statistics could indicate if the Great Fish River Nature Reserve was situated in a region that was popular with tourists or not. However, in order to confirm the outcomes of the assessed tourism statistics, interviews were held with key tourism stakeholders in the Amatola region including (a) representatives of Eastern Cape Tourism; (b) representatives of Grahamstown Tourist Information (c) the manager and marketing manageress of Kwandwe Private Game Reserve; (d) the managers of the following ECPB nature reserves: Waters Meeting Nature Reserve, Fort Fordyce Nature Reserve, Mpofu Nature Reserve and Thomas Baines Nature; and (e) representatives from two tour operators functioning in the Amatola region. An Informal Conversational Interview technique (Sewell, 2000) was used to

conduct interviews with the above stakeholders. This qualitative interview technique which is “highly individualized and relevant to the individual” (Sewell, 2000) was considered most appropriate due to the diverse nature of the tourism plant to be assessed.

A desktop study and Internet search was conducted to identify and assess existing tourist destinations and attractions in the GFRNR 50 kilometre tourism zone. These destinations and attractions were captured into a GIS database and plotted as a map depicting tourist attractions in the zone.

In order to undertake an assessment of competitive and complementary protected areas within the GFRNR 50 kilometre tourism zone, site visits were arranged to Waters Meeting Nature Reserve, Fort Fordyce Nature Reserve, Mpofu Nature Reserve and Thomas Baines Nature, where tourism products were reviewed and interviews conducted with reserve managers.

After assessing the tourism statistics, tourism destinations and attractions of the GFRNR 50 kilometre tourism zone as well as conducting interviews with relevant stakeholders, a value judgement was to be made by the researcher as to whether the Great Fish River Nature Reserve was located in an existing, popular tourism region.

Guideline 2: Protected area should be located within 50 km of an existing popular tourism destination.

The methodology used to apply this guideline was to map a 50km zone around the boundary of the Great Fish River Nature Reserve. Tourist destinations that are located within this zone were assessed to determine the size and nature of the destination. This assessment of destinations was undertaken by means of an Internet and literature search to establish the number and nature of hospitality establishments in each destination. The destination would be considered significant if there were an appropriate number of hospitality establishments for the size of the destination. Destination sizes were categorised as being very small, small, medium or large. Field visits to each destination by the researcher validated the findings of this assessment.

Guideline 3: Protected area should be located within 25 km of established tourist route that has medium to high rate of tourist flow.

Tourism marketing agencies in the Eastern Cape promote a number of tour routes in the Frontier Country tourism region. However, no record is kept by authorities of the number of tourists that travel along these promoted tour routes. As there were no records of tourism flow to assess tour routes, the existence of tour routes for the purposes of this research had to be based on references to such routes in tourism promotional literature and the logical location of road links between tourist destinations.

Consequently, the methodology used to apply this guideline was to map a 25 kilometre wide zone around the Great Fish River Nature Reserve. All tour routes in the Frontier Country identified in tourism literature based on the guidelines mentioned above were mapped. Those tour routes that were located within the 25-kilometre zone around the GFRNR were then assessed for relevance to the Great Fish River Nature Reserve.

Guideline 4: Protected area should be located in a region well known for nature-based tourism.

Protected areas located within a fifty-kilometre radius from the borders of the Great Fish River Nature Reserve were identified and mapped. These protected areas included Waters Meeting Nature Reserve, Thomas Baines Nature Reserve, Fort Fordyce Nature Reserve and Mpofu Nature Reserve, which are managed by the Eastern Cape Parks Board, and Kwandwe Private Game Reserve.

The researcher visited each protected area and interviewed the reserve manager. The purpose of the interview was to determine the role of the reserve as a nature-based tourism destination within the Great Fish River Nature Reserve's surrounding region. Due to the varying nature of the protected areas, an informal conversational interview technique was considered the most suitable as the interview could be individualized for each reserve (Sewell, 2000).

This methodology was considered appropriate and sufficient to determine whether the region in question was well known as a nature-based tourism region.

Guideline 5: Protected area and host community should be accessible by road to 2x4 sedan vehicles.

The RCCBC guideline is that the host protected area and community should be accessible to visitors travelling in a 2x4 sedan vehicle.

The methodology considered appropriate to apply this guideline required that all access roads to the Great Fish River Nature Reserve were mapped, travelled and assessed. Assessment, although subjective, was based on a purpose-made classification system that is described in Table 2. This classification system was based on the driving experience of a tourist in a semi-laden sedan type, 2x4 vehicle on tar and gravel roads with various surface conditions. Each section of every access road to the Great Fish River Nature Reserve was assessed according to this classification and mapped accordingly.

The results of this analysis would determine (a) whether the Great Fish River Nature Reserve was a suitable protected area in terms of road access for consideration as a RCCBC host protected area; and (b) which villages and settlements within four kilometres of the GFRNR's boundary are serviced by roads acceptable to self-drive tourists.

Guideline 6: Potential should exist to link protected area to closest tourist destination by means of public tourist transport suitable for backpackers and independent tourists.

The methodology used to apply this guideline was to identify the various types of public transport that currently do and possibly could in the future service villages located within four kilometres of the boundary of the Great Fish River Nature Reserve. The public transport routes were mapped and assessed to determine which areas adjacent to the Great Fish River Nature Reserve were more accessible to tourists using public transport than others.

Table 2 Access road condition classification table used to classify the condition of access roads to the Great Fish River Nature Reserve.

Classification code	Label	Comfortable speed that sedan vehicle could travel on road	Description
A	Good tar road	100 km/h +	Tar surfaced road in good condition with no or very few potholes.
B	Poor tar road	70 – 90 km/h	Tar surfaced road with surface of road in poor, uneven condition with cracks, flaking and potholes.
C	Good gravel road	70 – 90 km/h	Gravel surfaced road with good quality surface layer with little loose gravel, corrugation, potholes and erosion gullies. Motorists could comfortably travel between 70 – 90 km/h without having to slow down because of condition of the road surface.
D	Poor gravel road	40 – 70 km/h	Gravel surfaced road with poor quality surface layer with much loose gravel, many corrugations, potholes and erosion gullies. Motorists would be forced to travel between 40 – 70 km/h and frequently have to slow down because of the poor condition of the road surface.
E	Very poor gravel road	< 40 km/h	Gravel surfaced road in extremely poor condition with very many corrugations, potholes and erosion gullies. Road has not been maintained for extensive period of time. Motorists would be forced to slow almost to a stop to negotiate bad sections of this road and seldom proceed beyond second gear.
G	No sedan road	Not suitable for sedan vehicles.	

Guideline 7: Protected area should have at least one primary, draw-card tourist attraction that sets it apart from other protected areas in the region

The methodology used to apply this guideline was to conduct interviews with the managers of the Reserve and undertake an extensive field evaluation of all tourist attractions in the protected area. This evaluation took place during the course of four field visits to the Reserve. During these visits existing and potential tourist attractions accessible by public and tourist roads were

assessed. Some tourist attractions were accessible only via 4x4 management tracks or footpaths.

A review of all existing and potential tourist attractions was undertaken in the Great Fish River Nature Reserve. The researcher visited each tourist attraction. Thereafter, they were discussed with the Reserve's managers with respect to the current state and future plans for these attractions. All attractions were spatially identified by GPS or on Google Earth, mapped, assessed and ranked.

Guideline 7 requires that from these attractions, at least one primary tourist attraction needs to be identified within the Great Fish River Nature Reserve. This attraction then needs to be assessed against other protected areas within a 50-kilometre radius of the Great Fish River Nature Reserve for uniqueness or its quality of being a visitor draw-card to the Great Fish River Nature Reserve relative to other protected areas in the region. If such an attraction can be identified, then the Great Fish River Nature Reserve conforms to the criteria of Guideline 7.

Guideline 8: Protected area should have an existing tourism infrastructure within the protected area.

The methodology used to apply this guideline was to assess existing tourism infrastructure and future infrastructure that is proposed in the Reserve's Strategic Tourism Development Plan.

To achieve this assessment, interviews were conducted with the managers and hospitality and maintenance staff of the Reserve. Site visits were also made to all tourism products and associated infrastructure and facilities in the Reserve. Tourism products that were visited and assessed are listed in Table 3.

Assessed tourism products and infrastructure were mapped using ArcGIS 9.3 and are depicted in Figure 10.

Table 3 Tourism products and infrastructure visited and assessed in the Great Fish River Nature Reserve.

#	Tourism product	Operational status
1	Mvubu Lodge	Operational
2	Mbabala Lodge	Operational
3	Nottingham Lodge	Operational
4	Knott's cabins	Decommissioned
5	Naudeshoek Lodge	Decommissioned
6	Grasslands Education Centre	Operational
7	Double Drift Camping Ground	Operational
8	Charles Tinley Entrance Gate & administration facility	Operational
9	Botha's Post	Potential tourist facility
10	All entrance gate facilities.	Operational
11	Game drive road network and bird & game hides.	Operational
12	Knott Memorial Church	Potential tourist facility
13	Ranger facilities at various locations in the Reserve	Operational

Utilization of existing tourism facilities within the Great Fish River Nature Reserve was also assessed. Based on use and existence criteria, an assessment could be made as to whether the Great Fish River Nature Reserve had an existing, functional tourism infrastructure.

Tourism assessment summary

The final purpose of this research objective is to determine whether the tourism resources of the Great Fish River Nature Reserve are suitable or not for the implementation of the RCCBC model. The RCCBC model provides a scorecard against which to assess a protected area for suitability for RCCBC products and programmes from a tourism perspective. The Great Fish River

Nature Reserve was scored on this scorecard and the results are discussed in chapter 5.

If the score achieved on the above scorecard was considered not to be suitable, then the Great Fish River Nature Reserve should not be used for the implementation of the RCCBC model and another protected area in the vicinity should be considered in its place. If the Great Fish River Nature Reserve was considered to be appropriate and suitable for the RCCBC model, then the next step in the research methodology needed to be implemented as described in the next section.

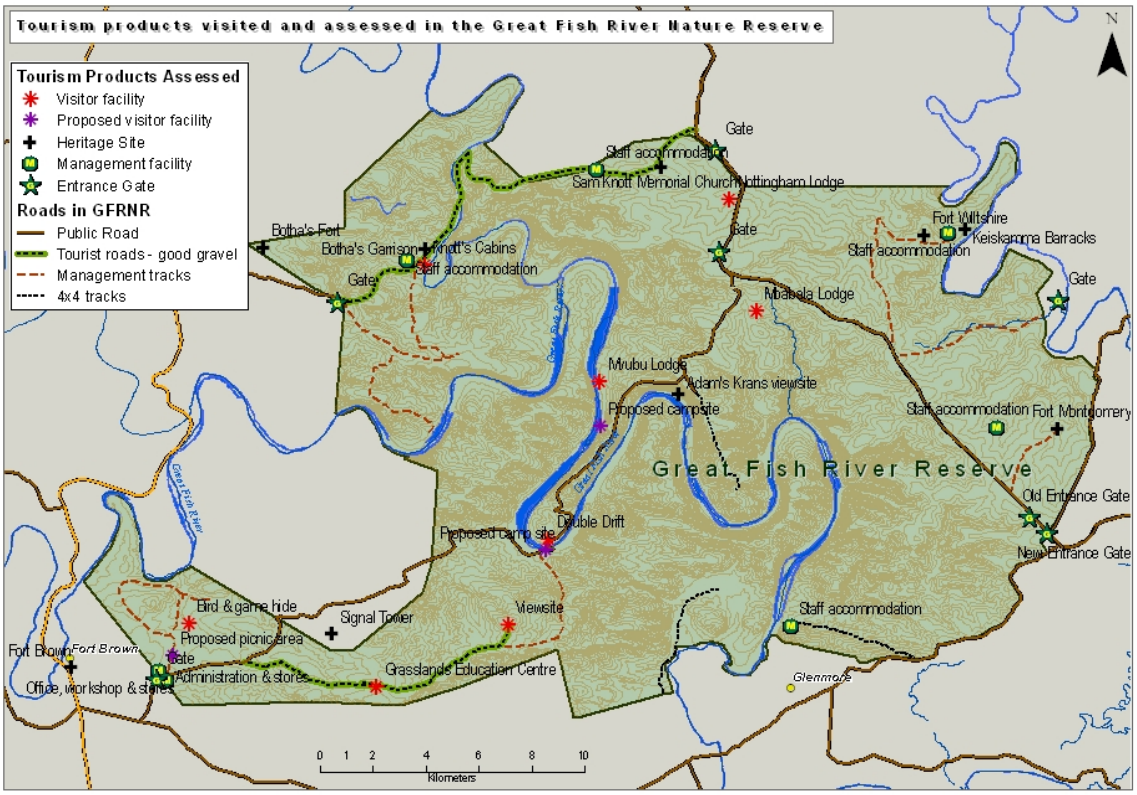


Figure 10 Tourism products visited and assessed in the Great Fish River Nature Reserve.

The overall assessment of the Great Fish River Nature Reserve revealed that the reserve was suitable as a protected area in terms of the eight guidelines specified by the RCCBC model for a host protected area. The next or third research object was selecting the most suitable host community in which the RCCBC model could be implemented from the numerous villages and settlements scattered around the Great Fish River Nature Reserve. The

methodology used to select the most suitable village or settlement is discussed in the next section.

Research Objective 3: Selection of host community

This section of the research document will describe the methodology used to select a host community suitable for the development of the RCCBC products and programmes.

Research Objective 3 of this research study strives to determine which of the local communities peripheral to the selected protected area should be selected as the host community in which to develop the proposed RCCBC products and programmes. The RCCBC model assists this process by providing six guidelines for assessing the suitability of local communities located in proximity to the selected protected area. These guidelines are listed in Table 4 and conform with Massyn's suggestion that more should be done to beneficial linkages in rural communities (see section 2.2).

In the following six sections, the methodology used to apply these assessment guidelines to the communities surrounding the selected protected area, the Great Fish River Nature Reserve, will be discussed.

However, the first step in this methodology was to establish a detailed map of the study area. ArcGIS 9.3 was used to establish this map, which covered the geographical area of the Great Fish River Nature Reserve and surrounding hinterland. Topographic data for the area (3326 BA, BB, DC & DD) was purchased from the Chief Directorate: Survey and Maps Department in Cape Town in (a) vector format as ESRI shapefiles at a 1:50 000 scale, and (b) raster TIFF format at 1:50 000 and 1:250 000 scales. The latest 2005 1:10 000 geo-referenced aerial photographs for the study area were also purchased in raster TIFF format from the Chief Directorate: Survey and Maps Department. Google Earth imagery downloaded from the Internet was used for additional colour aerial photography of the area and reality checks where necessary. Cadastral data for the Eastern Cape was purchased from the Surveyor General in vector, ESRI shapefile format for the following variables:

communal land, erven, farm boundaries (parent and farm portions), general plan, survey informal erf and unalienated state land.

Table 4 RCCBC guidelines defined for the identification of a host RCCBC community.

Guideline #	Guideline
1	The village must be located within a 4 km zone of the selected protected area.
2	Village must be surrounded by communal and not private land.
3	There should be at least 200 homesteads located in the greater village precinct.
4	The village should have: • Bulk water supply; • Bulk electrical power from the national grid; • Reliable telecommunications; • Public facilities such as a post office and basic shops.
5	The selected protected area must be easily accessible from the preferred village.
6	Village must be readily accessible by 2x4 sedan type vehicle.

Topographical vector data used to establish a base map of the study area included boundary lines, building points and areas, contours, drainage lines, land use areas, rivers, roads, structure lines, vegetation and water sources. Cadastral and topographic data were overlaid on top of the geo-referenced raster images of the aerial photographs as well as the 1:50 000 and 1:250 000 topographic images of the study area. This set of composite layers comprised the base map of the study area onto which additional layers were added and then manipulated and integrated by means of ESRI ArcGIS 9.2 GIS software.

Guideline 1: Host community located within 4 km of the Great Fish River Nature Reserve.

Once the base map had been established, a zone was plotted around the Great Fish River Nature Reserve some four kilometres distant from its

boundary. All villages and settlements located within this four-kilometre zone were identified (Figure 11).

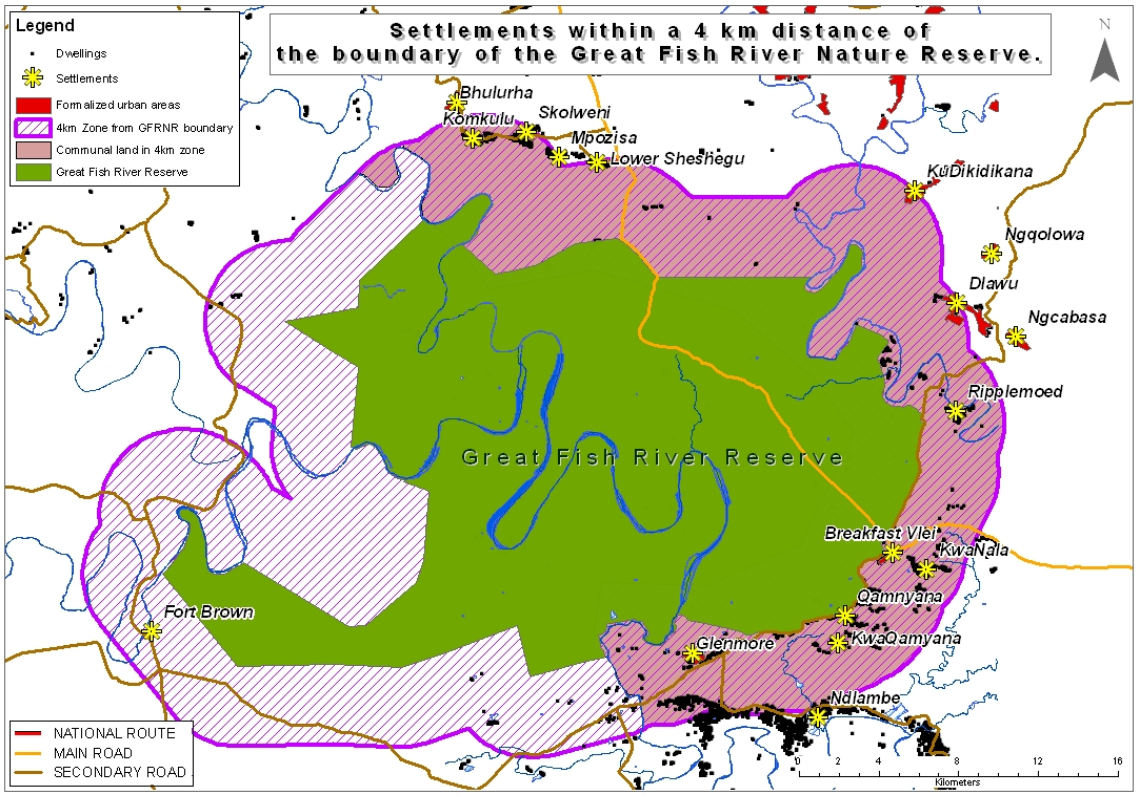


Figure 11 Settlements within a 4 km distance of the boundary of the Great Fish River Reserve.

Viewing and assessing the villages using Google Earth verified villages that were identified by this method. A total of eleven villages and settlements were identified within this zone: Fort Brown, Komkulu, Skolweni, Mpozisa, Lower Sheshegu, Breakfast Vlei, KwaNala, Qamnyana, Kwa Qamnyana, Ripplemoed and Glenmore

Guideline 2: Host community located on communal land.

The communal land shapefile obtained from the Survey Director's department was used to identify and map all communally owned land. This data layer was overlaid with the layer that identified land within a 4 km zone from the Great Fish River Nature Reserve. The area where these two layers intersected was community owned land within 4 km of the boundary of the Great Fish River Nature Reserve (Figure 11).

The settlement of Fort Brown is located on privately owned land that is in the process of being ceded by the owners, Kwandwe Private Game Reserve, to the Ngqushwa Municipality. Fort Brown was therefore excluded from consideration, as it did not meet the RCCBC guideline of being situated on communally owned land.

The villages of Glenmore and Breakfast Vlei are located completely within this 4 km boundary zone. Parts of the villages of KuDikidikana and Dlawu are located within this 4 km zone, but the largest portions of these villages are located outside of the 4 km boundary zone and they were therefore excluded from further consideration. Likewise, the well-established village of Bhulurha is situated just beyond the 4 km boundary zone and it too was excluded from consideration. The settlements of Komkulu, Skolweni, Mpozisa, Lower Sheshegu, Ripplemoed, KwaNala, KwaQamyana and Qamyana are located within the 4 km boundary zone and were selected for further assessment.

Consequently, a total of ten villages and settlements met Guideline 2 and were selected for further consideration.

Guideline 3: Host community should have between 200 and 1000 homesteads.

The RCCBC model requires that there should be sufficient people permanently living in the host community to benefit from the full range of activities and programmes operated by the RCCBC programme. Benefits from the RCCBC programmes are diluted to a point of meaninglessness if too many people are associated with the beneficiary community. As a result, RCCBC Guideline 3 states that there should be more than 200 but fewer than 1000 homesteads in the preferred host/beneficiary community in order to maximise benefits to that community.

The method used to accurately count homesteads was to identify all plots of land with dwellings on a Google Earth aerial photograph of the settlement. These homesteads were then marked on the aerial photograph with a red polygon and counted, as depicted in Figure 12 for the settlement of Mpozisa.

The total number of homesteads that were identified in each village or settlement is depicted in Table 5.

The next step in the assessment process is to review and assess bulk infrastructure servicing the above villages. The methodology to undertake this is discussed in the next section.

Figure 12 Plots of land that could be identified from the aerial photograph of Mpozisa settlement as being households or homesteads were marked with a red polygon. The red polygons were then summed to establish the number of households or homes in the settlement.

RCCBC products and programmes are best suited to locations that are serviced by bulk water, power and sewage infrastructure. The range and nature of the facilities and programmes potentially offered by the RCCBC programme are influenced by the existence of bulk infrastructure and the nature of community services available in the settlement. Therefore, bulk infrastructure and community services provision needed to be assessed for each considered settlement.

Data to apply Guideline 4 was gathered by means of an interview with the Local Economic Development (LED) Officer of the Ngqushwa Local Municipality and a site visit to each of the ten settlements or villages listed in Table 5. The purpose of the interviews was to establish if bulk water and

power reticulation were supplied to the settlements in question and what types of community services were available in the settlements. Community services included services such as clinics, police stations, schools, post offices / postal service, community halls and general dealers.

Table 5 Number of homesteads in villages and settlements within four kilometres of the boundary of the Great Fish River Nature Reserve as identified from aerial photographs.

Village or settlement	Number of homesteads
Komulu	92
Skolweni	36
Mpozisa	17
Lower Sheshegu	48
Breakfast Vlei	28
KwaNala	17
Qamnyana	24
Kwa Qamnyana	19
Ripplemoed	40
Glenmore	571

Glenmore was the only community that complied with guideline 3 as it had more than two hundred but fewer than a thous and households. The other nine communities did not qualify as they had fewer than 200 households in each community.

Guideline 4: Host community has bulk services and telecommunications

Cell phone reception based on the Vodacom cellular telephone network was tested for connectivity in each settlement during site visits to the settlements. The results of this data collection exercise are depicted in Table 6.

The Manager of the Double Drift section of the Great Fish River Nature Reserve, Mr Gavin Shaw, verified data gathered from these interviews.

Guideline 5: Host village has easy access to protected area.

Ready access to the selected protected area from the host village is an important RCCBC consideration. This access is required for the scientific research and volunteers' conservation programmes that will be undertaken from the Benefit Centre, which will be located in close proximity to the host community. Therefore, the quality of access from the host community to the selected protected area was assessed. The methodology used to assess access was based on the following criteria: (a) distance between the host community and a suitable access point to the protected area along the shortest pedestrian route or path, (b) steepness and profile of this route, and (c) nature and extent of any obstacles along the route between the protected area and host community.

The methodology used to assess this access to protected areas from host communities consisted of a number of steps. These steps were: (a) to identify the closest and most easily accessible points to the Great Fish River Nature Reserve from each of the villages. This step was necessary as the Reserve is surrounded by an electrified, two metre high game fence. Furthermore, it was most unlikely that there was a gate in the Reserve's perimeter fence near the community in question as the Reserve's management would have perceived such a gate as a weakness in the Reserve's perimeter security measures; (b) to plot a route between the point on the perimeter of the Reserve identified in (a) and the host community. This route was either to follow existing paths and tracks, or to be a new route defined specifically for this purpose of linking the host community to the reserve; (c) to calculate the ascent or descent between the host community and the access point to the protected area based on the contours traversed; and (d) identify any physical obstacles that could be considered a hindrance or obstruction to the route such as roads, rivers, erosion gullies and private land.

Google Earth and the base maps of the study area compiled in ArcGIS 9.3 were used to identify (a) the points of access to the Reserve, (b) a range of alternative routes from the host community to the point of entry into the reserve, (c) height differences between host community and Reserve, and (d)

if there were any obstacles to the proposed route (Table 7). These proposed routes were converted from Google Earth routes into a vector format acceptable to Ozi Explorer (GPS-orientated software) and imported into Ozi Explorer 3D along with the 1:50 000 vector contours for the study area.

Table 6 Provision of bulk services, community and telecommunication services in villages and settlements within 4 km of the boundary of the Great Fish River Nature Reserve.

Village or settlement	Bulk water reticulation	Bulk power reticulation	Cell phone connectivity	Community services
Komulu	Supplied to communal taps	Access to bulk power grid available	Medium to poor reception	Limited community services
Skolweni	Supplied to communal taps	Access to bulk power grid available	Medium to poor reception	Minimal community services
Mpozisa	Supplied to communal taps	Access to bulk power grid available	Medium to poor reception	No community services
Lower Sheshegu	Supplied to communal taps	Access to bulk power grid available	Medium to poor reception	Minimal community services
Breakfast Vlei	Supplied to communal taps	Access to bulk power grid available	Good reception. Landline service available.	Minimal community services
KwaNala	Supplied to communal taps	Access to bulk power grid available	Poor reception	Minimal community services
Qamnyana	Supplied to communal taps	Access to bulk power grid available	Poor reception	Minimal community services
Kwa Qamnyana	Supplied to communal taps	Access to bulk power grid available	Poor reception	No community services
Ripplemoed	Supplied to communal taps	Access to bulk power grid available	Poor reception	No community services
Glenmore	Supplied to communal taps	Access to bulk power grid available	Variable reception. Landline service available.	Full range of community services

Through manipulation in Ozi Explorer, a profile of the proposed route, and estimated difficulty and walking time for the proposed routes were calculated. Ozi Explorer calculates walking time based on distance and angle of inclines

and descents. However, these profiles and walking times were not considered reliable and were not used for assessment purposes.

Guideline 6: Host community accessible by 2x4 sedan type vehicle.

Tourism facilities and services are an integral and important component of the RCCBC model. Income earned from tourism facilities and services offered at the Benefit Centre are required to contribute significantly towards the overall operating costs of the Benefit Centre and its associated research, volunteer and social programmes. Therefore, it is extremely important that there is road access to the settlement or village where the Benefit Centre is to be located that is suitable to the tourist market segment at which the Benefit Centre's tourism facilities and services are aimed. The most popular, likely form of transport for the majority of self-drive visitors to the Benefit Centre of the Great Fish River Nature Reserve will be 2x4 sedan-type vehicles. Therefore, road access to the host community where the proposed Benefit Centre is likely to be established should be suitable for tourists travelling in 2x4 sedan-type vehicles. Consequently, access roads to the ten possible host villages and settlements had to be assessed for suitability for such vehicles.

The methodology to assess access roads to host villages is the same as that used to assess access roads the Great Fish River Nature Reserve. This methodology is discussed in the section titled *Guideline 5: Protected area and host community should be accessible by road to 2x4 sedan vehicles* and will therefore not be repeated in this section of this document. However, the results of the of road access analysis to the ten possible host villages are summarised in Table 8. It is evident from this summary that Glenmore was the only village with road access suitable for 2x4 sedan-type vehicles.

The assessment of access roads to possible RCCBC host villages concluded that Glenmore was the only settlement with access roads suitable for vehicles most commonly used by tourists.

Table 7 Assessment of the access that potential host communities have to selected access points to the Great Fish River Nature Reserve.

Village or settlement	Point of access	Length of best route (km)	Height differential (m)	Obstacles to route
Komulu	Charles Tinley entrance gate	11,9	115	Katrivier; Steep slope requires entrance to the Reserve via the Charles Tinley entrance gate
Skolweni	Charles Tinley entrance gate	11,72	65	
Mpozisa	Charles Tinley entrance gate	8,41	92	
Lower Sheshegu	Charles Tinley entrance gate	7,45	80	
Breakfast Vlei	Breakfastvlei entrance gate	1,1	5	Glenmore to Breakfastvlei road
KwaNala	Breakfastvlei entrance gate	2,15	45	
Qamnyana	Breakfastvlei entrance gate	5,71	126	
	Driesfontein gate	1,24	22	
Kwa Qamnyana	Breakfastvlei entrance gate	6,1	157	
	Driesfontein gate	2,7	2	
Ripplemoed	Breakfastvlei gate	8,9	229	Naudeshoek to Breakfastvlei road
	Naudeshoek gate	9,92	9	Naudeshoek to Breakfastvlei road; river gorge & erosion gullies
Glenmore	Breakfastvlei entrance gate	12,9	349	Naudeshoek to Breakfastvlei road
	Across river	0,8	28	Great Fish River

Table 8 Suitability of access roads to possible RCCBC host communities for 2x4 sedan-type vehicles.

Village or settlement	Condition of surface of access road	Suitability for 2x4 sedan tourist vehicles
Komulu	Very poor gravel	Unsuitable
Skolweni	Very poor gravel	Unsuitable
Mpozisa	Very poor gravel	Unsuitable
Lower Sheshegu	Very poor gravel	Unsuitable
Breakfast Vlei	Poor gravel	Unsuitable
KwaNala	Poor gravel	Unsuitable
Qamnyana	Very poor gravel	Unsuitable
Kwa Qamnyana	Very poor gravel	Unsuitable
Ripplemoed	Poor to good gravel	Unsuitable
Glenmore	Good gravel if approached from R67	Suitable

This section of the research document has described the methodology used to assess which of the ten villages and settlements surrounding the Great Fish River Nature Reserve should be selected as the most suitable for the establishment of RCCBC products and programmes. The outputs from this methodology are discussed in Chapter 5 where, after assessing each village against each of the six RCCBC guidelines, Glenmore was selected as the most suitable village for the establishment of RCCBC products and programmes. Therefore, the next research objective that strives to identify a development area for the RCCBC products will be applied to the village of Glenmore and this is discussed in the next section.

Research Objective 4: Selection of development area for RCCBC products

Research Objective 4 strives to determine whether the spatial and geographical preconditions stipulated by the RCCBC model are present in the precinct of the preferred community, Glenmore.

The methodology used to achieve this objective consisted of two steps. The first step required the identification of at least two tourism development zones (TDZs) based on seven guidelines provided by the RCCBC model for the purposes of identifying such TDZs. The second step required the assessment of the TDZs identified in Step 1 by means of a TDZ assessment model in order to identify the most suitable TDZ for the establishment of the RCCBC products and programmes. These two steps are discussed in the next two sections.

Identifying TDZs

The methodology adopted to identify potential TDZs required that the precinct of Glenmore be mapped in detail. This mapping required the compilation of a base map at a 1:10 000 scale which was derived directly from the 1:10 000 aerial photographs of the Glenmore area that were obtained from the Chief Directorate: Survey and Maps and the 1:50 000 topographic shapefiles from the same source. This base map was established using ArcGIS 9.3 software. Once complete, this base map was verified for accuracy on the ground through field checks undertaken by the researcher and modified accordingly. The coordinates of additional features were captured by means of a Garmin GPSmap76cs handheld GPS with an external aerial. These coordinates were converted into ESRI Shapefiles and Google Earth kml files using GPS Utility version 4.98 software and then incorporated into the Glenmore base map. Once the base map had been established, the next step in identifying potential TDZs was undertaken.

The RCCBC model provides seven guidelines for the identification of TDZs, which are listed in Table 9. It is further stated in the RCCBC guidelines that the model needs to identify a minimum of two TDZs from which the most suitable will be selected.

Table 9 RCCBC guidelines for identifying and assessing Tourism Development Zones (TDZs) for RCCBC products and programmes.

Guideline number	Guideline description
1	Host community to be within 4 km of protected area
2	RCCBC products to be located on community land.
3	RCCBC products to be located between 750 and 3000 metres from preferred village.
4	RCCBC products to be within 1 km of protected area.
5	Exclude land used for cultivation.
6	Exclude environmentally sensitive land.
7	Exclude land with slope greater than 30 degrees.

To identify at least two potential tourism development zones, the following methodology was used based on the RCCBC model's seven guidelines for identifying TDZs. The methodology to assess each guideline is discussed in the next seven sections.

Guideline 1: Host community to be within 4 km of protected area.

The RCCBC host community needs to be located within 4 km of the boundary of the selected protected area (see Figure 11). All settlements within 4 km of the Great Fish River Nature Reserve were identified and assessed in Research Objective 3 above. Glenmore village best suited the selection guideline and was selected as the preferred community for the RCCBC products and programmes.

Guideline 2: RCCBC products to be located on community land.

RCCBC products are preferably to be located on land that is owned or managed by the host community: in this case, Glenmore community or its local Ngqushwa municipality. Therefore, communal land located within a 4 km distance from the Great Fish River Nature Reserve was identified and mapped (blue hatched area depicted in Figure 13). RCCBC products should therefore be located on this identified land.

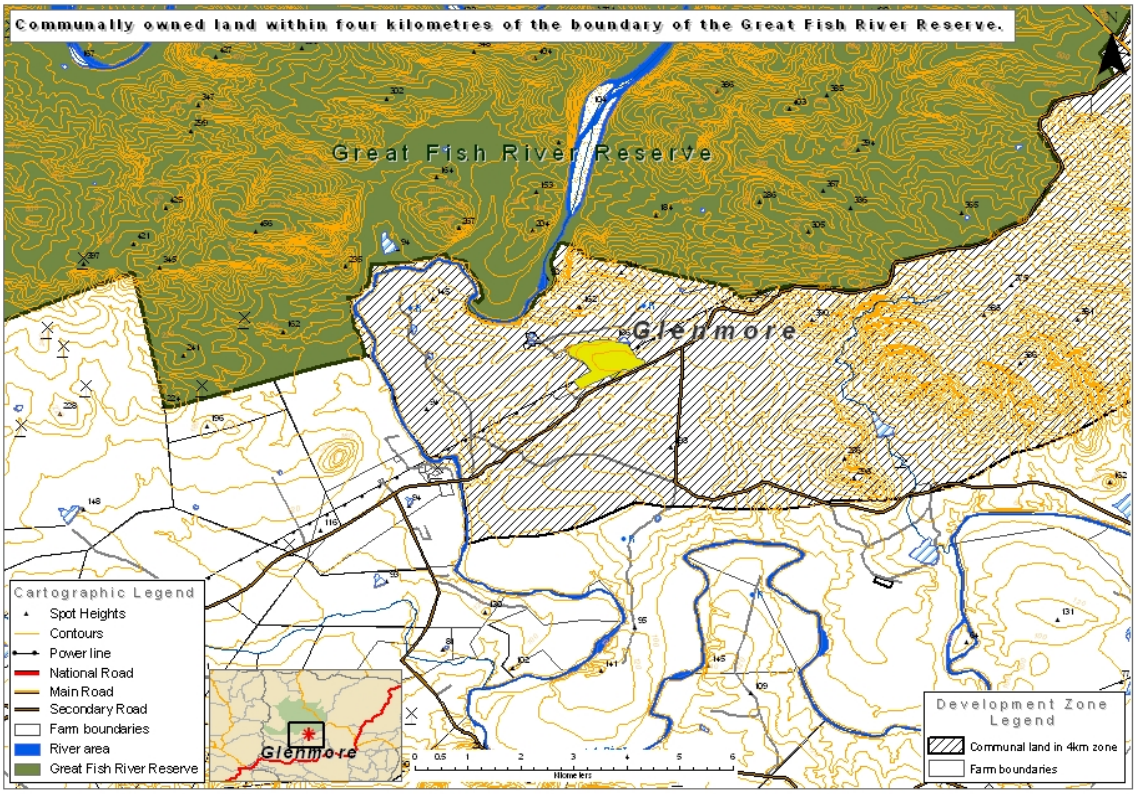


Figure 13 Communally owned land within 4 km of the boundary of the Great Fish River Reserve.

Guideline 3: RCCBC products to be located between 750 and 3000 metres from preferred village.

The location of RCCBC products is required to be neither more than 3 km from the boundary of the host village, Glenmore, nor within 750 metres of the closest boundary of the same village. The methodology required that a zone be mapped that is at least 750 metres but not further than 3000 metres away from the built-up edge or boundary of Glenmore (Figure 14). This figure illustrates where RCCBC products should not be located (within the red hashed zone indicating land closer than 750 metres to the village edge) but where they could be located (within the blue striped zone between 751 and 3000 metres from the village edge).

Guideline 4: RCCBC products to be within 1 km of protected area.

The guidelines state that RCCBC products should be located outside the preferred protected area but within 1 km of the protected area's boundary: in this case, the boundary of the Great Fish River Nature Reserve.

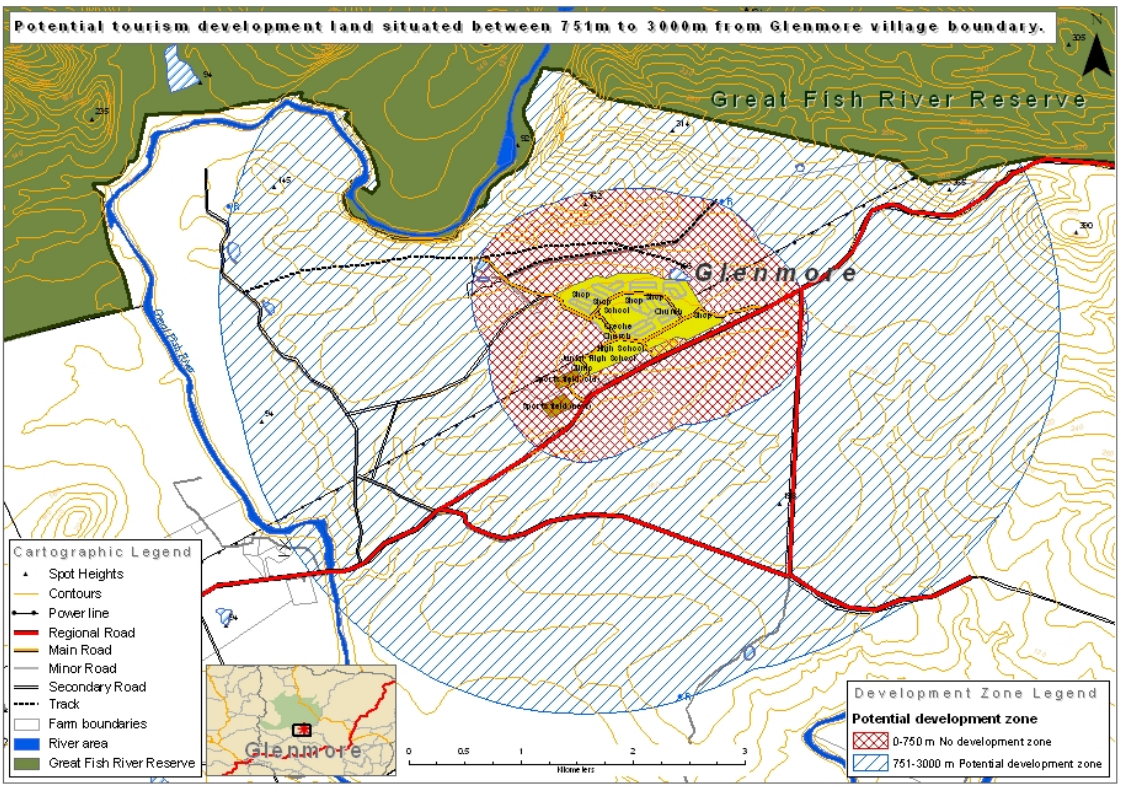


Figure 14 Potential tourism development land situated between 751m and 3000m from Glenmore village boundary.

The methodology used was to identify and map a zone 1 km wide radiating out from the boundary of the Great Fish River Nature Reserve. RCCBC products should be located within this zone hatched blue in Figure 15.

Guideline 5: Exclude land used for cultivation.

The RCCBC guidelines state that land currently being used successfully for cultivation or any other successful, sustainable, communal land use activity, should be excluded from TDZs.

The methodology identified land used for cultivation by means of Google Earth photographs. Google Earth imagery was used as it provides the latest colour, aerial photography available to the researcher (Digitalglobe imagery of 11 November 2006) whereas the 1:10 000 aerial photographs obtained from the Chief Director: Survey and Maps were older and not in colour. Land that was actively being cultivated is identified by light blue polygons in Figure 16,

whereas cultivated lands that are now inactive are identified by yellow polygons.

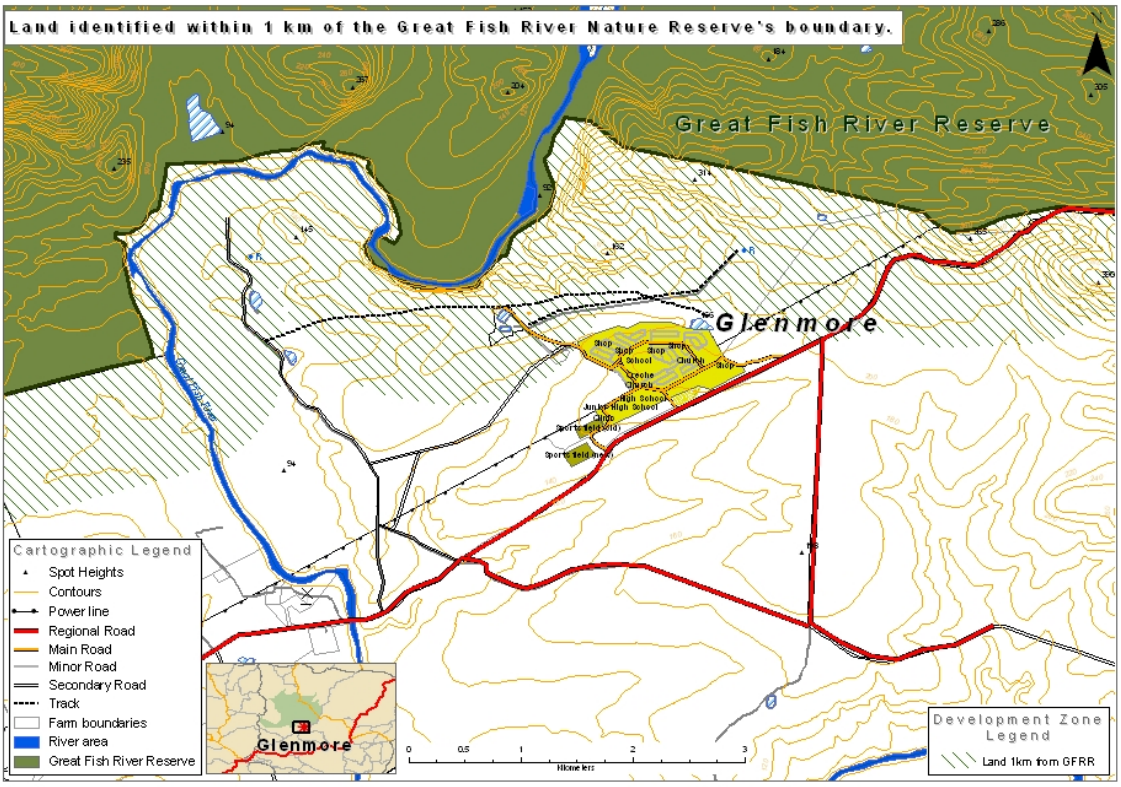


Figure 15 Land identified within 1 km of the Great Fish River Nature Reserve's boundary.

These cultivated land polygons were based on Google Earth's projections and it was therefore necessary to convert them to WGS84 projected Shapefiles using GPS Utility software. Once these polygons were converted they were then imported into the ArcGIS file geodatabase for the Glenmore precinct where they were geo-rectified. A map was then drafted depicting the land that is actively being used for cultivation and that land which has in the past been used for cultivation (Figure 17). This map was then checked for accuracy during a site visit to the Glenmore precinct. Where necessary, modifications were made to the map. Cultivated land was then excluded from potential land available for the development of RCCBC products.

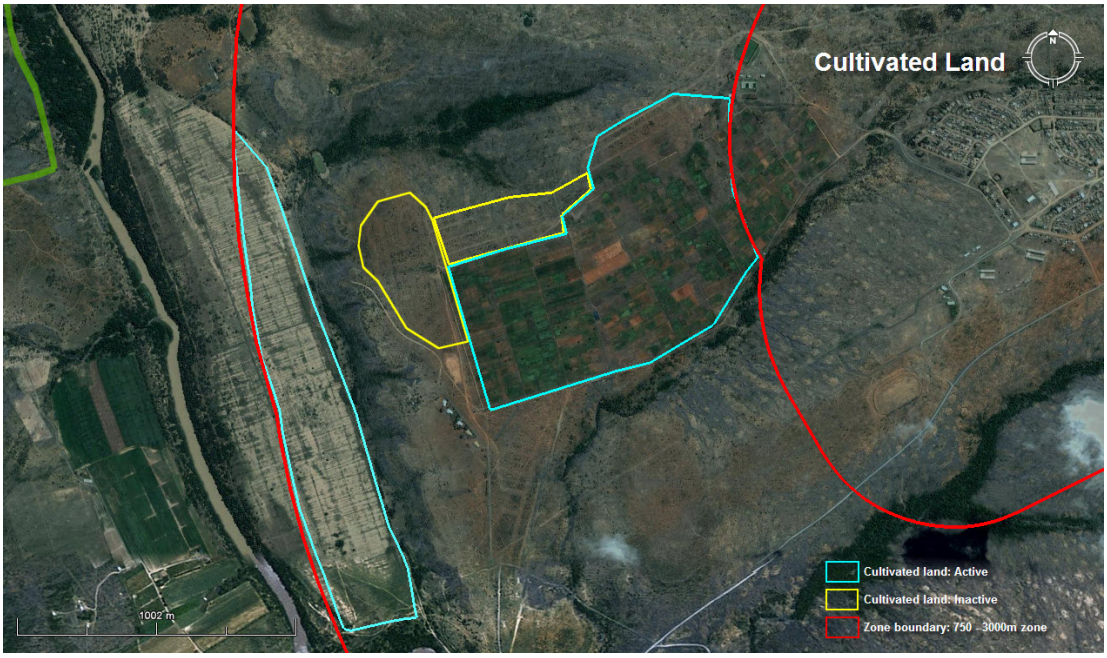


Figure 16 Aerial photograph depicting communal land under cultivation within the 750-3000 metre potential RCCBC development zone.

Guideline 6: Exclude environmentally sensitive land.

The guidelines for identifying RCCBC TDZs specifies that environmentally sensitive or unstable land should be excluded from TDZs. Land considered environmentally sensitive includes wetlands, water courses, eroded areas or areas with high potential for water and wind erosion and the flood plains of the Great Fish River.

The methodology used to identify these environmentally sensitive areas was similar to that used in Guideline 4. Sensitive areas were identified on Google Earth images. A polygon was placed around each identified sensitive area on Google Earth. Once complete, these polygons were then projected and converted to Shapefiles before being imported into an ArcGIS map This output map was checked for accuracy during a site visit to the Glenmore precinct (Figure 18).

Areas that were acknowledged as being environmentally sensitive or unstable were excluded from the land potentially suitable to develop RCCBC products.

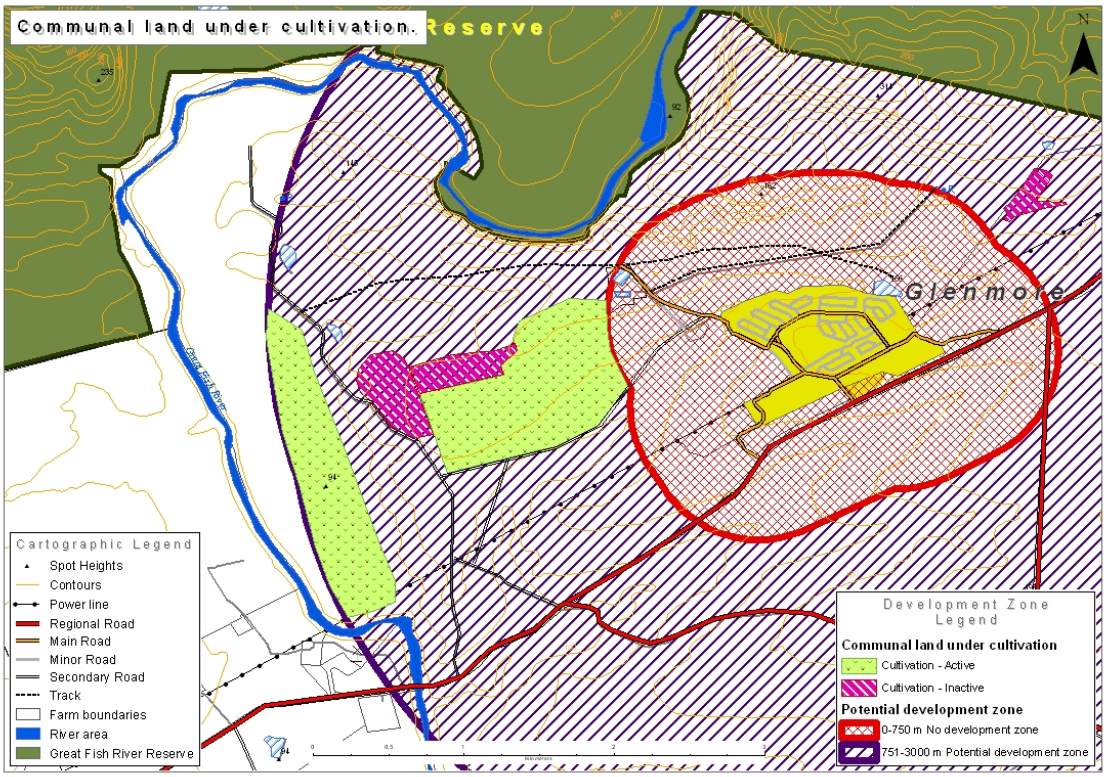


Figure 17 Communal land under cultivation.

Guideline 7: Exclude land with slope greater than 30 degrees.

Building on land with a slope exceeding 30 degrees is difficult, expensive and not the best environmental practice. RCCBC guidelines state that land with a slope that exceeds 30 degrees should not be used for RCCBC development purposes.

The methodology used to identify land with a slope that exceeded 30 degrees was to measure the distance between contours and then calculate the slope at numerous transects in the study area where contours indicated a steep slope. Interpolation of contours and use of transects were used to identify areas with slopes steeper that 30 degrees. These areas were then defined as polygons in an ArcGIS map. Land with a slope exceeding 30 degrees that is not suitable for the construction of RCCBC products is depicted in Figure 19.

This method of identifying slopes is neither the most accurate nor the most efficient, but it does give a good indication of where steep slopes occur. A more accurate method would have been to use ArcGIS's 3D Analyst that would have calculated accurately slopes in the study area from the data contained in the researcher's geodatabases. However, the researcher did not have a software licence for or access to 3D Analyst for this research project.

Composite map of RCCBC guidelines

A composite map was drafted by overlaying the output maps for each of the seven guidelines discussed above. This composite map showed all land that was not suitable for RCCBC development (Figure 20). The composite map was simplified by depicting all land not suitable for RCCBC development in red and that, which is suitable and available for development in blue. Therefore, all RCCBC tourism product development should take place on the land demarcated turquoise in Figure 21.

To make the boundaries of these two zones easier to identify and recognise on the ground, they were aligned with either natural or manmade features, such as the track on the western side of the 3000 metre zone.

Research Objective 4: Defining Tourism Development Zones

Land suitable for the development of RCCBC products was identified in Research Objective 3. Research Objective 4 strives to achieve two sub-objectives: (a) identify two or more Tourism Development Zones (TDZs) for the development of RCCBC products; and (b) selecting the best or most suited TDZ for the development of the proposed RCCBC products in Glenmore. Therefore, the next step in the methodology of finding suitable locations for RCCBC products is to identify at least two Tourism Development Zones in which such products could be developed, which is described in the next section.

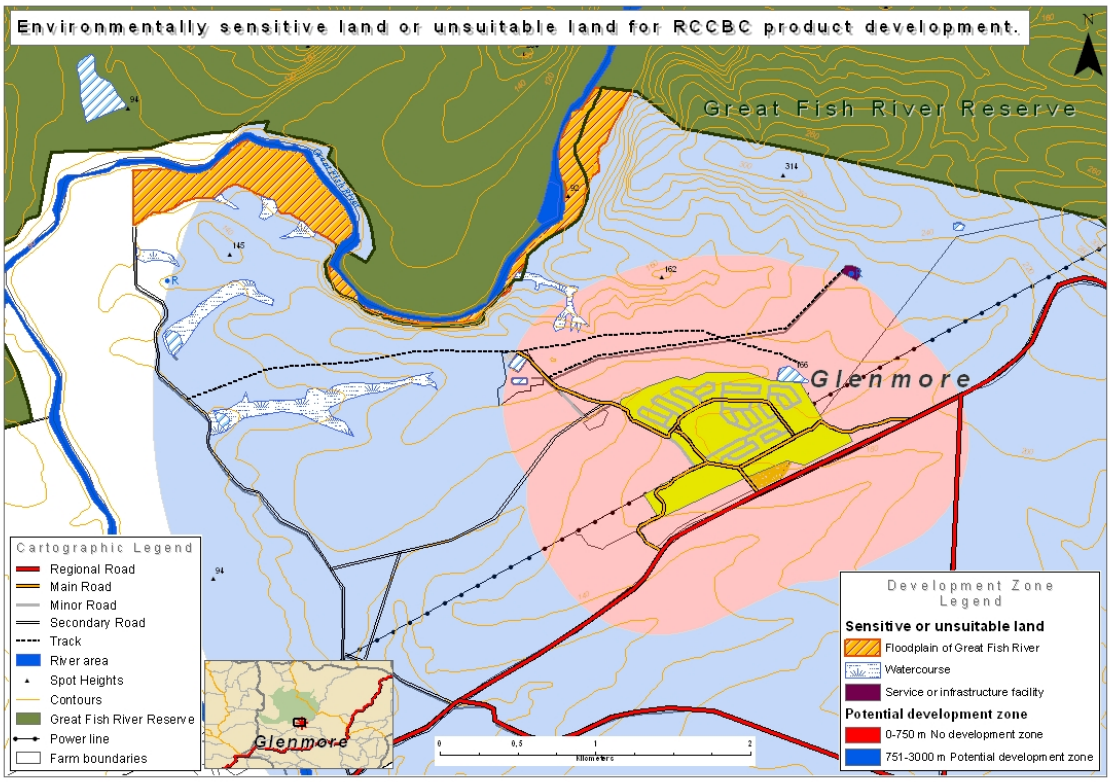


Figure 18 Environmentally sensitive land or unsuitable land for RCCBC product development.

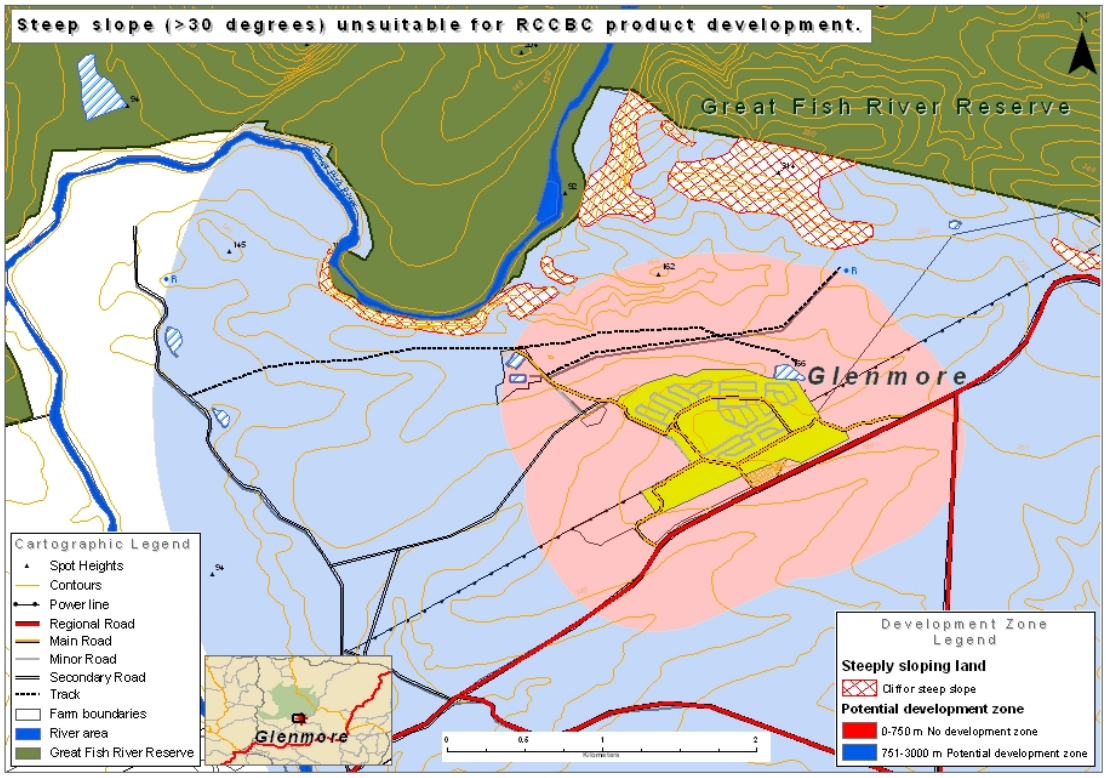


Figure 19 Steep slope (>30 degrees) unsuitable for RCCBC product development.

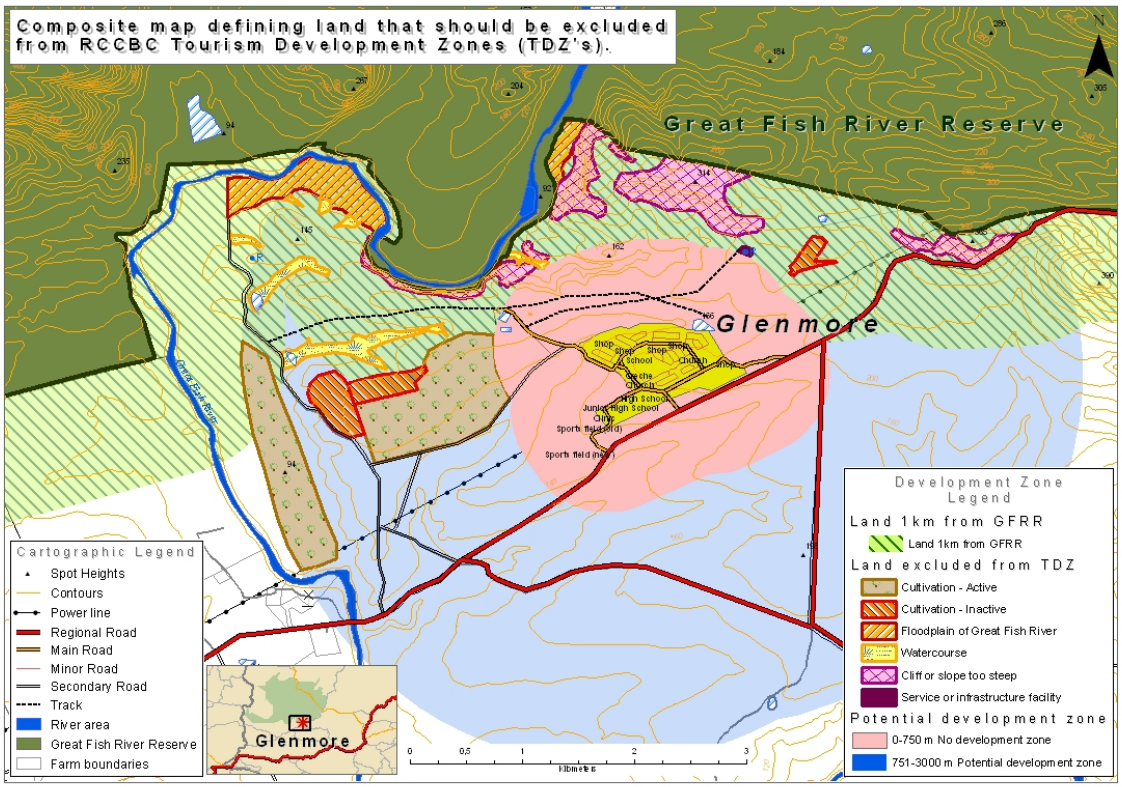


Figure 20 Composite map defining land that should be excluded from RCCBC Tourism Development Zones.

Identifying two or more TDZs

The first RCCBC spatial guideline for TDZs identification is that the sum of the spatially disparate parts of each TDZ should exceed one hectare in area. A second guideline states that tourism development zones in close proximity to rivers and water bodies do have higher tourism potential value and should be given precedence when identifying RCCBC TDZs.

The methodology used to identify this land with higher tourism potential was to demarcate a band of land 175 metres wide on each side of the centre line of the Great Fish River. This band of land was mapped to identify and signify land preferred for the construction of tourism-related RCCBC products. Land within this band was given assessment priority when seeking suitable locations for TDZs. Only after the priority land had been assessed was the rest of the land that had been identified as being suitable for RCCBC product development, assessed.

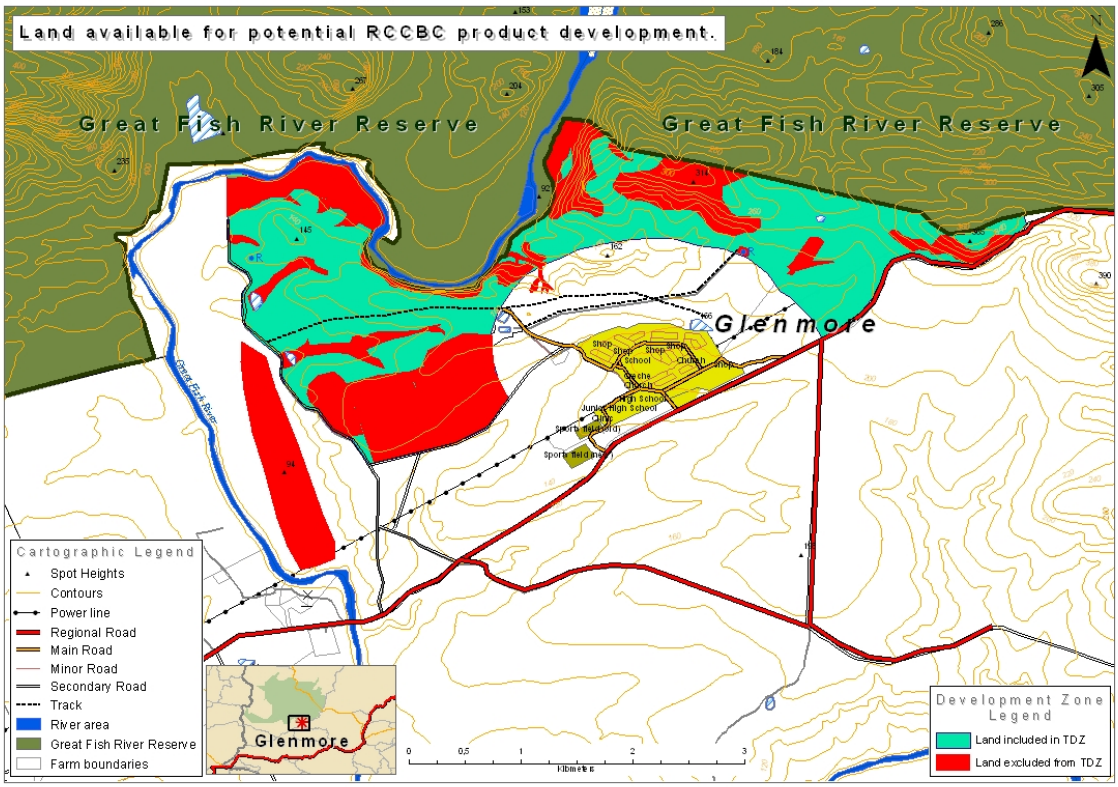


Figure 21 Land available for RCCBC Tourism Development.

A third RCCBC guideline offered is that TDZs should have nature-based recreational potential. This potential is defined to include 'contained scenic attractiveness' and 'recreation opportunity' (Chhetri, 2008). Scenic attractiveness was based on the definition by Chhetri *et al* (2004) that scenic attractiveness is the scenic quality of a geographical space that can be seen by an observer in his or her immediate surroundings. Chhetri *et al* (2004) continue that 'recreational opportunity', is the degree to which a recreational activity can be undertaken due to certain favourable physical or social conditions. The recreational opportunity was further refined by the list of preferred recreational and tourism activities and experiences that the RCCBC model strives to deliver. The reason for applying these guidelines is that tourist experiences are generated via an intellectual process of perceiving and recognising sensory information obtained from a landscape. However, it is recognised that these perceptions may be influenced by the individual values, attitudes, education, disability and socio-cultural background of the observers (2004).

Two TDZs were identified within the 175 metre river band and were labelled TDZ North and TDZ West. A third TDZ was identified on the eastern side of the land identified for RCCBC product development directly adjacent to the boundary fence of the Great Fish River Nature Reserve, which was labelled TDZ East (Figure 22).

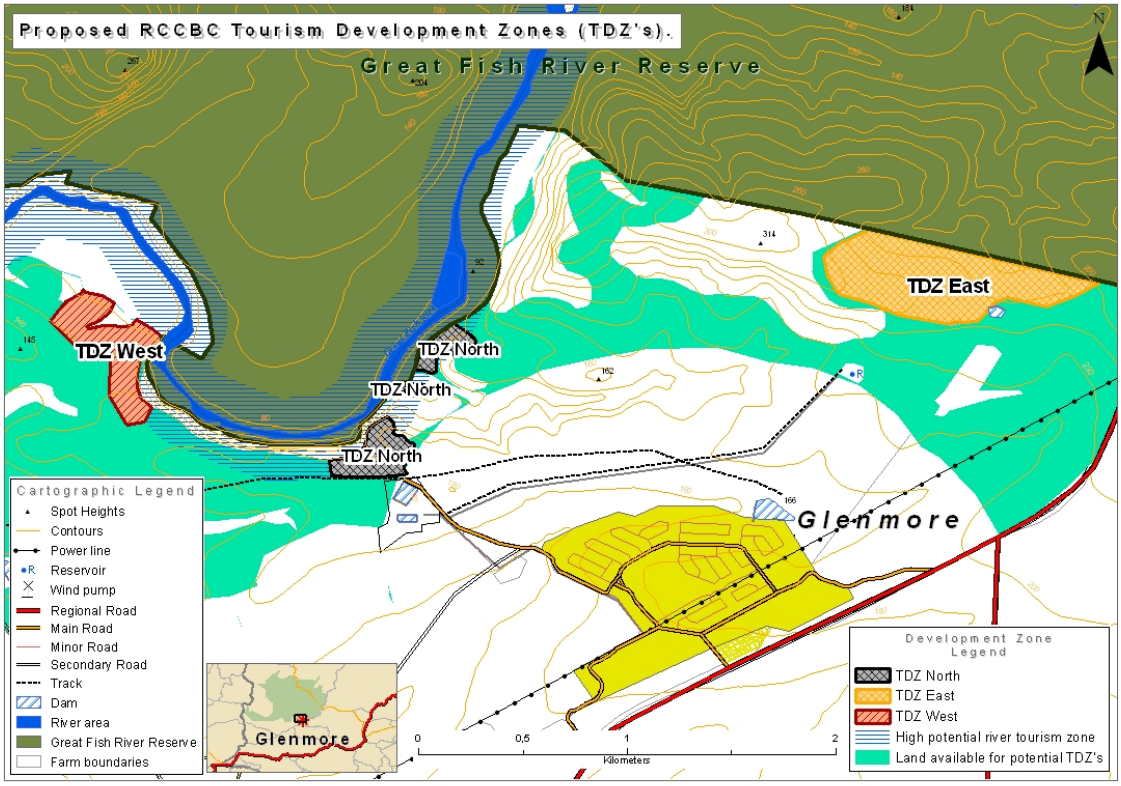


Figure 22 Proposed RCCBC Tourism Development Zones (TDZs).

Selecting the most appropriate TDZ

The final stage in identifying the TDZ most suitable for RCCBC product development was to assess the three TDZs defined above by using an assessment model specifically developed for this purpose. This model assessed a range of variables specifically selected that, when combined, identified the most appropriate TDZ for a specific development precinct. The outputs of this model are listed in Appendix B, while a discussion regarding the merits of each TDZ takes place in the next chapter. The results of this assessment identified that the TDZ North was the most suitable TDZ for RCCBC product development in the Glenmore precinct.

The research process has so far identified that the Great Fish River Nature Reserve is a suitable protected area for RCCBC to attract researchers, volunteers and tourists. It further identified that Glenmore was a spatially and geographically suitable village for establishment of RCCBC products and programmes and that the northern TDZ was the most suitable area in which to construct RCCBC products. The next step in the research process was to assess the demographic and social nature of the preferred host community for compliance with the demographic and social guidelines defined by the RCCBC model for preferred host communities, the methodology for which is discussed in the next section.

Research Objective 5: Social assessment of host community

The fifth objective of the research programme was to assess the demographic and social nature of the preferred host community for compliance with the demographic and social guidelines defined by the RCCBC model for preferred host communities.

A preliminary investigation of the Glenmore community indicated that little recent, reliable statistical information existed at an appropriate spatial level that would be useful to assess this research objective. Consequently, a survey of Glenmore residents was required to establish (a) a demographic profile of the host community and (b) the social nature of its residents, in order to address this research objective. It also became clear from this preliminary investigation that such a survey would need to be undertaken as two separate surveys. The first survey would conduct a census of the residents of Glenmore to determine the demographic extent and profile of population of Glenmore. The second survey, based on the results of the first, was to conduct an in-depth survey of a random, representative sample of residents from the village to determine the social nature of Glenmore residents. A research programme was drafted for these two surveys and incorporated into the overall research programme for the study. The survey research programme defined eight steps, which are contained in Table 10.

Table 10 Research programme to undertake surveys in Glenmore Village.

Step	Description of research activity
1	Undertake a situational analysis of Glenmore village.
2	Prepare to conduct Survey 1: Glenmore Census Survey.
3	Conduct Survey 1: Glenmore Census Survey.
4	Process and capture data from Survey 1 for use in Survey 2.
5	Prepare to conduct Survey 2: Sample Survey of Permanent Residents of Glenmore.
6	Conduct Survey 2: Sample Survey of Permanent Residents of Glenmore.
7	Process and capture data from Survey 2.
8	Assess, analyse and describe data from both surveys.

Step 1: Situational analysis of Glenmore village

The RCCBC assessment model requires an assessment of the demographics of Glenmore, the host settlement. Included in this assessment were the size of Glenmore's population, the number of households in the village and the age and sex of members of those households.

Data from the 2001 National Census conducted by the South African Statistical Services was to be used to establish a demographic profile of Glenmore. However, upon assessment of the national census data for Glenmore it became apparent that this data was not representative of the current situation in Glenmore or its population. Community leaders offered a number of reasons for this discrepancy. The first reason was that many of Glenmore's residents had migrated to urban areas in search of work since the 2001 census. This exodus of residents is evident in the large number of uninhabited houses in the settlement (shown in red in Figure 23).

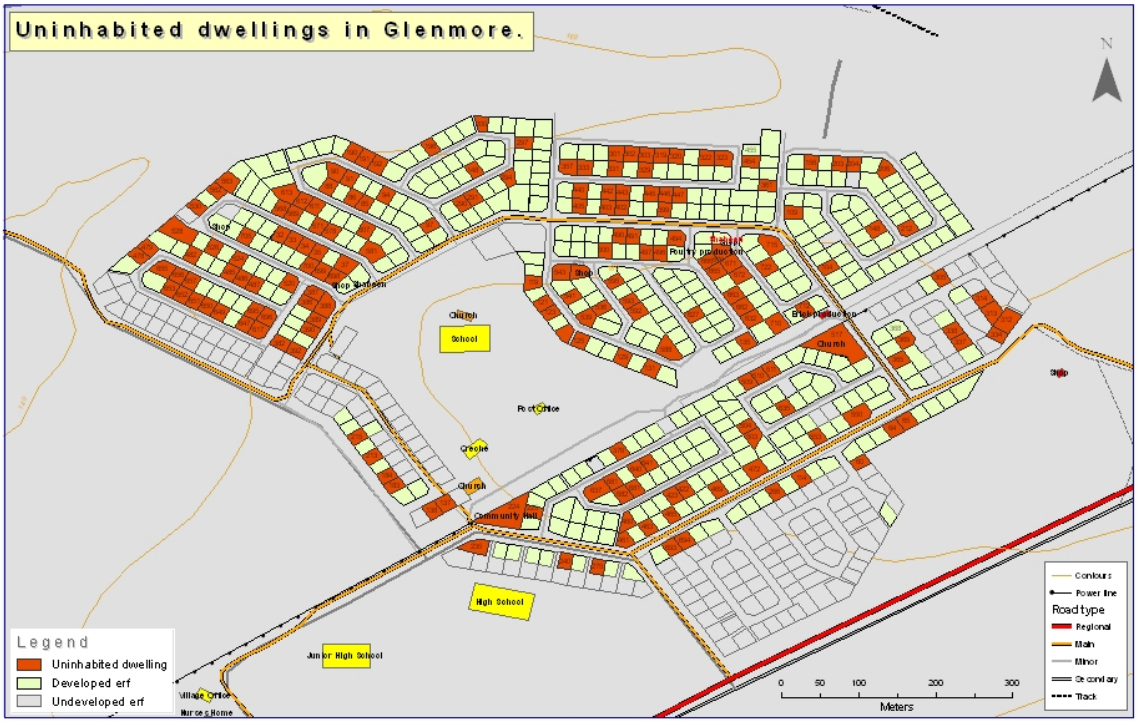


Figure 23 Uninhabited dwellings in Glenmore.

The second reason offered by community leaders was that information given by Glenmore residents to census officials was not necessarily accurate. They suggested that residents were distrustful of the national census programme. This distrust has its roots in similar demographic exercises that took place under the Apartheid government in the late 1970s. Glenmore residents believe that such survey programmes resulted in forced removals of residents from traditional settlements to resettlement villages such as Glenmore (Hallett, 1984). Therefore, the 2001 National Census data could not be used for the purpose of establishing a demographic profile of Glenmore residents.

Other options for obtaining accurate information were investigated by the researcher to overcome national census data inaccuracies. These options included using health data collected by the local clinic and other demographic records managed by the Ngqushwa Local Municipality. However, officials responsible for managing this data believed that their data too was not up-to-date or accurate. Therefore it was concluded that the most reliable option for obtaining accurate, current data was to conduct a census of Glenmore residents by the researcher.

The methodology used to undertake this census survey is described in the sections that follow.

Step 2: Prepare to conduct Survey 1: Glenmore Census Survey.

Preparation that was required to conduct the Glenmore Census Survey consisted of five sub-steps. These sub-steps were (a) to identify developed and undeveloped erven and which houses on developed erven were permanently occupied; (b) compile a data collection sheet for use by the interviewer; (c) undertake a pilot survey of ten households; (d) conduct the census survey; and (e) capture and assess the data collected by the survey.

Identify permanently occupied houses

As with the national census, the standard unit of measure to be used for the Glenmore census was households. In order to identify households, each erf in Glenmore was to be identified and given its own unique number for the purpose of this study.

Glenmore was laid out as a township in late 1978 in preparation for the first arrivals of resettled people in 1979. The township was laid out in compliance with the standard township layout of the late 1970s. The township consisted of streets, small residential erven, commercial and industrial lots and agricultural plots. The township layout consisted of 747 residential erven that are identified on a town plan depicting all erven in the Glenmore Township. This layout plan for Glenmore was obtained from the office of the Chief Surveyor General in digital ESRI shapefile format.

However, it was clear from the initial site visit that not all residential erven had houses and that not all houses were occupied. It was therefore evident that a map was required that would indicate the erven that were developed and which developed erven were permanently occupied. It would then be from these permanently occupied dwellings or households that a random sample of households could be identified for Sample Survey of Permanent Residents of Glenmore.

In order to identify developed erven in Glenmore, the shapefile depicting erven was overlaid onto a 2005 geo-rectified 1:10000 aerial photograph of

Glenmore Township. From this composite map, the number and location of developed erven in Glenmore Township could be identified (undeveloped erven are shaded orange in Figure 24).

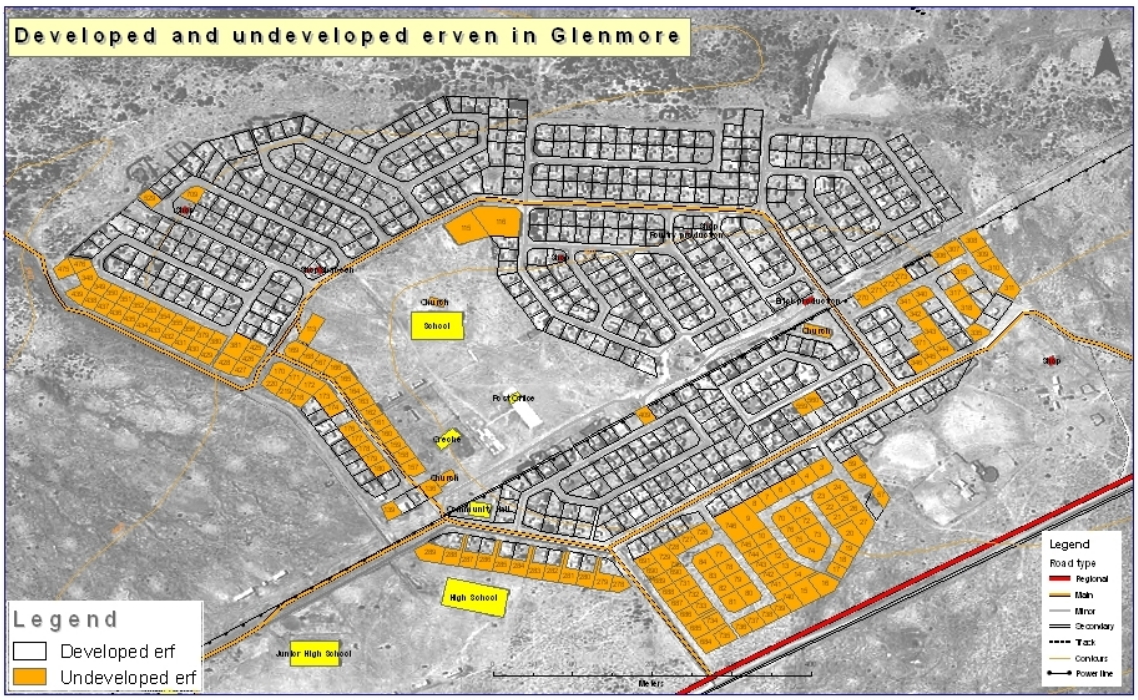


Figure 24 Map depicting developed and undeveloped erven in Glenmore.

Most undeveloped erven are on the southern periphery of the settlement with a small cluster of undeveloped erven on the eastern edge of the village. Of the 747-surveyed erven in Glenmore, 76,4% are developed, 18,1% are undeveloped and 5,5% are used for other purposes such as cattle kraals or storage sheds (Figure 25).

Of the 41 erven that were identified from aerial photography that are not used for permanent dwellings, 48,8% have been annexed to neighbouring erven while 51,2% are being used for non-dwelling purposes (Figure 26).

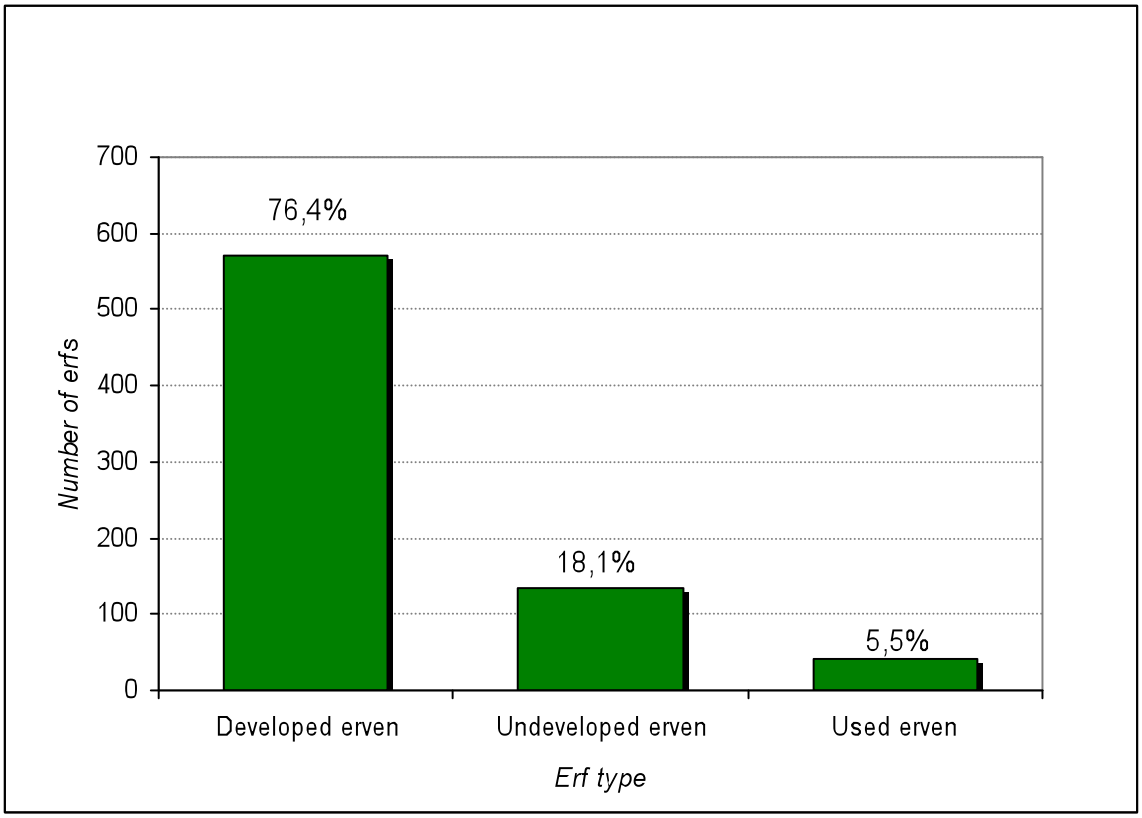


Figure 25 Number of developed, undeveloped and used erven in Glenmore.

A comparison of aerial photographs taken in 2005 and 2007 (Google Earth photograph) of Glenmore indicates that only two additional erven are being used for non-dwelling use in 2007 that were not used for such purposes in 2005. The distribution of annexed erven and those used for non-dwelling purposes are depicted in the composite aerial photograph of 2005 below (Figure 27).

The total number of erven identified with permanent dwellings in Glenmore was 571. These 571 developed erven were defined as the population base for the Glenmore Census Survey. These developed erven, with associated unique erf census numbers, were printed onto the 2005 aerial photograph of Glenmore to serve as a spatial aid for the research assistant, Taketime Tim, who was to conduct the interviews for the Glenmore Census Survey.

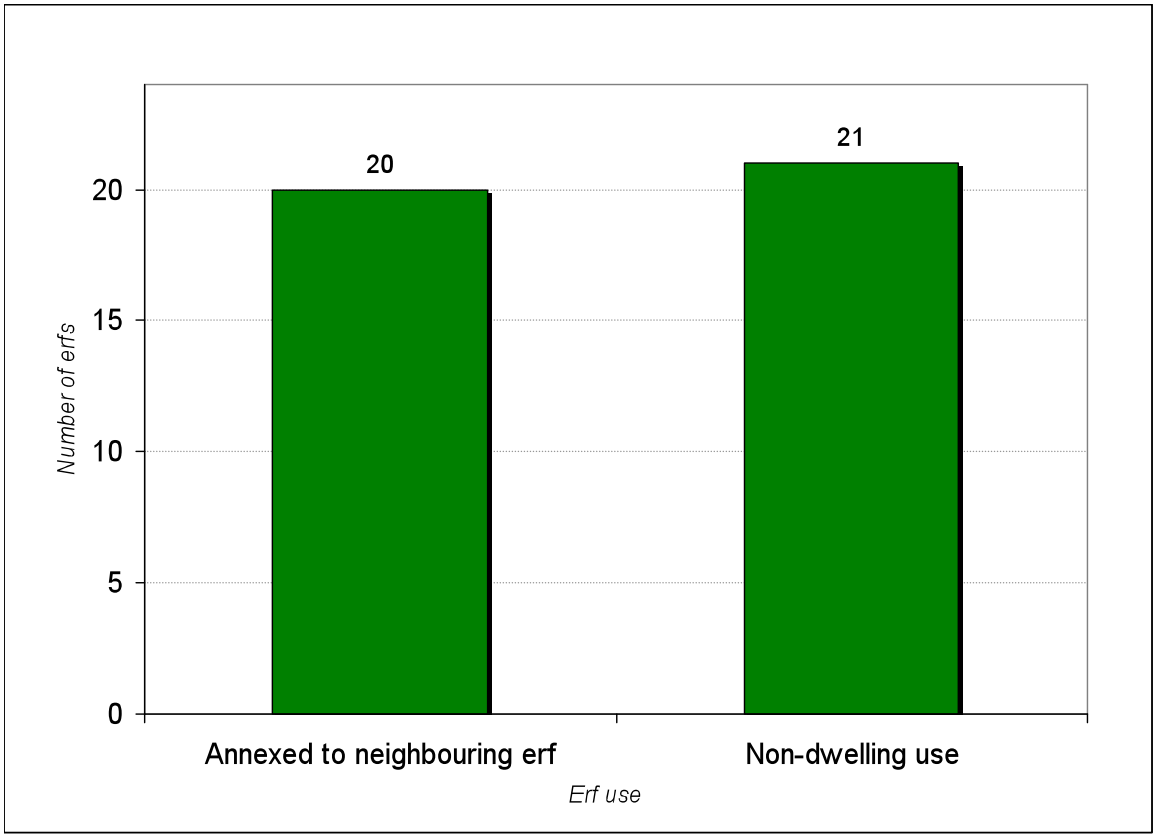


Figure 26 Erven categorised undeveloped that have other land uses identified from aerial photography.

Figure 27 Erven that have been annexed to neighbouring erven or are being used for non-dwelling use Glenmore.

Compile a data collection sheet for use by the interviewer

A data collection sheet was created to capture responses from the interviewees (Figure 28).

Glenmore Census Survey: Data Capture Sheet

ERF Number	ERF / Household Information				Total People in household	MALES						Female					
	House does not exist on ERF	No one lives in house on ERF	No residents present during survey period	Residents unwilling to be interviewed		Male 0-5	Male 6-12	Male 13-18	Male 19-29	Male 30-64	Male 65+	Female 0-5	Female 6-12	Female 13-18	Female 19-29	Female 30-64	Female 65+

Figure 28 Glenmore Census Survey data capture sheet.

Undertake a pilot survey of ten households

In order to test the interview process and data capture sheet of the Glenmore Census Survey, a pilot survey of ten interviews was undertaken. The researcher and the research assistant, who is fluent in Xhosa (the first language of the majority of Glenmore residents), undertook these first ten interviews jointly. The initial procedure was that the researcher was going to conduct the interview and research assistant was going to translate into or from Xhosa, if necessary. However, it became evident after the first five interviews that respondents were more comfortable to speak in Xhosa to the research assistant, a young black male, than they were to speak to the researcher, a middle aged white male, in English. Consequently, it was concluded that language and race were critical factors in overcoming barriers

between researchers and respondents. As a result, a different interviewing technique was tested for the remainder of the pilot study. In these interviews the Xhosa speaking, black research assistant conducted the interviews while the white researcher observed. It was established that interviews undertaken in this manner were more comprehensively undertaken. Furthermore, as respondents felt more at ease with the Xhosa speaking interviewer they tended to volunteer much more information than previously had been the case with the white interviewer.

As a result, the decision was made that the Xhosa speaking, black research assistant would complete all the census interviews on his own, unaccompanied by the researcher. It was believed this would result in better and more honest responses from respondents. Furthermore it was felt that this action would most likely lower the interpersonal barriers between researchers and respondents in the second interview survey that would take place a short while after the Glenmore Census Survey.

Step 3: Conduct Survey 1: Glenmore Census Survey

The Glenmore Census Survey was undertaken between the 12th and 19th of September 2007. The researcher's Xhosa speaking research assistant, Taketime Tim, undertook all interviews for this survey.

The survey had set out to interview the household heads of the 571 developed erven of Glenmore. However, of the 571 erven visited during the census, 32,1% were discovered to be uninhabited, resulting in a population of 391 households from which to obtain data for the population of Glenmore

Unfortunately, not all people interviewed during the survey were household heads. Twenty-two or 5.6% of the permanent residents of Glenmore were not at home during the period of the Glenmore census and were not interviewed. A dwelling was visited three times during the survey period by the interviewer before that household would be categorised as "not at home" and therefore not interviewed. The most common reason for household heads not being present during the interview period was, according to neighbours or other members of their household, that they work in another town during the week

and return to Glenmore over the weekend. The total number of households that were interviewed during the Glenmore Census was 369. These households are identified in green in Figure 29.

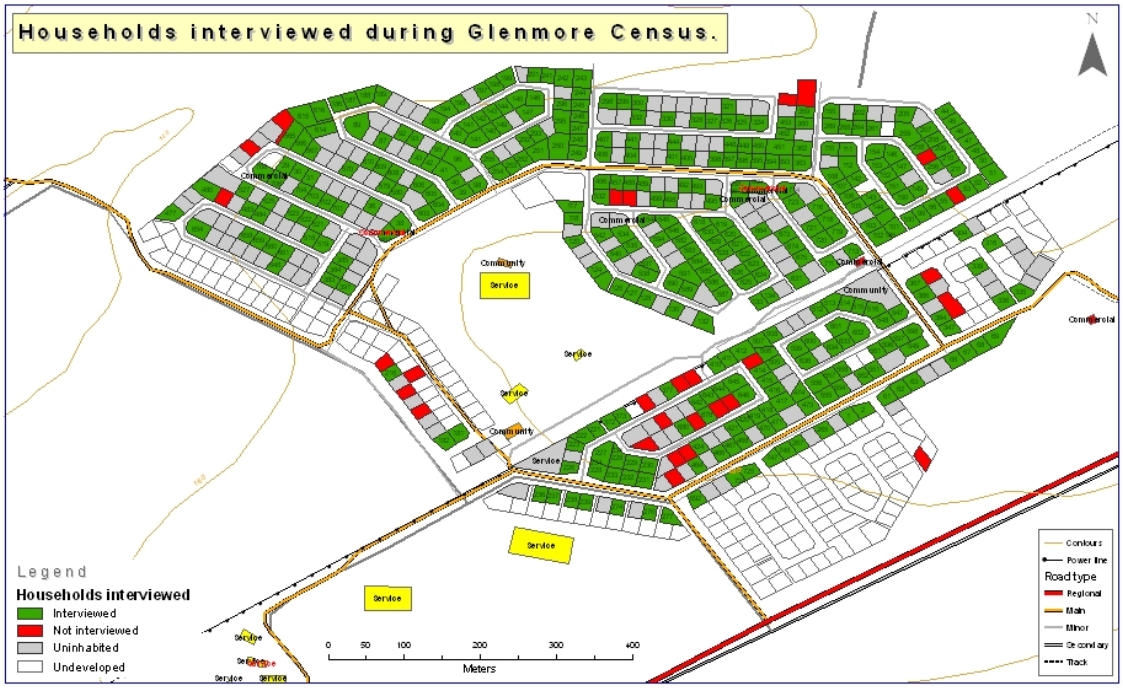


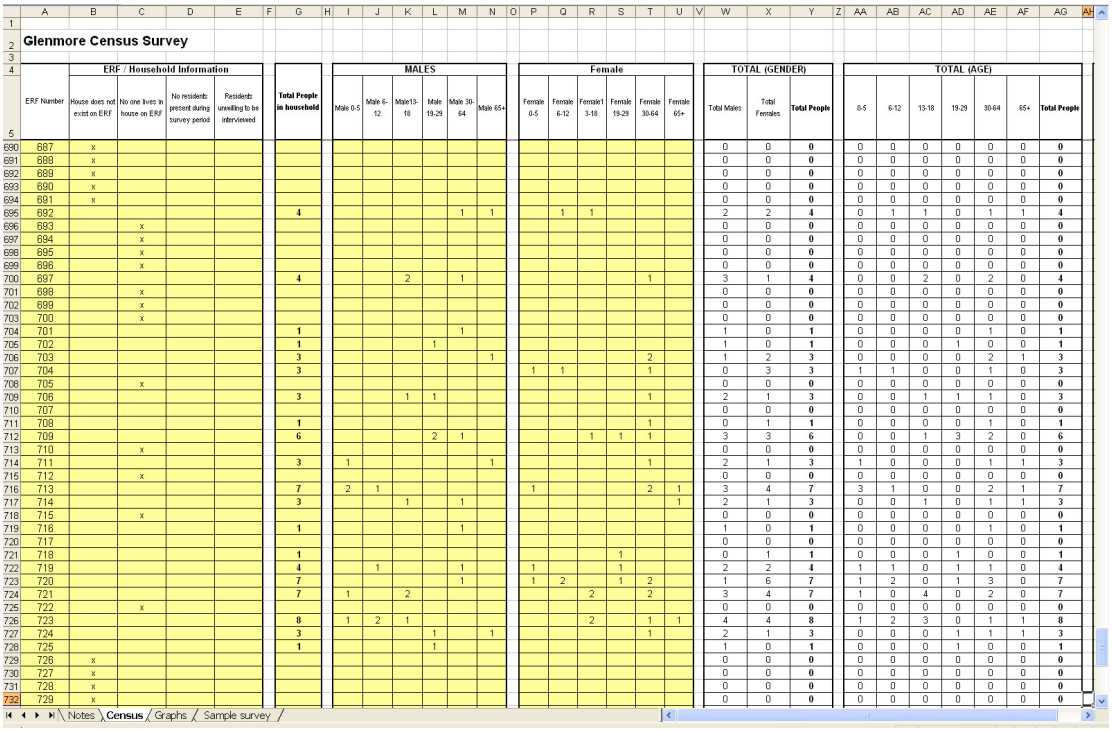
Figure 29 Households interviewed during Glenmore Census.

The interviewer reported that most respondents were supportive of the research programme and willing to be interviewed.

Step 4: Process and capture data from Survey 1 for use in Survey 2.

Research assistant Tim transferred data from the paper data capture sheet to an electronic spreadsheet. To facilitate this process, the data capture sheet was modified into an Excel spreadsheet that combined both data input and analysis into a single spreadsheet (Figure 30).

The results of the Glenmore Census Survey (see Appendix C) would provide the information that the RCCBC assessment model would require namely the size, age and sex profile of the Glenmore community. It would also provide information about the statistical population of Glenmore, from which a random sample would be selected for the detailed sample survey of permanent residents of Glenmore, which is discussed in the section below.



Glenmore Census Survey

	ERF Number	ERF / Household Information				Total People in household	MALES						Female						TOTAL (GENDER)			TOTAL (AGE)							
		House does not exist on ERF	No one lives in house on ERF	No residents present during survey period	Residents unwilling to be interviewed		Male 0-5	Male 6-12	Male13-18	Male 19-29	Male 30-64	Male 65+	Female 0-5	Female 6-12	Female13-18	Female 19-29	Female 30-64	Female 65+	Total Males	Total Females	Total People	0-5	6-12	13-18	19-29	30-64	65+	Total People
690	687	x																	0	0	0	0	0	0	0	0	0	0	0
691	688	x																	0	0	0	0	0	0	0	0	0	0	0
692	689	x																	0	0	0	0	0	0	0	0	0	0	0
693	690	x																	0	0	0	0	0	0	0	0	0	0	0
694	691	x																	0	0	0	0	0	0	0	0	0	0	0
695	692					4					1	1		1	1				2	2	4	0	1	1	0	1	1	4
696	693		x																0	0	0	0	0	0	0	0	0	0	0
697	694		x																0	0	0	0	0	0	0	0	0	0	0
698	695		x																0	0	0	0	0	0	0	0	0	0	0
699	696		x																0	0	0	0	0	0	0	0	0	0	0
700	697					4				2		1					1		3	1	4	0	0	2	0	2	0	4
701	698		x																0	0	0	0	0	0	0	0	0	0	0
702	699		x																0	0	0	0	0	0	0	0	0	0	0
703	700		x																0	0	0	0	0	0	0	0	0	0	0
704	701					1					1								1	0	1	0	0	0	0	1	0	0	1
705	702					1				1									1	0	1	0	0	0	1	0	0	0	1
706	703					3						1					2		1	2	3	0	0	0	0	2	1	3
707	704					3							1	1			1		0	3	3	1	1	0	0	1	0	3
708	705		x																0	0	0	0	0	0	0	0	0	0	0
709	706					3				1	1						1		2	1	3	0	0	1	1	1	0	3
710	707																		0	0	0	0	0	0	0	0	0	0	0
711	708					1											1		0	1	1	0	0	0	0	1	0	1
712	709					6					2	1			1	1	1		3	3	6	0	0	1	3	2	0	6
713	710		x																0	0	0	0	0	0	0	0	0	0	0
714	711					3	1					1					1		2	1	3	1	0	0	0	1	1	3
715	712		x																0	0	0	0	0	0	0	0	0	0	0
716	713					7	2	1					1				2	1	3	4	7	3	1	0	0	2	1	7
717	714					3			1		1							1	2	1	3	0	0	1	0	1	1	3
718	715		x																0	0	0	0	0	0	0	0	0	0	0
719	716					1					1								1	0	1	0	0	0	0	1	0	0	1
720	717																		0	0	0	0	0	0	0	0	0	0	0
721	718					1										1			0	1	1	0	0	0	1	0	0	0	1
722	719					4		1			1		1			1			2	2	4	1	1	0	1	1	0	4
723	720					7					1		1	2		1	2		1	6	7	1	2	0	1	3	0	7
724	721					7	1		2						2		2		3	4	7	1	0	4	0	2	0	7
725	722		x																0	0	0	0	0	0	0	0	0	0	0
726	723					8	1	2	1						2		1	1	4	4	8	1	2	3	0	1	1	8
727	724					3				1		1					1		2	1	3	0	0	0	1	1	1	3
728	725					1				1									1	0	1	0	0	0	1	0	0	0	1
729	726	x																	0	0	0	0	0	0	0	0	0	0	0
730	727	x																	0	0	0	0	0	0	0	0	0	0	0
731	728	x																	0	0	0	0	0	0	0	0	0	0	0
732	729	x																	0	0	0	0	0	0	0	0	0	0	0

Notes | Census | Graphs | Sample survey

Figure 30 Glenmore Census Survey electronic data capture & analysis screen.

Step 5: Prepare to conduct Survey 2: Sample Survey of Permanent Residents of Glenmore

The RCCBC model requires that the targeted or host community be assessed against a range of RCCBC defined social and economic variables. The first variable assessed for Glenmore in this study is the demographic nature of the host community. Although a limited amount of demographic data had been obtained in Survey 1, Glenmore Census Survey, more detailed data was needed to meet the requirements of the RCCBC model. This data was collected during Survey 2, a sample survey of permanent residents of Glenmore. The second variable that was assessed was the socio-economic nature and attitude of residents to specific issues considered important to the optimal functioning of the RCCBC model.

The methodology used to prepare for the second survey, which is over and above the demographic questions, is discussed in the following eight sub-sections.

Draft a questionnaire

A questionnaire was required for the interview survey. The RCCBC model provided a list of guidelines on which the questionnaire should be based. Consequently, a questionnaire of 16 primary questions with sub-questions was drafted. Two copies of the draft questionnaire were printed for test purposes. The researcher and research assistant conducted an interview at two randomly selected households not on the list of households selected to be interviewed in the pilot or main survey. The purpose of this pre-pilot survey test was to ensure that the questionnaire was functional and the language and terminology was appropriate to the level of comprehension of the people who were to be interviewed. As a result of this test, there were minor adjustments made to the structure of the questionnaire and to the language used in the questionnaire. A question requesting detailed information about the amount of income earned per household was dropped due to the negative responses from the test respondents. Raising the personal issue of income earned seemed to sour the relationship between interviewer and interviewee from that point onwards in both interviews. It was considered better to remove the question from the questionnaire in order to maintain a better relationship with the interviewees. Some adjustments were made to language and words used in order to simplify the questionnaire and enhance comprehension by interviewees.

Questions that were included in the final questionnaire (see Appendix D) are listed below:

RCCBC Guideline 1:

Length of residence in host community

Motivation:

A stable host community is an important criterion for the RCCBC model. A measure of stability is the period in which a resident has lived in the community. This period is calculated as a percentage of the resident's life..

Question in questionnaire:

Question 5: For how many years have you lived in Glenmore?

RCCBC Guideline 2:

Emigration from targeted host community

Motivation:

It is important to the functioning of the RCCBC model to determine the extent of potential emigration from the host community. High levels of emigration can either support the motivation for the establishment of RCCBC products and programmes or support a perspective that RCCBC products and programmes would be better suited in another community in the region that has lower levels of migration.

Question in questionnaire:

Question 12: Do you plan on moving away from Glenmore permanently?

RCCBC Guideline 3:

Employment:

Employment / unemployment status of targeted community.

Nature of employment within targeted community.

Motivation:

Knowing the extent and nature of employment of the targeted community allows the RCCBC programme to structure and focus its training and vocational programmes to enhance the performance of those already employed and, through appropriate training, enhance the opportunity of those unemployed to secure employment when and where it is available.

Question in questionnaire:

Question 7ai: Are you currently employed?

Question 7aii: If employed but not employed in Glenmore, where are you employed?

Question 7aiii: If employed, what type of job do you have?

Question 7aiv: Is this a permanent of part-time job?

Question 7b: Are the other people living in your household employed?

RCCBC Guideline 4:

Household income

Motivation:

The income that a household earns and who in the household earns the income is important for the RCCBC model. Income has a direct bearing on levels of affordability of members of the host community and consequently levels of potential entrepreneurial activity, and on the range and nature of programmes that the RCCBC will offer at the Benefit Centre.

Question in questionnaire:

Question 8: Where does the majority of your household income come from?

It was apparent from the Glenmore Census survey and from preliminary testing of questions informally with community members that they were either unwilling to divulge or did not know their household income. Although a very important variable to know, it was considered not worth gathering such data if its accuracy was unreliable and it possibly jeopardised the willingness of respondents to answer other questions accurately and soured the relationship between respondents and interviewer.

RCCBC Guideline 5:

Education:

- Average level of education of targeted community.
- Distribution of levels of education across RCCBC defined levels of education.

Motivation:

Education levels determine the nature, extent and range of RCCBC educational programmes that could and need to be offered in Glenmore.

Question in questionnaire:

Question 9: What is your highest level of education?

RCCBC Guideline 6:

Available skills in the targeted community.

Motivation:

To identify the skills most desired by inhabitants of the host community in order to provide skills enhancement and training for the most desired skills.

Question in questionnaire:

Question 10: What do you consider to be the most important jobs skills that you have that may assist you in getting a job in the next six months?

RCCBC Guideline 7:

Levels of crime in the targeted community

Motivation:

Crime has a negative effect on tourism and community morale. Identifying the nature and extent of crime in Glenmore would influence the social and community enhancement RCCBC programmes offered.

Question in questionnaire:

Question 11: Do you consider crime to be a problem in Glenmore village?

RCCBC Guideline 8:

Challenges facing the youth of the targeted community

Motivation:

To match RCCBC programmes with problems and areas of greatest need for the youth of Glenmore.

Question in questionnaire:

Question 13: What do you consider to be the biggest problems with the youth of Glenmore?

Question 14: If the government had to provide for the youth of Glenmore, what would you suggest that the government provides?

RCCBC Guideline 9:

Residents perceived impact of tourism on the targeted community.

Motivation:

Identifying perceived impacts of tourism on Glenmore society would assist the RCCBC programme to minimise or avoid such impacts during the implementation of the RCCBC model in Glenmore.

Question in questionnaire:

Question 16: Do you think that tourism would have a positive or negative affect on Glenmore?

Establish survey methodology and sample size

The nature, depth and detail of the information that the RCCBC model needed would require a lengthy interview with residents from Glenmore. Given the estimated length of time for an interview being between 30 and 45 minutes per interview, it was evident that a representative sample of residents would need to be interviewed due to the limited time and resources available to the researcher. Furthermore, literature consulted confirmed that results could be obtained from a sample of residents that adequately represented the population within an acceptable degree of confidence if the correct and appropriate sampling technique was utilized.

A random sample technique was considered the most appropriate sampling technique. The unit of measure for the sample survey was to be households. The size of the population to be sampled was 391 households for the whole

village of Glenmore, which was extracted from the results of Survey 1: Glenmore Census Survey. The sample size or number of interviews that were to be conducted was calculated at 70 that would give a 98% level of confidence, which was considered appropriate.

A random sample was identified through the use of a random number generator embedded in an Excel spreadsheet. The sample of erven was identified by making a list in the above spreadsheet of all the erf numbers of developed erven in Glenmore. These erf numbers were unique to each erf as they had been allocated by the researcher during the Glenmore Census Survey and were based on the town plan map that depicted all surveyed erven in the village. The random number generator was instructed to randomly identify 15 erven from the population of 391 erven for use in a pilot study and a further 85 erven for the main survey that was to follow the pilot survey. The additional fifteen randomly selected erven (over and above the 70 required) were identified for use as replacement numbers if for some reason, a household could not be interviewed and needed to be replaced by another household.

Prepare survey materials

Preparation of the necessary survey materials was undertaken prior to the implementation of the pilot study. Twenty questionnaires were printed for the pilot study, fifteen for the study and five spares. Two maps of Glenmore were drafted indicating the location of households to be interviewed in the pilot survey and in the main survey. A composite aerial photograph based map was also compiled indicating the location of the households that were to be interviewed overlaid on the aerial photograph.

A survey schedule was compiled for the interview survey. The interviewer used this schedule to record the status of interviews at the selected households. Records were kept of interviews that had been successfully concluded and those households that needed to be revisited if household heads were not present to be interviewed or if no one was at home when the interviewer arrived. A separate column was included on the schedule in which the interviewer could record notes about the interview.

Once the survey material had been created, the next step was to train the interviewer in interview and survey skills.

Train interviewer

Interviews were to be undertaken by the research assistant. Although he had undertaken the interviews for the Glenmore Census Survey, he requested further training in interview techniques and data capture.

Consequently, the research assistant was trained in interview techniques by the researcher on site in Glenmore. In addition to his training, he was also required to study three handbooks on survey research methods[3]. In order to bring a degree of reality to the training, a number of mock interview situations were role-played with the researcher. Different, difficult circumstances and responses were put to the interviewer and alternative ways of handling such circumstances and responses were reviewed and discussed. The most appropriate way to handle such circumstances was identified and a set of guidelines was drafted to assist the interviewer if such circumstances arose during the actual interview survey.

The final training exercise for the interviewer was to conduct two test interviews on residents in Glenmore. The purpose of these test interviews was to give the interviewer practice at interviewing actual residents of Glenmore under realistic Glenmore conditions. With the assistance of a member of the local council, two households were identified where it was known that the residents could speak English fluently. The first interview was conducted in the presence of the researcher and the interviewer alone conducted the second interview. An assessment was made of the interviewer's performance as well as comprehension and responses to questions posed in the questionnaire. Minor adjustments were made to the interview process and questions on the questionnaire to improve the questionnaire performance and

3 Research handbooks that research assistant Tim was required to study were (a) BABBIE, E. (1973) *Survey research methods,* Belmont, Wadsworth. (b) BAILEY, K. D. (1988) *Introduction to qualitative research Module: Methods of social research,* London, Sage. and (c) MASON, P. & CHEYNE, J. (2000) Residents' attitudes to proposed tourism development. *Annals of Tourism Research,* 27**,** 391-411.

respondents' comprehension. The data gathered from these two test interviews were not to be used for the purposes of this research study.

Notify community

It was considered good practice and polite by the researcher to notify the community and its leaders of the purposes of the research study and that an interview survey was to take place in their village. A meeting was held with community leaders on 13 September 2007 to discuss the implementation of the study. A further meeting with community members was held on 14 September 2007 during which the purpose of the upcoming survey was described and an overall perspective of the RCCBC model was presented. The community and its leaders were supportive of the study and its objectives to the extent that they provided a helper from the village to assist Taketime Tim with logistical affairs in the village for the duration of the study.

The next step in the preparation to undertake the interview survey was to conduct a pilot survey, which is discussed in the next section.

Conduct pilot survey

It was considered necessary to conduct a pilot survey to test the structure, content and language of the questionnaire. Fifteen households had been randomly selected for the pilot survey during the selection process to identify a random sample of households for the interview survey. These fifteen interviews were conducted on the 17th and 18th of September 2007. However, two of the fifteen households identified for the pilot study were not interviewed, as the residents were not in Glenmore on the two days that the interviews were held. Replacement households for those not interviewed were not considered as important for the purpose of the pilot study as they would be for the main survey. Consequently, the sample size for the pilot survey was reduced from fifteen respondents to thirteen.

After the interviews were concluded, data from the completed questionnaires was captured into the database to test the data capture templates and Access database for appropriateness and reliability. Some minor adjustments were made to both the template and database as a result.

Modify

An assessment of the pilot survey methodology, implementation and output data indicated that the desired results were being achieved, but the questionnaire required minor modification. Modifications were primarily made to the language used in the questionnaire and not to the structure of the questionnaire. These changes were made to make questions from the questionnaire more comprehendible to the interviewees. As the changes made to the questionnaire were minor and did not change the content or nature of the questions or questionnaire, those interviews that had been completed in the pilot study were consequently included with the other interviews that were undertaken in the main interview survey of residents of Glenmore.

Once the questionnaire had been modified, eighty copies of the questionnaire were photocopied at the Headquarters of the Great Fish River Nature Reserve and the research team was ready to undertake the actual interview survey of Glenmore residents, which is described in the next section.

Step 6: Conduct Survey 2: Sample Survey of Permanent Residents of Glenmore.

The main interview survey of residents of Glenmore took place from the 19 September to 4 October 2007. During this period a further 57 interviews were undertaken based on the methodology described in the sections above and tested by the pilot study, taking the total number of interviews that could be used for analysis to 70. The head of the household was to be interviewed but if the household head was not available when the interviewer arrived, yet was present in Glenmore, the interviewer would return at a time convenient to interview the household head. If the household head was not available and not present in Glenmore during the entire period of the survey, the person considered to be the spokesperson for the household by members of the household, was interviewed instead. If no household head or a suitable replacement could be identified within three visits to the household over a period of five days, it was deleted from the sample list and a replacement household was sought. Replacement households were selected from the list

of randomly selected erven that had been created specifically for such circumstances.

Interviews took place between 10h00 and 20h00 during the survey period as there was a high probability of finding the household head at home at some time during this period unless they were resident outside of Glenmore. Of the 70 interviews undertaken, 38 household heads were interviewed while the remaining 32 respondents were appointed spokespersons for the family (Figure 31).

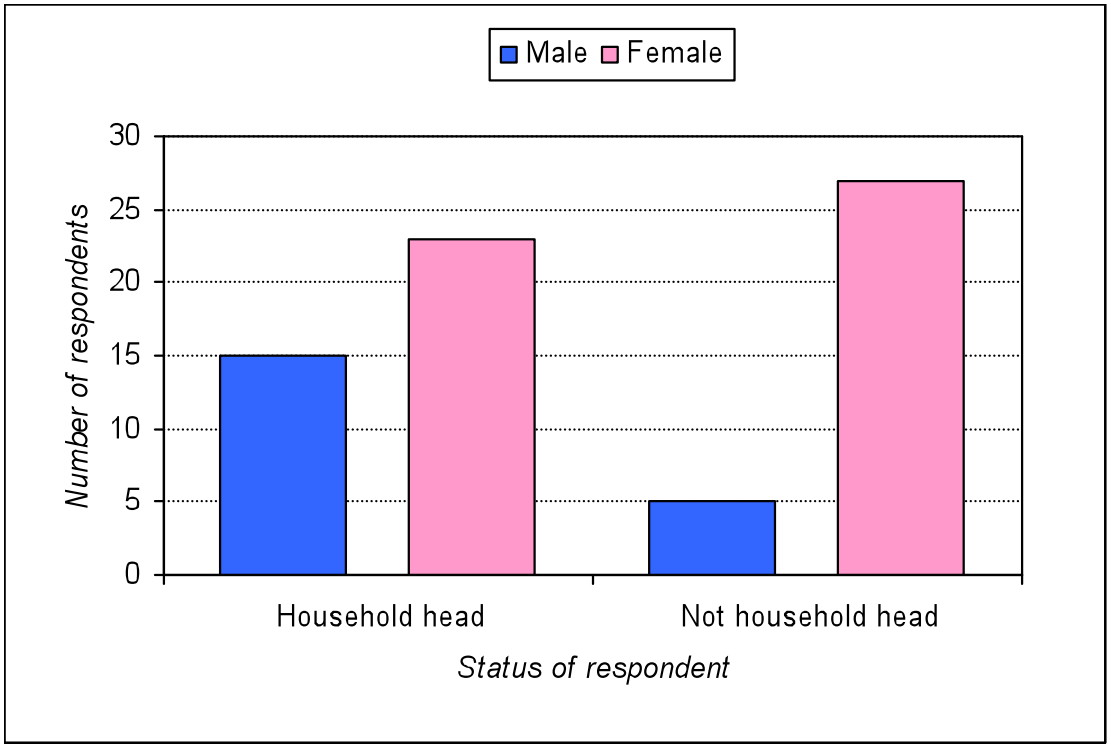


Figure 31 Gender of household head and non-household head respondents from Sample Survey of Glenmore Residents.

Twelve of the 32 household spokespeople were women whose husbands were considered the household head. These husbands were not available to be interviewed during the survey period as they worked permanently at locations outside Glenmore. The remaining twenty household spokespeople were other family members as depicted in Table 11

Step 7: Process and capture data from Survey 2

Data was captured into the database by the research assistant. Once captured, data was checked for consistency and accuracy by the researcher.

Clarification and justification for certain data was sought from the interviewer when required. Backup copies of the database were made which signalled the end of the data collection and fieldwork phase of this research project.

Table 11 Relationship of respondent to household head from Sample Survey of Glenmore Residents.

Who is household head	Number	Percent
Father	4	12,1%
Mother	6	18,2%
Husband	12	36,4%
Wife	0	0,0%
Brother	1	3,0%
Sister	1	3,0%
Grandfather	5	15,2%
Grandmother	0	0,0%
Uncle	2	9,1%
Aunt	1	3,0%
TOTAL	**32**	**100,0%**

4.4.2 Completion of data collection and field work

The initial research methodology had indicated that two surveys were to be undertaken in Glenmore Village. The first survey was to establish a demographic profile of the residents of Glenmore and the second survey was to focus on the tourism development prospects of Glenmore village. However, it had been decided during the early stages of the fieldwork in Glenmore to merge the two surveys into a single survey with a comprehensive questionnaire that established both a demographic profile of Glenmore residents as well as elicited their opinions on the tourism development prospects of Glenmore. The reason for merging the two surveys into one

survey was due to the increased financial costs of undertaking two questionnaire surveys in Glenmore.

Upon the successful completion of the data capture from the only interview survey, the field office in Glenmore was closed and moved back to Swellendam. This process was complete by the 10th of October 2007 after which analysis of the data began with the aid of JMP7 and SPSS statistical analysis software. The results of this analysis are discussed in detail in the next chapter.

CHAPTER 5 RESULTS AND DISCUSSION

The aim of this study is to establish whether or not the tourism, geographic, social and research conditions necessary for the future implementation of the RCCBC model are present in the study area. The previous chapter described and discussed the methodology used to gather data necessary to test the aim of this study. This chapter discusses the assessment of that data with the aim of validating the aim of the study.

The assessment of this data will focus on the four primary conditions of the study aims: tourism conditions, geographic conditions, social and research conditions. Each of the four conditions will be discussed in a separate sub-section of this report. An assessment of whether or not all the necessary conditions are present for the implementation of the RCCBC at a suitable location adjacent to the Great Fish River Nature Reserve will be discussed in the final chapter.

The next report section discusses the suitability of tourism conditions for the possible implementation of the RCCBC model.

5.1 Tourism conditions

Tourism conditions could be broadly categorised as those conditions needed to attract people not permanently resident in the study area to the study area that result in benefits flowing to the host community through the products and programmes of the RCCBC model. For the purposes of this research study, only two RCCBC conditions are assessed and consequently have been defined as two research objectives for the study. These research objectives are (a) to determine whether there is the potential to conduct scientific research in the Great Fish River Nature Reserve and thereby attract research and volunteer tourists, and (b) to ascertain whether the tourism resources of the Great Fish River Nature Reserve are appropriate for the implementation of the RCCBC model.

The first research objective will be discussed in the following section.

5.1.1 GFRNR ability to support research and volunteer tourism

The first research objective of this study is to determine whether or not the potential to conduct sustainable, ongoing research programmes in the Great Fish River Nature Reserve is sufficient for the implementation of the RCCBC model.

Situational analysis and current knowledge management

The RCCBC model is based on the knowledge that protected area management agencies are not effective in knowledge management. This fact the researcher has personally observed to be particularly true to southern African protected areas. A primary function of the RCCBC model is to implement effective knowledge management that is supported by but independent of public sector agencies, such as the Eastern Cape Parks Board. This independence is considered a key reason for success and a primary reason for locating the RCCBC products outside but adjacent to protected areas.

The Eastern Cape Parks Board is the protected area management agency responsible for knowledge management of scientific and social research within the Great Fish River Nature Reserve. The state of knowledge management in the Great Fish River Nature Reserve and other ex-Cape Nature Conservation reserves is of a high standard with records of scientific research going back decades. Knowledge management in the ex-Transkei and Ciskei reserves is of a very poor standard, if at all in existence.

A potential future threat to the quality of knowledge management in the Great Fish River Nature Reserve and other ECPB reserves is the racially based transformation policy of the ECPB and Eastern Cape provincial government. The staff of ECPB's Scientific Services Division that have appropriate post-graduate qualifications and experience are predominantly white and male. This transformation policy, which strives to achieve a racial representation based on the ratios of different population groups in the Eastern Cape, will have little long-term effect on knowledge management in ECPB reserves if white males are replaced with suitably trained, qualified and experienced black staff. However, two factors will influence this transition. Firstly, there are

few suitably qualified black scientists in the Eastern Cape to fill such positions. Secondly, the turnover of technically qualified staff in the ECPB is extremely high. In an example of this a tourism planning exercise for all ECPB reserves was project managed by five different ECPB officials in a period of ten months due to staff resignations. The consequence of these factors and the Government's transformation policy is evident in other departments in the ECPB, which has resulted in incompetence, ineffectiveness and poor strategic vision. The consequent threat to knowledge management in ECPB reserves is therefore the loss or destruction of knowledge as a consequence of mismanagement and incompetence, as was the case in the Transkei and Ciskei reserves during the 1980s and 1990s resulting in the current lack of historical knowledge for these reserves.

Knowledge management for adjacent areas to the Great Fish River Nature Reserve is the responsibility of Ngqushwa Municipality, an under-resourced local municipality that lacks the technical capacity to undertake this function. As a consequence little or no knowledge management takes place for these areas adjacent to the Great Fish River Nature Reserve.

Research findings

The Reserve's Strategic Management Plan (SMP) guides management of the Great Fish River Nature Reserve. Consultants for the GFRNR drafted the SMP in 2006. The seventh Key Result Area (KRA7) focuses on knowledge management for the Reserve within the context of its strategic objective to "Establish effective measures to conserve all elements of biodiversity in the Eastern Cape by 2010 and put in place approved policies, procedures and systems that are necessary for the proper functioning of ECPB" (Eastern Cape Parks Board, 2007). This KRA in turn initiates the following institutional interventions: (i) Monitor key biodiversity indicators; (ii) Implement research program for key conservation management issues; and (iii) Develop, implement and monitor an Information Technology strategy that will meet current and future needs of the ECPB. KRA7 has three medium-term strategic focuses: (i) a baseline information component; (ii) a research and monitoring

component; and (iii) a data management component. Each of these components has specific interventions as outlined in Table 12.

Table 12 Specific interventions for medium-term strategic components for Key Results Area 7 of the Great Fish River Nature Reserve as defined in its 2007 Strategic Management Plan.

medium-term strategic focus	Specific intervention
baseline information component	The collection and collation of key reserve baseline inventory data. The maintenance of the State of Knowledge Report.
research and monitoring component	The development of a consolidated reserve monitoring program. The identification of research priorities to address management priorities. The development of collaborative relationships with research institutions.
data management component	The design and development of a consolidated reserve database.

KRA7 clearly defines the need for the collection of baseline information, research and monitoring activities, and strategic data management of knowledge collected in the first two components. KRA7 does not differ significantly in content or ambition to the aims of the Research and Monitoring programmes of the RCCBC model, with the exception that the knowledge management function is undertaken by the RCCBC programme and knowledge is stored outside of the Reserve. Although KRA defines specific interventions to be implemented by the ECPB, it is unlikely that they would take place due to the shortage of skilled scientists and field research assistants in the Board. These interventions, if undertaken, are most likely to be implemented by private sector consultants external to the ECPB and at considerable cost to the Board. Herein lies an opportunity area for the RCCBC model as it would provide the KRA7 interventions at very little or no cost to the ECPB at all. This opportunity area was explored further in a round of interviews conducted with Reserve management staff and Head Office based Scientific Services staff which are discussed in the following section.

Interviews with ECPB staff

Interviews were conducted with regional manager Mzwabantu Kostauli and reserve managers Brad Fike and Gavin Shaw. Further interviews were undertaken with the Head of Scientific Services Dr David Balfour and scientist for the Great Fish River Nature Reserve, Mr Dean Peinke.

These interviews revealed that many scientific research projects had been undertaken and were currently being undertaken in the Great Fish River Nature Reserve. Dr Balfour reiterated the need for systematic scientific research within ECPB reserves that was structured around the needs of the reserve and the organization. Knowledge management was considered critical to the research function with particular reference to monitoring programmes that took place over several years, if not decades. He also stressed the need for international collaboration with organizations such as Earth Watch, an international NGO that funds scientific field research to enable regular people to volunteer on scientific and monitoring research projects (EarthWatch Institute, 2009). Gavin Shaw, who was the manager of the Double Drift section of the Great Fish River Nature Reserve at the time of the interview and has subsequently resigned from ECPB, was of the opinion that knowledge management should be undertaken by an organization external to the ECPB due to what he considered the "chaotic management of ECPB's Head Office." (Personal communication, August 15, 2007). He also observed that postgraduate researchers could contribute valuable scientific knowledge that could be valuable to the management of the Reserve if the planning and design of such research projects took into account reserve management's needs and limitations. He quoted an example of an American student undertaking field research for a Master's degree at a United States university. This field research required the filming of the rhino population of the Reserve by means of a digital video camera. Although results of this research project could be extremely important in rhino population identification and recognition in the Reserve, it also placed a heavy logistical burden on the Reserve's staff and vehicle resources as the student required an armed game guard to accompany him while in the field and a vehicle to transport them to the various study locations in the Reserve. However, a search through the

ECPB's Research Project Register revealed that no such research project was registered in the Great Fish River Nature Reserve.

Mr Shaw recognised the value and benefit that the research and monitoring programmes of the RCCBC model could add to the Great Fish River Nature Reserve. Mr Brad Fike, manager of the Sam Knott and Andries Volsoo sections of the Great Fish River Nature Reserve, confided that, due to heavy work loads and numerous reserves to service, ECPB scientists from Head Office infrequently visited the Reserve. He also bemoaned the fact that they spent too little time in the Reserve when visiting and failed to establish a consolidated body of biodiversity, ecological and scientific knowledge. As one of the longest serving members of the Reserve with over twenty years experience in various sections of the Great Fish River Nature Reserve, he also noted the devastating effect that high staff turnover had on the operation and management of the ECPB reserves and particularly on research within the Reserve. It was through his personal efforts that the Grasslands research centre and accommodation facility was established in the Great Fish River Nature Reserve which, he believed, would contribute to long-term research activities in the Reserve and a consolidation of some of the resultant knowledge.

Research Projects Register

As no consistent and authoritative record of research undertaken in ECPB reserves had been kept for the past thirty years, the Scientific Services Division of the ECPB initiated a research project registration process. This process required that all research projects undertaken in Eastern Cape Parks Board reserves were to be registered in a Research Projects Register. This registration process required that a legal contract be established between the ECPB and the researcher that defines research methodology, logistical implications for reserve management and a clear set of deliverables. Forty research projects have been registered since the inception of the register in July 2006. Of these forty research projects, researchers from South African universities undertook 35 while researchers from foreign universities or research institutions have undertaken five research projects. Sixteen of these

research projects have been registered in the Great Fish River Nature Reserve of which seven have been completed, five are currently in progress, one is in the contract phase of being registered and two have been abandoned (see Appendix A). These sixteen research projects registered for the Great Fish River Nature Reserve comprise 40 percent of all research projects registered in the reserves of the Eastern Cape Parks Board since the inception of the Research Projects Register (RPR). All research projects currently listed in the Register for the Great Fish River Nature Reserve are of a scientific or ecological nature. Research projects of a social science nature have yet to be registered for the Great Fish River Nature Reserve.

Although the Research Projects Register does not list or mention research projects undertaken in the Reserve prior to the Register's inception, those projects contained in the Register do give a good indication of the type and nature of the research being undertaken in the Great Fish River Nature Reserve over the past two years and also into the immediate future.

These research projects were assessed for suitability based on their ability to support (a) scientists and post-graduate students needing to undertake scientific research in protected areas as part of the RCCBC Scientific Research Programme and (b) volunteers as part of the RCCBC long-term and short-term Volunteer Conservation Programmes. Thirteen of the sixteen projects were considered suitable to sustain the RCCBC programmes (Table 13).

The Internet search engine, Google Scholar, was also used to search the Internet for references to research undertaken in the Great Fish River Nature Reserve. A total of 210 references were identified for the Great Fish River Nature Reserve based on reserve name keywords (Table 14).

Table 13 Assessment of suitability for RCCBC research and volunteer programmes of the 16 registered research projects in the Great Fish River Reserve.

Number	Research Project Number	Project Title	RCCBC Suitability
1	RA 0005	Ex-situ conservation of indigenous flora from the Eastern Cape Province by means of ongoing observation, exploration, examination, collection, cultivation, research, awareness and education at Kirstenbosch National Botanical Gardens.	Suitable
2	RA 0007	Shift of forage resources by buffalo in different seasons and their utilisation of forage in different vegetation types at the Great Fish River Reserve.	Suitable
3	RA 0010	Biodiversity and biogeography of terrestrial molluscs.	Suitable
4	RA 0011	Utilisation and structure of warthog burrows and their role in promoting biodiversity.	Suitable
5	RA 0012	The effect of the re-introduction of cheetah on the social behaviour and time of activity of prey species.	Suitable
6	RA 0013	Phylogeographic study of the succulent Karoo and subtropical thicket biome in the little Karoo.	Suitable
7	RA 0015	Vegetation monitoring and mapping at Great Fish River Reserve.	Suitable
8	RA 0016	Does the presence of black rhinoceros have an influence on the diet, foraging behaviour and density of greater kudu in the Great Fish River Reserve?	Suitable
9	RA 0017	Re-examining the impact of black rhinos and other biotic factors on populations of tree euphorbs in the Great Fish River Reserve.	Suitable
10	RA 0019	Warthogs as an invasive species in the Eastern Cape, South Africa.	Suitable
11	RA 0020	Southern African Butterfly Conservation Assessment.	Suitable
12	RA 0023	A taxonomic description of the immature stages of four ticks of the Rhipicephalus genus.	Unsuitable

Number	Research Project Number	Project Title	RCCBC Suitability
13	RA 0032	Environmental and ecological correlates of energy balance in free-ranging woodland doormice, Graphiurus murinus.	Suitable
14	RA 0034	Species co-existence in an assemblage of small African carnivores (Great Fish River Reserve, Eastern Cape Province).	Suitable
15	RA 0038	Evolutionary Diversification in the plant Genus Pelargonium.	Unsuitable
16	RA 0039	The phylogeography of the southern African vlei rat, Otomys irroratus, inferred from nuclear (Chromosomal and nuclear genes) and Mitochondrial DNA markers.	Unsuitable

A literature search was undertaken in order to gauge the extent of research that has been undertaken in the Great Fish River Nature Reserve over the past two decades. The results of this survey are discussed in the next section.

Literature search for research projects in the GFRNR

A literature search was undertaken to establish the extent to which the Great Fish River Nature Reserve had been researched in the past two decades. EndNote[4] was used to search ten South African academic libraries for references to research undertaken in the Great Fish River Nature Reserve. University libraries that were interrogated included Cape Town, Fort Hare, Nelson Mandela Metropole, Pretoria, Rhodes, Stellenbosch, Western Cape, Walter Sisulu and Witwatersrand. The OASIS Internet library search system was used to interrogate the library of the University of South Africa for similar references. A total number of 86 references to research projects in the Great Fish River Nature Reserve were identified from all academic library sources listed above.

Although each reference work could not be assessed in detail for RCCBC suitability, the fact that 210 references were identified to specific scientific

4 EndNote is an online search tool that provides a simple way to search online bibliographic databases and retrieve references directly into EndNote databases.

research projects in the Great Fish River Nature Reserve and its immediate surrounds indicated that there was sufficient scientific interest in the Reserve to sustain ongoing scientific research and monitoring programmes in the reserve. It was therefore concluded that the Great Fish River Nature Reserve had the potential to host and support the Scientific Research and Volunteer Conservation programmes of the RCCBC model.

Table 14 Number of references to research projects that were identified by means of searching Google Scholar based on reserve name key words.

Reserve	#
Great Fish River Nature Reserve	65
Sam Knott Nature Reserve	13
Andries Vosloo Kudu Reserve	115
Double Drift Game Reserve	17
Total	**210**

This assessment is supported by the evidence of numerous scientific research studies recorded in the Research Project Register as having been undertaken or currently underway in the Reserve by foreign and local scientists and students. In addition to this assessment, the total number of research and monitoring projects undertaken in the Reserve increases when projects organised in the Great Fish River Nature Reserve by local volunteer organizations that are not listed in the Research Project Register, are taken into consideration.

5.1.2 Suitability of tourism resources of the GFRNR and surrounding tourism region

The second objective of this study is to determine whether or not the tourism resources of the Great Fish River Nature Reserve and its region are appropriate for the implementation of the RCCBC model.

The RCCBC model provides guidelines for assessing the tourism resources of a protected area within its regional tourism environment to determine its

suitability as a location for a Benefit Centre. The Great Fish River Nature Reserve will be assessed to establish if it conforms to these guidelines.

Guideline 1: Protected area situated in an existing, popular tourism region.

Overview

The Great Fish River Nature Reserve is situated in the Eastern Cape Province of South Africa. The Eastern Cape is well known as a tourist destination for its protected areas (Addo Elephant National Park, Shamwari and Kwandwe private game reserves and the Great Fish River Nature Reserve), beaches, outdoor activities, Xhosa and frontier history, arts and culture festivals, and small romantic villages (Eastern Cape Parks Board, 2008). The Eastern Cape is actively promoted and marketed as a tourist destination region by the Eastern Cape Tourism Board. The Great Fish River Nature Reserve is located in a tourism sub-region known as "The Frontier Country" (Figure 32). Frontier Country is promoted by a regional marketing organization with the same name, as well as four smaller, local tourism promotion offices situated in Grahamstown, Balfour, Fort Beaufort and Hogsback. A large proportion of the GFRNR 50 kilometre tourism zone overlaps the geographic area of the Frontier Country.

Tourism statistics for Eastern Cape and Amatola Tourism Region

The Eastern Cape has a small but well developed tourism plant that attracts an annual average of 7,7% of all foreign tourists who visit South Africa (Table 15). The Eastern Cape Province is ranked seventh in South Africa in terms of foreign tourist visits.

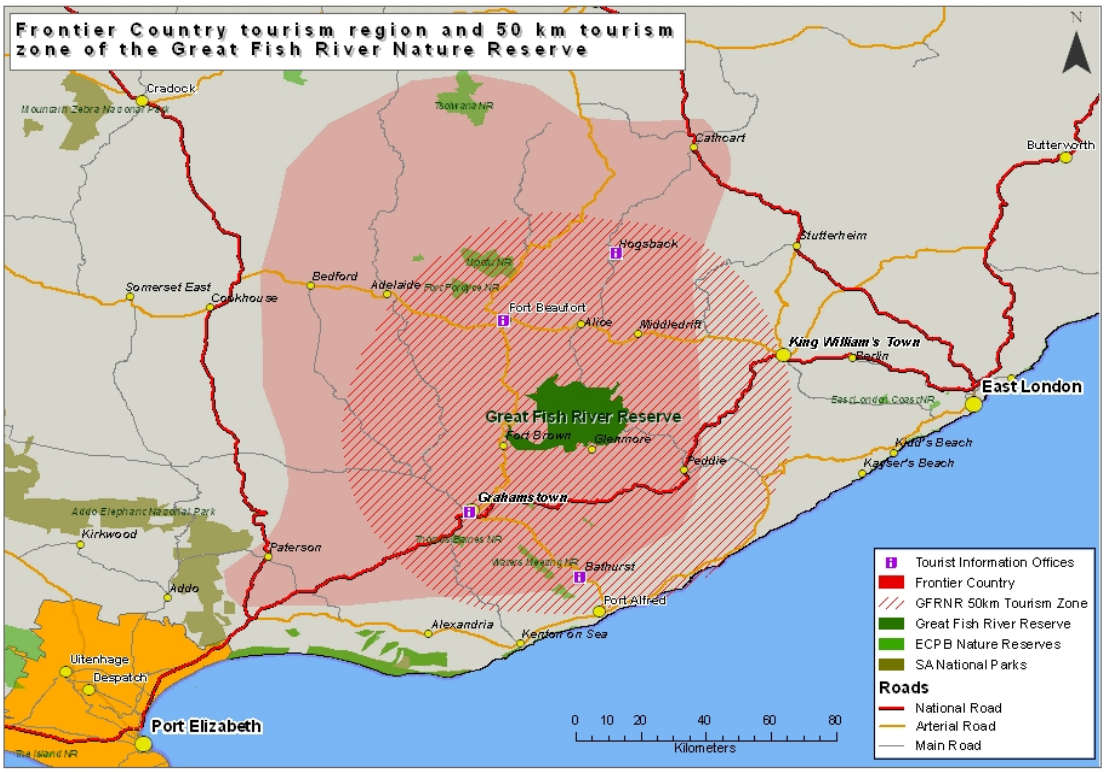


Figure 32 Frontier Country tourism region and 50 km tourism zone of the Great Fish River Nature Reserve.

Table 15 Provincial distribution of foreign tourists as a percentage of all foreign visitors to South Africa. The sum of the percentages exceed 100% as some visitors will visit more than one province.

Rank	Province	2003	2004	2005
1	Gauteng	50,7%	50,8%	49,4%
2	KwaZulu Natal	18,6%	20,4%	21,7%
3	Western Cape	23,5%	22,9%	21,6%
4	Mpumalanga	16,3%	15,3%	14,9%
5	Free State	11,8%	10,1%	8,7%
6	North West	11,5%	9,5%	8,0%
7	***Eastern Cape***	***7,7%***	***7,8%***	***7,6%***
8	Limpopo	6,0%	5,7%	7,0%
9	Northern Cape	2,7%	2,6%	2,6%

It has been estimated by Myles (2007) that over 4,2 million domestic tourist trips were made to the Eastern Cape in 2001, which comprised 12,8% of the national average and contributed an estimated 2 121 million Rands to the Eastern Cape Province (Table 16).

Myles (2007) continues to state that the most popular source market of tourists to the Eastern Cape is the United Kingdom and the prime reason that all foreign tourists visit the province is for purposes of leisure.

The Eastern Cape has been divided into six tourism regions for the purpose of researching domestic tourism in the province. The Great Fish River Nature Reserve is located in the Amatola Tourism Region (ATR), which received an estimated 300 774 domestic visitor trips in 2001 of which 64% were for the purposes of visiting friends and relatives (Table 17).

Table 16 Provincial distribution of domestic tourism trips in 2001 in South Africa.

Province	Number of trips	Percentage	Value of trips (Rands millions)
Gauteng	6 579 421	19,6%	R 3 248
Kwazulu-Natal	6 378 010	19,0%	R 3 148
Limpopo	4 330 333	12,9%	R 2 137
Eastern Cape	***4 296 765***	***12,8%***	***R 2 121***
Western Cape	4 196 059	12,5%	R 2 071
North West	2 651 910	7,9%	R 1 309
Free State	2 249 088	6,7%	R 1 110
Mpumalanga	1 913 403	5,7%	R 944
Northern Cape	906 348	2,7%	R 447
TOTAL	**33 501 538**	**100,0%**	**R16 569**

Table 17 Types of domestic tourist trips to Eastern Cape tourist destinations in 2001 categorised by domestic tourism region (Myles, 2007)

Tourism Region	Number of Trips	Leisure	Visit friends & relatives	Business	Health	Religious
Wild Coast / Transkei / Ciskei	1 847 609	369 522	1 274 850	18 476	36 952	147 809
Friendly N6	945 288	217 416	604 984	28 359	-	94 529
Amatola	***300 774***	***51 132***	***192 495***	***3 008***	***-***	***54 139***
Sunshine Coast & Country	945 288	349 757	482 097	28 359	9 452	75 623
Karoo Heartland	214 838	49 413	124 606	2 148	2 149	36 522
Tsitsikamma	42 968	36 952	6 016	-	-	-
TOTAL	**4 296 765**	**1 074 192**	**2 685 048**	**80 350**	**48 553**	**408 622**

The number of domestic visitor trips to the Amatola Tourism Region for the purposes of leisure are low in comparison: 51 132 visitor trips or 17,0% of all domestic visitor trips to the ATR which translates to 4 261 domestic trips per month or 140 trips per day. An analysis of visitor arrivals for the Great Fish River Nature Reserve reveals that it is likely to receive an average of 5,5 visitors per day who will overnight in the Reserve (Eastern Cape Parks Board, 2008). The percentage of domestic tourists travelling for leisure purposes in the ATR that visit the Great Fish River Nature Reserve on a daily basis is small at an estimated maximum of 7,7%[5].

However, the Strategic Tourism Development Plan for the Great Fish River Nature Reserve (Eastern Cape Parks Board, 2008) states that tourism development within the Reserve should focus on the overseas tourist market

5 ECPB has not kept consistent accurate records of the permanent place of residence of overnight visitors who visit the Great Fish River Nature Reserve. However, according to the hospitality staff in the reserve who have indicated that majority of visitors to the Reserve are domestic tourists.

as there is unlikely to be sufficient support from the domestic market for the further development of tourism facilities within the Reserve. The plan continues to state that the overseas market segment that should be targeted is the United Kingdom market segment for which a unique range of tourism products and experiences should be specifically developed.

It can be concluded from the above section that the Great Fish River Nature Reserve is situated in a region with an established tourism plant. Although the visitor arrivals for leisure purposes in the Amatola Tourism Region are not high by comparison to other regions of the country, the ATR still hosts a significant number of visitors. The Great Fish River Nature Reserve currently receives very few overnight visitors but this trend is likely to change if the ECPB implements its strategic plan for tourism development in the Reserve. It can therefore be concluded that the Great Fish River Nature Reserve is situated in a popular tourism region and therefore is compliant with RCCBC guidelines for the selection of a potential protected area for RCCBC products and programmes.

Guideline 2: Protected area located within 50 km of an existing popular tourism destination.

Bathurst, Grahamstown, Hogsback and Port Alfred are described in tourism promotional literature for the Eastern Cape as popular and important tourist destinations. These destinations are actively marketed as tourist destinations in promotional material, travel literature and on the Internet. All four destinations are located within a 50-kilometre radius of the Great Fish River Nature Reserve (Figure 33).

For the purposes of this research, Grahamstown was considered a medium sized town, Port Alfred a small town and both Bathurst and Hogsback very small towns.

The number and nature of hospitality establishments were identified for each of the four destinations (Table 18).

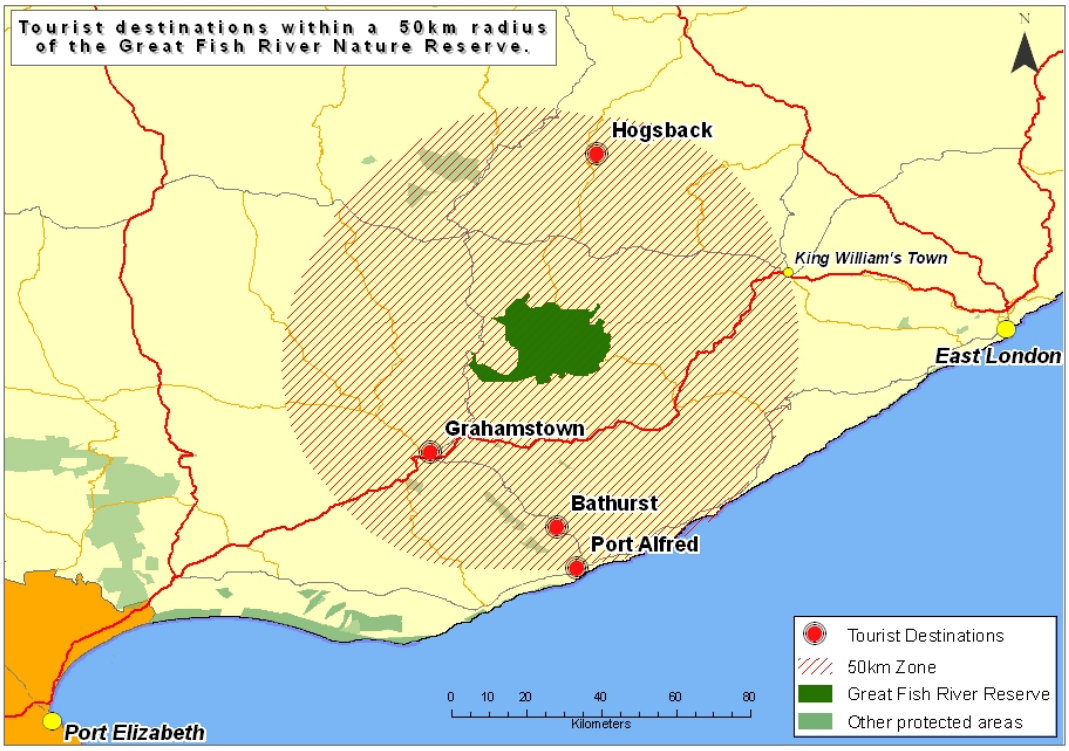


Figure 33 Tourist destinations within a 50km radius of the Great Fish River Nature Reserve.

Table 18 Tourist accommodation establishments situated in tourist destinations within 50 km of the Great Fish River Nature Reserve.

Tourist destination	Destination Size	Number of tourist accommodation establishments				
		Hotels	B&Bs	Guesthouses / farms	Self-catering	Backpacker Lodge
Bathurst	**Very small**	1	3	0	2	0
Grahamstown	**Medium**	10	46	16	5	2
Hogsback	**Very small**	2	4	2	19	1
Port Alfred	**Small**	7	11	8	18	0

Source: Eastern Cape Tourism & tourist accommodation websites for Bathurst & Hogsback.

Grahamstown, a medium sized town, had a total of 79 hospitality establishments while Port Alfred, a small town, had a total of 42 establishments or 53% of the number of establishments in Grahamstown. The very small towns of Bathurst and Hogsback had a total of 6 and 30 hospitality establishments respectively. The disparity between the two destinations

indicated the extreme popularity of Hogsback as a small town tourist destination and the fact that Bathurst is more popular as a transitory, lunch stop destination than an overnight small town tourist destination.

Consequently, it was decided that at least three popular tourist destinations, Grahamstown, Port Alfred and Hogsback, were located within a 50 kilometre radius of the Great Fish River Nature Reserve. Therefore, it was concluded that the Great Fish River Nature Reserve meets the conditions of the RCCBC Guideline 2 that the assessed protected area, the Great Fish River Nature Reserve, is located within 50 kilometres of at least one established tourist destination.

Guideline 3: Protected area located within 25 km of established tourist route that has medium to high rate of tourist flow.

The reason that the RCCBC model stipulates guideline 3 is to ensure that the tourism products planned and developed as part of the benefit centre could attract tourists from the nearby tour routes. Tour routes vary significantly in economic value and importance due to the nature and extent of tourist use, referred to in this research as tourist flow.

Four tour routes have been identified within a 25 kilometre radius of the Great Fish River Nature Reserve (Figure 34) while the busy R72 coastal tour routes is located outside and to the south of the 25 kilometre zone.

The N2 Tour Route is a busy national road that links the metropolitan areas of Port Elizabeth and East London via Grahamstown. This route carries travellers, tourists as well as other types of traffic as it is the main thoroughfare between these two metropolitan areas. However, the most popular tour route between Port Elizabeth and East London for tourists touring though the Eastern Cape is along the R72 Coastal Tour Route via Port Alfred (Erasmus, 2004). However, this tour route which is likely to carry the greatest tourist flow in the region is outside the 25 kilometre tourism zone of the GFRNR.

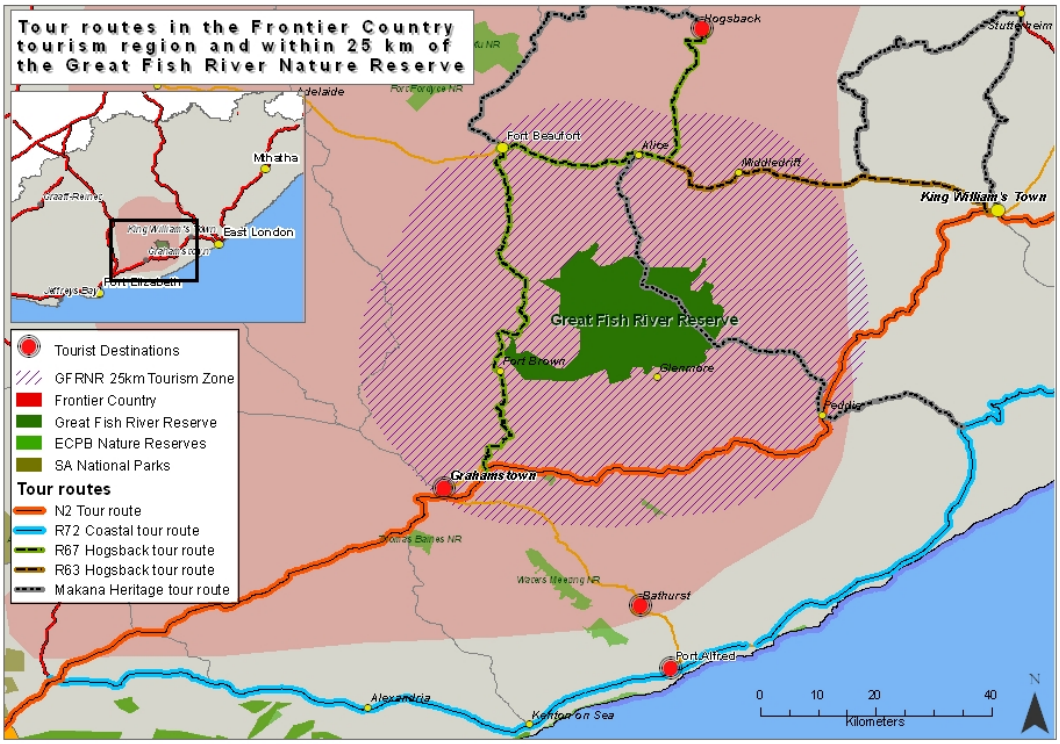


Figure 34 Tour routes in the Frontier Country tourism region and within 25 km of the Great Fish River Nature Reserve.

The Hogsback Tour Route links Hogsback to Grahamstown and King William's Town and comprises two sectors, the R67 western sector and the R63 eastern sector. This tour route is of particular significance to the RCCBC model as most domestic and overseas tourists using this route are likely to be self-drive tourists. Self-drive tourists are a preferred market segment that would be actively targeted for tourism products offered at the proposed Benefit Centre, particularly if located at Glenmore (Glenmore has been identified as the preferred location in a later section of this research.)

The Amatola District Municipality has developed the Makana Heritage Tour Route (Figure 35).

This tour route was planned to link the many heritage sites of the Frontier Country together into a series of circular, mini-tour routes (Figure 36). Unfortunately, this tour route is not popular with tourists due to the shocking condition of many of the roads that comprise the tour route. However, potential does exist for this tour route to be popular with tourists if the

responsible local and district governments repair the problematic roads to a standard suitable for 2x4 sedan type vehicles that tourist most commonly use. The RCCBC model could further enhance this potential through restoration and cultural heritage projects suitable for social and heritage orientated volunteer programmes.

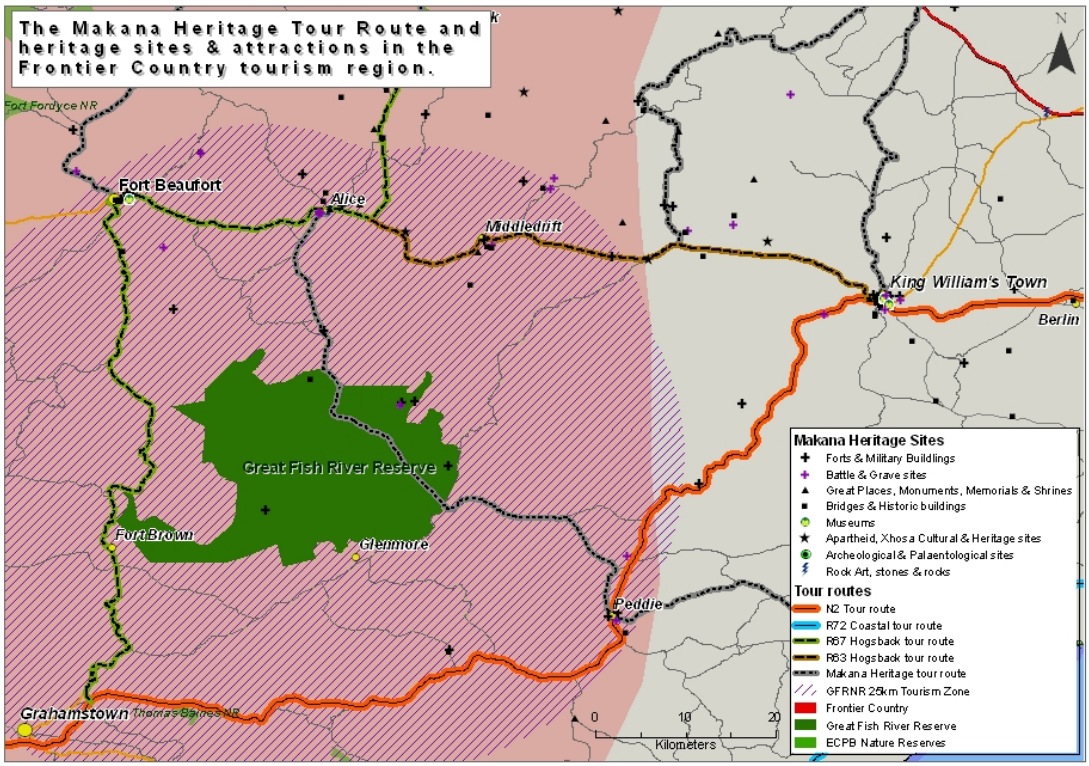


Figure 35 The Makana Heritage Tour Route and heritage sites and attractions in the Frontier Country tourism region.

It was concluded that the Great Fish River Nature Reserve complies with the third guideline of the RCCBC model as it located within 25 kilometres of two tour routes: the N2 Tour Route that is busy throughout the year and the Hogsback Tour Route that is usually very busy during popular tourist seasons.

Guideline 4: Protected area located in a region well known for nature-based tourism.

There are four other proclaimed public protected areas within fifty kilometres of the Great Fish River Nature Reserve:

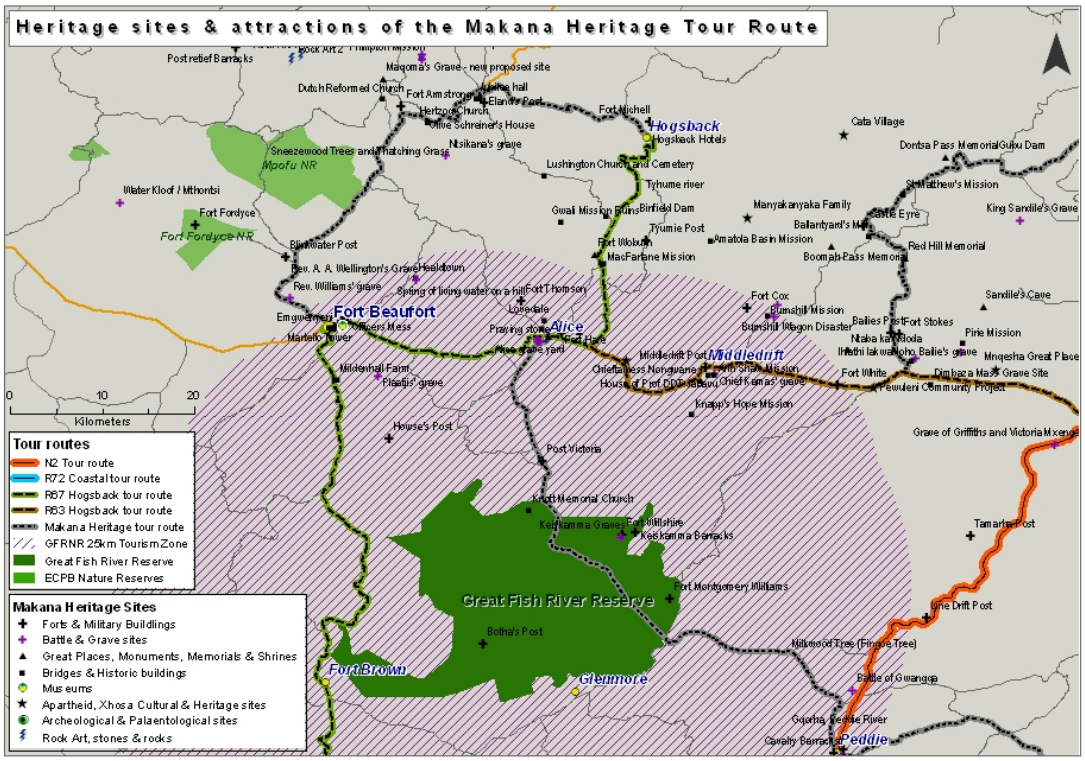


Figure 36 Heritage sites & attractions of the Makana Heritage Tour Route.

Waters Meeting Nature Reserve, Thomas Baines Nature Reserve, Fort Fordyce Nature Reserve and Mpofu Nature Reserve, all of which are managed by the Eastern Cape Parks Board (Figure 36).

Kwandwe Private Game Reserve is also within the fifty kilometre range but it is excluded from this analysis as it is privately owned and operated, has a wide range of ultra-luxury tourism products aimed at the exclusive, wealthy segment of the overseas and domestic tourist market which is not the market segment targeted by the RCCBC programme.

Shamwari Game Reserve and Addo Elephant National Park are not within fifty kilometres of the Great Fish River Nature Reserve but do have significant impacts on tourism in the Eastern Cape (Figure 37). Shamwari, like Kwandwe Private Game Reserve, is privately owned and operated. Shamwari targets the wealthy, exclusive tourist market segment which is not the market segment that will be targeted by the RCCBC programme.

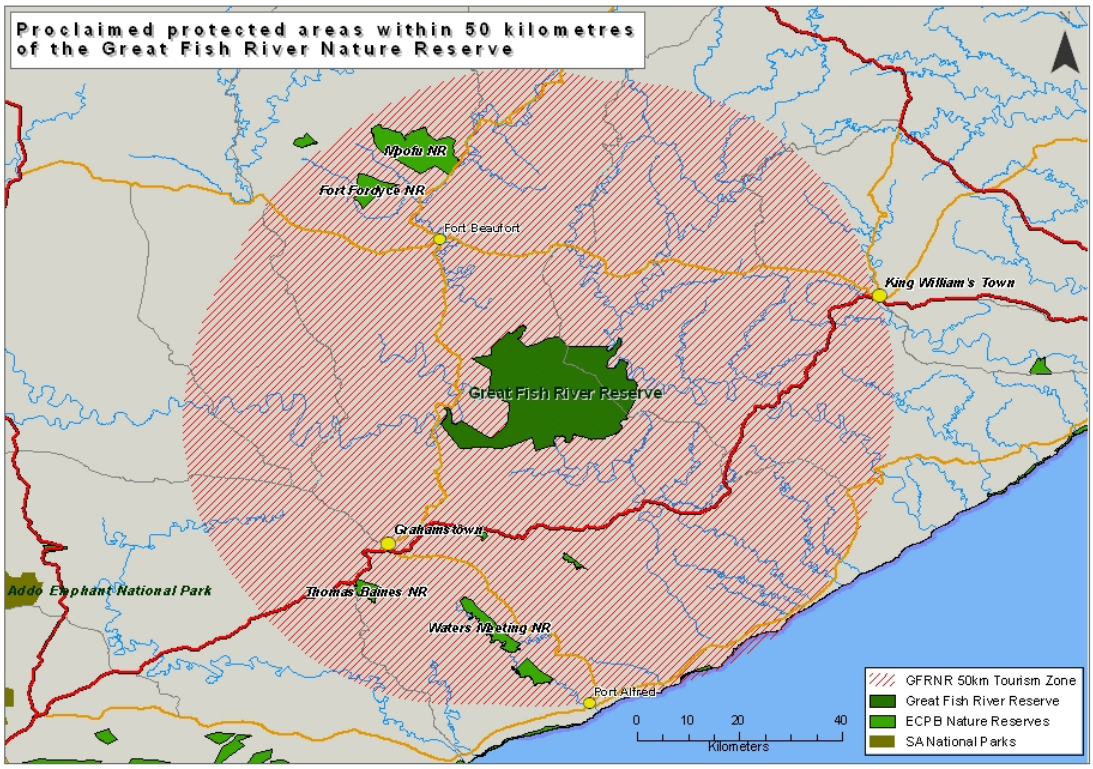


Figure 37 Proclaimed protected areas within 50 kilometres of the Great Fish River Nature Reserve.

Addo Elephant National Park is the most popular proclaimed protected area in the Eastern Cape. Addo Elephant National Park has been operated by SANParks as a tourist destination for over thirty years. Due to considerable investment into land acquisitions, development of a wide range of tourist accommodation and associate infrastructure, an extensive tourist road network, successful branding and marketing as well as an effective reservations system, SANParks has been able to develop Addo Elephant National Park into a thriving, successful tourist destination for overseas and domestic tourists. The success of Addo Elephant National Park as a tourist destination has played an important role in the extension of the Garden Route tour route east of Port Elizabeth. This extension of the Garden Route tour route has contributed significantly to the regional tourism economy as it has effectively extended the length of the Garden Route by one night.

The success of Addo Elephant National Park as a tourist destination is reflected in its visitor statistics, which are outline in Table 19.

Table 19 Tourist occupancy rates in Addo Elephant National Park in 2006

Tourist Accommodation (excluding camping)				Camping person nights sold	Guests to Park	Total activities
Unit nights sold	Unit occupancy	Bed nights sold	Bed occupancy			
21 399	80,1%	49 842	59,7%	22 059	140 179	27 546

Addo Elephant National Park has the second highest tourist unit occupancies in SANParks at 80%, which translates into 21 399-unit nights, sold and a bed occupancy rate of nearly 60%. Over twenty two thousand people camped at Addo Elephant National Park while a total of 140 179 people visited the National Park in 2006. Clearly the experience and attraction of the Addo elephants, its associated tourism infrastructure, services and accommodation, work successfully to attract large numbers of visitors.

Although Addo Elephant National Park is not within the 50-kilometre radius of the Great Fish River Nature Reserve, and therefore is not considered in terms of this guideline, it does however have a significantly positive effect on developing Frontier Country as an ecotourism destination. Therefore, Addo Elephant National Park is considered a complementary protected area to the Great Fish River Nature Reserve. Furthermore, Addo Elephant National Park is a good example of a well managed tourism orientated protected area in the Eastern Cape, Effective strategic planning and development on the part of SANParks has resulted in a popular and successful tourism product. The same may not be attributed to the reserves managed by the Eastern Cape Parks Board. The ECPB displays a lack of strategic planning, shows many symptoms of being mismanaged and is clearly not tourism focused, as is indicated by the appalling state of most tourism facilities in its reserves. However, if the Great Fish River Nature Reserve and its neighbouring reserves currently operated by ECPB were taken over, developed and operated by an efficient and effective management agency such as SANParks, the number of tourists visiting these reserves would most likely increase significantly. Under this scenario, the increased number of tourists

visiting the sub-region would have a very positive effect on the RCCBC products in the Great Fish River Nature Reserve as the whole tourism area surrounding the reserve would become more popular as a tourist destination.

The assessment of protected areas in the region surrounding the Great Fish River Nature Reserve results in the conclusion that the region is well known for its nature-based tourism.

Guideline 5: Protected Area and host community accessible by road to 2x4 sedan vehicles.

The RCCBC guideline is that the host protected area and community should be accessible to visitors travelling in a 2x4 sedan vehicle.

Roads in the Eastern Cape vary considerably in quality due to poor or no maintenance. The managers of the Great Fish River Nature Reserve complain that, in their opinion, one of the greatest deterrents to tourists visiting the GFRNR is the condition of the various access roads to the Reserve (B. Fike, personal communication, October, 2007).

Sedan vehicles are the most common type of vehicle used in South Africa and the most popular with the tourist market segment targeted for tourism products offered at Benefit Centres. Poorly maintained access roads to protected areas are considered a discouragement to tourists who visit them in their own cars, however, overseas tourists with hired vehicles are known to be more adventurous in such circumstances. Tour operators will actively exclude protected areas with rough, badly maintained access roads from their tour itineraries.

An analysis of the access roads to the Great Fish River Nature Reserve reveals that the tarred regional roads that ring the Reserve are in good condition (Figure 38).

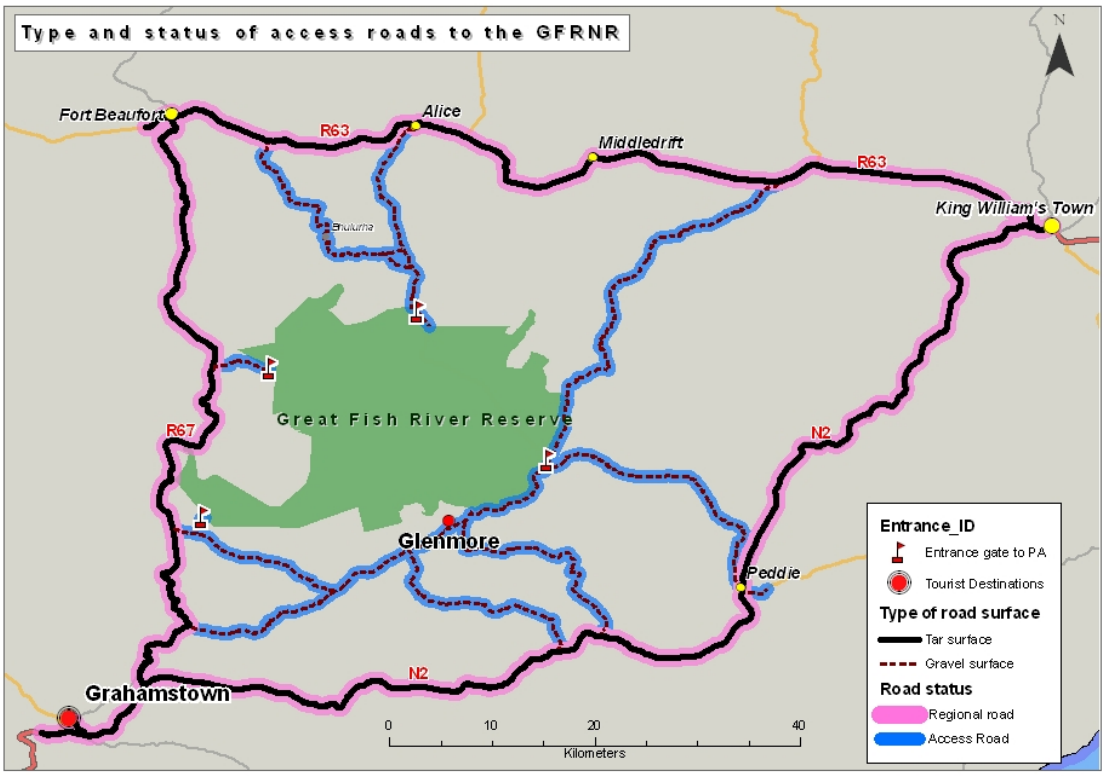


Figure 38 Type and status of access roads to the GFRNR.

The R63 from King William's Town to Fort Beaufort has recently been upgraded and is in an excellent condition. Therefore, quality of the regional tar roads surrounding the Great Fish River Nature Reserve should not be a deterrent to neither tourists not tour operators. However, access roads from these regional roads to the entrance gates of the Reserve are all gravel roads. The condition of these gravel access roads vary considerably from good to very poor, depending in which district municipality they are located (Figure 39).

Access roads in the Cacadu District Municipality are well constructed, well maintained and in good condition. The only section of access road that is in a poor condition in this Municipal District is the section marked "M" in Figure 39. This section of road has been rated as poor, not due to its surface condition, which is in good condition, but due to its narrowness.

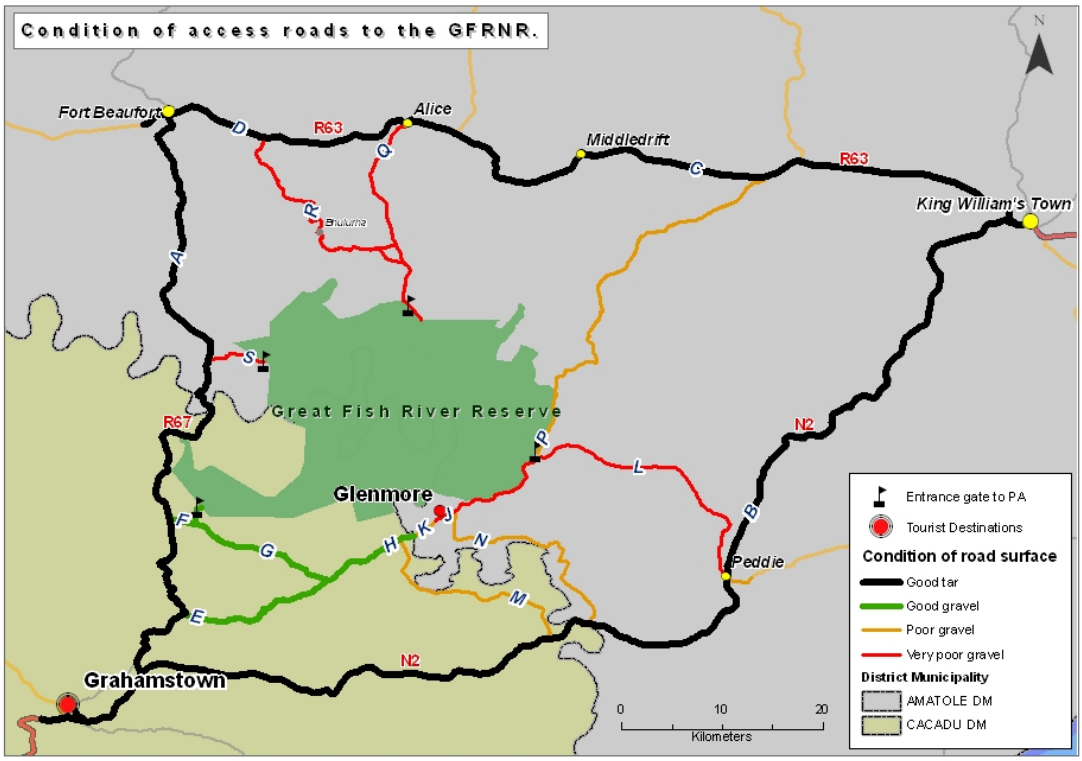


Figure 39 Condition of access roads to the GFRNR.

Gravel access roads located in the Amatole District Municipal area have for over many years been neglected and are in a very poor condition. The section of the R345 between Peddie and Alice that traverses through the Great Fish River Nature Reserve is in particularly poor condition. The section of this proclaimed public road within the Reserve has not been maintained at all by the Municipality for fourteen years. The reason for this lack of maintenance is a dispute between the Amatole District Municipality and Eastern Cape Parks Board as to which organization is responsible for the maintenance of that section of the road. Consequently, the road has fallen into such disrepair that it can no longer be repaired but needs to be completely rebuilt. The condition of other access roads to the Great Fish River Nature Reserve is described in Table 20.

Table 20 Assessment of gravel access roads to the Great Fish River Nature Reserve from the encircling tarred regional road network.

Map reference	Length of section (km)	Condition category	Condition of surface	Tourism importance	District Municipality
E	16,2	C	Good gravel	Important	Cacadu
F	4,3	C	Good gravel	Very important	Cacadu
G	15,3	C	Good gravel	Very important	Cacadu
H	9,7	C	Good gravel	Very important	Cacadu
J	14,2	E	Very poor gravel	Very important	Amatole
K	2,8	E	Poor gravel	Very important	Amatole
L	28,8	E	Very poor gravel	Very important	Amatole
M	22,4	D	Poor gravel	Important	Cacadu
N	25,1	D	Poor gravel	Important	Amatole
P	42,9	D	Poor gravel	Not important	Amatole
Q	23,1	E	Very poor gravel	Important	Amatole
R	27,9	E	Very poor gravel	Not important	Amatole
S	4,3	E	Very poor gravel	Important	Amatole

Gravel access roads to the Great Fish River Nature Reserve that are classified as very important to tourism measure 75,1 kilometres in total. Of this distance, 29,3 km of tourism important roads are located in the Cacadu District Municipal area and are in good condition (sectors F, G and H) where as 45,8 kilometres of similarly important tourism roads are situated in the Amatole District Municipal area (sectors J, K and L).

Relative to the RCCBC's fourth guideline, the Great Fish River Nature Reserve is accessible to tourists driving 2x4 sedan type vehicles and therefore conforms to this guideline. However, this access to the Reserve is limited to entrance through the Fort Brown entrance gate which requires driving over 4,3 kilometres of good gravel road to reach this gate. Access via the other Reserve entrance gates is considered not suitable for 2x4 tourist vehicles.

The Amatole District Municipality's poor governance and service delivery has significant consequences to local people and the RCCBC model. Through lack of maintenance, gravel roads in Amatola District have fallen into disrepair limiting tourist traffic in terms of tourist numbers and roads travelled by tourists within the district. The benefits that could have been derived from such tourism in these communal, ex-"homeland" areas are consequently constrained. Furthermore, the Heritage Tour Routes developed by the municipality at considerable cost have failed as few tourists are prepared to risk their vehicles on such badly maintained roads. Municipal officials and politicians promised local communities located along these tour routes many benefits from heritage generated tourism (G. Shaw, personal communication, August, 2007). These benefits have not materialised as a consequence of poor roads conditions resulting in the disillusionment of local people in and distrust of tourism as an economic mechanism for uplifting their local areas. This distrust could have significant ramifications for the implementation of the RCCBC model in the Amatole District.

Poor road conditions in the Amatole District have a further restrictive effect on the pool of communities from which the RCCBC host community is selected. Access by 2x4 sedan vehicle to the RCCBC host community is also an important consideration in identifying a host community. Only two of the thirteen communities situated within the four kilometres from the GFRNR zone, Glenmore and Fort Brown, are serviced by roads suitable for sedan tourist vehicles and will be given preference during process of selecting a host village (Figure 40).

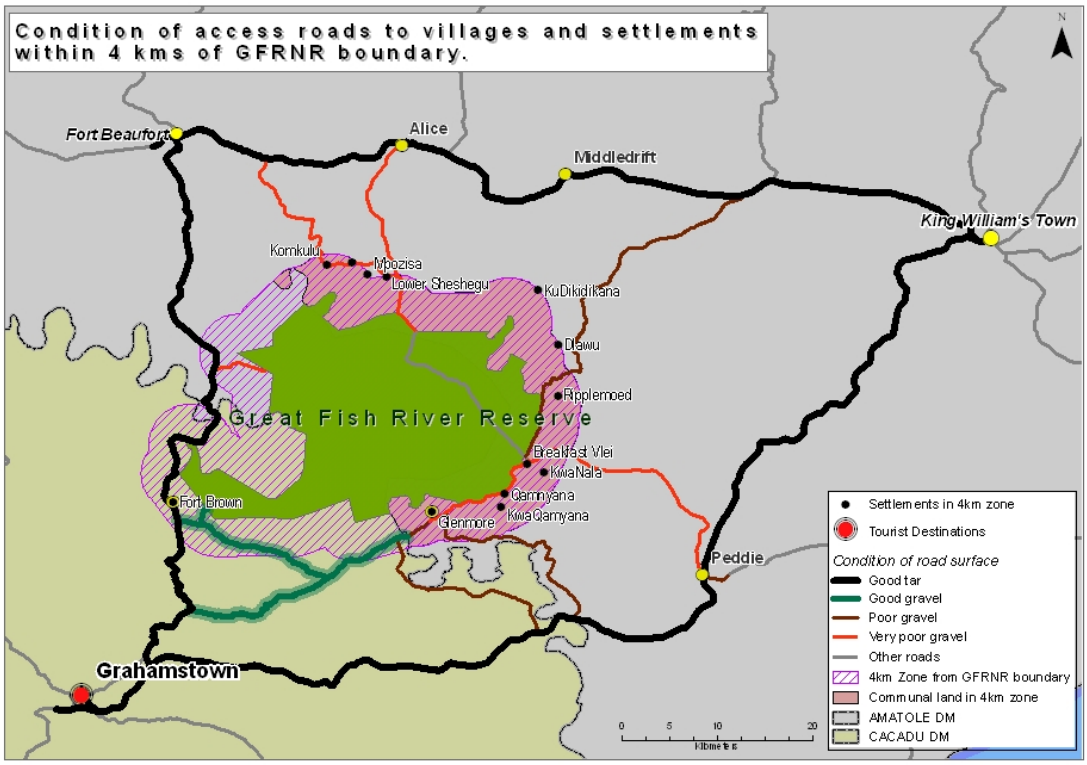


Figure 40 Condition of access roads to villages and settlements within 4 kms of GFRNR boundary.

Unlike Fort Brown, Glenmore is located within a 'communal' area which gives it preference when selecting host communities. However, access to Glenmore is only possible to 2x4 sedan tourist vehicles along gravel roads coming from the west through commercial farming land predominantly owned by white farmers (see roads highlighted in green in Figure 40) Roads that link Glenmore to Breakfast Vlei in the East and the N2 in the south that traverse through communal land, are not suitable for tourists' 2x4 sedan vehicles.

In summary and conclusion, the Great Fish River Nature Reserve is accessible to tourists driving 2x4 vehicles, as is Glenmore, but only from the R67 tarred, regional road. Therefore, the Great Fish River Nature Reserve meets the RCCBC Guideline 5 that the proposed protected area should be accessible by road to 2x4 sedan vehicles.

Guideline 6: Potential should exist to link the host protected area to closest tourist destination by means of public tourist transport suitable to backpackers and independent tourists.

The reason for this guideline is to ensure that visitors using public transport can readily access the proposed Benefit Centre and its tourist facilities.

Regular, reliable and safe intercity-type public transport exists from major centres in South Africa to large towns in the Eastern Cape. However, there are two types of public tourist transport that serves the Great Fish River Nature Reserve. The first type is regular, scheduled intercity coach services that operate to Port Elizabeth and East London from other major cities in the country. These cities are linked by a similar coach route along the N2 Tour Route via Grahamstown, Peddie and King William's Town where most coaches will stop on a scheduled or requested basis. At least three commercial coach companies provide such a service on a regular, daily, scheduled basis.

The second type of public tourist transport is aimed at the backpacker, independent traveller market by a commercial transport operator named BazBus. BazBus is a specialist tour company that provides a hop-on, hop-off service in small, semi-luxury tour coaches along popular tour routes throughout South Africa (Figure 41).

BazBus has a scheduled daily route between Port Elizabeth to East London along the R72 Coastal Tour Route. This route is linked five days a week by a separate, outsourced, return shuttle service between East London and Hogsback. The BazBus product is ideally aligned with the preferred tourist market segment that should be targeted for the range of tourist products and experiences that will be offered at the proposed Benefit Centres.

Public transport between Glenmore and Grahamstown or Peddie is by means of registered and unregistered mini-bus taxis. This service is generally operated on a daily basis between Glenmore and Grahamstown departing in the morning and returning in the late afternoon.

Figure 41 BazBus tour coach and passengers that travel on a regular schedule basis between Port Elizabeth and East London along the R72 Coastal Tour Route.

The potential does exist for the RCCBC programme to facilitate a new minibus taxi route for tourists to Glenmore from Grahamstown, Fort Brown, Peddie and Hogsback. This service would effectively link the proposed Benefit Centre at Glenmore, which is the preferred location, with other locations that are serviced by mainstream, public tourist coach services (Figure 42) thus giving tourists' regular access to the Benefit Centres.

This proposed minibus route would serve the tourist transportation needs of visiting tourists to the RCCBC, extend employment and entrepreneurial opportunities for the local taxi operators, increase the number of scheduled trips between Glenmore and Grahamstown, Peddie and Alice/Hogsback. This service could also potentially enhance the Makana Heritage Tour Route, as the route between Glenmore and Hogsback could become a conducted, tourist orientated heritage tour route between the two villages.

Therefore, the Great Fish River Nature Reserve meets the requirement of the sixth guideline, as the potential does exist to link the Reserve to nearby tourist destinations by means of public tourist transport suitable to backpackers and independent tourists.

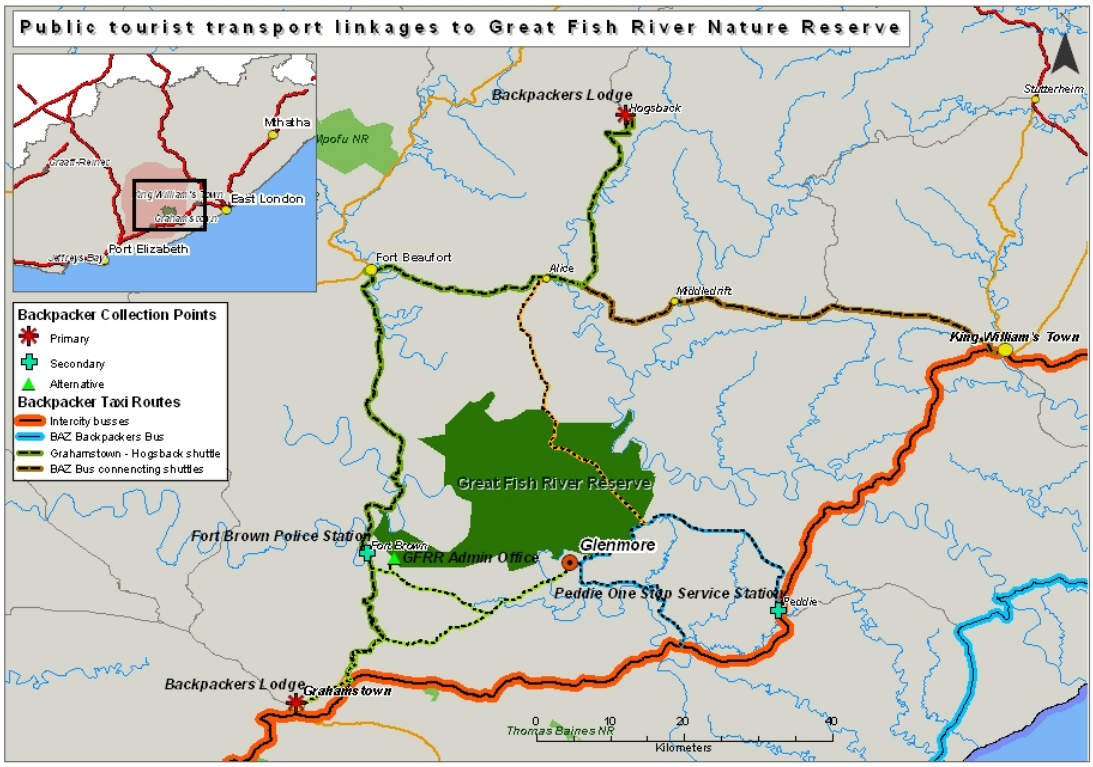


Figure 42 Public tourist transport linkages to the Great Fish River Nature Reserve by scheduled commercial passenger carriers and proposed informal minibus taxi service facilitated by the RCCBC programme.

Guideline 7: Protected area should have at least one primary, draw-card tourist attraction that sets it apart from other protected areas in the region.

The reason for this guideline is to ensure that the preferred protected area has the necessary appeal to attract tourists and volunteers. Furthermore, the preferred protected area should have at least one draw-card attraction that sets it apart from other protected areas in the region in order to minimise potential negative impacts of future competition from competitive products and protected areas.

A review of all existing and potential tourist attractions was undertaken in the Great Fish River Nature Reserve. The researcher visited each attraction. Thereafter, it was discussed with the Reserve's managers regarding its current state and what, if any, future plans that they had for the attraction. All existing and potential attractions were identified, mapped, assessed and ranked.

From this comprehensive list of attractions, the guidelines required that at least one primary attraction needed to be identified. This attraction then needed to be assessed against other protected areas within 50-kilometre radius of the Great Fish River Nature Reserve for uniqueness or its quality of being a visitor draw-card to the Great Fish River Nature Reserve relative to the other protected areas in the region. Attractions that were identified in the Great Fish River Nature Reserve are listed and assessed in Table 21.

Table 21 An assessment of tourist attractions in the Great Fish River Nature Reserve.

Rank	Tourist attraction	Assessment
1	Frontier War history in protected area	The GFRNR is situated in the heart of Frontier Country Tourism Region and it is the location at which many battles and skirmishes took place during the Frontier Wars. It is also the largest of the protected areas in the region with the widest range of Frontier War historic ruins, graves and other locations of Frontier War related interest. The Strategic Tourism Development for the Reserve stipulates that its primary tourism development focus should be on the Frontier Wars history. This point is made to the extent that it proposes the development of a Frontier Wars theme lodge complex at Double Drift. The stated reason for this type of tourism development is that the Frontier History and the Double Drift Fort makes it a unique protected area in the sub-region. Packaged correctly in conjunction with the other tourist attractions in the Reserve, the Frontier War history makes the GFRNR unique as a tourist destination in the Eastern Cape.
2	Great Fish River	The longest stretch of the Great Fish River that flows through a protected area in the Eastern Cape is in the GFRNR, thus ensuring the conservation of its water body, banks and riverine ecosystems. The river is also significant from a historical perspective as it was the boundary and barrier between the indigenous Black people of the region and the White settlers in the early 1800's. There are spectacular views of the river and landscapes from Adam's Kranz and of the cliffs that tower above some of the horseshoe bends of the river, particularly in the Remote Zone of the Reserve. There is the potential to provide a range of tourism activities on and adjacent to this river, such as rafting, river bank hikes and fishing. However, the Reserve managers are concerned about visitor safety particularly in respect to hippos and other dangerous animals that frequent these river areas. Although an interesting attraction, the Great Fish River could not be classed as a primary, draw-card tourist attraction.

Rank	Tourist attraction	Assessment
3	Double Drift Fort	The Double Drift Fort is the best conserved of the all the larger forts in Frontier Country with an interesting history linked to the British military and English settlers. Double Drift Fort on its own would be an interesting supplementary tourist attraction but not considered a primary attraction for the tourist market segment to be targeted by the RCCBC programme.
4	Big Five wildlife	The GFRNR currently contains four of the "Big Five" wildlife species. It has been proposed by ECPB's CEO that lions should be introduced into the Reserve in order to enhance the tourism value of the Reserve and so increase occupancy rates in its hospitality facilities. However, the wildlife and big game experience obtained in the GFRNR does not compare to that visitors can experience in other protected areas in the region in terms of quality, quantity and experience, such as in Addo Elephant National Park. Therefore, the Big Five wildlife experience could not be classed as a primary, draw-card tourist attraction.
5	Valley Bushveld vegetation	The scarce dense, semi-succulent, thorny scrub or thicket vegetation is the primary reason for the proclaimed conservation status of the GFRNR. Although of high biodiversity conservation value, its thickness and unfriendly nature to recreationists does not make it to be a primary, draw-card attraction. It is also found in other protected areas in the region.

The single primary, draw-card tourist attraction that sets the Great Fish River Nature Reserve apart from other protected areas in the region is its Frontier Wars history. Therefore, this primary, draw-card tourist attraction ensures that the Great Fish River Nature Reserve complies with RCCBC's Guideline 7.

Guideline 8: Protected area should have an existing tourism infrastructure within the protected area.

All tourism products and infrastructure in the Great Fish River Nature Reserve was assessed and in-depth interviews were conducted with the managers, hospitality and maintenance staff of the Reserve.

The primary tourism products of the Reserve are Mvubu Lodge, Mbabala Lodge, Nottingham Lodge, Double Drift Camping Ground, a game drive road network in a fenced game viewing area, a bird and game hide at a non-perennial dam and a range of Frontier War military history ruins (Figure 43).

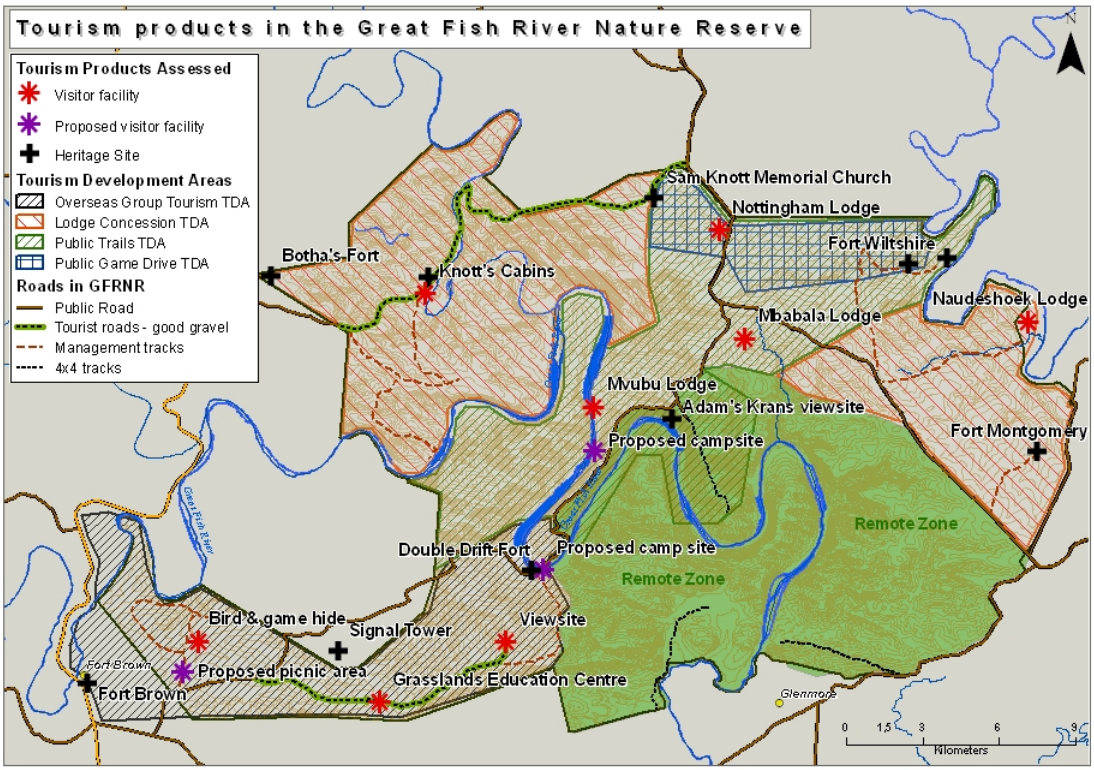


Figure 43 Tourism products in the Great Fish River Nature Reserve.

The Strategic Tourism Development Plan for the Reserve zones all land areas outside of the Remote Experience Zone into four Tourism Development Areas (TDA's): Overseas Group Tourism TDA, Lodge Concession TDA, Public Trails TDA and Public Game Drive TDA (Eastern Cape Parks Board, 2008). The Strategic Tourism Development Plan further describes a range of tourism products recommended for future development for specific target tourist markets. The most important proposed development is a period Frontier Wars British Military themed lodge complex situated near the Double Drift Fort in the Overseas Group Tourism TDA.

Utilization of existing tourism facilities within the Great Fish River Nature Reserve was also assessed. However, visitor records have not been collected systematically or accurately for the Great Fish River Nature Reserve for many years thus reducing the reliability and accuracy of the following analysis. Available Records reveal that occupancy statistics for hospitality facilities in the Great Fish River Nature Reserve are low (Figure 44).

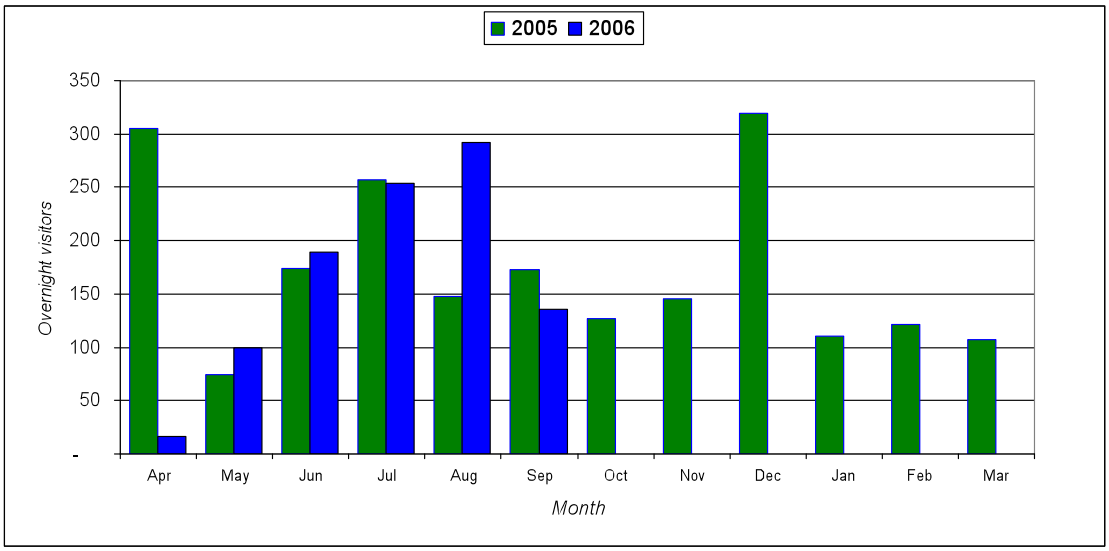


Figure 44 Overnight visitor occupancy figures for all tourist accommodation facilities in the Great Fish River Nature Reserve by month for 2005 and 2006.

The ECPB Central Reservations records 305 reservations for the Great Fish River Nature Reserve per year or 1,1 reservations per working day throughout the year. Based on ECPB Central Reservation records, there is a likelihood of an average of 5,5 visitors overnighting in the Great Fish River Nature Reserve at any one time. Most visitors to Great Fish River Nature Reserve are adults (93%) while children comprise only 7% of visitors. The low number of children visiting the Reserve could be due to the lack of activities specifically for or enjoyed by children in the Reserve. Two small, local tour operators, according to Central Reservations staff, have made regular use of tourist accommodation facilities in the Reserve in 2005 and 2006. The final assessment of the tourism products of the Reserve was that it had a tourism infrastructure that was functional but not popular nor well used by tourists.

Therefore, the Great Fish River Nature Reserve is assessed to be in compliance with Guideline 8 that states that a protected area should have an existing tourism infrastructure.

5.1.3 Compliance to tourism conditions

The RCCBC model provides an assessment of suitability scorecard against which the eight tourism related guidelines could be scored. Guidelines are scored as either being compliant or not compliant.

Based on the assessment of the Great Fish River Nature Reserve for the RCCBC eight tourism guidelines in the sections above, a summary of the individual assessments are listed in Table 22.

Table 22 RCCBC's tourism guideline's scorecard assessment of Great Fish River Nature Reserve.

Guideline	RCCBC guideline description	Status
1	Protected area should be situated in an existing, popular tourism region.	Complied
2	PA should be located within 50 km of an existing popular tourism destination.	Complied
3	PA should be located within 25 km of established tourist route that has medium to high rate of tourist flow.	Complied
4	PA should be located in a region well known for nature-based tourism.	Complied
5	PA and host community should be accessible by road to 2x4 sedan vehicles.	Complied
6	Potential should exist to link the host protected area to closest tourist destination by means of public tourist transport suitable to backpackers and independent tourists.	Complied
7	Protected area should have at least one primary, draw-card tourist attraction that sets it apart from other protected areas in the region.	Complied
8	Protected area should have an existing tourism infrastructure within the protected area.	Complied

The Great Fish River Nature Reserve complied with all eight of the eight RCCBC tourism guidelines and thereby achieving a score of 100% on the RCCBC Levels of Suitability Tourism Guidelines Scorecard (Table 23).

Table 23 RCCBC's tourism guideline's scorecard assessment of Great Fish River Nature Reserve.

Score	Assessment of suitability
90 – 100%	Protected area is **completely suitable** for the establishment of RCCBC products and programmes.
80 – 89%	Protected area is **suitable** for the establishment of RCCBC products and programmes.
70 – 79%	Protected area is **marginally suitable** for the establishment of RCCBC products and programmes.
Less than 70%	Protected area is **not suitable** for the establishment of RCCBC products and programmes.

Therefore, the Great Fish River Nature Reserve is completely compliant with the RCCBC guidelines for selecting a suitable protected area for the development of RCCBC facilities and programmes based on tourism related selection criteria and is therefore considered to be suitable.

The next section of this research will assess the geographic conditions necessary for the establishment of a RCCBC.

5.2 Geographic conditions

An aim of this study is to determine the geographic conditions necessary for the implementation of the RCCBC model adjacent to the Great Fish River Nature Reserve. In this section of the research document, two geographic conditions will be discussed and assessed. These geographic conditions are (a) selecting the most appropriate and suitable host community for implementation of the RCCBC model, and (b) selecting the most appropriate development zone for the establishment of RCCBC products and programmes from the two or more zones identified.

These two geographic conditions will be discussed individually in the next two sections.

5.2.1 Selecting a host community

Research Objective 3 of this research study strives to determine which of the peripheral local communities to the Great Fish River Nature Reserve comply most favourably with criteria specified by the RCCBC model for the identification of a RCCBC host community.

To achieve this objective, a zone four kilometres distant from the boundary of the Great Fish River Nature Reserve was mapped. Privately owned land and communal land was identified within this 4-kilometre zone as were villages and settlements located on communal land within this four-kilometre zone. Ten villages and settlements met these location criteria and were identified. Eight of the smaller settlements were clustered into two settlement clusters. The northern settlement cluster comprised of Komkulu, Skolweni, Mpozisa and Lower Sheshegu settlements. The south-eastern settlement cluster comprises of Breakfast Vlei, KwaNala, Qamnyana and Kwa Qamnyana settlements. The settlement of Ripplemoed and the village of Glenmore was assessed as individual communities. This clustering was considered necessary as these settlements were in close proximity to each other within the clusters. Individual settlements within the cluster may not qualify individually in terms of the RCCBC criteria but combined as a settlement cluster may increase the possibility of qualification.

The two settlement clusters, Ripplemoed and Glenmore were then assessed in the following sections against the host community selection criteria outlined in Table 4.

The northern settlement cluster

The four settlements of the northern settlement cluster are located within four kilometres of the northern boundary of the Great Fish River Nature Reserve and to the west of the R345 gravel road that links the towns of Peddie and Alice (Figure 45). These settlements form sub-settlements to the village of Bhuluria, which is located approximately one kilometre outside of the four-kilometre inclusion zone. The straight-line distance from the western extreme of the Komkulu settlement to the eastern extreme of the Lower Sheshegu settlement is approximately 4,5 kilometres, the width of the cluster.

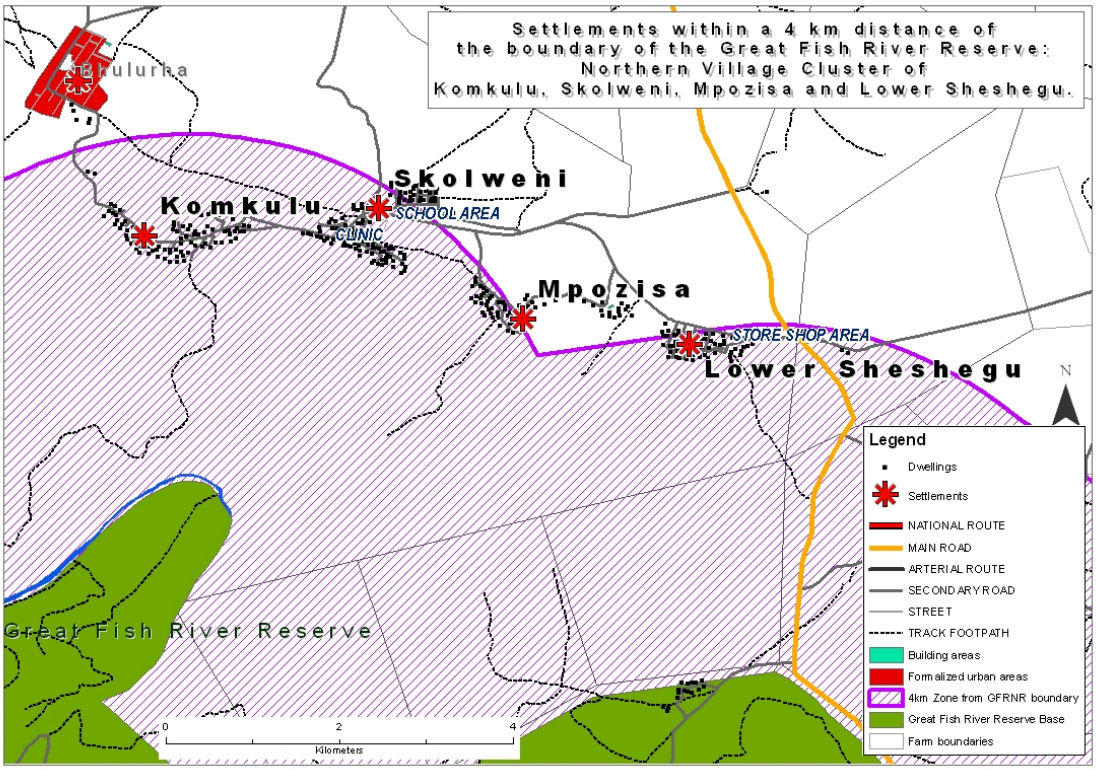


Figure 45 Settlements within a 4 km distance of the boundary of the Great Fish River Reserve: Northern Village Cluster of Komkulu, Skolweni, Mpozisa and Lower Sheshegu.

The settlements of the northern settlement cluster are accessed via a poorly maintained, small, gravel track from the R345. The distance to Komulu, the most westerly settlement in the cluster, is 3,7 kilometres from the R345.

Electrical power is supplied from the national grid to the settlement cluster. Households that desire and can afford electrical power may be connected to the national grid. However, it is observed that very few houses in the cluster have taken up this option to be supplied with electrical power. Bulk water is supplied to water points or communal taps which are located at strategic places in the four settlements of the cluster. Bulk water is not supplied to individual homesteads. There is no bulk sewage reticulation system in the cluster and as a consequence all homesteads have pit latrines. The cluster is not serviced by landline telephones but signals of varying strength can be accessed in the cluster from the three national cellular telephone service providers. A clinic, a junior school, a church and a store service the cluster,

which are located in Skolweni. A further junior school is located in Lower Sheshegu and another store is located on the R345 near Lower Sheshegu.

The Great Fish River Nature Reserve is not readily accessible from the northern settlement cluster. Access to the Reserve is via the R345 and the Charles Tinley entrance gate into the Reserve, a distance of 13 kilometres from the centre of the cluster. A steep drop of 240 metres inhibits direct access to the Reserve from the cluster to the Kat River and Reserve's northern boundary.

An estimation of the number of homesteads in each of the settlements of the cluster was established by counting the number of identified plots of land with established dwellings.

Figure 46 Settlements within a 4 km distance of Great Fish River Reserve - Northern Village Cluster - Aerial photograph of Komkulu settlement.

A total of 192 homesteads were identified in the northern settlement cluster. The individual settlements that comprise the northern cluster will be assessed individually in the sections below. The Komulu settlement is the western most settlement in the northern settlement cluster. The settlement comprises approximately 92 homesteads and has no community services (Figure 46).

Figure 47 Settlements within a 4 km distance of Great Fish River Reserve - Northern Village Cluster - Aerial photograph of Skolweni settlement.

Figure 48 Settlements within a 4 km distance of Great Fish River Reserve - Northern Village Cluster - Aerial photograph of Mpozisa settlement.

The Skolweni settlement comprises 36 homesteads and has a general dealer store, a junior school and a clinic (Figure 47).

The Mpozisa settlement comprises 17 homesteads and has no community or public services at all (Figure 48).

The Lower Sheshegu settlement comprises 48 homesteads (Figure 49). There is a junior school located between this settlement and Mpozisa settlement.

Figure 49 Villages within 4km distance of boundary of Great Fish River Nature Reserve - Aerial photograph of Lower Sheshegu settlement.

The settlements in the northern settlement cluster and the cluster as a whole were not selected as potential communities for potential RCCBC products and programmes for the following reasons:

There was not a minimum of 200 households in any one settlement or for all the settlements in the cluster combined. The RCCBC model requires a minimum of 200 households in the preferred host community for the model to operate effectively.

The Great Fish River Nature Reserve is not readily accessible from the cluster due to the Kat River gorge and the steep slope down to the river from the

cluster. The RCCBC model required direct access from the precinct of the settlement of the host community to the selected protected area.

Access to the settlements of the cluster is via a small, undeveloped gravel side road from the R345. The RCCBC model stipulates direct access from a main rural road or well-known tourist route in order to provide easy access to tourist transport.

The cluster lacks appropriate community services. The RCCBC requires certain community services on which to base its programmes. These community services are lacking the northern settlement cluster.

The four communities of the cluster are dispersed spatially, and according to Mr Gavin Shaw, the past Manager of the Great Fish River Nature Reserve, there is disparity and conflict between community members of the four settlements. The RCCBC model requires a host community to have a well-defined community and leadership structures, which is not the case of the communities that comprise the northern settlement cluster.

The south-eastern settlement cluster

The four settlements located within the four-kilometre zone on the south-eastern side of the Great Fish River Nature Reserve have been clustered together and named the south-eastern settlement cluster for the purpose of this study (Figure 50). These settlements are Breakfast Vlei, KwaNala, Qamnyana and Kwa Qamnyana. They are located to the west of the R345 gravel road that links the towns of Peddie and Alice and south of the gravel road that links Breakfast Vlei to Committee's Drift. Both roads are major access roads to the sub-region. However, the lack of road maintenance on behalf of the Ngqushwa Local Municipality over the past fifteen years has resulted in these roads being in extremely poor condition. Breakfast Vlei and Qamnyana are located adjacent to the Breakfast Vlei to Committee's Drift road while KwaNala and Kwa Qamnyana are some two kilometres distant from the road.

The settlements of Breakfast Vlei and Qamnyana are located within a few of hundred metres of the boundary fence of the Great Fish River Nature

Reserve. However, access to the Reserve from these settlements requires crossing the Breakfast Vlei to Committee's Drift road, which is undesirable from a tourism perspective.

Electrical power is supplied from the national grid to the settlement cluster. Households that desire and can afford electrical power may be connected to the national grid. However, it is observed that very few houses in the cluster have taken up this option to be supplied with electrical power. Bulk water is supplied to water points or communal taps which are located at strategic places in the four settlements of the cluster. Bulk water is not supplied to individual homesteads. There is no bulk sewage reticulation system in the cluster and as a consequence all homesteads have pit latrines. Breakfast Vlei is the only settlement in the cluster that does have a landline telephone service. However, signals of varying strength can be accessed throughout the cluster from the three national cellular telephone service providers. Breakfast Vlei and Qamnyana both have a junior school and general dealer store. No other community services are provided in the settlement cluster.

An estimation of the number of homesteads in each of the settlements of the cluster was established by counting the number of identified plots of land with established dwellings. A total of 88 homesteads were identified in the southeastern settlement cluster. The individual settlements that comprise the southeastern cluster will be assessed individually in the sections below.

Breakfast Vlei has 28 homesteads and its sub-settlement of KwaNala has 17 homesteads. Breakfast Vlei is located strategically at the crossroads of the R345 road and the road to Committee's Drift (Figure 51). It is also located in close proximity to the Breakfast Vlei entrance gate to the Great Fish River Nature Reserve. Breakfast Vlei has a hotel that is used by local people and a few passing businessmen. It is not of a standard acceptable to more affluent domestic and overseas tourists who would prefer to be accommodated within the Great Fish River Nature Reserve.

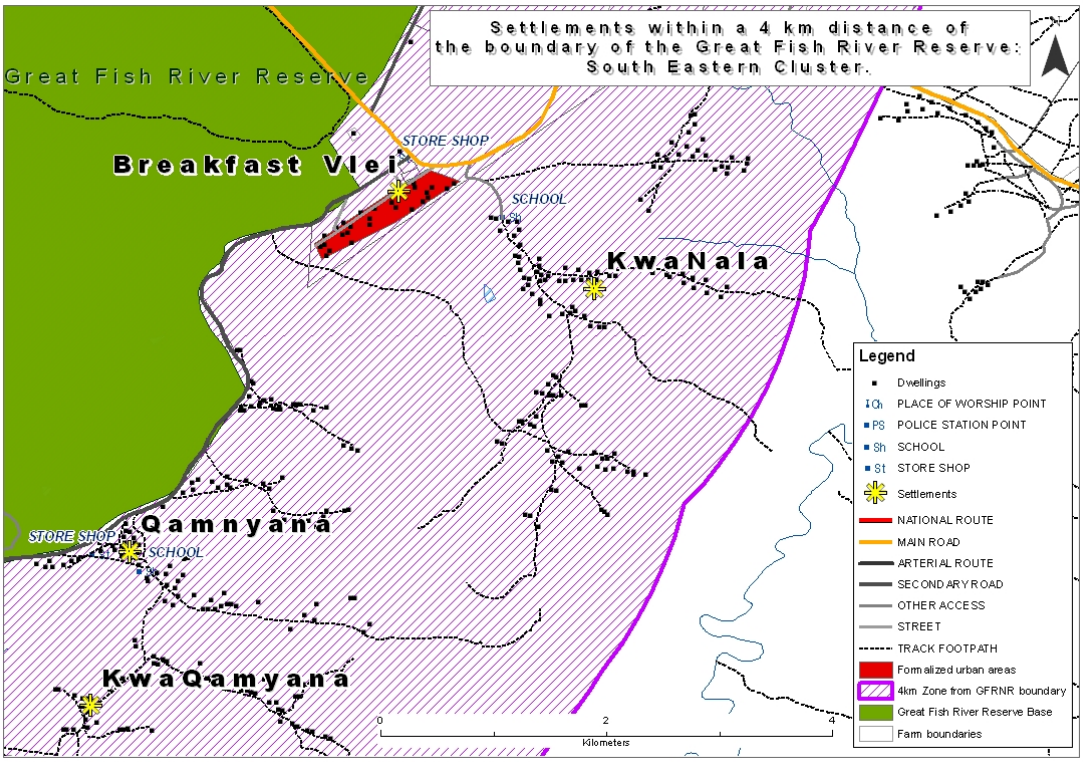


Figure 50 Settlements within a 4 km distance of the boundary of the Great Fish River Reserve: South-eastern village cluster.

Figure 51 Villages within 4km distance of boundary of Great Fish River Nature Reserve - Aerial photograph of Breakfast Vlei and KwaNala settlements.

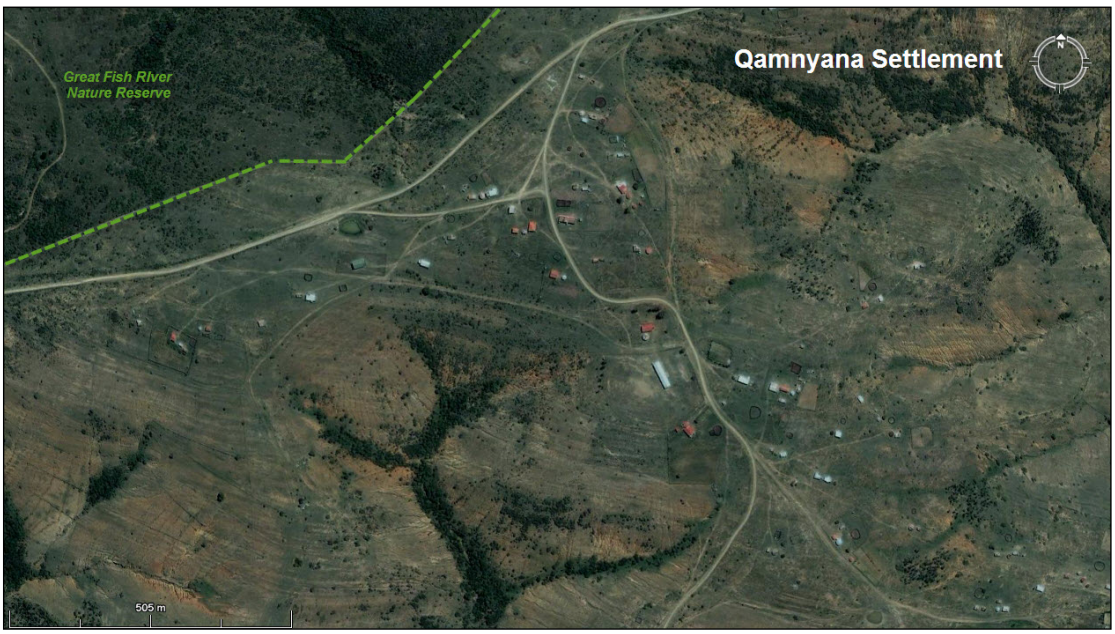


Figure 52 Settlements within a 4 km distance of Great Fish River Reserve - Northern Village Cluster - Aerial photograph of Qamnyana Settlement.

Figure 53 Settlements within a 4 km distance of Great Fish River Reserve - Northern Village Cluster - Aerial photograph of KwaQamnya Settlement.

There are 24 homesteads in Qamnyana (Figure 52) and 19 homesteads in KwaQamnyana (Figure 53). These two settlements are located within two kilometres of each other and in reality operate as one settlement.

The four settlements in the south-eastern settlement cluster and the cluster as a whole were not selected as potential communities for potential RCCBC products and programmes for the following reasons:

There was not a minimum of 200 households in any one settlement or for all the settlements in the cluster combined. The RCCBC model requires a minimum of 200 households in the preferred host community for the model to operate effectively.

The cluster lacks appropriate community services. The RCCBC requires certain community services on which to base its programmes. These community services are lacking the south-eastern settlement cluster.

The four communities of the cluster are dispersed spatially over a large area. The RCCBC model requires a host community to have a well-defined community and leadership structures, which is not the case of the communities that comprise the south-eastern settlement cluster.

Ripplemoed

Ripplemoed is situated on the eastern side of the Great Fish River Nature Reserve (Figure 54) well within the four-kilometre zone. It has forty homesteads and single dwellings (Figure 55). Ripplemoed differs from many of the other settlements in the area as if centred on a large farm. Many of the dwellings are single dwelling as opposed to homesteads that have vegetable patches and stock kraals. This fact indicates that a large proportion of the people living in Ripplemoed have moved into the settlement in order to obtain employment and most likely have homesteads elsewhere in the region or in the nearby villages of Dlawu, Ngcabasa and Ngqolowa.

Ripplemoed has no community services, as most of these would be located in the more established nearby villages.

Ripplemoed was not considered as an appropriate community for the RCCBC model as it did not meet most of the model's host community location criteria. It had too few households, no community facilities and no sense of community is essentially a dormitory settlement for the large neighbouring farm.

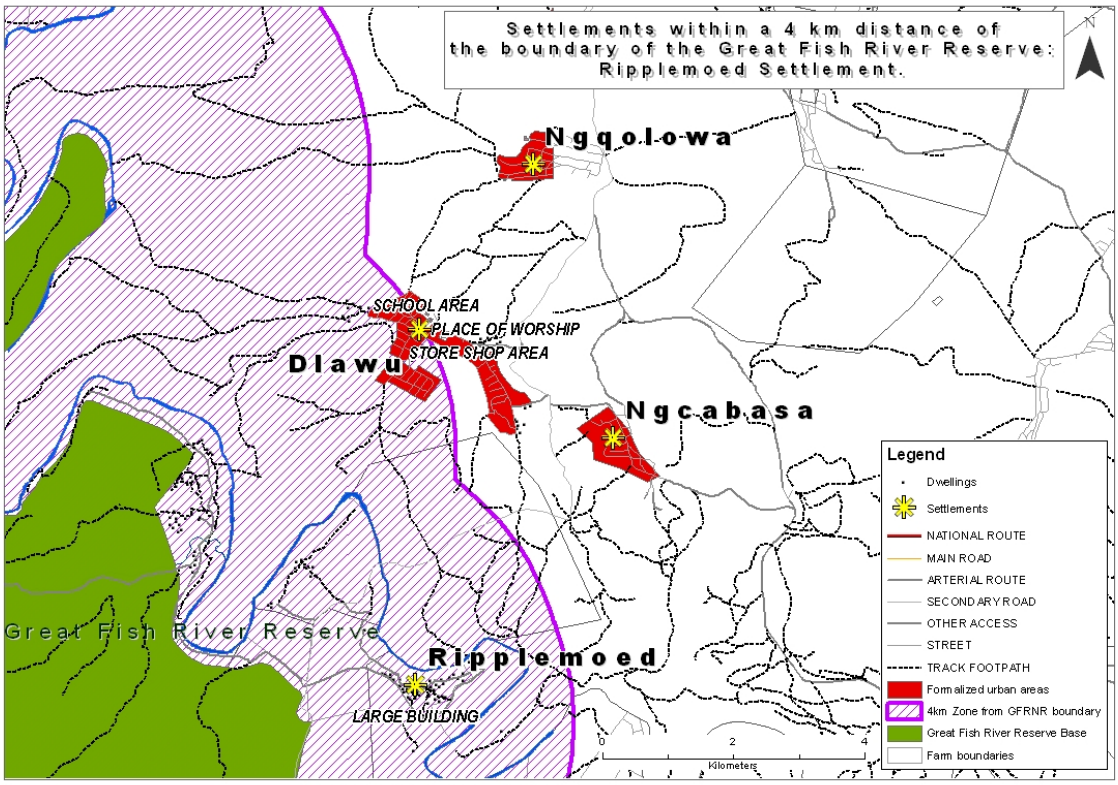


Figure 54 Settlements within a 4 km distance of Great Fish River Reserve - Ripplemoed.

Figure 55 Settlements within a 4 km distance of Great Fish River Reserve - Aerial photograph of Ripplemoed settlement.

Glenmore

Glenmore is a large village situated on the southern bank of the Great Fish River and to the south of the Great Fish River Nature Reserve (Figure 56). Glenmore was established as a resettlement village in 1979 when approximately 4500 people were resettled there (Birch, 2000) under the dictates of the South African Apartheid government and the Ciskei homeland government (Hallett, 1984). Glenmore is economically and socially impoverished as there are few businesses, little economic activity and minimal social tradition in the settlement (Murray, 1989). This village is characterised by an out migration of people of an economically active age and high unemployment amongst remaining residents.

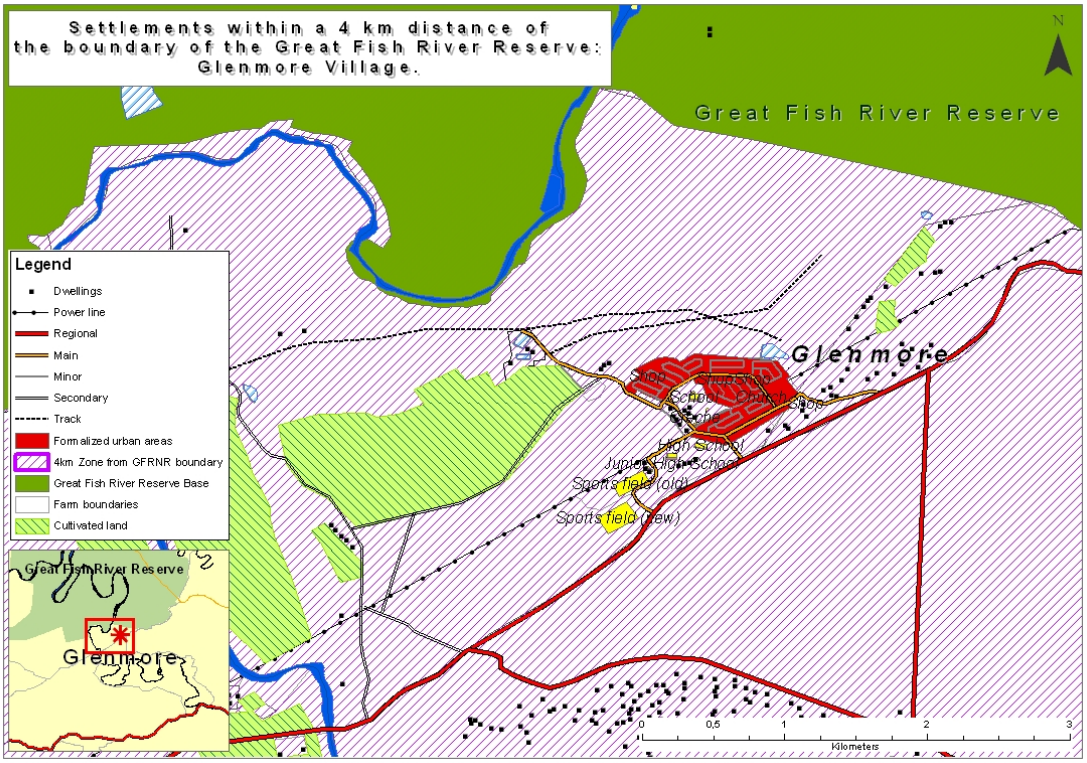


Figure 56 Settlements within a 4 km distance of the boundary of the Great Fish River Reserve: Glenmore Village.

From aerial photographs of Glenmore it is evident that the village has more than 200 households (Figure 57). It was later established by means of a census of Glenmore that there were 571 erven in the village on which permanent dwellings were constructed.

Figure 57 Settlements within a 4 km distance of Great Fish River Reserve - Aerial photograph of Glenmore Village.

Glenmore has a full range of community services including three schools, a post office, clinic, crèche, community centre and a police station situated three kilometres away at Committee's Drift. There is a number of established retail and service enterprises in Glenmore that serve the local community.

Glenmore is linked into the national power grid that provides electricity to all houses in Glenmore on a prepaid supply system. A large water purification plant provides water extracted from the Great Fish River to the village of Glenmore. Water is reticulated to communal taps in the village and not to individual houses. There is no sewage management system and each house has its own pit latrine. Glenmore is serviced by landline and cellular telephone services.

Glenmore is situated on the main gravel road that links the tarred R67 (Grahamstown to Fort Beaufort) to Breakfast Vlei and Peddie. The condition of this gravel road from the R67 to Glenmore is in extremely good condition but the section from Glenmore to Breakfast Vlei and Peddie is in very poor condition. This good gravel road makes Glenmore very accessible to the tourism town of Grahamstown some 41 kilometres away to the west.

From Glenmore there is good access to the Great Fish River Nature Reserve some two kilometres away from the northern edge of the village. Access to the Reserve is over the Great Fish River, which is easily crossable at the closest point to the village. The area of the Great Fish River Nature Reserve directly opposite Glenmore is the wilderness zone of the Reserve in which a limited range of tourism activities may take place.

Selected host community

This second phase assessment of all the villages and settlements within four kilometres of the Great Fish River Nature Reserve revealed that the village of Glenmore complied most favourably with the RCCBC model criteria. The reasons for this compliance are:

- There are more than 200 households in Glenmore.
- Glenmore is an established community with a sense of identity and history. It also has a well established community leadership structures and services.
- Glenmore is situated next to a main rural road that is in good condition that links it to the tourism town of Grahamstown.
- There is good, direct access from Glenmore to the Great Fish River Nature Reserve.
- Glenmore has a full range of social and community services.
- Glenmore is serviced with bulk water, power and telecommunications.

Consequently, Glenmore was selected as the most appropriate community of the ten villages and settlements considered for the possible development of RCCBC products and programmes.

5.2.2 Identifying RCCBC development zones

Research Objective 4 strives to determine whether or not the spatial and geographical preconditions were present in the precinct of the preferred community, namely Glenmore.

To achieve this objective the precinct of Glenmore was mapped in detail using GIS mapping software. A minimum of two potential tourism development zones (TDZ's) were to be identified within this precinct based on RCCBC criteria for identifying development zones for its core products and programmes. The identified TDZ's were then to be compared against each other using a TDZ assessment model. This assessment model uses weighted variables to compare TDZ's in order to identify the TDZ most suited for potential development of the RCCBC products and programmes.

Consequently, two TDZ's were identified within the 175-metre river band and were labelled TDZ North and TDZ West (Figure 58). A third TDZ was identified on the eastern side of the land identified for RCCBC product development directly adjacent to the boundary fence of the Great Fish River Nature Reserve, which was labelled TDZ East.

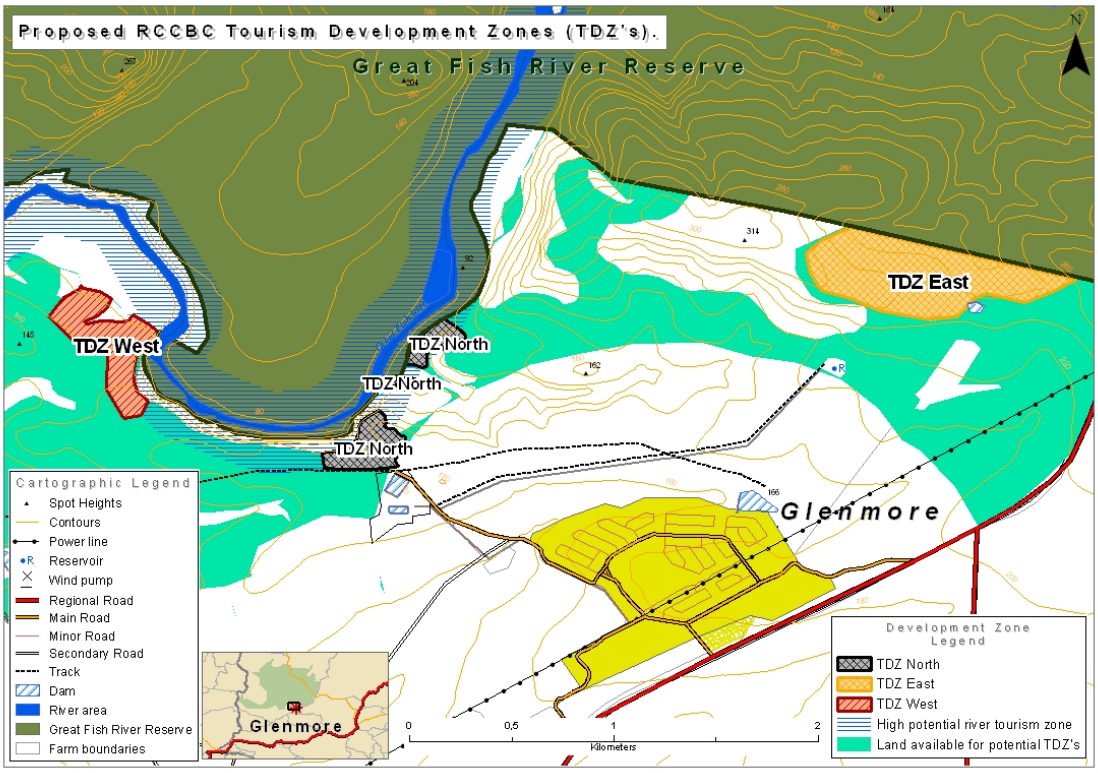


Figure 58 Proposed RCCBC Tourism Development Zones.

The final stage in identifying the TDZ most suitable for RCCBC product development was to assess the three TDZ's defined above by using an

assessment model specifically developed for assessing a range of variables needed to identify the most appropriate TDZ for a specific development precinct. This model assesses and scores each site on a scale of 0 to 5 for 29 variables with 5 being the most desired score for the variable (Table 24).

Table 24 An example of a ranked scoring system with scores and descriptions for a sub-criterion.

Existing water reticulation infrastructure	***0***	***1***	***2***	***3***	***4***	***5***
The extent and condition of the existing water reticulation network and the amount of energy and resources that are required to upgrade it to required standards for proposed development.	**No existing water reticulation present.** Completely new reticulation network needs to be installed.	Existing water reticulation requires **extensive modification and redevelopment.**	Existing water reticulation infrastructure requires **major modification.**	Existing water reticulation infrastructure requires **modification.**	Existing water reticulation infrastructure requires **minimal modification.**	Existing water reticulation infrastructure **suitable with sufficient capacity** for proposed long term development of site.

The 29 variables are divided into four categories of variables, namely physical characteristics, visual characteristics, water characteristics and access characteristics. The outputs of the TDZ model are listed in Appendix B.

The Northern TDZ achieved the highest weighted score of 614, followed by the Western TDZ (421) while the Eastern TDZ (299) was the least favourable (Figure 59). The Northern TDZ excelled in all categories when compared to the other TDZs. The physical characteritics of the Northern TDZ are the most significant factor in determining preference for a particular TDZ (Figure 60).

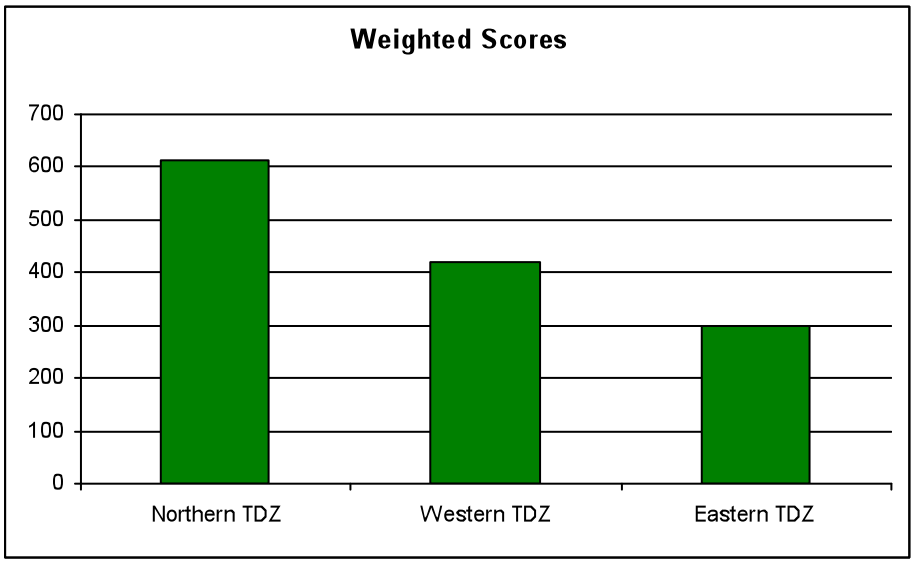


Figure 59 Comparative weighted scores of Glenmore's TDZ's as determined by the RCCBC TDZ assessment model.

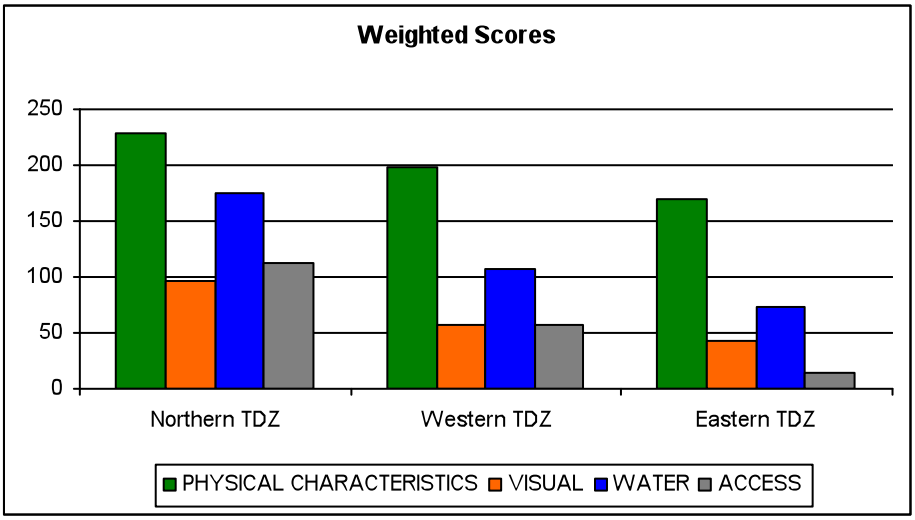


Figure 60 Comparative weighted scores of Glenmore's TDZ's as determined by the RCCBC TDZ assessment model by set of criteria or category.

The three areas that comprise the Northern TDZ are depicted in Figure 61. The southern area is separated from the central area by a steep slope. This slope dictates that movement between the southern and central areas would be by footpath for pedestrians. Donkeys could be used to transport luggage, supplies and equipment between the two areas as the slope is too steep for a road or rough vehicle track. A deep erosion gully separates the central area from the northern area of the TDZ. It is envisaged that the proposed tented camp tourist facility would be located in the northern area of the TDZ. The erosion gully, which inhibits free movement of tourists to the tented camp, could be spanned with a rustic suspension bridge allowing pedestrians access from the central and southern areas while providing a remote, wild tourist image to the tented camp. The tented camp's supplies and equipment could be transported by high clearance vehicle along a rough vehicle track that runs from Glenmore village in the east along the northern bank of the erosion gully.

There are panoramic views over the Great Fish River and the GFRNR from the southern area of the Northern TDZ (Figure 62). These views contribute to a high quality sense of place, which is likely to be enjoyed by visitors and tourists to the Benefit Centre, which would also increase the value of the development zone.

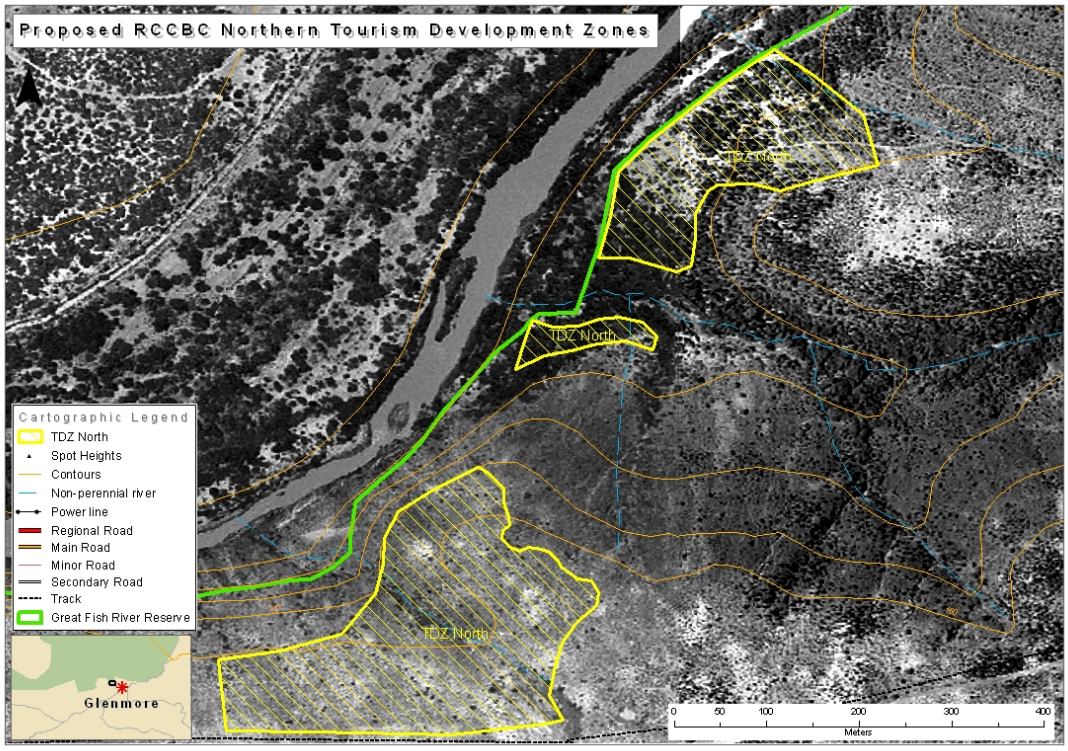


Figure 61 The Northern Tourism Development Zone that was identified as the most suitable TDZ for the development of a benefit centre and related tourism products.

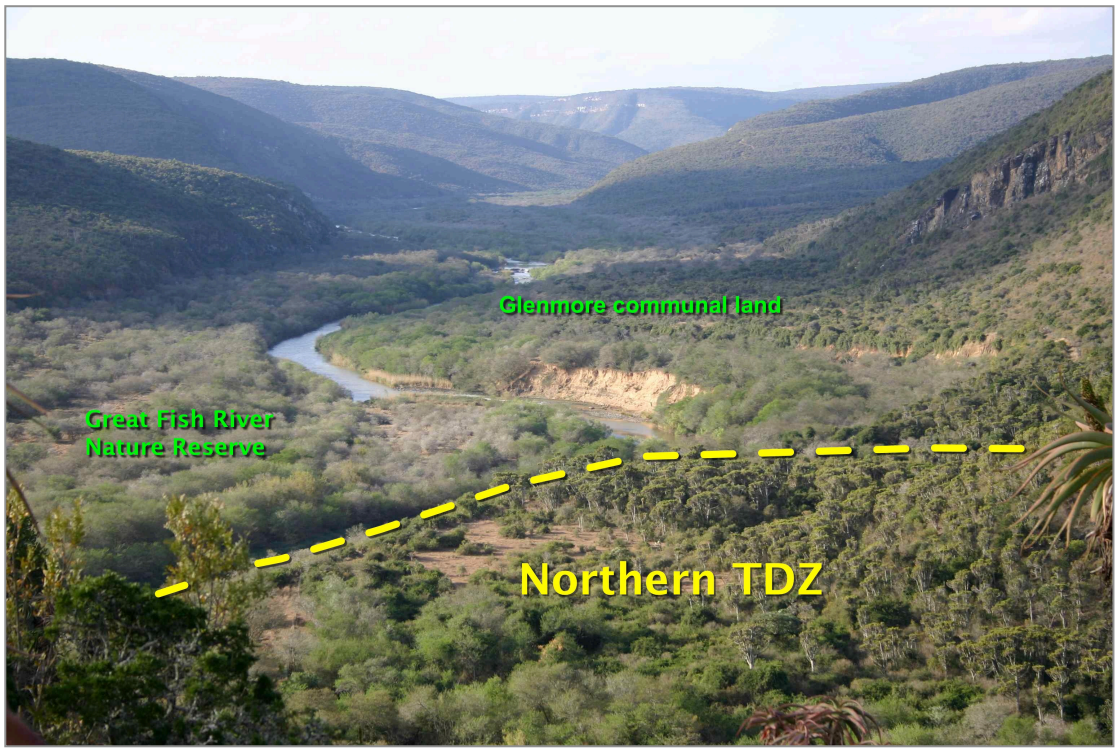


Figure 62 Photograph of Northern TDZ looking north-east over the Great Fish River.

A detailed development plan would need to be drafted to achieve an optimal layout of the Benefit Centre and related tourist products and activities. Drafting such a plan is beyond the scope of this study. However, a rough estimate was calculated of the land area that the RCCBC products, facilities and activities required to operate effectively. This estimate indicated that approximately one third of the land available in the Northern TDZ would be required for the effective operation of the full range of Benefit Centre products, services and activities in the TDZ. This estimate indicates that there is sufficient land of suitable quality and space availble to meet the needs of a Benefit Centre and its associated tourist facilities and activities.

5.3 Social conditions

The RCCBC model requires that a demographic profile of the potential host community be established. This profile is required to obtain a general understanding of the host community and for three further specific reasons: to establish that there is an appropriate host community relative to RCCBC criteria to benefit from the RCCBC model; to determine which of the range of RCCBC Volunteer Social Programmes could be established based on profile Appropriate host community

The first reason of the RCCBC model requires that the host community have two characteristics; more than 200 households and that a large proportion of the population be children and old people. From the Glenmore Census Survey it was determined that there were 576 developed erven with residential dwellings of which 391 or 67,8 percent were permanently inhabited by a total of 1150 residents. Interviews were conducted at 353 of the inhabited dwellings from which it was ascertained that mean and median household size was 3,26 and 3 people respectively. Nearly 30 percent of all households interviewed were single people households of which ten percent were over the age of 65 years. Glenmore therefore met the criteria for the minimum number of households by having 376 households in excess of the minimum specification of 200 households.

However, what would be concern to the implementers of the RCCBC model is that a third of the dwellings in Glenmore are uninhabited indicating that the

population is shrinking due to out-migration from the village. Of the respondents interviewed during the sample survey of permanent Glenmore residents, 22,8 percent of respondents stated that they wanted to leave Glenmore, of which 68,7% wanted to move to the nearby urban areas of East London, Grahamstown, Port Alfred and Port Elizabeth. The most popular reasons offered for the move to these urban areas were to seek employment or that they either originally came from there or still had relatives living there. An aim of the RCCBC model is to create employment and entrepreneurial opportunities in Glenmore, which should lessen the need of the nearly quarter of residents to seek employment outside of Glenmore.

The second of the two RCCBC characteristics is that a large proportion of the host population should consist of children and old people. Children up to the age of 18 years comprises 36,4% of the population of Glenmore while elderly people over the age of 65 years comprise 9,8% of the population; a combined total of 46,2% or nearly half of the permanent residential population of Glenmore (Figure 63). The economically active adult age group comprises 53,7% of the Glenmore population. Therefore, Glenmore meets the RCCBC requirement that a large proportion, in this case 46,2%, of the population are children and elderly residents.

5.3.1 RCCBC Volunteer Social Programmes

The second reason to establish a profile of the residents of Glenmore is to determine which of the range of RCCBC Volunteer Social Programmes could be established there based on profile of the community. From the profile it may be established if a particular programme may take place and the extent of the programme that is required to serve the community adequately. Each of the Volunteer Social Programmes will be assessed for suitability relative to the needs of the Glenmore community.

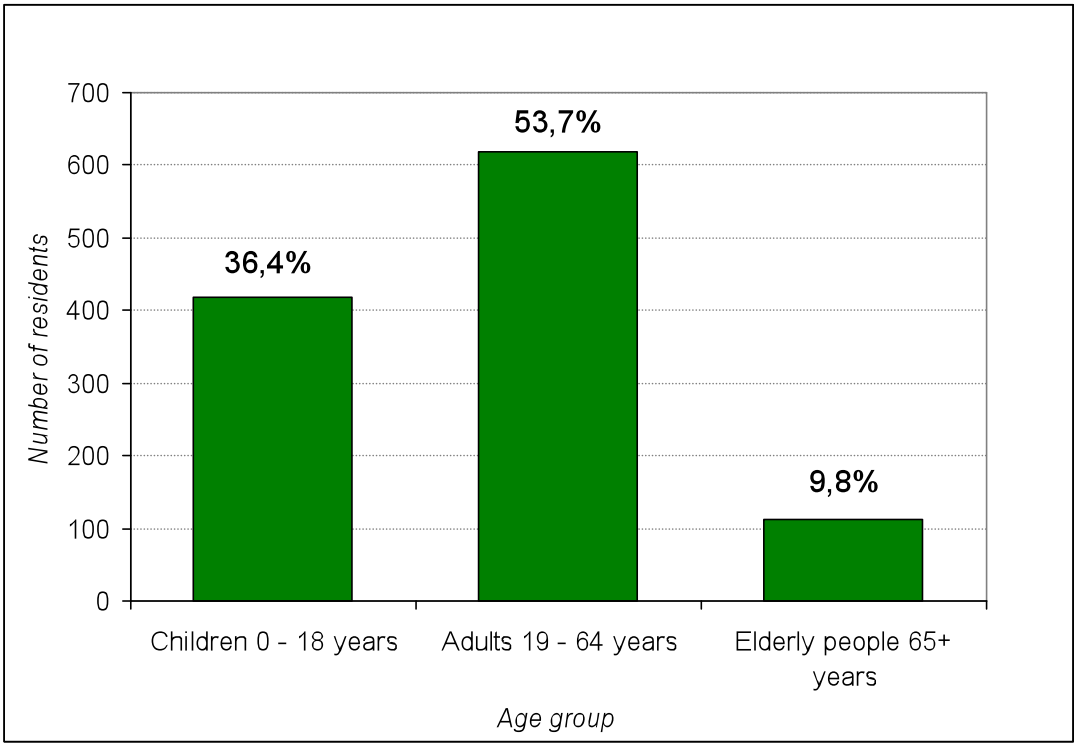


Figure 63 The number and percentage of residents of Glenmore by age group.

Single Parent Child Support Programme

The Single Parent Child Support Programme (SPCSP) is a programme designed to provide assistance to single parents or households with a single adult and one or more children. The type of assistance provided includes childcare, baby-sitting, general play, mentoring, and family role modelling. One volunteer would provide assistance to 5 to 8 households depending on the number of children in each household. The ratio of children to volunteer should not exceed twelve.

RCCBC assessment criteria requires to know the number of single adult households with children as well as the number and age groupings of those children in order to implement the desired Single Parent Child Support Programme. Glenmore has 137 single person households. Of those households, 45 are households with single adults and one or more children (Figure 64). Two children live in 12,4% of single adult households while a slightly lower 11,7% of single adult households have one child. Only 8,8% of single adult households have three or more children.

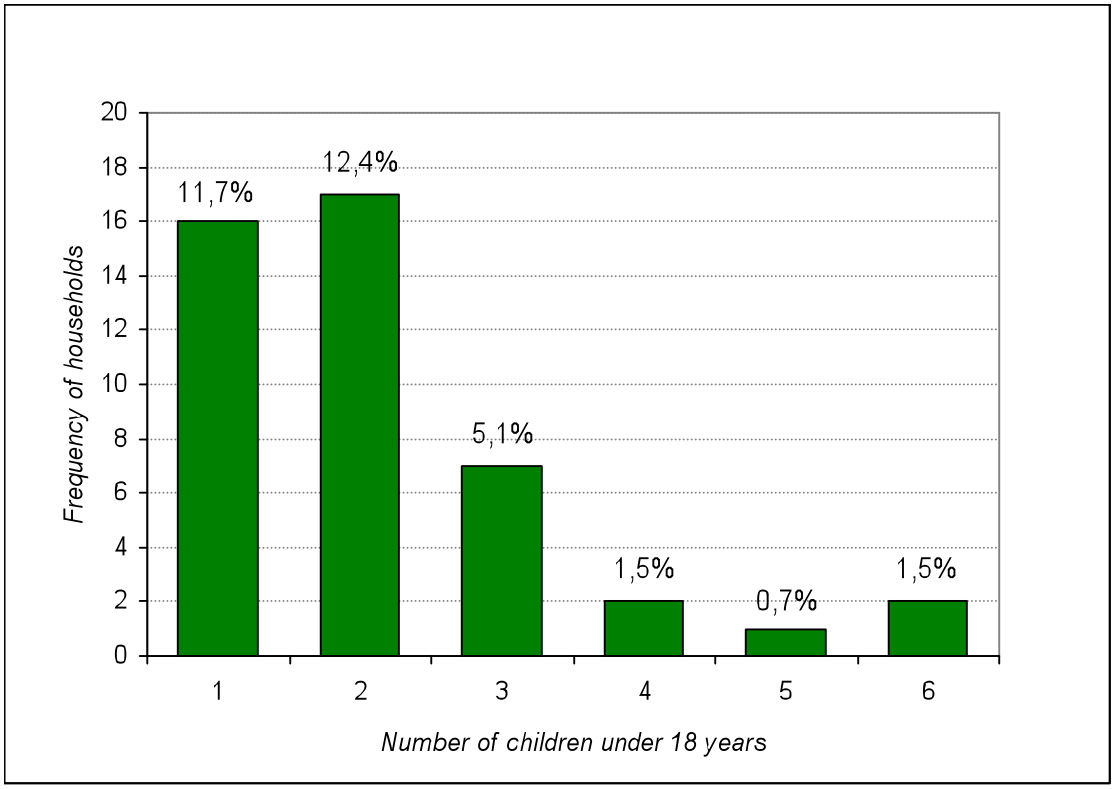


Figure 64 The number of single adult households with children in Glenmore.

The number of volunteers required to effectively implement the Single Parent Child Support Programme is also influenced by the spatial distribution of these households in the village (Figure 65) and the number of children per single adult household. The spatial distribution of these households indicating the number of children per household is depicted in Figure 66 as well as the zones and number of volunteers required to perform this programme based on a maximum of twelve children and eight households[6]. Based on these parameters, the Single Parent Child Support Programme would require six volunteer positions to implement the programme effectively based on six Volunteer Zones.

Family Roots Enhancement Programme

The Family Roots Enhancement Programme (FREP) is linked to the Single Parent Child Support Programme as it deals with the same group of residents

6 Households that have five or six children have been calculated as having four children for the purposes of defining volunteer zones. This response is due to, in many cases, not all five or six children live in the house permanently. Some children may be in boarding school elsewhere or live part-time with another relative.

i.e. single parents with one or more children. This programme provides counselling for single parents and is offered on a periodically. As this service is at a much higher level than the SPCSP as it is only offered when there are volunteers with appropriate skills and training in social work and counselling. One such volunteer would provide a service to all six zones identified in Figure 66. This programme also provides support and counselling for people in the host village who are divorced or widowed. The sample survey of Glenmore's permanent residents revealed that 10,1% of respondents was divorced (Figure 67).

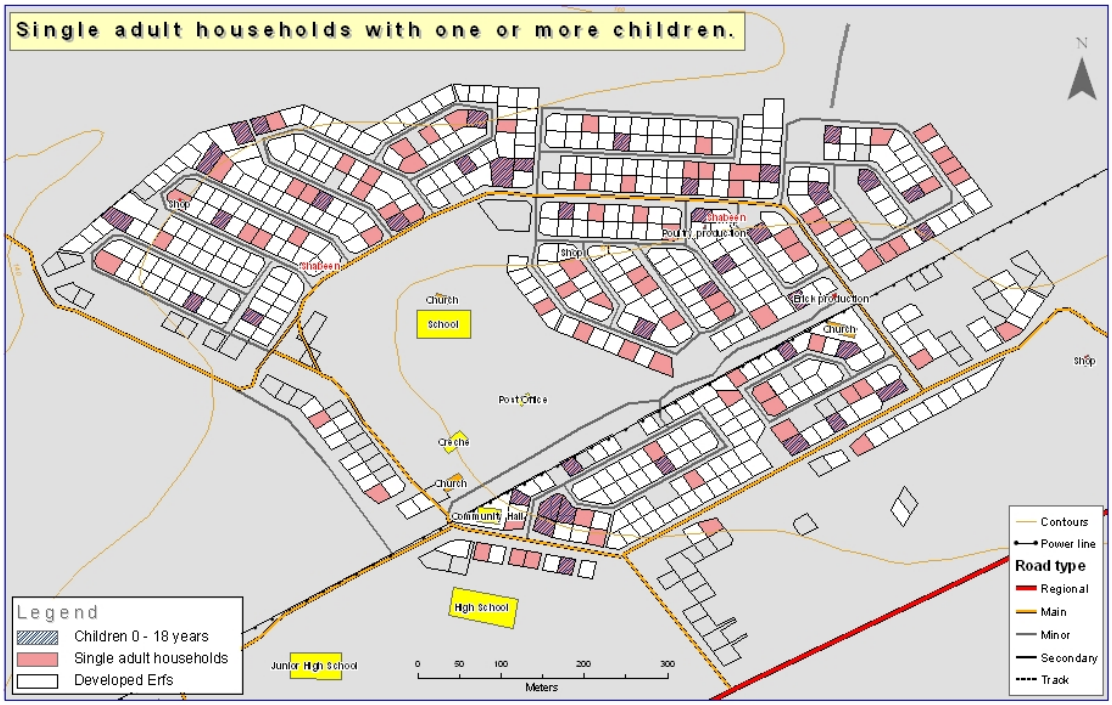


Figure 65 Single adult households with one or more children.

More female respondents (8,7%) were divorced than male respondents (1,4%) indicating that the RCCBC programme should focus more on providing for the needs of divorced women than men.

Seniors Care Programme

The Seniors Care Programme (SCP) is focused on elderly people in the community who need physical, health and social care. This programme takes the form of:

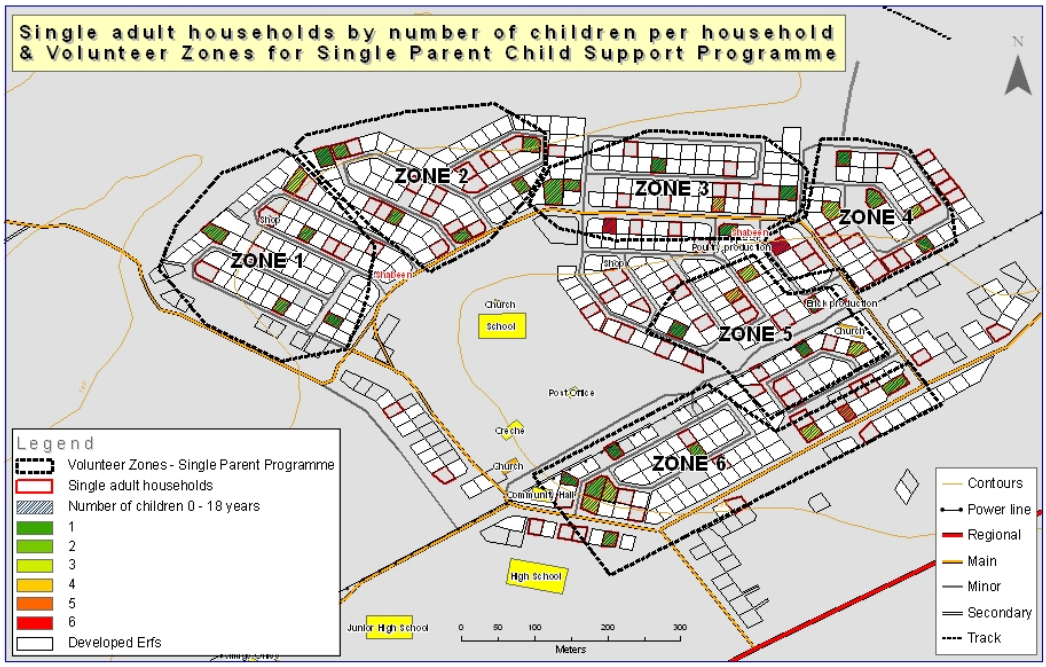


Figure 66 Single adult households by number of children per household and Volunteer Zones for Single Parent Child Support Programme.

- **Care giving** - help relieve people who take care of seriously ill or disabled friends or relatives.
- **Citizens Representative Program** - ensures that older citizens are represented on public commissions and community meetings.
- **Health Advocacy Services** - provides information on health, fitness, healthcare issues, and long-term care.
- **Mental Health, Social Outreach and Support** - help people deal with loneliness and life changes.
- **Retirement Planning** - helps elderly people manage retirement financially, physically and emotionally.
- **Widows Person Service** - offers support to the 12 widows in Glenmore (see Figure 67.)
- **Handyman service** – offers to assist with repairs and house maintenance.

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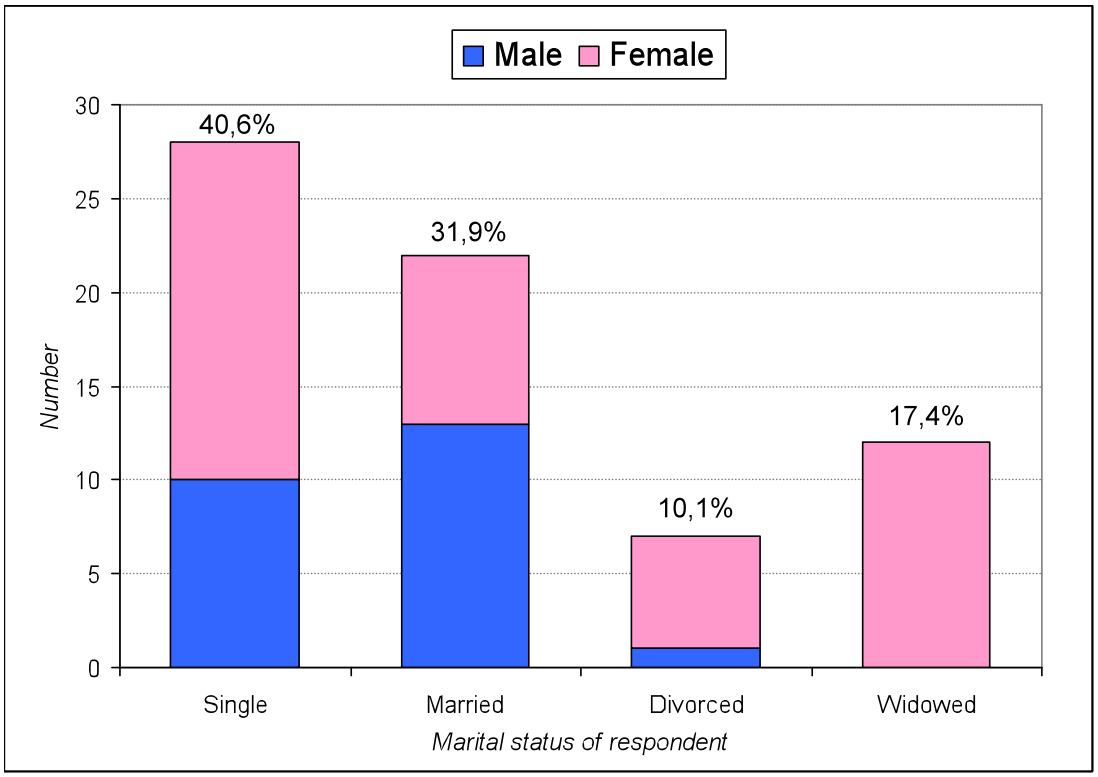

Figure 67 Marital status of respondents in sample survey of Glenmore's permanent residents.

- **Social events** – social events and outings for seniors.

A team of volunteers with different skills undertakes this programme. The size of the team is determined by the number of elderly people in the community, but particularly elderly people who live alone.

Glenmore has a population of 38 males and 75 females over the age of 65 years of which 4 males and 7 females live alone. The locations where these 113 senior citizens reside are depicted in (Figure 68) and are dispersed randomly throughout the village. The houses pictured in Figure 69 are typical of the houses in which Glenmore senior citizens reside.

The ratio stipulated by the RCCBC model of volunteer positions to elderly residents is one to ten. Therefore, eleven volunteer positions would be created in Glenmore for the Seniors Care Programme.

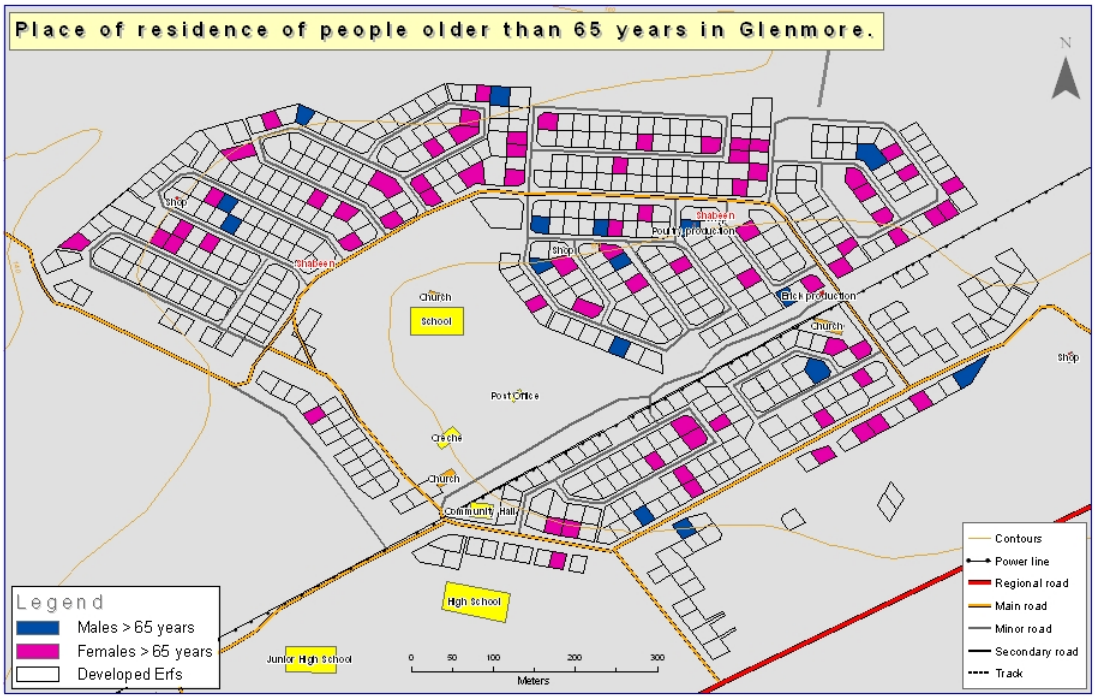

Figure 68 Place of residence of people older than 65 years in Glenmore.

Volunteer Crèche Programme

The Volunteer Crèche Programme (VCP) is an RCCBC programme that either provides a crèche facility or operates in support of existing crèches in the host community. Glenmore has a crèche situated near the centre of the village that caters for the 102 children under the age of six years. At present, there are less than fifty children that attend the crèche daily who are cared for by two crèche teachers. RCCBC guidelines for the VCP suggest one volunteer position per twenty children when providing support to an existing crèche. Therefore, two to three volunteer positions are required to provide adequate support through the VCP to the existing crèche in Glenmore.

Children's Play Programme

The Children's Play Programme (CPP) provides educational and recreational play programmes for junior school children from the ages of six to twelve years. This programme usually takes place after the formal school day has ended.

Figure 69 Photographs of typical houses and street scene in Glenmore village.

The Glenmore Census Survey determined that there are a total of 152 children between the ages of six and twelve years in Glenmore, comprising 71 boys and 81 girls. RCCBC guidelines for the CPP suggest one volunteer position per twenty children, preferable on a similar gender basis of volunteers to boys and girls. Therefore, ideally four female and three to four male volunteer positions are required to implement the Children's Play Programme effectively.

Teenager Sports and Social Programme

The Teenager Sports and Social Programme (TSSP) is aimed at children from the ages of 13 to 18 years. This is a programme that is structured to provide additional sports, cultural and social activities in addition to those provided by local schools. The TSSP is structured around a monthly

programme that is repeated throughout the year. This programme is orientated around separate sports activities for boys and girls, but includes social and cultural events and activities for both genders combined but stratified by age. RCCBC guidelines for the TSSP suggest one volunteer position per twenty children, preferable on a similar gender basis of volunteers to boys and girls.

The Glenmore Census Survey determined that there are 85 boys and 80 girls in this 13 to 18 years age group. Therefore, four male and four female volunteer positions are required to implement the Children's Play Programme effectively.

Academic Support Programme

The Academic Support Programme (ASP) is a programme that assists junior and high school children with their school homework and projects. The programme is run in conjunction with local schools and under the guidance of the schools teachers and management. Volunteers would require an appropriate education and teaching qualification to qualify to work on this programme. RCCBC guidelines suggest one qualified volunteer per class of twenty learners. As there are 317 children of the school going ages of 6 to 18 years in Glenmore, a maximum of sixteen ASP learner groups would therefore be required to implement this programme effectively based on RCCBC guidelines. However, the guidelines also suggest that the attendance at ASP sessions is likely to be as low as one third of children attending the local schools, of which there are three. Therefore, it is estimated that as few as five or six positions would be required for suitably qualified volunteers to deliver the ASP effectively.

There are 213 people in Glenmore in the young adult age group of which 112 are males and 101 are females. This age group is defined by the RCCBC programme as being from the age of 19 to 29 years of age. It is estimated that 89,4% of young adults in Glenmore are unemployed. Furthermore, the majority (70,5%) of these unemployed are women. This estimate is based on the results of the Sample Survey of Permanent Residents of Glenmore that revealed that 89,4% or 17 of the 19 respondents in the 19 to 29 years age

group were unemployed (see Table 25). Further interrogation of this data revealed that 12 of the 17 unemployed people in this age group were female and five were male.

Table 25 Employment status by gender and age category of respondents to the Sample Survey of Glenmore Residents.

Gender	Female				Male			
Employment Status	< 19 years	19 - 29 years	> 29 years	Total	< 19 years	19 - 29 years	> 29 years	Total
Unemployed	2	12	31	45	1	5	11	17
Employed	0	1	4	5	0	1	2	3
Total	2	13	35	50	1	6	13	20

There are two RCCBC programmes that are specifically aimed at young adults from the age of 19 to 29 years described in the paragraphs above. These programmes are the Young Adult's Social and Cultural Programme and the Young Adult's Skills Training Programme.

Young Adult's Social and Cultural Programme

Alcohol related social problems, crime, the lack of morals and violence were stated by respondents to be the problems that afflict the youth of Glenmore (Figure 70).

Many respondents believed that the one of the causes for these problems with Glenmore's youth is that there are a lack of facilities and services to entertain young people in the village or social societies with they can get involved. The provision of sports activities by the government was considered important by 9,5% of respondents while 6,8% thought that social and cultural clubs should be provide. Music related social and educational activity was also considered by 4,8% of respondents to be an important intervention that should be supplied by the government. To provide such activities as being

requested by respondents, the RCCBC would respond with its Young Adult's Social and Cultural Programme (YASCP).

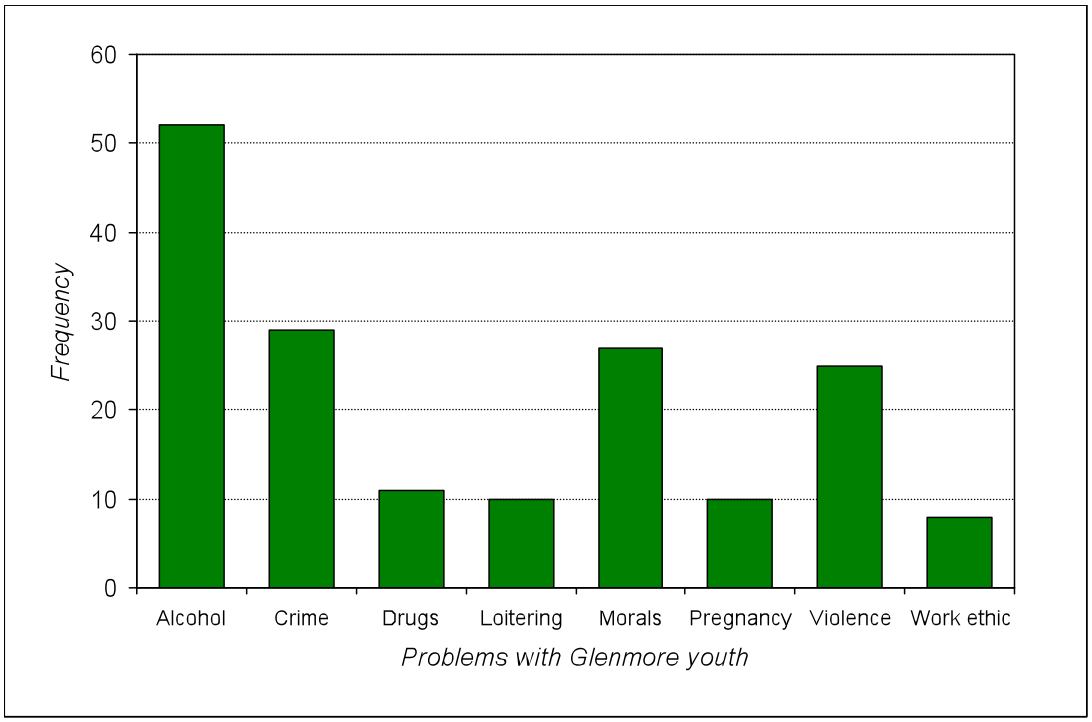

Figure 70 Respondent's perception as to the problems with the youth of Glenmore from the Sample Survey of Glenmore Residents.

The Young Adult's Social and Cultural Programme would be aimed at the 213 Glenmore residents in the young adult age group. This programme would construct a social meeting place for young adults in Glenmore where young adults can "hang out", listen to popular music, watch sports broadcasts and DVD's on a big screen, drink non-alcoholic beverages and socialize. This meeting place would take the form of a social club to which membership would be restricted to those young adults who have paid the token membership fee. This YASCP would also arrange social events, sports and cultural activities, educational expeditions and outings for its members.

The YASCP would provide funding to construct and partially furnish and equip the social meeting place structure or structures. The construction of the venue itself would be a separate, singular volunteer project requiring volunteers with building skills and knowledge. The functioning of the YASCP would require a team of volunteers to facilitate the social events, sports and cultural activities,

educational expeditions and outings for its members. The team of volunteers would require one long-term volunteer to ensure continuity and consistency of the YASCP. The programme could further accommodate on a short-term basis a wide range of other volunteers, depending on their skills and talents, such as music, dance, drama, sports, board games, etc.

Young Adult's Skills Training Programme

The Young Adult's Skills Training Programme (YASTP) is aimed at providing a range of skills to young adults not gained through their schooling. This programme consists of a range of skills that could be beneficial to host communities, which include computer skills, entrepreneurial and business skills, construction and building skills, appropriate small-scale manufacturing skills, and handicraft and sewing skills. Training programmes would be devised for each skill, which would be offered regularly within an appropriate time period depending on the availability of volunteers with appropriate skills to conduct such training effectively and to the required standard. The YASTP would be further guided by knowledge that 65% of respondents to the Sample Survey of Glenmore Residents had an education level of grade 11 or grade12 while slightly less than a third of respondents had a grade 8 to 10 education (Figure 71). No respondents in this age category had a post school education, which is likely to indicate that Glenmore residents do not return to Glenmore once they have a post school education.

Slightly more than a quarter of young adults (27,1%) claimed to possess skills that they considered to be important to assist them in securing employment in the short-term. However, most of these skills were related to domestic work, such as cooking (30,4%), cleaning (21,7%) and laundry (13,0%) (Figure 72).

This low level of skills, other than domestic help skills, amongst young adults indicates a strong need for employment orientated skills training for young adults. This training could be effectively provided to young adults through the Young Adult's Skills Training Programme

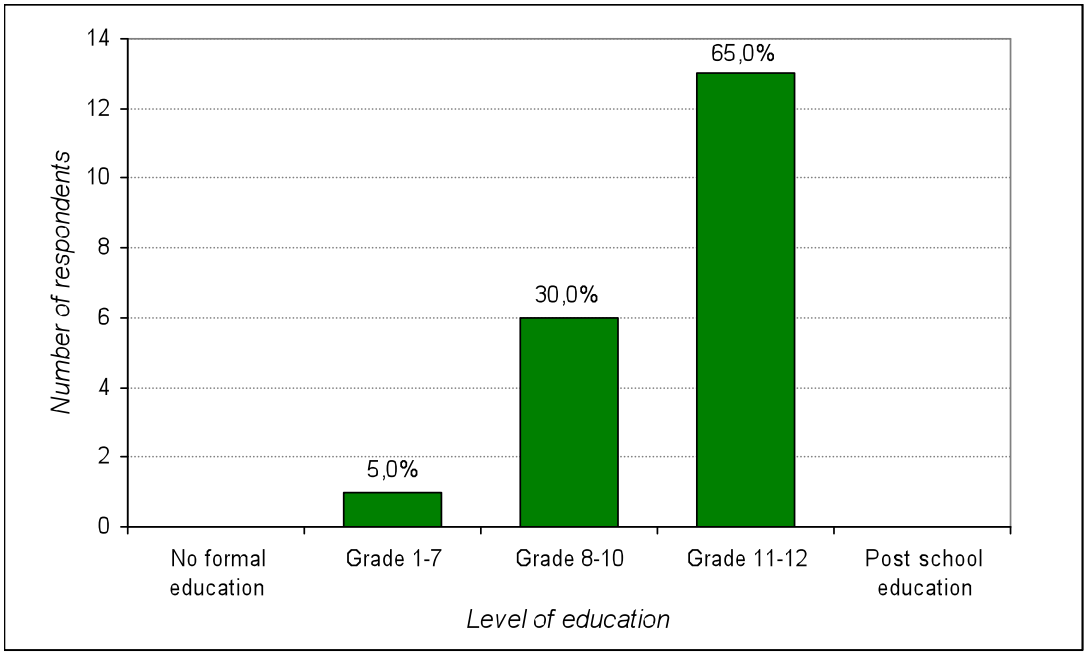

Figure 71 Level of education for the 19-29 years age category of respondents in Sample Survey of Glenmore Residents.

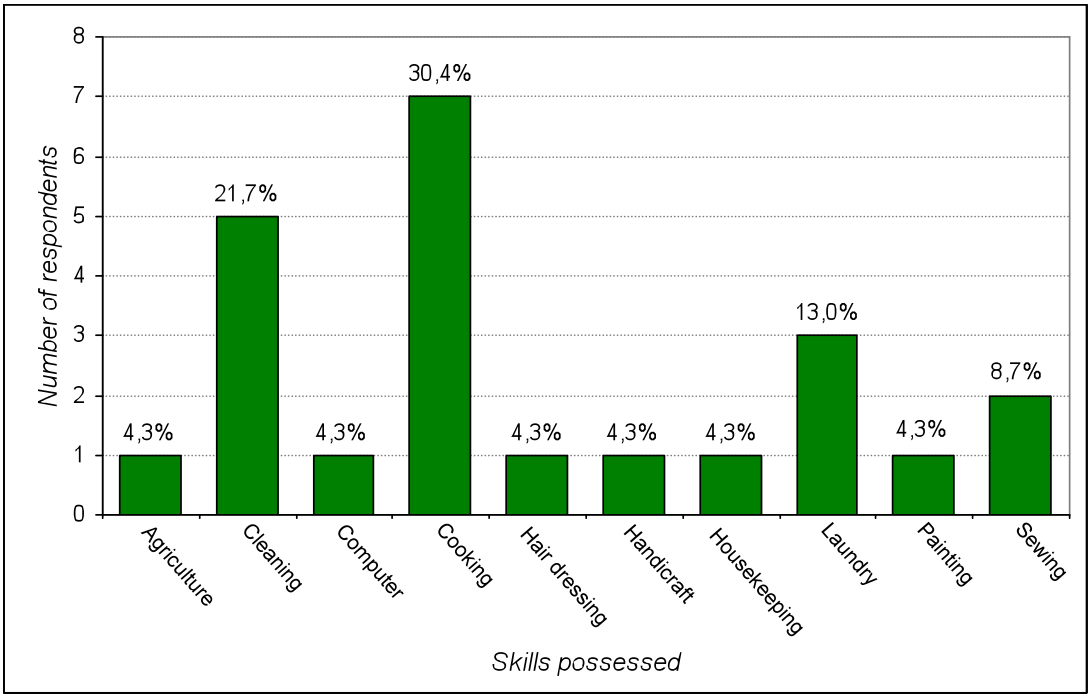

Figure 72 Skills possessed by respondents in the 19-29 years age category of Sample Survey of Glenmore Residents.

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5.3.2 Availability of skilled labour force

The third reason stated by the RCCBC model to assess the profile of the host community was to establish if the necessary skilled labour force was present in the host community to support the research and tourism components of the RCCBC model or not. The labour and skills requirements of these components are described in this section. The labour force of Glenmore is determined and assessed against the labour and skills requirements of the research and tourism components of the RCCBC model. This assessment will strive to determine whether or not Glenmore has the necessary skilled labour force present to support the envisaged research and tourism components of the RCCBC model.

Field research assistants and field guides

The research component of the model requires that there be a pool of trained field research assistants and field guides from the host community to assist with research and monitoring programmes. There are two categories of field research assistants, namely scientific research assistants and monitoring assistants.

Scientific research assistant

Scientific research assistants are the most qualified, skilled and competent of the assistants as this person's function is to provide research assistance and logistical support to researchers undertaking research projects in the Great Fish River Nature Reserve, the laboratory and clerical support such as data capture and mapping.

Monitoring assistants

Monitoring assistants are trained to accompany and oversee volunteers who participate in the RCCBC Volunteer Conservation Programme where routine monitoring of certain aspects of the environment are undertaken on a regular and continuous basis.

Profile of scientific research assistants and monitoring assistants

The profile of scientific research and monitoring assistants preferred by the RCCBC model is that they be young adults that are physically fit, possess a

grade 11 or 12 educational qualification, are not in full-time employment in the host community and may be male or female. Data from the Sample Survey of Glenmore Residents reveals that there are 3 male and 11 female respondents that meet these criteria, with the exception of physical fitness criteria which were not assessed by the sample survey. These respondents represent 4,3% and 15,7% of all the survey respondents which, when projected onto the total population of Glenmore, translates to 49 males and 180 females from which research and monitoring assistants could be selected. The number of research and monitoring assistants required by the research and monitoring programmes will vary according to what research is being undertaken, the number of volunteers enrolled in the Volunteer Conservation Programme and the number, nature and extent of monitoring programmes taking place in the Great Fish River Nature Reserve at any given time. However, the strategy of the RCCBC model is that a pool of research and monitoring assistants are trained from which assistants are drawn when needed by any of the research and monitoring programmes. Three outcomes-based training courses will be provided, namely General Field Assistant, Monitoring Assistant and Research Assistant training courses. The courses become progressively more comprehensive from General Field Assistant to Research Assistant and the assessment criteria become more stringent. Admission to the next level of course is restricted to 50% of learners based on those that achieve the higher assessments. The RCCBC model recommends that 60 learners be trained for level one General Field Assistants, 30 for level two Monitoring Assistants and 15 for level three Research Assistants. Therefore, the research and monitoring programme would need to select at least 26% of Glenmore residents with the appropriate profile for training for the Research and Monitoring programmes.

Hospitality and tourism

The tourism component of the model requires that there be a pool of trained hospitality and tourism recruits in the host community from which to award concessions for various hospitality and tourism functions in the RCCBC compound. Concessions would be awarded to a single or collective of entrepreneurs. Only residents of Glenmore who have lived in Glenmore for

more than two years would be eligible for such concessions. Concessions would be awarded to the most suitable concessionaire based on training qualifications, competency and price. Concessions would be conditional to performance standards and guarantees. Concessions would be revoked for non-compliance to performance standards stipulated in concession agreements. A new concession would be negotiate for this function with a new party.

Host community concessions

The RCCBC model suggests that the following hospitality and tourism functions would be concessioned to concessionaires from the Glenmore community, namely (1) General housekeeping of the Backpacker Lodge, research accommodation and public facilities; (ii) laundry service for all functions in the RCCBC compound; (iii) general maintenance of the RCCBC compound; (iv) restaurant and meals service for Backpackers Lodge and long-term researchers; (v) operations and management of a bar service in the Backpackers Lodge and sundowners bar; (vi) operation and management of the trails base camp situated on the banks of the Great Fish River; (vii) operation and management of multi-day hiking trails in the Great Fish River Nature Reserve; and (viii) the operation and management of visitor recreation facilities and activities from the Backpacker Lodge such as mountain bike rides, canoeing, walking tours in village amongst others. These concessions would be issued over a period of time as and when the particular function becomes operational based on the development programme of the RCCBC model in Glenmore.

In the following section an assessment of the Glenmore labour force will be undertaken to determine whether or not it has the capacity to supply the needs of two of the proposed concessions listed above, namely (1) general housekeeping of the Backpacker Lodge, research accommodation and public facilities; and (ii) laundry service for all functions in the RCCBC compound.

Concessions 1 and 2: General housekeeping of the Backpacker Lodge, research accommodation and public facilities and laundry service for all functions in the RCCBC compound

These concessions would be awarded to one or two separate concessionaires that could provide the full range of housekeeping and / or laundry services required for the Backpackers Lodge, the accommodation in which long-term researchers reside and all other public facilities such as the research centre, resource centre, administration offices and stores.

Data from the Sample Survey of Glenmore Residents is assessed to establish if the labour force with appropriate skills exists in Glenmore to take up these concessions. Hospitality skills (catering, cleaning, cooking, housekeeping, laundry and waitressing) were the most common skills possessed by respondents of the Sample Survey of Glenmore Residents contributing 55,7% of all skills available in the community (Figure 73).

Women predominantly possess hospitality skills (98,8%) with only one man claiming to possess hospitality related skills. A detailed assessment of hospitality skills reveals that housekeeping (33,7%), laundry (31,3%) and cooking (27,7%) are the most common skills professed by respondents (Figure 74). Only six percent of respondents claimed to have catering skills with only one respondent having experience as a waitress.

The majority of respondents (92,8%) with hospitality skills were unemployed rendering them eligible to bid for Concession 1. A further analysis of unemployed respondents with hospitality skills revealed the a third were in the 19 to 29 years age group (Table 26).

This age group is also being targeted for research and monitoring assistant's positions on the Scientific Research and Volunteer Conservation Programmes.

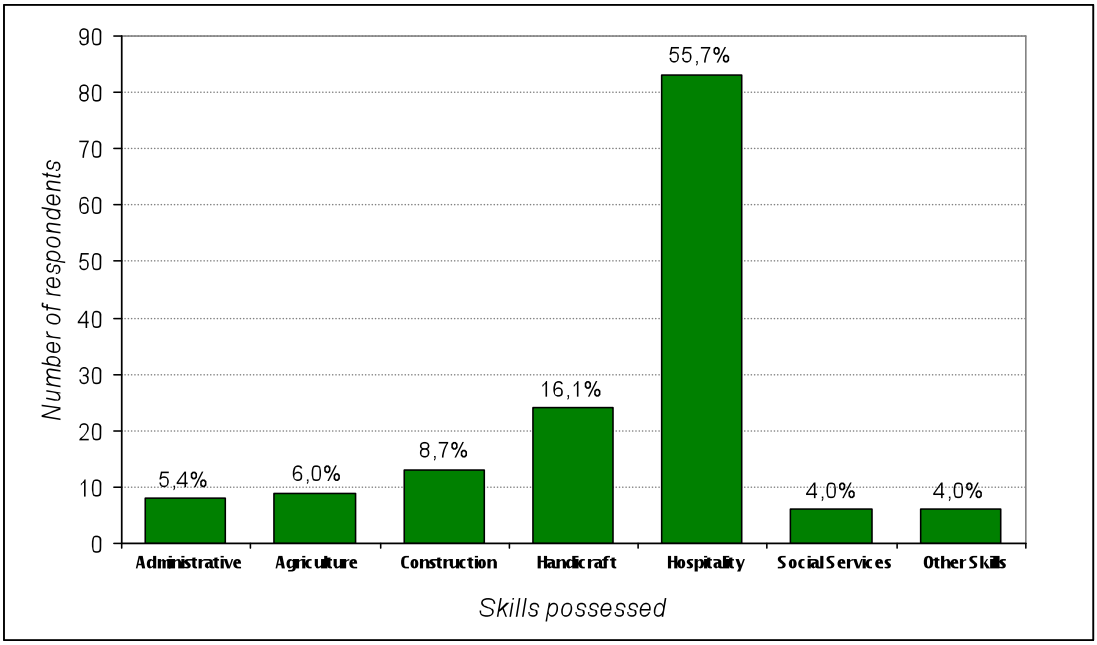

Figure 73 Skills possessed by respondents of all ages by category from Sample Survey of Glenmore Residents.

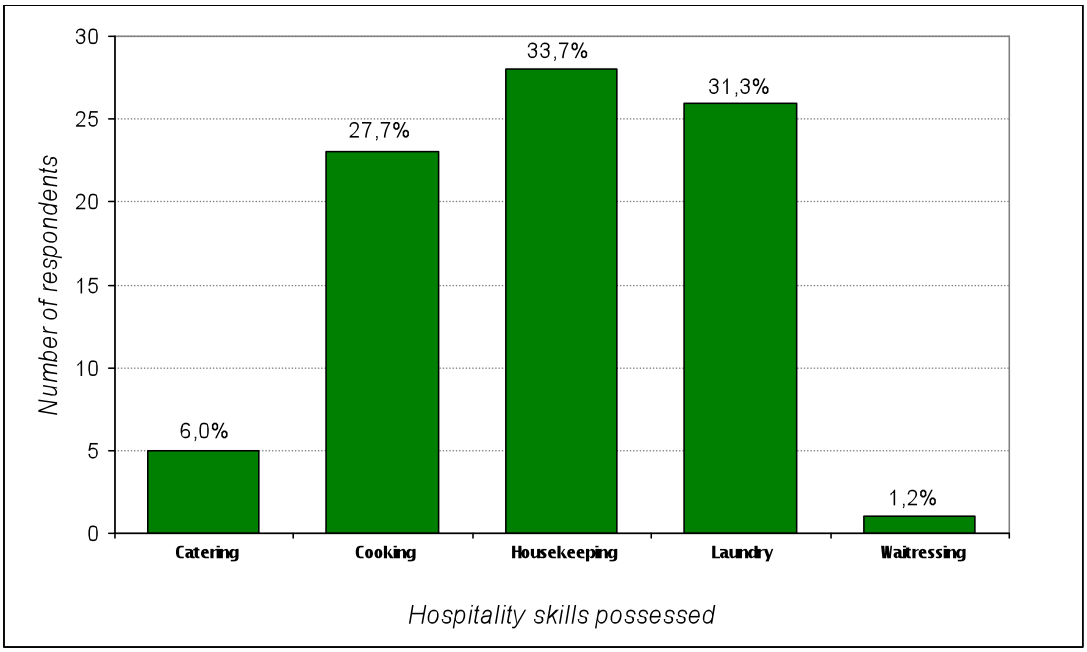

Figure 74 Skills possessed by respondents of all ages by hospitality sub-categories from Sample Survey of Glenmore Residents.

Table 26 Skills possessed by unemployed respondents by age category for the hospitality sub-categories extracted from the Sample Survey of Glenmore Residents.

Hospitality Skills	Age category						Total	Percentage
	< 19 years	19 - 29 years	30-39 years	40-49 years	50-59 years	> 60 years		
Catering	0	1	0	1	1	1	4	5,2%
Cooking	2	9	3	1	2	4	21	27,3%
Housekeeping	2	7	2	8	4	3	26	33,8%
Laundry	0	8	4	3	4	6	25	32,5%
Waitressing	1	0	0	0	0	0	1	1,3%
Total	5	25	9	13	11	14	77	
Percentage	6,5%	32,5%	11,7%	16,9%	14,3%	18,2%		100,0%

In order to obtain a more equable distribution of benefits to older people in the community, a further stipulation in the criteria required to tender for Concession 1 would be that all members of the concession team would need to be older that thirty years old. This additional selection criterion would restrict to 61% the size of the pool (Figure 75) of available, unemployed people with hospitality skills available to tender for housekeeping concessions in the RCCBC compound.

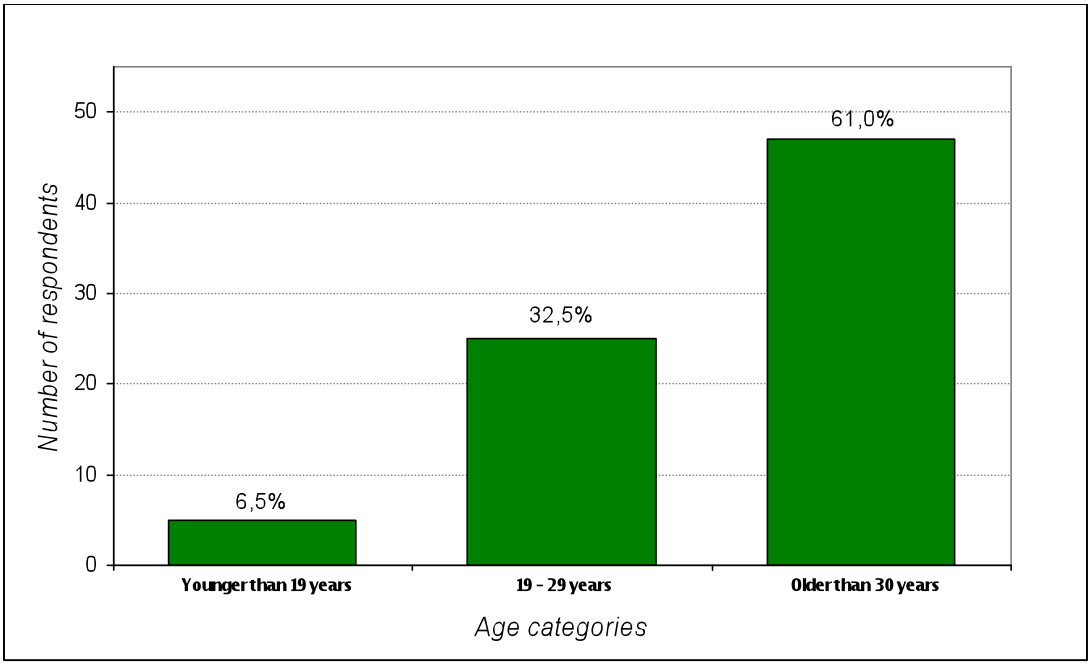

Figure 75 Skills possessed by unemployed respondents by combined age categories for the hospitality category extracted from the Sample Survey of Glenmore Residents.

Extrapolating this knowledge from the sample survey onto the population of Glenmore indicates that there are 704 appropriate skill units from which to select a concessionaire to undertake Concession 1. However, in many cases one person may account for more than one skill unit thus lowering the number of people in the pool to 644 people. The mean and median number of skills per unemployed respondent with hospitality skills as determined by the Sample Survey of Glenmore Residents is 1,86 and 2 skills respectively whereas the maximum number of skills per respondent was four.

It therefore can be concluded that there are sufficient unemployed people in Glenmore that are thirty years and older who have the appropriate skills to tender for Concession 1: General housekeeping of the Backpacker Lodge, research accommodation and public facilities and Concession 2: laundry service for all functions in the RCCBC compound.

5.4 Compliance to RCCBC conditions

The RCCBC model defined a wide range of criteria and guidelines to which the GFRNR and preferred host community, Glenmore, needed to comply. A research methodology was established to gather data that was necessary to assess whether or not the GFRNR and Glenmore were compliant to the four primary conditions of the study aims: tourism conditions, geographic conditions, social and research conditions. Each of the four conditions has been discussed in this chapter. An assessment of whether or not whether or not the tourism, geographic, social and research conditions necessary for the future implementation of the RCCBC model are present in the study area will be concluded in the next and final chapter, Chapter 6.

CHAPTER 6 CONCLUSION

The aims of this research were to establish whether or not the tourism, geographic, social and research conditions necessary for the future implementation of the RCCBC model are present in the study area. These aims were to be realized through five objectives that were discussed in Chapter 5. Conclusions will be made for each objective to determine support for the study aims that the necessary tourism, geographic, social and research conditions are present in any of the local communities situated in close proximity to the GFRNR for the implementation of the RCCBC model.

The first objective was to determine whether or not there was potential to conduct ongoing research programmes in the GFRNR as defined by the RCCBC model. The Strategic Management Plan for the GFRNR emphasises knowledge management. This management includes monitoring key biodiversity indicators, implementing research programmes for key conservation management issues and implementing a strategy for information technology to support monitoring and research functions in the Reserve. ECPB staff is implementing the key performance areas of the SMP in a phased manner as required resources and funding become available. The project register of the ECPB lists sixteen research projects that are currently being undertaken by researchers external to the ECPB. Thirteen of the 16 projects were assessed to be appropriate and suitable for the RCCBC's research and volunteer programmes. A literature search revealed that 210 references were identified to specific scientific research projects in the Great Fish River Nature Reserve and its immediate surrounds. The nature of these research projects and those currently listed on the ECPB research register led to the conclusion that there was sufficient scientific interest in the GFRNR to sustain ongoing scientific research and monitoring programmes in the Reserve. It was therefore further concluded that the GFRNR had the potential to host and support the Scientific Research and Volunteer Conservation programmes of the RCCBC model.

The second objective was to determine whether or not the tourism resources of the Great Fish River Nature Reserve and its region are appropriate for the

implementation of the RCCBC model. The GFRNR and its region were assessed for suitability relative to eight guidelines provided by the RCCBC model for this purpose. Based on these guidelines it was concluded that:

(i) The Great Fish River Nature Reserve is situated in a region with an established tourism plant.

(ii) The Great Fish River Nature Reserve is located with a 50-kilometre radius of three popular tourist destinations, Grahamstown, Port Alfred and Hogsback.

(iii) The Great Fish River Nature Reserve is located within 25 kilometres of two tour routes: the N2 Tour Route and the Hogsback Tour Route.

(iv) The Great Fish River Nature Reserve is located within fifty kilometres of four other ECPB nature reserves, two private game reserves and Addo Elephant National Park.

(v) The Great Fish River Nature Reserve and Glenmore are accessible to tourists driving 2x4 sedan vehicles.

(vi) The potential exists to link the Great Fish River Nature Reserve to nearby tourist destinations by means of public tourist transport suitable to backpackers and independent tourists.

(vii) The Great Fish River Nature Reserve has its Frontier Wars history as a single primary, draw-card attraction that sets it apart from other protected areas in the region.

(viii) The Great Fish River Nature Reserve has an existing tourism infrastructure that is operational and maintained.

Therefore, it was concluded that the tourism resources of the Great Fish River Nature Reserve and its surrounding region complied with the RCCBC model's guidelines for suitability.

The third objective was to select the most appropriate and suitable host community for implementation of the RCCBC model. Ten villages and settlements within a four-kilometre radius of GFRNR were assessed and Glenmore was identified as the most appropriate and suitable, because Glenmore:

- Has more than 200 households.
- Is an established community with a sense of identity and history with well established community leadership structures and services.
- Is situated next to a main rural road that is in good condition that links it to the tourism town of Grahamstown.
- Has good, direct access to the Great Fish River Nature Reserve.
- Has a full range of social and community services.
- Is serviced with bulk water, power and telecommunications.

Therefore, it was concluded that Glenmore was the most appropriate and suitable host community of all the communities situated within four kilometres of the GFRNR.

The fourth objective was to identify and select the most appropriate development zone in the preferred community in which RCCBC products and programmes could be developed. Three potential tourism development zones were identified in the Glenmore precinct. Each TDZ was rated on the rating schedule RCCBC's Tourism Development Zone Assessment Model. The northern TDZ scored 614 points, the Western TDZ's 421 points and Eastern TDZ's 299 points on this rating schedule. Therefore, the northern TDZ was considered the most suitable for the establishment of RCCBC products and programmes. It was further concluded that there was an appropriate development zone for the establishment of RCCBC products and programmes in Glenmore.

The fifth objective was to assess the demographic and social nature of Glenmore, the preferred community, for compliance with the demographic and social criteria defined by the RCCBC model for preferred host communities.

Glenmore complied with the first demographic criteria defined by the RCCBC model by exceeding the minimum number of households required in the preferred community by 376 households. However, the trend of population out-migration from Glenmore to larger urban areas was noted as a concern. Glenmore also complied with the second demographic criteria that a large proportion of the host population should consist of children and old people. Children up to the age of 18 years comprises 36,4% of the population of Glenmore while elderly people over the age of 65 years comprise 9,8% of the population. Therefore, it was concluded that Glenmore met the second demographic requirement of the RCCBC model that a sufficient proportion of the population of the preferred village were children and old people.

A social profile of Glenmore residents was established to determine which of the range of RCCBC Volunteer Social Programmes could be established in Glenmore based on the guidelines of the RCCBC model. The social profile of Glenmore's residents was assessed to be appropriate for the functioning of the Single Parent Child Support Programme, Family Roots Enhancement Programme, Seniors Care Programme, Volunteer Crèche Programme, Children's Play Programme, Teenager Sports and Social Programme, Academic Support Programme, Young Adult's Social and Cultural Programme and Young Adult's Skills Training Programme.

The social profile of Glenmore's residents was also used to determine whether or not the necessary skilled labour force was present in the host community to support the research and tourism components of the RCCBC model. The RCCBC model recommended that 60 learners be trained for level one General Field Assistants, 30 learners for level two Monitoring Assistants and 15 learners for level three Research Assistants. Analysis of the social profile of Glenmore's residents revealed that there were sufficient residents with an appropriate social profile who could be trained to participate in the

Research and Monitoring programmes, thus making the operation of the programme practical and viable.

The tourism component of the RCCBC model required that there be a pool of trained hospitality and tourism recruits in the host community from which to award concessions for various hospitality and tourism functions in the RCCBC compound. The RCCBC model identified eight hospitality and tourism concessions that were appropriate to Glenmore, two of which would be assessed by this research study. An assessment of the demography and social profile of Glenmore's residents revealed that there are sufficient unemployed people in Glenmore that are thirty years and older who have the appropriate skills to tender for Concession 1 (General housekeeping of the Backpacker Lodge, research accommodation and public facilities) and Concession 2 (Laundry service for all functions in the RCCBC compound). It was therefore concluded that the demographic and social nature of Glenmore complied with the demographic and social criteria defined by the RCCBC model for a RCCBC host community.

The aim of this research study was to establish whether or not the tourism, geographic, social and research conditions necessary for the future implementation of the RCCBC model are present in the study area. Glenmore was identified as the most appropriate and suitable community out of ten communities situated within a four-kilometre radius of the Great Fish River Nature Reserve when assessed against the five objectives that were to realise this research study. Therefore, it can be concluded that this research study's aims are valid that the tourism, geographic, social and research conditions necessary for the future implementation of the RCCBC model are present in the study area.

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APPENDIX A: REGISTER OF SCIENTIFIC RESEARCH PROJECTS UNDERTAKEN IN ECPB RESERVES

Register of scientific research projects undertaken in reserves managed by the Eastern Cape Park Board.

ECP Number	Title	Researcher	Project Title	Reserves	ECP	Application	Project
RA 0001 Completed	Dr	Dube, Sikhalazo	Restoration of degraded land at the Tsolwana Game Reserve in the Eastern Cape	Tsolwana	Jan Venter	Approved	
RA 0002 Completed	Mr	Van der Wath, J.C.	Habitat suitability for buffalo in the Baviaanskloof area	Baviaanskloof	Jan Venter	Approved	
RA 0003 Abandoned	Ms	Willows-Munroe, Sandy	The molecular evolution of African shrews	Baviaanskloof, Groendal	Dean Peinke	Approved	
RA 0004 Completed	Mr	Weatherall-Thomas, Clayton	Seed germination and seedling survival in mesic thickets of the Eastern Cape	Umtiza	Dean Peinke	Approved	
RA 0005 Completed	*Mr*	*Voigt, Werner*	*Ex-situ conservation of indigenous flora from the Eastern Cape Province by means of ongoing observation, exploration, examination, collection, cultivation, research, awareness and education at Kirstenbosch National Botanical Gardens*	*All Reserves*	*Jan Venter*	*Approved*	
RA 0006	Mr	Weatherall-Thomas,	Seed germination and seedling survival in the	Thomas Baines	Dean Peinke	Approved	

Completed						
		Clayton	mesic thickets of the Eastern Cape			
RA 0007 Completed	*Mr*	*Tshabalala, Thulani*	*Shift of forage resources by buffalo in different seasons and their utilization of forage in different vegetation types at the Great Fish River Reserve*	*Great Fish*	*Dean Peinke*	*Approved*
RA 0008 Completed	Prof.	Craig, Adrian	Moult, movements and longevity of forest birds	Fort Fordyce	Jan Venter	Approved
RA 0009 Completed	Dr	Hawkins, Heidi-Jayne	Linking biodiversity stewardship and commercial labeling on honey bush farms	Baviaanskloof	Jan Venter	Approved
RA 0010 Abandoned	*Ms*	*Bursey, Mary*	*Biodiversity and biogeography of terrestrial Molluscs*	*All Reserves*	*Dean Peinke*	*Approved*
RA 0011 Abandoned	*Ms*	*Papenhuijzen, Gay*	*Utilization and structure of warthog burrows and their role in promoting biodiversity*	*Great Fish*	*Dean Peinke*	*Approved*

ECP Number	Title	Researcher	Project Title	Reserves	ECP	Application	Project
RA 0012 Completed	*Ms*	*Peel, Briony*	*The effect of the re-introduction of cheetah on the social behaviour and time of activity of prey species in Mountain Zebra National Park*	*Great Fish*	*Dean Peinke*	*Approved*	
RA 0013 Progress	*Mr*	*Potts, Alastair*	*Phylogeographic study of the succulent Karoo and subtropical thicket biome in the little Karoo*	*All Reserves*	*Jan Venter*	*Approved*	*In*
RA 0014 Completed	Mr	Lotz, Leon	Collecting Arachnida for the South African National survey of Arachnids	Baviaanskloof	Jan Venter	Approved	
RA 0015 Completed	*Mr*	*Van den Broeck, Dieter*	*Vegetation monitoring and mapping at Great Fish River Reserve*	*Great Fish*	*Dean Peinke*	*Approved*	
RA 0016 Completed	*Prof.*	*Lent, Peter*	*Does the presence of black rhinoceros have an influence on the diet, foraging behaviour and density of greater kudu in the Great Fish River Reserve*	*Great Fish*	*Dean Peinke*	*Approved*	
RA 0017 Completed	*Prof.*	*Lent, Peter*	*Re-examining the impact of black rhino's and other biotic factors on populations of tree*	*Great Fish*	*Dean Peinke*	*Approved*	

			euphorbs in the Great Fish River Reserve				
RA 0018	Prof.	Kerley, Graham	Socio-economic and ecological correlates of the leopard-stock farmer conflict in the Baviaanskloof Mega-reserve, Eastern Cape	Baviaanskloof	Jan Venter	Approved	
RA 0019	*Prof.*	*Kerley, Graham*	*Warthogs as an invasive species in the Eastern Cape, South Africa*	*Great Fish*	*Dean Peinke*	*Approved*	*In Progress*
RA 0020	*Prof.*	*Underhill, Les*	*Southern African Butterfly Conservation Assessment*	*All Reserves*	*Sacha Peinke*	*Approved*	*In Progress*
RA 0021	Dr	Ahrens, Dirk	Molecular systematics and taxonomy of South African Sericinae	Cwebe, Luchaba, Mkambati, Silaka, Umtiza	Sacha Peinke	Approved	In Progress
RA 0022	Prof.	Cowling, Richard	The genetic structure of Protea lorifolia populations - Does a Protea lorifolia subspecies exist in the fynbos biome?	Baviaanskloof	Jan Venter	Approved	Completed
RA 0023	*Prof.*	*Horak, Ivan*	*A taxonomic description of the immature stages of four ticks of the Rhipicephalus genus*	*Great Fish, Thomas Baines*	*Dean Peinke*	*Approved*	*Completed*

RA 0024 for	Mr	Haemmerli, Serge	Systematics of Phyliceae	Formosa	Sacha Peinke	Approved	Waiting
ECP Number	**Title**	**Researcher**	**Project Title**	**Reserves**	**ECP**	**Application**	**Project**
RA 0025	Prof.	Kerley, Graham	Predator and prey assessments and interactions in the Baviaanskloof: a camera trap study	Baviaanskloof	Jan Venter	In Process	
RA 0026	Prof.	Bernard, Ric	The spatial ecology of free-ranging leopards in the Baviaanskloof, Eastern Cape Province	Baviaanskloof	Jan Venter	In Process	
RA 0027 Progress	Dr	Muasya, Abraham	Evolutionary, phylogenetic, nutritional and taxonomic studies in the plant families Cyperaceae and Fabaceae in Southern Africa	Baviaanskloof, Groendal	Jan Venter	Approved	In
RA 0028 Progress	Prof.	Grobler, Paul	Geographic and genetic variation among southern African vervet monkey populations	Baviaanskloof, Mpofu, Tsolwana	Dean Peinke	Approved	In
RA 0029 Progress	Prof.	Craig, Adrian	Moult, movement and longevity of forest birds	Fort Fordyce	Sacha Peinke	Approved	In
RA 0030 Progress	Dr	Carlson, Jane	Exploring the mode of speciation in the South African genus Protea (Proteaceae)	Baviaanskloof, Mpofu	Sacha Peinke	Approved	In
RA 0031 Completed	Dr	Rutherford, Mike	Degradation thresholds of plant species	Tsolwana	Dean Peinke	Approved	

			extirpation - national pilot study				
RA 0032	Dr	Mzilikazi, Nomakwezi	Environmental and ecological correlates of energy balance in free-ranging woodland doormice, Graphiurus murinus	Great Fish	Dean Peinke	Approved	In Progress
RA 0033	Dr	Niba, Augustine	Invertebrate assemblage dynamics and their response patterns to variable landscape elements in the former Transkei of the Eastern Cape	Cwebe, Dwesa, Luchaba, Nduli, Silaka	Jan Venter	Approved	In Progress
RA 0034	*Dr*	*Do, Emmanuel*	*Species co-existence in an assemblage of small African carnivores (Great Fish River Reserve, Eastern Cape Province)*	*Great Fish*	*Dean Peinke*	*Approved*	*In Progress*
RA 0035	Prof.	McQuaid, Christopher	Modification of landscapes: Marine parks as a source of colonists for neighbouring landscapes	Dwesa, Huleka	Jan Venter	Approved	In Progress
RA 0036	Prof.	Groeneveld, Rolf	Valuating and financing the benefits of restoration of the ecosystem service water regulation, in the subtropical thicket biome	Baviaanskloof	Jan Venter	Approved	In Progress

ECP Number	Title	Researcher	Project Title	Reserves	ECP	Application	Project
RA 0037 Progress	Prof.	Bamford, Marion	Is southern Africa different? An investigation of the relationship between leaf physiognomy and climate in southern African mesic vegetation, with application to	East London Coast, Fort Fordyce, Oviston, Silaka	Sacha Peinke	Approved	In
RA 0038 Progress	*Prof.*	*Schlichting, Carl*	*Evolutionary Diversification in the plant Genus Pelargonium*	*Great Fish*	*Dean Peinke*	*Approved*	*In*
RA 0039 for	*Dr*	*Rambau, Victor*	*The phylogeography of the southern African vlei rat, Otomys irroratus, inferred from nuclear Contract (Chromosomal and nuclear genes) and Mitochondrial DNA markers*	*Baviaanskloof, Commando Great Fish, Groendal, Thomas Baines*	*Dean Peinke*	*Approved*	*Waiting Drift,*
RA 0040	Ms	Letsela, Limpho	Participation of the local communities in conservation and management of biodiversity at Silaka Nature Reserve, Eastern Cape Province, South Africa	Silaka	Sacha Peinke	In Process	

APPENDIX B: TDZ ASSESSMENT MODEL

Introduction

The TDZ Assessment Model was developed by tourism development planning consultants, Robford Tourism, specifically to compare and assess alternate tourism development zones for the RCCBC model. The model provides an objective manner in which to assess alternate development zones against a set of criteria that need to be considered when developing a RCCBC development precinct. These criteria are grouped into sets of criteria such as (a) physical characteristics of the TDZ, (b) visual considerations, (c) audio considerations, (d) water considerations, and (e) access considerations. Each set of criteria consist of a number of sub-criteria against which the alternate TDZ's are assessed. This assessment is based on a six point score from 0 to 5, where zero is the most negative assessment and five the most positive. Each score for every sub-criterion has a pre-defined description in order to ensure consistency of assessment between TDZ's and alternative locations for other RCCBC models (Table 24).

Table 27 An example of a ranked scoring system with scores and descriptions for a sub-criterion.

Existing water reticulation infrastructure	***0***	***1***	***2***	***3***	***4***	***5***
The extent and condition of the existing water reticulation network and the amount of energy and resources that are required to upgrade it to required standards for proposed development.	**No existing water reticulation present.** Completely new reticulation network needs to be installed.	Existing water reticulation requires **extensive modification and redevelopment.**	Existing water reticulation infrastructure requires **major modification.**	Existing water reticulation infrastructure requires **modification.**	Existing water reticulation infrastructure requires **minimal modification.**	Existing water reticulation infrastructure **suitable with sufficient capacity** for proposed long term development of site.

In order to achieve a realistic representation of sub-criteria, they may be weighted according to perceived level of importance. This weighting for each sub-criteria needs to be agreed upon after debate amongst the consultants undertaking the assessment. A sub-criterion that is considered critically important would receive a score of 10, where as a sub-criterion considered not being important would score a 1. Scores are summed for each tourism development zone being assessed. These summations are undertaken for all criteria combined and also for each set of criteria. The TDZ that achieves the highest score would be considered the most appropriate, based on this model, for the development of RCCBC precinct.

Glenmore RCCBC Tourism Development Zones

Three TDZ's were identified in the **immediate** vicinity of Glenmore and were named the Northern TDZ, Western TDZ and Eastern TDZ. The process by which these TDZ's were identified is documented in Chapter 4. The three TDZ's identified near Glenmore are depicted in Figure 76.

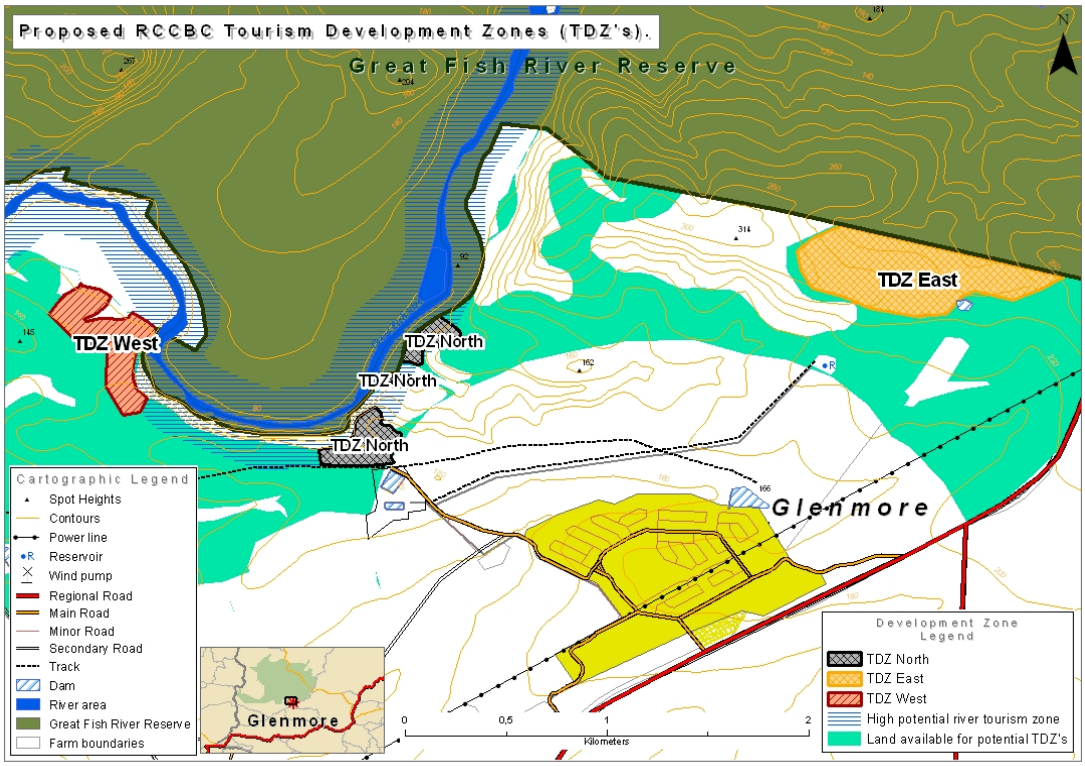

Figure 76 Proposed RCCBC Tourism Development Zones.

The Northern TDZ achieved the highest weighted score (614) by the model, followed by the Western TDZ (421) while the Eastern TDZ (299) was the least favourable (Figure 77). A review of the scores achieved by TDZ's according to sets of criteria or categories reveals that the Northern TDZ excelled in all categories when compared to the other two TDZ's, but particularly so in the category for water access and provision (Figure 78).

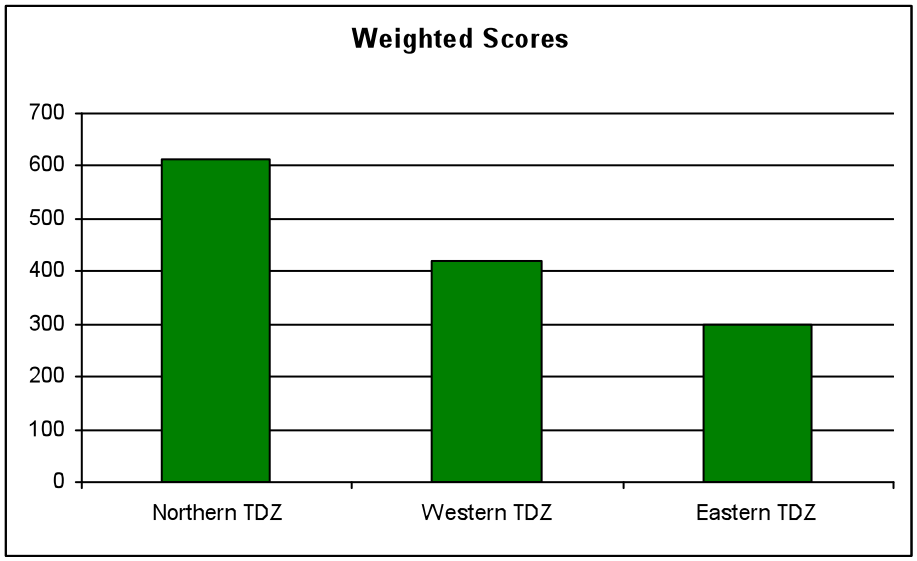

Figure 77 Comparative weighted scores of Glenmore's TDZ's as determined by the RCCBC TDZ assessment model.

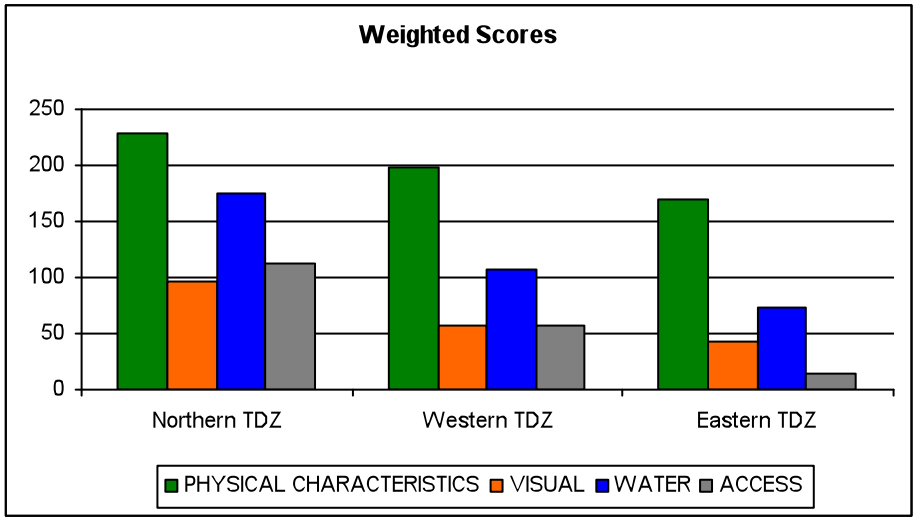

Figure 78 Comparative weighted scores of Glenmore's TDZ's as determined by the RCCBC TDZ assessment model by set of criteria or category.

A summary of the scoring for the three TDZ's is listed on the next page of this document followed by the scoring schedules for each sub-criterion that comprises the model.

A full assessment of the outputs from this model is contained in Chapter 5.

RCCBC Model	TOTAL WEIGHTED SCORES FOR TDZ's ASSESSED						
Tourism Development Zone Assessment Model	Total Weighting	WEIGHTED SCORE / TDZ			ACTUAL SCORE / TDZ		
		Northern TDZ	Western TDZ	Eastern TDZ	Northern TDZ	Western TDZ	Eastern TDZ
	139	614	421	299	117	88	67

	Assessment Criteria	Weight	WEIGHTED SCORE / TDZ			ACTUAL SCORE / TDZ		
			Northern TDZ	Western TDZ	Eastern TDZ	Northern TDZ	Western TDZ	Eastern TDZ
PHYSICAL CHARACTERISTICS	Sense of Place	10	50	30	20	5	3	2
	Space for development of proposed facilities.	5	20	25	25	4	5	5
	Slope	5	20	25	15	4	5	3
	Drainage	3	15	15	15	5	5	5
	Soils	3	9	9	9	3	3	3
	Natural Features	5	25	20	15	5	4	3
	Humidity	1	5	4	5	5	4	5
	Air temperature - HOT	3	12	9	9	4	3	3
	Air temperature - COLD	4	12	8	12	3	2	3
	Shade & Shadows - Winter	3	9	15	15	3	5	5
	Shade in Summer	6	18	6	6	3	1	1
	Strong winds	5	10	10	10	2	2	2
	Cooling breezes	4	16	16	12	4	4	3
	Lightning susceptibility	2	8	6	2	4	3	1
	sub-total	**59**	**229**	**198**	**170**	**54**	**49**	**44**
VISUAL	The quality of the view from this site iro what is seen, impressiveness of what is	8	40	24	24	5	3	3
	Impacts on attractiveness of views.	6	30	12	6	5	2	1
	Night lights	3	15	9	3	5	3	1
	Noise	3	12	12	9	4	4	3
	sub-total	**20**	**97**	**57**	**42**	**15**	**8**	**5**
WATER	Water sources	7	35	28	21	5	4	3
	Water quantity	5	25	25	25	5	5	5
	Water quality	5	20	20	20	4	4	4
	Existing water reticulation infrastructure	5	25	0	0	5	0	0
	Distance water needs to be pumped from water source to site.	7	35	14	7	5	2	1
	Height water must be pumped.	7	35	21	0	5	3	0
	sub-total	**36**	**175**	**108**	**73**	**29**	**18**	**13**
ACCESS	State of existing SEDAN road access to site	10	50	30	0	5	3	0
	State of existing 4x4 access road access to site	0	0	0	0	1	4	2
	Cost of constructing new SEDAN access road to site.	7	28	7	7	4	1	1
	Cost of constructing new 4x4 access track to site.	0	0	0	0	4	2	1
	Maintenance of access in future (Cost, time, management, inconvenience to visitors.)	7	35	21	7	5	3	1
	sub-total	**24**	**113**	**58**	**14**	**19**	**13**	**5**

Description of assessment criteria.	Score	Score each site on a scale of 0 to 5 for the assessment criteria in left column.

PHYSICAL CHARACTERISTICS OF SITE

Sense of Place

Sense of Place	0	1	2	3	4	5	Northern TDZ	Western TDZ	Eastern TDZ
"Sense of Place" describes the subjective EMOTIONAL feeling that you get when arriving on the site for the first time. The overall impact that the site and views have on all your senses on arrival.	Has **NO "sense of place"** what-so-ever	Has a **bad "sense of place"**.	Has a **poor "sense of place".**	**Neither a great nor poor site** - could have a "sense of place" if carefully planned and developed.	Has a "sense of place" **but NOT a WOW site.**	**Is a WOW!! Site -** has a fantastic "sense of place"	**5**	**3**	**2**

Physical Characteristics of the Site

Space for development of proposed facilities.	0	1	2	3	4	5	Northern TDZ	Western TDZ	Eastern TDZ
There needs to be sufficient space available on the site to construct the type, style and nature of product that is being proposed. It is critically important to FIRST have identified and agreed upon the nature of the product and the market at which the product is being aimed in order to define the spatial parametres that will define the product at a particular site. Therefore, there needs to be sufficient space available on the site to develop the product according to the development guidelines as defined by the tourism planners.	Site physically **not large enough for planned facilities** in proposed form, facilities need to be re-planned and designed.	Site probably **too small for proposed facility** that would result in negative impression on visitors.	**Limited space for proposed facilities** possibly resulting in negative impact on visitors to facility. Requires very careful layout & design with possible relocation of non-critical facilities at another location.	**Enough space for proposed facilities** but would **require careful layout planning and architectural design** to maximise positive site features and minimise negative impacts.	**Enough space for proposed facilities** relative to spatial guidelines for planned facility.	**More than adequate space** for proposed facilities.	**4**	**5**	**5**

Slope	0	1	2	3	4	5	Northern TDZ	Western TDZ	Eastern TDZ
Slope of development site can be positive and enhance proposed facility, assist with infrastructure and drainage or be negative in terms of high construction costs, problematic drainage, necessity of numerous visitor unfriendly stairs	Slope TOO steep to construct proposed facility.	Slope is extremely steep making site expensive to develop, visitor unfriendly, management problem, visually unattractive.	Slope is steep requiring expensive storm water drainage networks, considerable and expensive visitor unfriendly stairs, possible management problem.	Slope is getting steep, requires careful planning of drainage network, and requires system of stairs to address height differences.	Slope is good but requiring normal drainage facilities.	Slope ideal for proposed facility. Enhances views, creates interest, provides adequate natural drainage off of site.	**4**	**5**	**3**

Soils

Drainage	*0*	*1*	*2*	*3*	*4*	*5*	Northern TDZ	Western TDZ	Eastern TDZ
Drainage is important particularly for sites with high rainfall.	There is **no drainage of the site and prone to excessive flooding** in wet periods and during heavy downpours.	**Poor drainage from site**. Requires extensive drainage network and possible mechanical pumping in wet conditions.	1) Slope is so steep that major **expensive drainage is required**. 2) Little natural drainage from site - **prone to flooding.**	**Not adequate drainage available** and a **good drainage network needs to be planned and developed.**	**Good drainage** that requires little engineering except for heavy storms.	**Good seepage and natural drainage** to well established water courses. Removal of storm water is efficient and effective.	**5**	**5**	**5**

Soils	*0*	*1*	*2*	*3*	*4*	*5*	Northern TDZ	Western TDZ	Eastern TDZ
***Soils need to be:** 1) deep enough for the construction of adequate foundations and underground infrastructure. 2) Stable to prevent slipping and movement 3) Resist erosion.*	Soils **completely NOT suitable** for construction of proposed facility.	**Require extensive engineering solutions** to overcome soil constraints.	Meet erosion criteria naturally but will **require expensive, extensive digging for underground infrastructure.**	**Meet erosion criteria naturally** but will require some difficult digging for underground infrastructure.	**Meet conditions** depth (1) and erosion (3) criteria.	**Good soils** meeting all necessary criteria for facility construction.	**3**	**3**	**3**

Features

Natural Features	*0*	*1*	*2*	*3*	*4*	*5*	Northern TDZ	Western TDZ	Eastern TDZ
Features on site that enhance visual and sense of place.	**No features** on site.	**Poor quality features** requiring major rehabilitation.	**A few features** on site that require rehabilitation.	Some **neither good nor bad** features on site.	Some **good features** on site.	**Many good qualities features** on site.	**5**	**4**	**3**

Air Temperature & Humidity

Humidity	*0*	*1*	*2*	*3*	*4*	*5*	Northern TDZ	Western TDZ	Eastern TDZ
Humidity is an important considerations in hot, wet, humid locations. Site locations can increase levels of humidity making it uncomfortable for visitors.	**Unbearable humidity**	Humidity factor **extremely high.** Nights extremely uncomfortable.	**High levels of uncomfortableness.**	**Humid but tolerable**. Possibly uncomfortable at peak of hot, wet seasons.	**Slightly humid** but not uncomfortable.	**Humidity not a problem** at all on the site.	**5**	**4**	**5**

Air temperature - HOT	*0*	*1*	*2*	*3*	*4*	*5*	Northern TDZ	Western TDZ	Eastern TDZ
High temperatures usually result in discomfort for visitors. Remedial measures such as fans and airconditioning have an impact on infrastructure and development/ operational costs. Sites that are naturally NOT hot are desirable.	High air temperaturs and heat will make this site **unbearable during the day and night** for visitors for most of the year.	High air temperatures **will lead to visitor discomfort** and require all inside facilities to be equiped with airconditioning.	High air temperaturs **will result in moderate levels of visitor discomfort** requiring remedial interventions.	**High air temperatures may be experienced** requing requiring some remedial interventions.	Moderate to high air temperatures may result in **some discomfort occassionally** on this site.	High air temperaturs and heat **will not lead to visitor discomfort** on this site.	**4**	**3**	**3**

Air temperature - COLD	*0*	*1*	*2*	*3*	*4*	*5*	Northern TDZ	Western TDZ	Eastern TDZ
Low air temperatures cause visitor discomfort particularly at night and in the early mornings. Sites that do not exacerbate the negetive impact of low temperatures are desirable.	Extremely low air temperatures throughout winter make this site **extremely uncomfortable** requiring constant heating of facilities.	Low air temperatures **will lead to visitor discomfort** and require all inside facilities to be heated.	Low air temperaturs **will result in moderate levels of visitor discomfort** requiring remedial interventions.	**Low air temperatures may be experienced** particularly at night requing requiring some remedial interventions.	Moderate to low air temperatures may result in **some discomfort occassionally** on this site.	Low air temperaturs and cold **will not lead to visitor discomfort** on this site.	**3**	**2**	**3**

Shadow

Shade & Shadows - Winter	***0***	***1***	***2***	***3***	***4***	***5***
Sites located in shade & shadows take a long time to warm during winter mornings, resulting in visitor discomfort and potential maintenance problems.	Site is in winter shadows from natural features or trees till late in morning resulting in **prolonged low winter morning temperatures.**	**Site will be extremely cold** on winter morning and at night from cold air "rising" through site and faciities.	Site will be **cold from winter shadows for much of winter.**	Site will be **cold from winter shadows** during the worse part of winter.	Site will be warm during winter with the occasional few cold winter mornings from a few shadows.	Site is not in winter shadows from natural features or trees.

Northern TDZ	Western TDZ	Eastern TDZ
3	**5**	**5**

Shade in Summer	***0***	***1***	***2***	***3***	***4***	***5***
Shade is an extremely important consideration in selecting sites. Sites that have ample natural shade are desirable to provide protection against the harsh and dangerous African sun particularly for overseas visitors not used to harsh sunlight.	Site has has **NO natural shade** resulting in an extremely hot site.	Site has has **minimal natural shade of very poor quality.**	Site has has **little natural shade** but requires planting of many additional shade trees and erection of artificial shade.	Site has has **some natural shade** but requires planting of many **additional shade trees and erection of artificial shade.**	Site has has **some natural shade** but more shade trees would need to be planted.	Site has m**ore than ample, good quality shade all year round.** Shade well distributed throughout site.

Northern TDZ	Western TDZ	Eastern TDZ
3	**1**	**1**

Wind

Strong winds	***0***	***1***	***2***	***3***	***4***	***5***
Strong winds are unpleasant, particularly over prolonged periods of time.	Site **completely exposed** to **all strong winds.**	Site is **buffetted by winds from all directions.**	Site is **not sheltered from prevailing winds** - considered a windy site.	Site **sheltered from strong prevailing wind only**, but e**xposed to winds from other directions.**	Site is **generally sheltered** but may be **buffeted occasional strong winds** during storms.	Site is s**heltered from all unpleasant and/or strong prevailing win**ds from all directions.

Northern TDZ	Western TDZ	Eastern TDZ
2	**2**	**2**

Cooling breezes	***0***	***1***	***2***	***3***	***4***	***5***
Gentle breezes provide a pleasant cooling effect in hot and humid environments.	Site is **completely sheltered from any cooling breezes.**	Site receives some **cooling breezes on the odd occasion.**	Site receives some **cooling breezes occasionally.**	Site receives s**ome cooling breezes** throughout most of hot & humid periods.	Site r**eceives cooling breezes** throughout most of hot & humid periods.	Site receives **favourable cooling breezes throughout most of hot & humid periods**.

Northern TDZ	Western TDZ	Eastern TDZ
4	**4**	**3**

Lightning

Lightning susceptibility	***0***	***1***	***2***	***3***	***4***	***5***
How susceptible is the site to lightning strikes.	Lightning is **very likely to destroy structures** on the site.	**High risk of lightning strikes** hitting proposed structures.	Site probably **prone to lightning strikes** due to location and nature of surrounding rocks.	**Moderate amount of lightning strikes** near site, lightning protection recommended.	**Little risk** of site being struck by lightning.	There is **no risk at all** to being struck by lightning.

Northern TDZ	Western TDZ	Eastern TDZ
4	**3**	**1**

VISUAL

Views from site.

The quality of the view from this site iro what is seen, impressiveness of what is seen.	***0***	***1***	***2***	***3***	***4***	***5***
First impressions are extremely important to overall impressions of facilities & experinces to visitors. Views from the site contribute to this impression and overall visitor experience at this site.	Quality of views from this site are **extremely poor** and have a **negetive impact on overall visitor experience**.	**Very poor** quality views from site	**Poor quality views** from site. Subject of views not interesting nor exciting.	**Moderate views** that are neither stunning nor unattractive.	**Good views** from site, but not fantastic views.	**Fantastic "WOW" views** that are very interesting, resulting in visitors sitting for long periods of time admiring the view.

Northern TDZ	Western TDZ	Eastern TDZ
5	**3**	**3**

Impacts on attractiveness of views.	***0***	***1***	***2***	***3***	***4***	***5***
Views may be impacted on by a range of different factors. The extent of the overal impact is estimated here.	Impacts on views from site c**ompletely detract from visitor experience.**	**Many impacts** on views that result in a significant decrease in visitor experience.	Impacts on view **are noticable** and may be an irritation to some visitors.	**Some impacts** on views but they do **NOT cause a significant decrease in visitor experience.**	**Minimal impact** on views. Remedial interventions will minimise impacts.	Views from this site are **uninterupted** with little liklihood of beign impacted on in the future.

Northern TDZ	Western TDZ	Eastern TDZ
5	**2**	**1**

Night lights	***0***	***1***	***2***	***3***	***4***	***5***
Lights seen at night in the distance from a site in a proctected area at night, is perceived as being negetive by visitors.	Night lights are a **total distraction** at this site leading a bad night experience.	Night lights **will have** a significant impact on night experience at this site.	Night lights **will impact** on night experience at this site.	Night **lights are visible but** remedial action may be taken to minimize impact of night lights.	A **minimal number of night lights** may be visible, remedial action may be taken to minimize impact of night lights.	**No night lights** are currently visible from site nor will be in the future.

Northern TDZ	Western TDZ	Eastern TDZ
5	**3**	**1**

AUDIO

Impact of external noise on site	***0***	***1***	***2***	***3***	***4***	***5***
Noise from external sources may impact severly on the leisure experience in tourism products.	Noise is unbearable.	Noise impacts on site severely / extremely unpleasant.	Noise has high impact on site / very unpleasant	Moderate levels of noise impact.	Low levels of noise impact.	No noise impact at all on site from external sources.

Northern TDZ	Western TDZ	Eastern TDZ
4	**4**	**3**

WATER

Availability

Water sources	***0***	***1***	***2***	***3***	***4***	***5***	Northern TDZ	Western TDZ	Eastern TDZ
Availability of water sources	**No water source** available	**One poor water source** available, other sources need to be tapped.	**One questionable water source** available, needs to be assessed.	**one good water source** available.	**Two good water source**s available.	**Numerous good, strong water sources** available.	**5**	**4**	**3**

Water quantity	***0***	***1***	***2***	***3***	***4***	***5***	Northern TDZ	Western TDZ	Eastern TDZ
Assessed yield of water sources.	**Insufficient water** for proposed product.	**Sufficient water for phase 1** development only.	**Sufficient water for phase 2** development only.	**Sufficient water for phase 3** development only.	**Twice the max** requirements of phase three.	**More than twice the max** requirements of phase three.	**5**	**5**	**5**

Water quality	***0***	***1***	***2***	***3***	***4***	***5***	Northern TDZ	Western TDZ	Eastern TDZ
Quality of water from primary water sources.	**Unsuitable** for drinking, cooking and washing. Water needs to be transported to site.	Water unsuitable for consumption but may be **used for bathing and sewage**.	Water needs treatment and may be **used for cooking and washing but NOT for drinking.**	Water **requires treatment** before drinking and cooking.	Water requires minimal treatment and is **suitable for drinking, cooking and washing**.	Excellent quality suitable for drinking without any treatment.	**4**	**4**	**4**

Provision of water to site from water sources

Existing water reticulation infrastructure	***0***	***1***	***2***	***3***	***4***	***5***	Northern TDZ	Western TDZ	Eastern TDZ
The extent and condition of the existing water reticulation network and the amount of energy and resources that are required to upgrade it to required standards for proposed development.	**No existing water reticulation present**. Completely new reticulation network needs to be installed.	Existing water reticulation requires **extensive modification and redevelopment.**	Existing water reticulation infrastructure requires **major modification.**	Existing water reticulation infrastructure requires **modification.**	Existing water reticulation infrastructure requires **minimal modification**.	Existing water reticulation infrastructure **suitable with sufficient capacity** for proposed long term development of site.	**5**	**0**	**0**

Distance water needs to be pumped from water source to site.	***0***	***1***	***2***	***3***	***4***	***5***	Northern TDZ	Western TDZ	Eastern TDZ
Pumping water over a distance is costly in terms of development and maintenance.	Pumped more than **3 km**	Pumped **2 - 3 km**	Pumped **1 - 2 km**	Pumped **500 - 1000 metres**	Pumped **100 - 500 metres**	**Water source on site.**	**5**	**2**	**1**

Height water must be pumped.	***0***	***1***	***2***	***3***	***4***	***5***	Northern TDZ	Western TDZ	Eastern TDZ
Pumping water uphill from water source to pressure head is energy consumptive and expensive as it requires pumps, reservoirs and pressure heads.	Water source more than **100 metres** below pressure head.	Water source **50 - 100 metres** below pressure head.	Water source **0 - 50 metres** below pressure head.	Water source at **same level as site** - requires pumping to pressure head.	Water source at **same level as pressure head.**	Water source **higher than site.**	**5**	**3**	**0**

ACCESS

Existing access to site

State of existing SEDAN road access to site	***0***	***1***	***2***	***3***	***4***	***5***
What is the state of the existing access to the site with reference to SEDAN type vehicles, which are most common types used by visitors.	**no** existing road	Road needs **major reconstruction** prior to usage by sedan vehicles.	Road needs **major** upgrading to be suitable for sedan usage.	Road needs **upgrading** to be suitable for sedan usage.	Road needs **maintenance** before being suitable for sedan usage.	Existing road **currently suitable** for sedan vehicles with no further construction.

Northern TDZ	Western TDZ	Eastern TDZ
5	**3**	**0**

State of existing 4x4 access road access to site	***0***	***1***	***2***	***3***	***4***	***5***
What is the state of the existing access to the site with reference to 4x4 type vehicles. A 4x4 access track needs to challenging to negotiate WITHOUT doing damage to the vehicle.	**no** existing road	Road needs **major reconstruction** prior to usage by 4x4 vehicles.	Road needs **major** upgrading to be suitable for 4x4 usage.	Road needs **upgrading** to be suitable for 4x4 usage.	Road needs **maintenance** before being suitable for 4x4 usage.	Existing road **currently suitable** for 4x4 vehicles with no further construction.

Northern TDZ	Western TDZ	Eastern TDZ
1	**4**	**2**

Construction of new access roads

Cost of constructing new SEDAN access road to site.	***0***	***1***	***2***	***3***	***4***	***5***
An objective ranking of predicted order of magnitude of constructing a new road to the site for use by SEDAN vehicles.	**Exorbitantly costly**, could compromise viability of project.	**Extremely high** additional costs required to provide appropriate access	**High** additional costs required to provide appropriate access	**Acceptable** additional costs required to provide appropriate access	**Minimal** costs required to provide appropriate access	**No** additional costs required to provide appropriate access

Northern TDZ	Western TDZ	Eastern TDZ
4	**1**	**1**

Cost of constructing new 4x4 access track to site.	***0***	***1***	***2***	***3***	***4***	***5***
An objective ranking of predicted order of magnitude of constructing a new track to the site for use by 4x4 vehicles.	**Exorbitantly costly**, could compromise viability of project.	**Extremely high** additional costs required to provide appropriate access	**High** additional costs required to provide appropriate access	**Acceptable** additional costs required to provide appropriate access	**Minimal** costs required to provide appropriate access	**No** additional costs required to provide appropriate access

Northern TDZ	Western TDZ	Eastern TDZ
4	**2**	**1**

Maintenance of access roads

Maintenance of access in future (Cost, time, management, inconvenience to visitors.)	***0***	***1***	***2***	***3***	***4***	***5***
An objective ranking of predicted order of magnitude of maintaining the access road to the site for use by SEDAN vehicles over a period of five years.	**Exorbitantly costly**, could compromise viability of project.	**Extremely high** maintenance costs in keeping road in appropriate condition for tourist vehicles.	**High** maintenance costs in keeping road in appropriate condition for tourist vehicles.	**Acceptable** maintenance costs in keeping road in appropriate condition for tourist vehicles.	**Minimal** costs required to provide appropriate access	**No** maintenance costs in keeping road in appropriate condition for tourist vehicles.

Northern TDZ	Western TDZ	Eastern TDZ
5	**3**	**1**

APPENDIX C: GLENMORE CENSUS SURVEY - RESULTS

The Glenmore Census Survey was undertaken between the 12th and 19th of September 2007. The data contained in this appendix has been extracted from the original Glenmore Census Survey data sheets that were captured into an Excel spreadsheet.

Erf Census Number	Erf development status	Undeveloped erf usage	Modified erf development status	Dwelling status	Interview status	Household size	Male 0-5	Male 6-12	Male13-18	Male 19-29	Male 30-64	Male 65+	Female 0-5	Female 6-12	Female13-18	Female 19-29	Female 30-64	Female 65+	Total Males	Total Females	Total People sex
1	Developed erf		Developed erf	Inhabited	Interviewed	3						1				1	1		1	2	3
2	Developed erf		Developed erf	Inhabited	Interviewed	2								1				1	0	2	2
28	Developed erf	Non-dwelling use erf	Used erf	Inhabited	Not interviewed														0	0	0
29	Developed erf	Annexed erf	Used erf	Inhabited	Interviewed	6				2	1				1	1	1		3	3	6
30	Developed erf		Developed erf	Inhabited	Interviewed	8		1		1	1			1		2	1	1	3	5	8
31	Developed erf		Developed erf	Inhabited	Interviewed	4				1		1		1			1		2	2	4
32	Developed erf		Developed erf	Uninhabited	Uninhabited														0	0	0
33	Developed erf		Developed erf	Uninhabited	Uninhabited														0	0	0
34	Developed erf		Developed erf	Uninhabited	Uninhabited														0	0	0
35	Developed erf		Developed erf	Uninhabited	Uninhabited														0	0	0
36	Developed erf		Developed erf	Inhabited	Interviewed	1					1								1	0	1
37	Developed erf		Developed erf	Uninhabited	Uninhabited														0	0	0
38	Developed erf		Developed erf	Inhabited	Interviewed	2					1						1		1	1	2
39	Developed erf		Developed erf	Inhabited	Interviewed	4	1		1	1								1	3	1	4
40	Developed erf		Developed erf	Inhabited	Interviewed	1					1								1	0	1
41	Developed erf		Developed erf	Inhabited	Interviewed	1			1										1	0	1
42	Developed erf		Developed erf	Inhabited	Interviewed	1					1								1	0	1
43	Developed erf		Developed erf	Inhabited	Interviewed	2					1						1		1	1	2
44	Developed erf		Developed erf	Inhabited	Interviewed	1											1		0	1	1
45	Developed erf		Developed erf	Inhabited	Interviewed	3		1		1							1		2	1	3
46	Developed erf		Developed erf	Inhabited	Interviewed	1										1			0	1	1
47	Developed erf		Developed erf	Inhabited	Interviewed	1				1									1	0	1
48	Developed erf		Developed erf	Inhabited	Interviewed	1				1									1	0	1
49	Developed erf		Developed erf	Inhabited	Not interviewed														0	0	0
50	Developed erf		Developed erf	Inhabited	Interviewed	1												1	0	1	1
51	Developed erf		Developed erf	Inhabited	Interviewed	2				1							1		1	1	2
52	Developed erf		Developed erf	Inhabited	Interviewed	6		1	1	1				1		1		1	3	3	6
53	Developed erf		Developed erf	Inhabited	Interviewed	7		1		1		1	1			2		1	3	4	7
54	Developed erf		Developed erf	Inhabited	Not interviewed														0	0	0
55	Developed erf		Developed erf	Inhabited	Interviewed	2								1			1		0	2	2
56	Developed erf		Developed erf	Inhabited	Interviewed	5		2								1	1	1	2	3	5
60	Developed erf		Developed erf	Uninhabited	Uninhabited														0	0	0
61	Developed erf		Developed erf	Inhabited	Interviewed	1				1									1	0	1
62	Developed erf		Developed erf	Inhabited	Interviewed	4	1										2	1	1	3	4
63	Developed erf		Developed erf	Inhabited	Interviewed	4										2	1	1	0	4	4
64	Developed erf		Developed erf	Uninhabited	Uninhabited														0	0	0
65	Developed erf		Developed erf	Uninhabited	Uninhabited														0	0	0
66	Developed erf		Developed erf	Inhabited	Interviewed	6		1		1						2	1	1	2	4	6
67	Developed erf		Developed erf	Inhabited	Interviewed	2					1						1		1	1	2
68	Developed erf		Developed erf	Inhabited	Interviewed	3		1	2										3	0	3
69	Developed erf		Developed erf	Inhabited	Interviewed	1						1							1	0	1
85	Developed erf		Developed erf	Uninhabited	Uninhabited														0	0	0
86	Developed erf		Developed erf	Uninhabited	Uninhabited														0	0	0
87	Developed erf		Developed erf	Inhabited	Interviewed	3					1		1				1		1	2	3
88	Developed erf		Developed erf	Uninhabited	Uninhabited														0	0	0
89	Developed erf		Developed erf	Inhabited	Interviewed	5	1	1			1				1		1		3	2	5
90	Developed erf		Developed erf	Uninhabited	Uninhabited														0	0	0
91	Developed erf		Developed erf	Uninhabited	Uninhabited														0	0	0
92	Developed erf		Developed erf	Inhabited	Interviewed	4				1	1				1		1		2	2	4

93	Developed erf		Developed erf	Inhabited	Interviewed	**1**				1									1	0	**1**
94	Developed erf		Developed erf	Uninhabited	Uninhabited														0	0	**0**
95	Developed erf		Developed erf	Inhabited	Interviewed	**1**					1								1	0	**1**
96	Developed erf		Developed erf	Inhabited	Interviewed	**4**	1	1					1					1	2	2	**4**
97	Developed erf		Developed erf	Uninhabited	Uninhabited														0	0	**0**
98	Developed erf		Developed erf	Inhabited	Interviewed	**1**					1								1	0	**1**
99	Developed erf		Developed erf	Inhabited	Interviewed	**1**				1									1	0	**1**
100	Developed erf		Developed erf	Inhabited	Interviewed	**1**											1		0	1	**1**
101	Developed erf		Developed erf	Inhabited	Interviewed	**1**				1									1	0	**1**
102	Developed erf		Developed erf	Inhabited	Interviewed	**8**			1	1		1	1	1			2	1	3	5	**8**
103	Developed erf		Developed erf	Inhabited	Interviewed	**2**					1						1		1	1	**2**
104	Developed erf		Developed erf	Uninhabited	Uninhabited														0	0	**0**
105	Developed erf		Developed erf	Inhabited	Interviewed	**3**				1			1			1			1	2	**3**
106	Developed erf		Developed erf	Inhabited	Interviewed	**1**					1								1	0	**1**
107	Developed erf		Developed erf	Inhabited	Interviewed	**1**											1		0	1	**1**
108	Developed erf		Developed erf	Inhabited	Interviewed	**6**	1	1	1		1		1				1		4	2	**6**
109	Developed erf		Developed erf	Uninhabited	Uninhabited														0	0	**0**
110	Developed erf		Developed erf	Inhabited	Interviewed	**6**	1	1	1		1		1				1		4	2	**6**
111	Developed erf		Developed erf	Inhabited	Interviewed	**6**	1	1			1		1	1			1		3	3	**6**
112	Developed erf		Developed erf	Inhabited	Interviewed	**4**		1	2								1		3	1	**4**
114	Developed erf		Developed erf	Uninhabited	Uninhabited														0	0	**0**
117	Developed erf		Developed erf	Inhabited	Interviewed	**1**											1		0	1	**1**
118	Developed erf		Developed erf	Inhabited	Interviewed	**8**					4	1				1	2		5	3	**8**
119	Developed erf		Developed erf	Uninhabited	Uninhabited														0	0	**0**
120	Developed erf		Developed erf	Inhabited	Interviewed	**5**		1			1		1	1			1		2	3	**5**
121	Developed erf		Developed erf	Uninhabited	Uninhabited														0	0	**0**
122	Developed erf		Developed erf	Inhabited	Not interviewed														0	0	**0**
123	Developed erf		Developed erf	Uninhabited	Uninhabited														0	0	**0**
124	Developed erf		Developed erf	Inhabited	Interviewed	**2**				1								1	1	1	**2**
125	Developed erf		Developed erf	Uninhabited	Uninhabited														0	0	**0**
126	Developed erf		Developed erf	Inhabited	Interviewed	**1**											1		0	1	**1**
127	Developed erf		Developed erf	Inhabited	Interviewed	**1**											1		0	1	**1**
128	Developed erf		Developed erf	Inhabited	Interviewed	**2**					1						1		1	1	**2**
129	Developed erf		Developed erf	Uninhabited	Uninhabited														0	0	**0**
130	Developed erf		Developed erf	Inhabited	Interviewed	**2**						1					1		1	1	**2**
131	Developed erf		Developed erf	Uninhabited	Uninhabited														0	0	**0**
132	Developed erf		Developed erf	Inhabited	Interviewed	**1**					1								1	0	**1**
133	Developed erf		Developed erf	Inhabited	Interviewed														0	0	**0**
134	Developed erf		Developed erf	Inhabited	Interviewed														0	0	**0**
135	Developed erf		Developed erf	Uninhabited	Uninhabited														0	0	**0**
137	Developed erf		Developed erf	Uninhabited	Uninhabited														0	0	**0**
138	Developed erf		Developed erf	Uninhabited	Uninhabited														0	0	**0**
140	Developed erf		Developed erf	Inhabited	Interviewed	**2**					1						1		1	1	**2**
141	Developed erf		Developed erf	Inhabited	Interviewed	**1**					1								1	0	**1**

148	Developed erf		Developed erf	Uninhabited	Uninhabited														0	0	**0**
149	Developed erf		Developed erf	Inhabited	Interviewed	**4**				1	1	1						1	3	1	**4**
150	Developed erf		Developed erf	Inhabited	Interviewed	**5**	1	1			1			1			1		3	2	**5**
151	Developed erf		Developed erf	Inhabited	Interviewed	**3**					1		1				1		1	2	**3**
152	Developed erf		Developed erf	Inhabited	Interviewed	**2**			1								1		1	1	**2**
153	Developed erf		Developed erf	Inhabited	Interviewed	**1**											1		0	1	**1**
154	Developed erf		Developed erf	Inhabited	Interviewed	**3**					1			1			1		1	2	**3**
155	Developed erf		Developed erf	Inhabited	Interviewed	**3**		1			1						1		2	1	**3**
156	Developed erf		Developed erf	Uninhabited	Uninhabited														0	0	**0**
175	Developed erf		Developed erf	Inhabited	Not interviewed														0	0	**0**
181	Developed erf		Developed erf	Inhabited	Interviewed	**3**									1	1	1		0	3	**3**
182	Developed erf		Developed erf	Inhabited	Interviewed	**1**					1								1	0	**1**
183	Developed erf		Developed erf	Uninhabited	Uninhabited														0	0	**0**
184	Developed erf		Developed erf	Uninhabited	Uninhabited														0	0	**0**
185	Developed erf		Developed erf	Inhabited	Not interviewed														0	0	**0**
186	Developed erf		Developed erf	Inhabited	Interviewed	**3**		1							1	1			1	2	**3**
187	Developed erf		Developed erf	Inhabited	Interviewed	**2**											1	1	0	2	**2**
188	Developed erf		Developed erf	Inhabited	Interviewed	**4**				1	1				1		1		2	2	**4**
189	Developed erf		Developed erf	Inhabited	Interviewed	**3**						1				1	1		1	2	**3**
190	Developed erf		Developed erf	Uninhabited	Uninhabited														0	0	**0**
191	Developed erf		Developed erf	Uninhabited	Uninhabited														0	0	**0**
192	Developed erf		Developed erf	Uninhabited	Uninhabited														0	0	**0**
193	Developed erf		Developed erf	Inhabited	Interviewed	**1**			1										1	0	**1**
194	Developed erf		Developed erf	Inhabited	Interviewed	**2**					1						1		1	1	**2**
195	Developed erf		Developed erf	Inhabited	Interviewed	**1**			1										1	0	**1**
196	Developed erf		Developed erf	Uninhabited	Uninhabited														0	0	**0**
197	Developed erf		Developed erf	Inhabited	Interviewed	**3**										1	2		0	3	**3**
198	Developed erf		Developed erf	Inhabited	Interviewed	**6**	1	1		1	1					1	1		4	2	**6**
199	Developed erf		Developed erf	Inhabited	Interviewed	**2**				2									2	0	**2**
200	Developed erf		Developed erf	Uninhabited	Uninhabited														0	0	**0**
201	Developed erf		Developed erf	Inhabited	Interviewed	**6**			2	2	1						1		5	1	**6**
202	Developed erf		Developed erf	Inhabited	Interviewed	**2**								1			1		0	2	**2**
203	Developed erf		Developed erf	Uninhabited	Uninhabited														0	0	**0**
204	Developed erf		Developed erf	Uninhabited	Uninhabited														0	0	**0**
205	Developed erf		Developed erf	Inhabited	Interviewed	**1**				1									1	0	**1**
206	Developed erf		Developed erf	Uninhabited	Uninhabited														0	0	**0**
207	Developed erf		Developed erf	Inhabited	Interviewed	**5**	1		1		1					1		1	3	2	**5**
208	Developed erf		Developed erf	Inhabited	Interviewed	**3**					1			1			1		1	2	**3**
209	Developed erf		Developed erf	Inhabited	Interviewed	**1**												1	0	1	**1**
210	Developed erf		Developed erf	Inhabited	Interviewed	**1**					1								1	0	**1**
211	Developed erf		Developed erf	Inhabited	Interviewed	**2**						1	1						1	1	**2**
212	Developed erf		Developed erf	Uninhabited	Uninhabited														0	0	**0**
213	Developed erf		Developed erf	Uninhabited	Uninhabited														0	0	**0**
214	Developed erf		Developed erf	Inhabited	Not interviewed														0	0	**0**

224	Developed erf		Developed erf	Uninhabited	Uninhabited													0	0	**0**
225	Developed erf		Developed erf	Uninhabited	Uninhabited													0	0	**0**
226	Developed erf		Developed erf	Inhabited	Interviewed	**1**										1		0	1	**1**
227	Developed erf		Developed erf	Inhabited	Interviewed	**3**								2		1		0	3	**3**
228	Developed erf		Developed erf	Inhabited	Interviewed	**4**	1						2			1		1	3	**4**
229	Developed erf		Developed erf	Inhabited	Interviewed	**1**				1								1	0	**1**
230	Developed erf		Developed erf	Inhabited	Interviewed	**3**					1		1			1		1	2	**3**
231	Developed erf		Developed erf	Inhabited	Interviewed	**1**										1		0	1	**1**
232	Developed erf		Developed erf	Inhabited	Interviewed	**2**								1			1	0	2	**2**
233	Developed erf		Developed erf	Inhabited	Interviewed	**5**		1	2					1			1	3	2	**5**
234	Developed erf		Developed erf	Inhabited	Interviewed	**1**				1								1	0	**1**
235	Developed erf		Developed erf	Uninhabited	Uninhabited													0	0	**0**
236	Developed erf		Developed erf	Inhabited	Interviewed	**1**				1								1	0	**1**
237	Developed erf		Developed erf	Inhabited	Interviewed	**2**				1						1		1	1	**2**
238	Developed erf		Developed erf	Inhabited	Interviewed	**1**				1								1	0	**1**
239	Developed erf		Developed erf	Inhabited	Interviewed	**1**										1		0	1	**1**
240	Developed erf		Developed erf	Uninhabited	Uninhabited													0	0	**0**
241	Developed erf		Developed erf	Inhabited	Interviewed	**1**											1	0	1	**1**
242	Developed erf		Developed erf	Inhabited	Interviewed	**6**				1		1		1	1	2		2	4	**6**
243	Developed erf		Developed erf	Inhabited	Interviewed	**3**					1		1			1		1	2	**3**
244	Developed erf		Developed erf	Inhabited	Interviewed	**1**			1									1	0	**1**
245	Developed erf		Developed erf	Inhabited	Interviewed	**8**		1	1				1	1		1	3		2	6	**8**
246	Developed erf		Developed erf	Inhabited	Interviewed	**5**				1					2		1	1	1	4	**5**
247	Developed erf		Developed erf	Inhabited	Interviewed	**5**				1					2		1	1	1	4	**5**
248	Developed erf		Developed erf	Inhabited	Interviewed	**3**								1	1		1		0	3	**3**
249	Developed erf		Developed erf	Inhabited	Interviewed	**2**								1				1	0	2	**2**
250	Developed erf		Developed erf	Inhabited	Interviewed	**3**			2							1			2	1	**3**
251	Developed erf		Developed erf	Inhabited	Interviewed	**4**			3									1	3	1	**4**
252	Developed erf		Developed erf	Inhabited	Interviewed	**4**	1				1			1			1		2	2	**4**
253	Developed erf		Developed erf	Inhabited	Interviewed	**3**											1		0	1	**1**
254	Developed erf		Developed erf	Inhabited	Interviewed	**1**												1	0	1	**1**
255	Developed erf		Developed erf	Inhabited	Interviewed	**1**												1	0	1	**1**
256	Developed erf		Developed erf	Inhabited	Interviewed	**4**		1	1					1			1		2	2	**4**
257	Developed erf		Developed erf	Inhabited	Not interviewed														0	0	**0**
258	Developed erf		Developed erf	Inhabited	Interviewed	**4**					1		1	1			1		1	3	**4**
259	Developed erf		Developed erf	Inhabited	Interviewed	**7**		1	1	1		1				2	1		4	3	**7**
261	Developed erf		Developed erf	Inhabited	Interviewed	**3**	1				1						1		2	1	**3**
262	Developed erf		Developed erf	Inhabited	Interviewed	**2**								1			1		0	2	**2**
263	Developed erf		Developed erf	Inhabited	Interviewed	**1**				1									1	0	**1**
264	Developed erf		Developed erf	Inhabited	Interviewed	**2**				1	1								2	0	**2**
265	Developed erf		Developed erf	Inhabited	Interviewed	**3**							1			1	1		0	3	**3**
266	Developed erf		Developed erf	Uninhabited	Uninhabited														0	0	**0**
267	Developed erf		Developed erf	Inhabited	Interviewed	**4**					1				1	1	1		1	3	**4**
268	Developed erf		Developed erf	Inhabited	Interviewed	**2**			1									1	1	1	**2**

291	Developed erf		Developed erf	Uninhabited	Uninhabited														0	0	**0**
292	Developed erf		Developed erf	Inhabited	Interviewed	**3**					1			2					1	2	**3**
293	Developed erf		Developed erf	Inhabited	Interviewed	**7**			1		1				2	2	1		2	5	**7**
294	Developed erf		Developed erf	Uninhabited	Uninhabited														0	0	**0**
295	Developed erf		Developed erf	Inhabited	Interviewed	**2**				1							1		1	1	**2**
296	Developed erf		Developed erf	Inhabited	Interviewed	**1**				1									1	0	**1**
297	Developed erf		Developed erf	Uninhabited	Uninhabited														0	0	**0**
298	Developed erf		Developed erf	Inhabited	Interviewed	**7**	1	1								1	3	1	2	5	**7**
299	Developed erf		Developed erf	Inhabited	Interviewed	**2**					1						1		1	1	**2**
300	Developed erf		Developed erf	Inhabited	Interviewed	**1**				1									1	0	**1**
301	Developed erf		Developed erf	Uninhabited	Uninhabited														0	0	**0**
302	Developed erf		Developed erf	Uninhabited	Uninhabited														0	0	**0**
303	Developed erf		Developed erf	Uninhabited	Uninhabited														0	0	**0**
304	Developed erf		Developed erf	Inhabited	Interviewed	**4**					1				1	1	1		1	3	**4**
305	Developed erf		Developed erf	Uninhabited	Uninhabited														0	0	**0**
312	Developed erf		Developed erf	Uninhabited	Uninhabited														0	0	**0**
313	Developed erf		Developed erf	Uninhabited	Uninhabited														0	0	**0**
314	Developed erf	Annexed erf	Used erf	Uninhabited	Uninhabited														0	0	**0**
316	Developed erf		Developed erf	Inhabited	Interviewed	**1**					1								1	0	**1**
334	Developed erf		Developed erf	Uninhabited	Uninhabited														0	0	**0**
319	Developed erf		Developed erf	Uninhabited	Uninhabited														0	0	**0**
320	Developed erf		Developed erf	Uninhabited	Uninhabited														0	0	**0**
321	Developed erf		Developed erf	Inhabited	Interviewed	**2**					1						1		1	1	**2**
322	Developed erf		Developed erf	Uninhabited	Uninhabited														0	0	**0**
323	Developed erf		Developed erf	Uninhabited	Uninhabited														0	0	**0**
324	Developed erf		Developed erf	Inhabited	Interviewed	**2**								1				1	0	2	**2**
325	Developed erf		Developed erf	Inhabited	Interviewed	**1**					1								1	0	**1**
326	Developed erf		Developed erf	Inhabited	Interviewed	**3**					3								3	0	**3**
327	Developed erf		Developed erf	Inhabited	Interviewed	**4**								1	1		2		0	4	**4**
328	Developed erf		Developed erf	Inhabited	Interviewed	**12**		1	1	2	2	1	1			1	2	1	7	5	**12**
329	Developed erf		Developed erf	Uninhabited	Uninhabited														0	0	**0**
330	Developed erf		Developed erf	Inhabited	Interviewed	**2**								1			1		0	2	**2**
331	Developed erf		Developed erf	Uninhabited	Uninhabited														0	0	**0**
332	Developed erf		Developed erf	Inhabited	Interviewed	**3**									1	1	1		0	3	**3**
333	Developed erf		Developed erf	Uninhabited	Uninhabited														0	0	**0**
335	Developed erf		Developed erf	Inhabited	Interviewed	**1**				1									1	0	**1**
336	Developed erf		Developed erf	Inhabited	Interviewed	**4**	1				1					1	1		2	2	**4**
337	Developed erf		Developed erf	Uninhabited	Uninhabited														0	0	**0**
338	Developed erf		Developed erf	Uninhabited	Uninhabited														0	0	**0**
339	Developed erf		Developed erf	Inhabited	Interviewed	**3**					1						2		1	2	**3**
347	Developed erf		Developed erf	Inhabited	Interviewed	**1**					1								1	0	**1**
357	Developed erf		Developed erf	Uninhabited	Uninhabited														0	0	**0**
358	Developed erf		Developed erf	Inhabited	Not interviewed														0	0	**0**
359	Developed erf		Developed erf	Inhabited	Interviewed	**6**	1			1				3			1		2	4	**6**

366	Developed erf		Developed erf	Inhabited	Interviewed	**4**	1	1								1	1		2	2	**4**
367	Developed erf		Developed erf	Inhabited	Interviewed	**2**					2								2	0	**2**
368	Developed erf	Annexed erf	Used erf	Uninhabited	Not interviewed														0	0	**0**
369	Developed erf		Developed erf	Uninhabited	Uninhabited														0	0	**0**
370	Developed erf		Developed erf	Inhabited	Not interviewed														0	0	**0**
372	Developed erf		Developed erf	Inhabited	Interviewed	**3**						1			1		1		1	2	**3**
373	Developed erf		Developed erf	Inhabited	Interviewed	**2**								1			1		0	2	**2**
375	Developed erf		Developed erf	Inhabited	Not interviewed														0	0	**0**
376	Developed erf		Developed erf	Uninhabited	Uninhabited														0	0	**0**
377	Developed erf		Developed erf	Inhabited	Interviewed	**1**					1								1	0	**1**
378	Developed erf		Developed erf	Inhabited	Not interviewed														0	0	**0**
382	Developed erf		Developed erf	Uninhabited	Uninhabited														0	0	**0**
383	Developed erf		Developed erf	Inhabited	Interviewed	**2**									1	1			0	2	**2**
384	Developed erf		Developed erf	Inhabited	Interviewed	**3**				1					1		1		1	2	**3**
385	Developed erf		Developed erf	Inhabited	Interviewed	**3**									1	1	1		0	3	**3**
386	Developed erf		Developed erf	Uninhabited	Uninhabited														0	0	**0**
387	Developed erf		Developed erf	Uninhabited	Uninhabited														0	0	**0**
388	Developed erf		Developed erf	Uninhabited	Uninhabited														0	0	**0**
389	Developed erf		Developed erf	Uninhabited	Uninhabited														0	0	**0**
390	Developed erf		Developed erf	Uninhabited	Uninhabited														0	0	**0**
391	Developed erf		Developed erf	Inhabited	Interviewed	**5**				1					1		3		1	4	**5**
392	Developed erf		Developed erf	Uninhabited	Uninhabited														0	0	**0**
393	Developed erf		Developed erf	Inhabited	Interviewed	**3**				1							1	1	1	2	**3**
394	Developed erf		Developed erf	Inhabited	Interviewed	**1**					1								1	0	**1**
395	Developed erf		Developed erf	Inhabited	Interviewed	**2**					1						1		1	1	**2**
396	Developed erf		Developed erf	Inhabited	Interviewed	**2**					1						1		1	1	**2**
397	Developed erf		Developed erf	Inhabited	Interviewed	**5**	1		2					1		1			3	2	**5**
398	Developed erf		Developed erf	Inhabited	Interviewed	**3**	1										2		1	2	**3**
399	Developed erf		Developed erf	Uninhabited	Uninhabited														0	0	**0**
400	Developed erf		Developed erf	Inhabited	Interviewed	**4**					1		2				1		1	3	**4**
401	Developed erf		Developed erf	Inhabited	Interviewed	**1**					1								1	0	**1**
402	Developed erf		Developed erf	Uninhabited	Uninhabited														0	0	**0**
403	Developed erf		Developed erf	Uninhabited	Uninhabited														0	0	**0**
404	Developed erf		Developed erf	Inhabited	Interviewed	**1**					1								1	0	**1**
405	Developed erf		Developed erf	Uninhabited	Uninhabited														0	0	**0**
406	Developed erf		Developed erf	Inhabited	Interviewed	**1**			1										1	0	**1**
407	Developed erf		Developed erf	Inhabited	Interviewed	**10**		1		2	1	1		1		2	1	1	5	5	**10**
408	Developed erf		Developed erf	Inhabited	Not interviewed														0	0	**0**
410	Developed erf		Developed erf	Inhabited	Interviewed	**6**					2				1	2	1		2	4	**6**
411	Developed erf		Developed erf	Inhabited	Interviewed	**5**	1				1				2		1		2	3	**5**
412	Developed erf		Developed erf	Inhabited	Interviewed	**6**					2				2	2			2	4	**6**
413	Developed erf		Developed erf	Inhabited	Not interviewed														0	0	**0**
414	Developed erf		Developed erf	Inhabited	Interviewed	**4**		1			1		1				1		2	2	**4**
415	Developed erf		Developed erf	Inhabited	Interviewed	**10**	1		2				2		1	2	1	1	3	7	**10**

422	Developed erf		Developed erf	Uninhabited	Uninhabited													0	0	**0**
423	Developed erf		Developed erf	Uninhabited	Uninhabited													0	0	**0**
424	Developed erf		Developed erf	Inhabited	Interviewed	**1**				1								1	0	**1**
440	Developed erf		Developed erf	Uninhabited	Uninhabited													0	0	**0**
441	Developed erf		Developed erf	Inhabited	Interviewed	**2**					1						1	1	1	**2**
442	Developed erf		Developed erf	Uninhabited	Uninhabited													0	0	**0**
443	Developed erf		Developed erf	Uninhabited	Uninhabited													0	0	**0**
444	Developed erf		Developed erf	Inhabited	Interviewed	**3**								2				1	0	3	**3**
445	Developed erf		Developed erf	Uninhabited	Uninhabited													0	0	**0**
446	Developed erf		Developed erf	Uninhabited	Uninhabited													0	0	**0**
447	Developed erf		Developed erf	Uninhabited	Uninhabited													0	0	**0**
448	Developed erf		Developed erf	Inhabited	Interviewed	**1**											1	0	1	**1**
449	Developed erf		Developed erf	Inhabited	Interviewed	**1**				1								1	0	**1**
450	Developed erf		Developed erf	Inhabited	Interviewed	**3**					1			1			1	1	2	**3**
451	Developed erf		Developed erf	Inhabited	Interviewed	**1**					1							1	0	**1**
452	Developed erf		Developed erf	Inhabited	Interviewed	**7**			1	1				2	1		1	1	2	5	**7**
453	Developed erf		Developed erf	Inhabited	Interviewed	**8**		1	3	1							2	1	5	3	**8**
454	Developed erf		Developed erf	Uninhabited	Uninhabited													0	0	**0**
455	Developed erf	Non-dwelling use erf	Used erf	Uninhabited	Not interviewed															
456	Developed erf		Developed erf	Inhabited	Interviewed	**8**	2	1		2					2	1			5	3	**8**
457	Developed erf		Developed erf	Inhabited	Interviewed	**7**			1				1	3	1		1		1	6	**7**
458	Developed erf		Developed erf	Inhabited	Not interviewed														0	0	**0**
459	Developed erf		Developed erf	Inhabited	Not interviewed														0	0	**0**
460	Developed erf		Developed erf	Uninhabited	Uninhabited														0	0	**0**
461	Developed erf		Developed erf	Uninhabited	Uninhabited														0	0	**0**
462	Developed erf		Developed erf	Inhabited	Not interviewed														0	0	**0**
463	Developed erf		Developed erf	Uninhabited	Uninhabited														0	0	**0**
464	Developed erf		Developed erf	Inhabited	Interviewed	**7**				2		1	1	1		1	1		3	4	**7**
465	Developed erf		Developed erf	Uninhabited	Uninhabited														0	0	**0**
466	Developed erf		Developed erf	Inhabited	Interviewed	**4**	1				1			1			1		2	2	**4**
467	Developed erf		Developed erf	Inhabited	Interviewed	**5**		1		1	1				1		1		3	2	**5**
468	Developed erf		Developed erf	Inhabited	Interviewed	**3**										1	1	1	0	3	**3**
469	Developed erf		Developed erf	Uninhabited	Uninhabited														0	0	**0**
470	Developed erf		Developed erf	Inhabited	Interviewed	**4**	1	1			1					1			3	1	**4**
471	Developed erf		Developed erf	Inhabited	Interviewed	**6**		1		1	1			1		1	1		3	3	**6**
472	Developed erf		Developed erf	Uninhabited	Uninhabited														0	0	**0**
473	Developed erf		Developed erf	Inhabited	Interviewed	**1**											1		0	1	**1**
474	Developed erf		Developed erf	Inhabited	Interviewed	**1**				1									1	0	**1**
477	Developed erf		Developed erf	Inhabited	Interviewed	**6**			1	1	1				1		1	1	3	3	**6**
478	Developed erf		Developed erf	Uninhabited	Uninhabited														0	0	**0**
479	Developed erf		Developed erf	Uninhabited	Uninhabited														0	0	**0**
480	Developed erf		Developed erf	Inhabited	Interviewed	**3**			2		1								3	0	**3**
481	Developed erf		Developed erf	Inhabited	Not interviewed														0	0	**0**
482	Developed erf		Developed erf	Uninhabited	Uninhabited														0	0	**0**

489	Developed erf		Developed erf	Inhabited	Interviewed	**1**										1			0	1	**1**
490	Developed erf		Developed erf	Uninhabited	Uninhabited														0	0	**0**
491	Developed erf		Developed erf	Uninhabited	Uninhabited														0	0	**0**
492	Developed erf		Developed erf	Inhabited	Interviewed	**1**				1									1	0	**1**
493	Developed erf		Developed erf	Inhabited	Interviewed	**1**												1	0	1	**1**
494	Developed erf		Developed erf	Uninhabited	Uninhabited														0	0	**0**
495	Developed erf		Developed erf	Inhabited	Interviewed	**1**					1								1	0	**1**
496	Developed erf		Developed erf	Uninhabited	Uninhabited														0	0	**0**
497	Developed erf		Developed erf	Uninhabited	Uninhabited														0	0	**0**
498	Developed erf		Developed erf	Inhabited	Interviewed	**2**								1				1	0	2	**2**
499	Developed erf		Developed erf	Inhabited	Interviewed	**1**						1							1	0	**1**
500	Developed erf		Developed erf	Uninhabited	Uninhabited														0	0	**0**
501	Developed erf		Developed erf	Inhabited	Not interviewed														0	0	**0**
502	Developed erf		Developed erf	Inhabited	Not interviewed														0	0	**0**
503	Developed erf		Developed erf	Uninhabited	Uninhabited														0	0	**0**
504	Developed erf		Developed erf	Uninhabited	Uninhabited														0	0	**0**
505	Developed erf		Developed erf	Inhabited	Interviewed	**7**		1		2	2			2					5	2	**7**
506	Developed erf		Developed erf	Inhabited	Interviewed	**1**					1								1	0	**1**
507	Developed erf		Developed erf	Inhabited	Interviewed	**4**								1		2	1		0	4	**4**
508	Developed erf		Developed erf	Inhabited	Interviewed	**1**				1									1	0	**1**
509	Developed erf		Developed erf	Uninhabited	Uninhabited														0	0	**0**
510	Developed erf		Developed erf	Uninhabited	Uninhabited														0	0	**0**
511	Developed erf		Developed erf	Uninhabited	Uninhabited														0	0	**0**
512	Developed erf		Developed erf	Inhabited	Interviewed	**2**							1				1		0	2	**2**
513	Developed erf		Developed erf	Inhabited	Interviewed	**9**	2	1	1		1			1		2	1		5	4	**9**
514	Developed erf		Developed erf	Inhabited	Interviewed	**1**					1								1	0	**1**
515	Developed erf		Developed erf	Inhabited	Interviewed	**2**					1						1		1	1	**2**
516	Developed erf		Developed erf	Inhabited	Interviewed	**5**			2				1				1	1	2	3	**5**
517	Developed erf		Developed erf	Uninhabited	Uninhabited														0	0	**0**
518	Developed erf		Developed erf	Inhabited	Interviewed	**4**		1		1					1		1		2	2	**4**
519	Developed erf		Developed erf	Inhabited	Interviewed	**4**			1							2	1		1	3	**4**
520	Developed erf		Developed erf	Uninhabited	Uninhabited														0	0	**0**
521	Developed erf		Developed erf	Inhabited	Interviewed	**6**			1	2	1					1	1		4	2	**6**
522	Developed erf		Developed erf	Inhabited	Interviewed	**4**		1			1				1		1		2	2	**4**
523	Developed erf		Developed erf	Inhabited	Interviewed	**5**					1		2				1	1	1	4	**5**
524	Developed erf		Developed erf	Uninhabited	Uninhabited														0	0	**0**
525	Developed erf		Developed erf	Inhabited	Interviewed	**5**			1	1			1				1	1	2	3	**5**
526	Developed erf		Developed erf	Uninhabited	Uninhabited														0	0	**0**
527	Developed erf		Developed erf	Inhabited	Interviewed	**4**			2						1			1	2	2	**4**
528	Developed erf		Developed erf	Uninhabited	Uninhabited														0	0	**0**
530	Developed erf		Developed erf	Uninhabited	Uninhabited														0	0	**0**
531	Developed erf		Developed erf	Inhabited	Not interviewed														0	0	**0**
532	Developed erf		Developed erf	Inhabited	Interviewed	**1**						1							1	0	**1**
533	Developed erf		Developed erf	Uninhabited	Uninhabited														0	0	**0**

540	Developed erf		Developed erf	Inhabited	Interviewed	**1**				1									1	0	**1**
541	Developed erf		Developed erf	Uninhabited	Uninhabited														0	0	**0**
542	Developed erf		Developed erf	Inhabited	Interviewed	**6**			1	1	1	1		1			1		4	2	**6**
543	Developed erf		Developed erf	Uninhabited	Uninhabited														0	0	**0**
544	Developed erf		Developed erf	Inhabited	Interviewed	**5**	1	2			1						1		4	1	**5**
545	Developed erf		Developed erf	Inhabited	Interviewed	**2**						1						1	1	1	**2**
546	Developed erf		Developed erf	Inhabited	Interviewed	**1**						1							1	0	**1**
547	Developed erf		Developed erf	Inhabited	Interviewed	**3**					1					1		1	1	2	**3**
548	Developed erf		Developed erf	Inhabited	Interviewed	**7**			2		1				1	2	1		3	4	**7**
549	Developed erf		Developed erf	Inhabited	Interviewed	**3**	1		1								1		2	1	**3**
550	Developed erf		Developed erf	Uninhabited	Uninhabited														0	0	**0**
551	Developed erf		Developed erf	Inhabited	Interviewed	**8**				3				4		1			3	5	**8**
552	Developed erf		Developed erf	Inhabited	Interviewed	**7**		1	1			1	1	2			1	1	3	5	**8**
553	Developed erf		Developed erf	Uninhabited	Uninhabited														0	0	**0**
554	Developed erf		Developed erf	Inhabited	Interviewed	**2**					1						1		1	1	**2**
555	Developed erf		Developed erf	Inhabited	Interviewed	**4**		1					1		1		1		1	3	**4**
556	Developed erf		Developed erf	Inhabited	Interviewed	**1**					1								1	0	**1**
557	Developed erf		Developed erf	Inhabited	Interviewed	**4**		1			1	1					1		3	1	**4**
558	Developed erf		Developed erf	Inhabited	Interviewed	**1**				1									1	0	**1**
561	Developed erf		Developed erf	Inhabited	Interviewed	**1**				1									1	0	**1**
562	Developed erf		Developed erf	Uninhabited	Uninhabited														0	0	**0**
563	Developed erf		Developed erf	Uninhabited	Uninhabited														0	0	**0**
564	Developed erf		Developed erf	Inhabited	Not interviewed														0	0	**0**
565	Developed erf		Developed erf	Inhabited	Interviewed	**4**		1					1		1		1		1	3	**4**
566	Developed erf		Developed erf	Inhabited	Interviewed	**1**					1								1	0	**1**
567	Developed erf		Developed erf	Inhabited	Interviewed	**2**										1	1		0	2	**2**
568	Developed erf		Developed erf	Uninhabited	Uninhabited														0	0	**0**
569	Developed erf		Developed erf	Uninhabited	Uninhabited														0	0	**0**
570	Developed erf		Developed erf	Inhabited	Interviewed	**5**					1		1		1	2			1	4	**5**
571	Developed erf		Developed erf	Uninhabited	Uninhabited														0	0	**0**
572	Developed erf		Developed erf	Inhabited	Not interviewed														0	0	**0**
573	Developed erf		Developed erf	Inhabited	Not interviewed														0	0	**0**
574	Developed erf		Developed erf	Inhabited	Not interviewed														0	0	**0**
575	Developed erf		Developed erf	Inhabited	Not interviewed														0	0	**0**
576	Developed erf		Developed erf	Inhabited	Not interviewed														0	0	**0**
577	Developed erf		Developed erf	Uninhabited	Uninhabited														0	0	**0**
578	Developed erf		Developed erf	Uninhabited	Uninhabited														0	0	**0**
579	Developed erf		Developed erf	Inhabited	Interviewed	**2**					2								2	0	**2**
580	Developed erf		Developed erf	Inhabited	Interviewed	**6**				1			1			2	2		1	5	**6**
581	Developed erf		Developed erf	Uninhabited	Uninhabited														0	0	**0**
582	Developed erf		Developed erf	Inhabited	Interviewed	**1**				1									1	0	**1**
583	Developed erf		Developed erf	Inhabited	Interviewed	**3**						1					1	1	1	2	**3**
584	Developed erf		Developed erf	Inhabited	Interviewed	**7**	1				1					1	4		2	5	**7**
585	Developed erf		Developed erf	Inhabited	Interviewed	**2**					1						1		1	1	**2**

592	Developed erf		Developed erf	Uninhabited	Uninhabited														0	0	**0**
593	Developed erf		Developed erf	Uninhabited	Uninhabited														0	0	**0**
594	Developed erf		Developed erf	Inhabited	Interviewed	**3**				1	1						1		2	1	**3**
595	Developed erf		Developed erf	Uninhabited	Uninhabited														0	0	**0**
596	Developed erf		Developed erf	Inhabited	Interviewed	**1**											1		0	1	**1**
597	Developed erf		Developed erf	Inhabited	Interviewed	**5**				1	1	1					1	1	3	2	**5**
598	Developed erf		Developed erf	Inhabited	Interviewed	**2**				1							1		1	1	**2**
599	Developed erf		Developed erf	Inhabited	Interviewed	**1**					1								1	0	**1**
600	Developed erf		Developed erf	Inhabited	Interviewed	**6**		2	1		1				1		1		4	2	**6**
601	Developed erf		Developed erf	Inhabited	Interviewed	**5**					2					3			2	3	**5**
602	Developed erf		Developed erf	Inhabited	Interviewed	**8**		1		1		1		1	2	1	1		3	5	**8**
603	Developed erf		Developed erf	Inhabited	Interviewed	**5**							1				3	1	0	5	**5**
604	Developed erf		Developed erf	Inhabited	Interviewed	**1**										1			0	1	**1**
605	Developed erf		Developed erf	Inhabited	Interviewed	**2**					1						1		1	1	**2**
606	Developed erf		Developed erf	Inhabited	Interviewed	**1**												1	0	1	**1**
607	Developed erf		Developed erf	Uninhabited	Uninhabited														0	0	**0**
608	Developed erf		Developed erf	Inhabited	Interviewed	**4**		1	1								1	1	2	2	**4**
609	Developed erf		Developed erf	Inhabited	Interviewed	**1**					1								1	0	**1**
610	Developed erf		Developed erf	Inhabited	Interviewed	**1**				1									1	0	**1**
611	Developed erf		Developed erf	Uninhabited	Uninhabited														0	0	**0**
612	Developed erf		Developed erf	Uninhabited	Uninhabited														0	0	**0**
613	Developed erf		Developed erf	Uninhabited	Uninhabited														0	0	**0**
614	Developed erf		Developed erf	Inhabited	Interviewed	**3**		1							1			1	1	2	**3**
615	Developed erf		Developed erf	Inhabited	Interviewed	**3**					1			1			1		1	2	**3**
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617	Developed erf		Developed erf	Uninhabited	Uninhabited														0	0	**0**
618	Developed erf		Developed erf	Inhabited	Interviewed	**8**	1		1		1		2	1			2		3	5	**8**
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621	Developed erf		Developed erf	Inhabited	Interviewed	**7**		1	1		1		1	1		1	1		3	4	**7**
622	Developed erf		Developed erf	Inhabited	Interviewed	**5**	1	1						1	1	1			2	3	**5**
623	Developed erf		Developed erf	Inhabited	Interviewed	**1**					1								1	0	**1**
624	Developed erf		Developed erf	Inhabited	Interviewed	**1**					1								1	0	**1**
625	Developed erf		Developed erf	Inhabited	Interviewed	**6**			1	2	1		1				1		4	2	**6**
626	Developed erf		Developed erf	Inhabited	Interviewed	**5**	1	1			1			1			1		3	2	**5**
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628	Developed erf		Developed erf	Inhabited	Interviewed	**2**				1							1		1	1	**2**
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633	Developed erf		Developed erf	Inhabited	Interviewed	**7**	1		1	1	1				1	1	1		4	3	**7**
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635	Developed erf		Developed erf	Uninhabited	Uninhabited														0	0	**0**

642	Developed erf		Developed erf	Inhabited	Interviewed	**1**					1								1	0	**1**
643	Developed erf		Developed erf	Inhabited	Interviewed	**3**				3									3	0	**3**
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657	Developed erf		Developed erf	Uninhabited	Uninhabited														0	0	**0**
658	Developed erf		Developed erf	Inhabited	Interviewed	**3**		1			1						1		2	1	**3**
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661	Developed erf		Developed erf	Inhabited	Interviewed	**5**		1	1		1		1				1		3	2	**5**
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672	Developed erf		Developed erf	Uninhabited	Uninhabited														0	0	**0**
673	Developed erf		Developed erf	Inhabited	Interviewed	**5**					2						3		2	3	**5**
674	Developed erf		Developed erf	Inhabited	Interviewed	**6**		1	1			1				2		1	3	3	**6**
675	Developed erf		Developed erf	Inhabited	Interviewed	**8**		2		1			1			1	3		3	5	**8**
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677	Developed erf		Developed erf	Inhabited	Not interviewed														0	0	**0**
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APPENDIX D: QUESTIONNAIRE FROM SAMPLE SURVEY OF PERMANENT RESIDENTS OF GLENMORE

Questionnaire Number	
ERF Number	
Date of interview	/ /2007

Good day,

My name is Taketime Tim and I am undertaking an interview survey of randomly selected households in Glenmore Village. The purpose of this survey is to assist the Eastern Cape Parks Board and Robford Tourism in establishing a tourism development plan for the Great Fish River Reserve and surrounding communities, such as Glenmore. Would you consent to being interviewed for this purpose?

This interview survey is the first interview surveys that I will be doing in this village. In this first interview survey we are primarily trying to establish a demographic profile of the people who live in Glenmore in order to assist us to design a more detailed survey that focuses on the tourism development prospects for Glenmore Village.

1. Are you the head of this household?	
YES	**NO**
If NO, who then is the head of the household?	

2. Gender of person being interviewed	
Male (1)	Female (2)
3. Age of person being interviewed	
Years old …… Year of birth ……..	
4. Marital status of person being interviewed?	

1 = Married	2 = Single	3 = Widowed	4 = Divorced
Includes Traditional/customary; civil & common law marriages			Does not include a separated spouse who is living in another town but are still married to interviewee.

5. For how many years have you lived in Glenmore?	**Years**	**Months**

6. How many people, including you, lives in this house on a permanent basis? *(That is for five or more nights of the week)*			
Family members		**Friends**	
Relationship to interviewee *e.g. Mother*	Age	Relationship to interviewee *e.g. School friend*	Age
1		*7*	
2		*8*	
3		*9*	
4		*10*	
5		*11*	
6		*12*	
Notes:			

7a. Are you currently employed in Glenmore? Do you work for someone else in Glenmore?		
YES		***NO***
If YES:		
If **not** employed in Glenmore, where are you employed?	*State town or city*	
What type of job do you have? e.g. domestic servant; painter; etc.	State type of job or skill	
Is this a permanent or part-time job?	**Permanent** Five days a week	**Part-time** One or two days a week

7b. Are the other people living in your household employed?				
Member #	Type of job or skill	permanent	part time	In Glenmore Y/N

8. Where does the majority of your household income come from?		
a. Employment in Glenmore	**YES**	**NO**
b. Pensions	**YES**	**NO**
c. Money sent from other family members living elsewhere	**YES**	**NO**
d. My own business or home business. E.g. spaza shop; sell veggies	**YES**	**NO**
Please state business:		
e. Other	**YES**	**NO**
Please state other:		

9. What is your highest level of education?		
No formal education at all	**YES**	**NO**
Junior school	**YES**	**NO**
Standard 6-8 Grade 8-10	**YES**	**NO**
Standard 9-10 Matric Grade 11-12	**YES**	**NO**
Post school education:	**YES**	**NO**
Please state type of post school education:		

10. What do you consider to the most important job skills that you have that may assist you in getting a job in the next six months? ***(even if you are currently employed!)*** *e.g. typing, sewing, bookkeeping, cleaning*	
1	
2	
3	
4	
5	

11. Do you consider crime to be a problem in Glenmore village?	
YES	**NO**
Please state why:	

12. Do you plan on moving away from Glenmore permanently?	
YES	**NO**
If yes, where to:	
If yes, why:	

13. What do you consider to be the biggest problems with the youth of Glenmore?
Problem 1:
Problem 2:
Problem 3:

14. If the government had to provide for the youth of Glenmore, what would you suggest that the government provides?
1:
2:

3:

16. Do you think that tourism would have a positive or negative effect on Glenmore?
1:
2:
3:

Thank you

APPENDIX E: RESULTS FROM SAMPLE SURVEY OF PERMANENT RESIDENTS OF GLENMORE

The results described in this appendix emanate from the sample survey of permanent residents of Glenmore.

1.1 Head of this household and gender of respondent

Question 1: Are you the head of this household?

Question 2: Gender of person being interviewed

Table 1 Household head status of respondent from Sample Survey of Glenmore Residents.

Status of respondent	Male	Female	TOTAL
Household head	15	23	38
Not household head	5	27	32
TOTAL	**20**	**50**	**70**

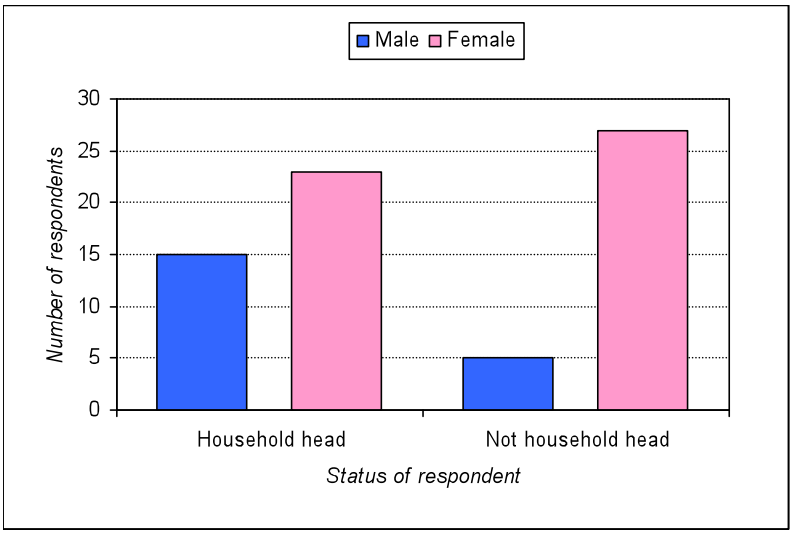

Figure 1 Household head status of respondent from Sample Survey of Glenmore Residents.

Question 1b: If the respondent was not the household head, who was the absent household head?

Table 2 Relationship of respondent to household head from Sample Survey of Glenmore Residents.

Who is household head	Number	Percent
Father	4	12,1%
Mother	6	18,2%
Husband	12	36,4%
Wife	0	0,0%
Brother	1	3,0%
Sister	1	3,0%
Grandfather	5	15,2%
Grandmother	0	0,0%
Uncle	2	9,1%
Aunt	1	3,0%
TOTAL	**32**	**100,0%**

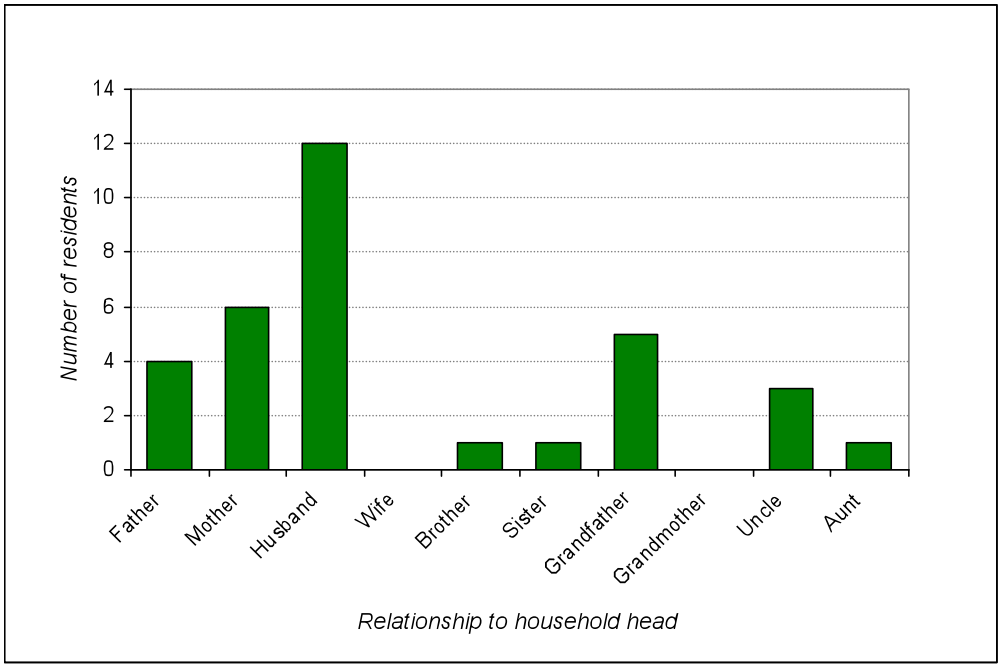

Figure 2 Relationship of respondent to household head from Sample Survey of Glenmore Residents.

1.2 Age of respondent

Question 3a: Age of person being interviewed

Statistic	Years
Number	70
Mean age	42,62
Median age	42
Minimum age	15
Maximum age	80

Table 3 All respondents by gender and age category from Sample Survey of Glenmore Residents.

Age of household head	Male	Female
10-19	1	4
20-29	6	11
30-39	4	6
40-49	4	9
50-59	3	8
60-99	1	9
70-79	1	3
TOTAL	**20**	**50**

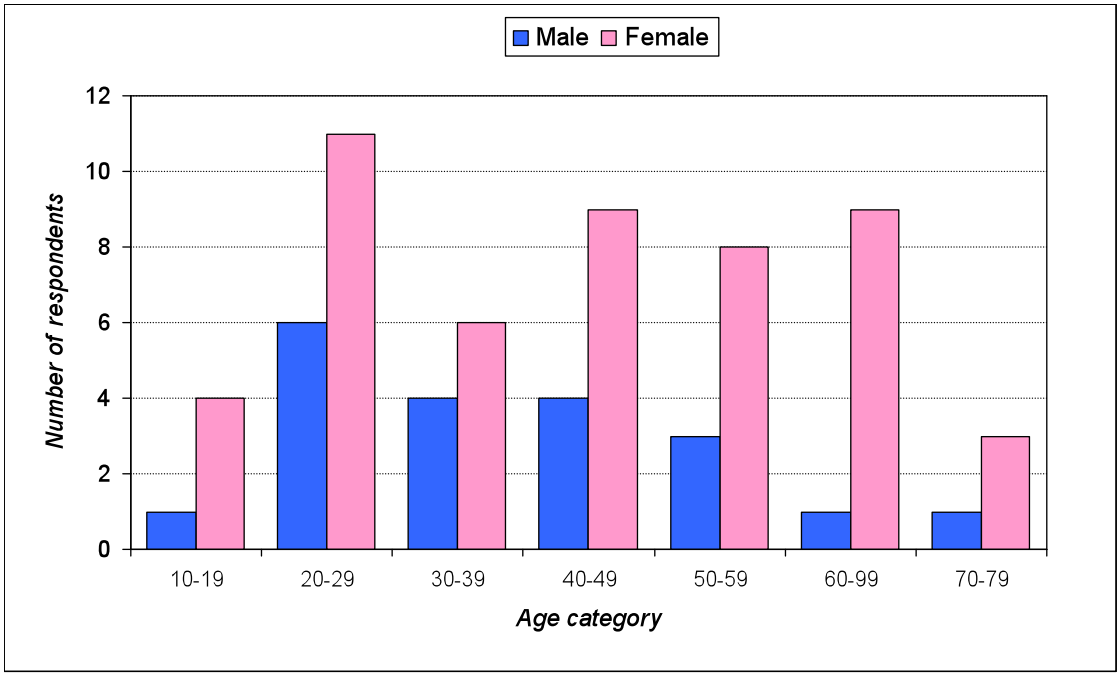

Figure 3 All respondents by gender and age category from Sample Survey of Glenmore Residents.

Question 3b: Age of household head being interviewed

Statistic	Years
Number	38
Mean age	48,89
Median age	49
Minimum age	22
Maximum age	80

Table 4 Household heads by gender and age category from Sample Survey of Glenmore Residents.

Age of household head	Male	Female	Total	Percent
10-19	0	0	**0**	0,0%
20-29	2	1	**3**	7,9%
30-39	4	4	**8**	21,1%
40-49	4	5	**9**	23,7%
50-59	3	6	**9**	23,7%
60-99	1	5	**6**	15,8%
70-79	1	2	**3**	7,9%
Total	**15**	**23**	**38**	**100,0%**
Percent	39,5%	60,5%	100,0%	

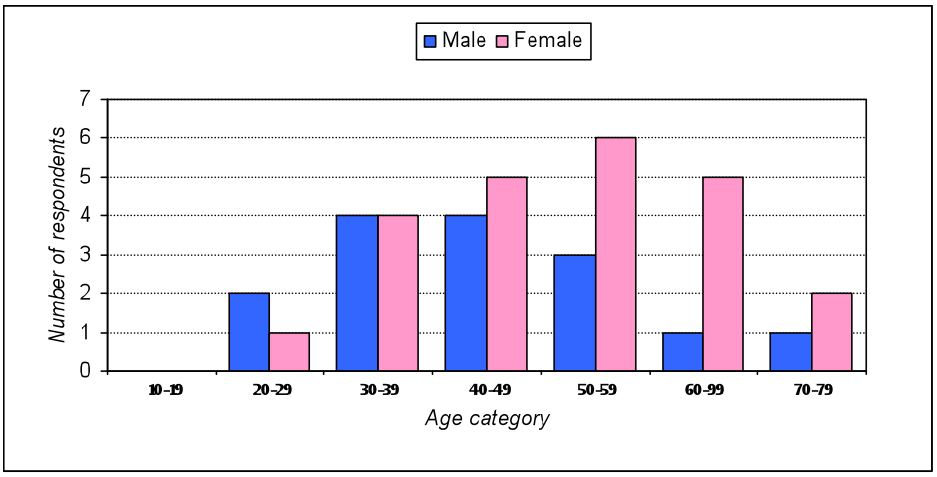

Figure 4 Household heads by gender and age category from Sample Survey of Glenmore Residents.

1.3 Marital status of respondent

Question 4: Marital status of person being interviewed?

Table 5 Marital status of respondents.

Marital status	Frequency	Percentage
Single	28	40,6%
Married	22	31,9%
Divorced	7	10,1%
Widowed	12	17,4%
TOTAL	**69**	**100,0%**

Table 6 Marital status of respondents by gender.

Marital status	Male		Female	
	Frequency	Percentage	Frequency	Percentage
Single	10	14,5%	18	26,1%
Married	13	18,8%	9	13,0%
Divorced	1	1,4%	6	8,7%
Widowed	0	0,0%	12	17,4%
TOTAL	**24**	**34,8%**	**45**	**65,2%**

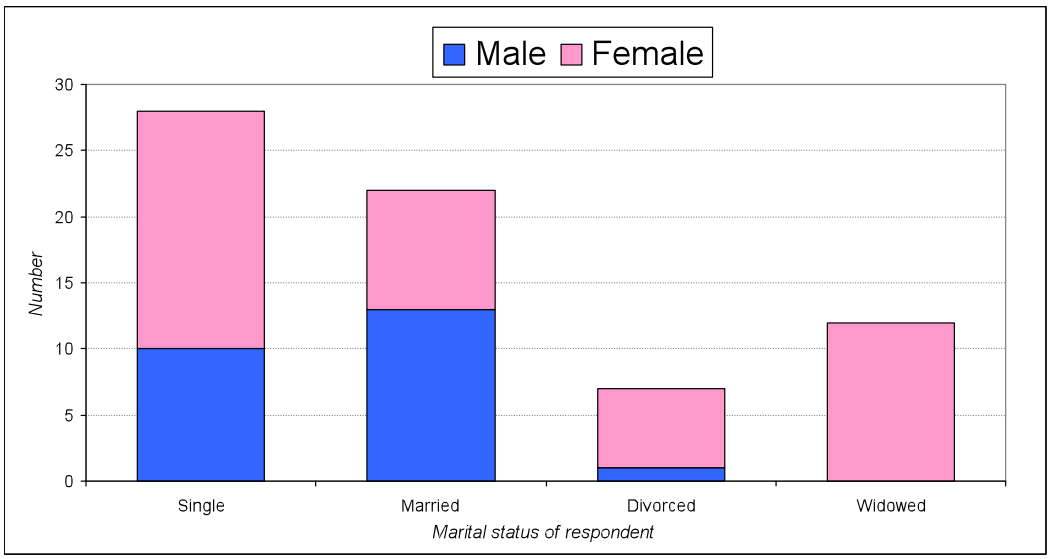

Figure 5 Marital status of respondents by gender.

1.4 Period that respondent has lived permanently in Glenmore.

Question 5: For how many years have you lived in Glenmore?

Statistic	Years
Number	70
Mean years	19,41
Median years	21
Minimum years	1
Maximum years	33

Table 7 The number of years respondents have been resident in Glenmore as determined by Sample Survey of Glenmore Residents.

Years resident	Male	Female	Total	Percent
10-19	1	4	5	7,1%
20-29	6	11	17	24,3%
30-39	4	6	10	14,3%
40-49	4	9	13	18,6%
50-59	3	8	11	15,7%
60-99	1	9	10	14,3%
70-79	1	3	4	5,7%
Total	20	50	70	100,0%
Percent	28,6%	71,4%	100,0%	

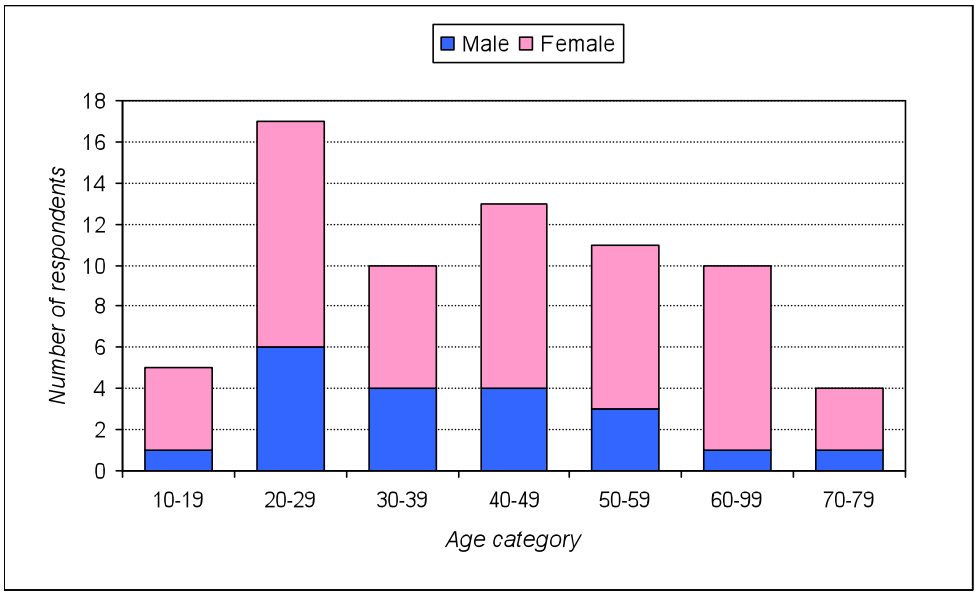

Figure 6 The number of years respondents have been resident in Glenmore as determined by Sample Survey of Glenmore Residents.

1.5 Number of people living permanently in dwelling

Question 6: How many people, including you, lives in this house on a permanent basis?

Table 8 Family members per household

Statistic	Number
Number	70
Mean years	3,7
Median years	3,5
Minimum years	0
Maximum years	8

Table 9 Number of family members per household by gender and age category from Sample Survey of Glenmore Residents.

Number of family members	Male	Female	Total	Percent
0	1	0	**1**	1,4%
1	5	4	**9**	12,9%
2	4	7	**11**	15,7%
3	3	11	**14**	20,0%
4	3	8	**11**	15,7%
5	3	7	**10**	14,3%
6	1	7	**8**	11,4%
7	0	4	**4**	5,7%
8	0	2	**2**	2,9%
Total	**20**	**50**	**70**	
Percent	28,6%	71,4%		100,0%

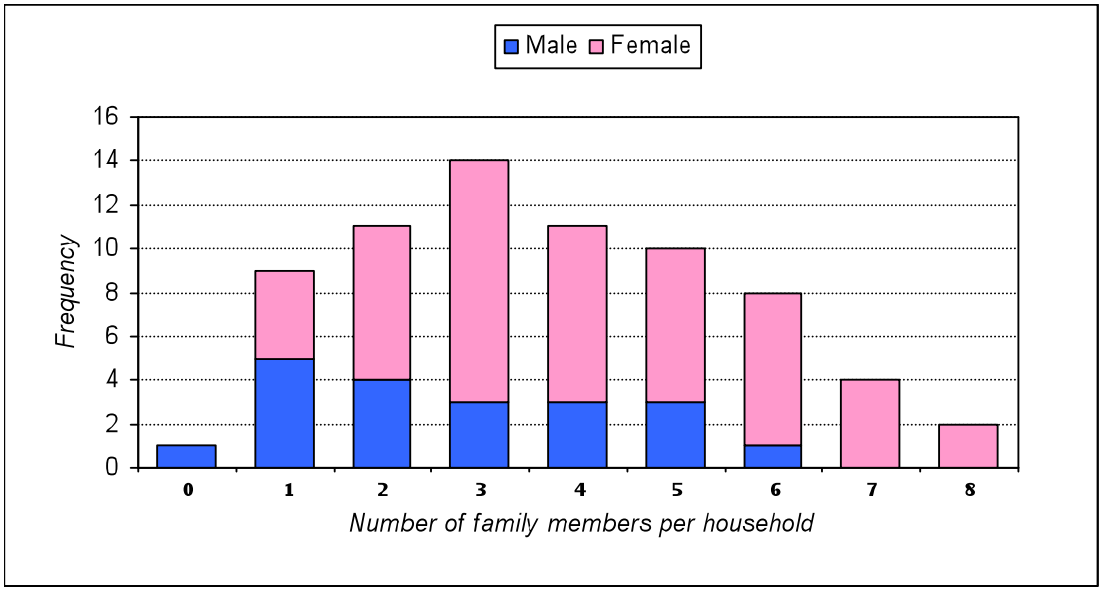

Figure 7 Number of family members per household by gender and age category from Sample Survey of Glenmore Residents.

Table 10 sNon-family members per household

Statistic	Number
Number	0
Mean years	0
Median years	0
Minimum years	0
Maximum years	0

There were no non-family members living in households that were sampled during the Sample Survey of Glenmore Residents.

1.6 Employment status of respondent

Question 7a: Are you currently employed in Glenmore?

Table 11 Employment status of all respondents from Sample Survey of Glenmore Residents.

Employment status	Male	Female	Total	Percent
Employed	3	5	8	11,4%
Unemployed	17	45	62	88,6%
Total	**20**	**50**	**70**	
Percent	28,6%	71,4%		100,0%

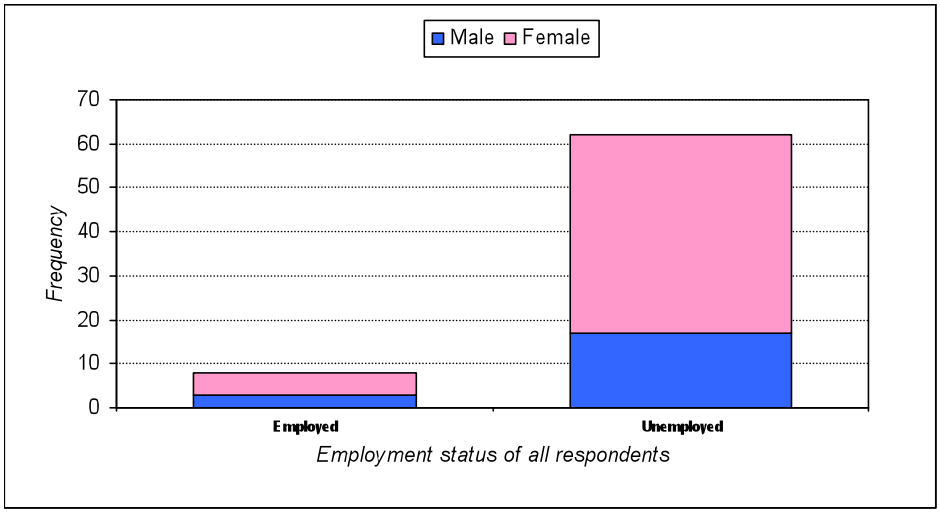

Figure 8 Employment status of all respondents from Sample Survey of Glenmore Residents.

Six of the eight respondents that were employed were employed in Glenmore. One of the other two employed respondents was employed in Peddie and the second respondent was employed in Port Elizabeth.

The types of jobs that the eight respondents had are listed in table below.

Table 12 Types and status of jobs of employed respondents of the Sample Survey of Glenmore Residents.

Job status	Job type	Number of respondents
Part-time	ABET educator	1
	Volunteer at Glenmore clinic	1
	Farm worker	1
	Farmer	1
Full-time	Cleaner	1
	Cook at restaurant	1
	Farmer	1
	Clinic assistant	1
	Senior school teacher	1
	Mechanic's assistant	1

Question 7aiii: Is this a permanent or part-time job?

Table 13 Job status of all employed respondents from Sample Survey of Glenmore Residents.

Job status	Male	Female	Total	Percent
Permanent	1	4	**5**	55,6%
Part-time	2	2	**4**	44,4%
Total	**3**	**6**	**9**	
Percent	33,3%	66,7%		100,0%

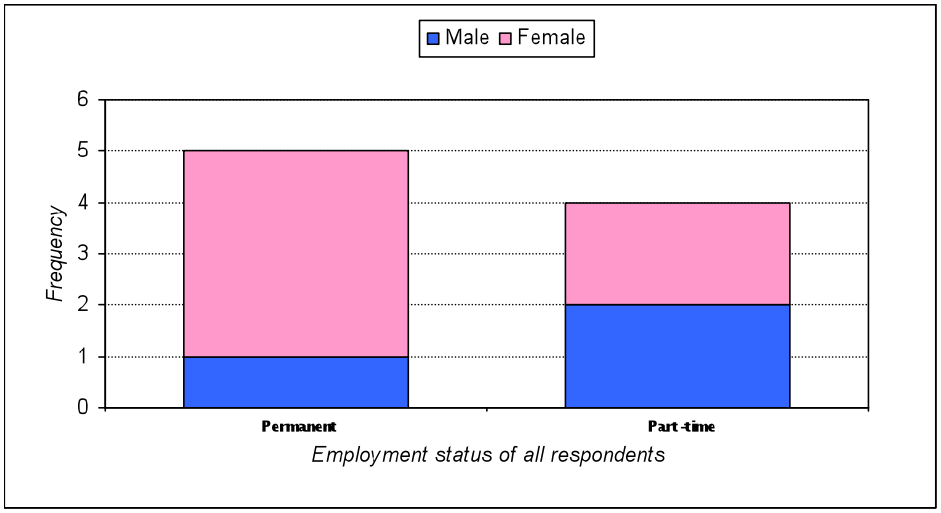

Figure 9 Job status of all employed respondents from Sample Survey of Glenmore Residents.

Question 7b: Are the other people living in your household employed?

Table 14 Number of employed people in respondent's household other than respondent from Sample Survey of Glenmore Residents.

Number employed	0	1	2	Total
Employed	54	14	2	70
Percent	77,1%	20,0%	2,9%	100,0%

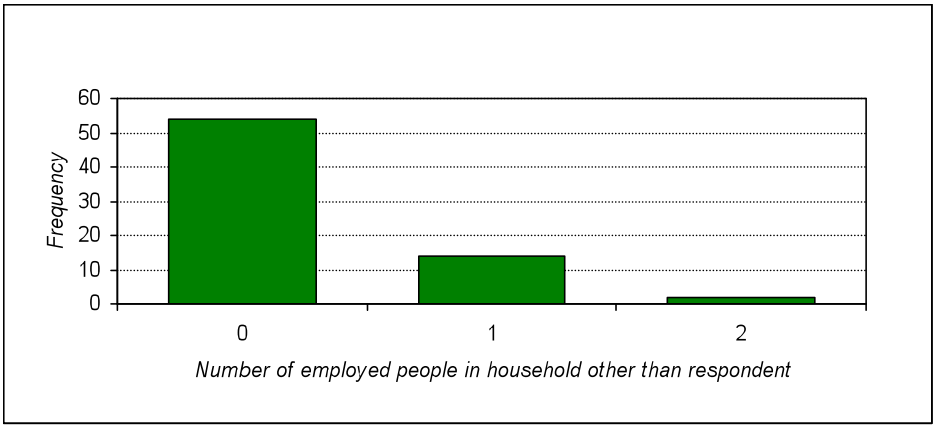

Figure 10 Number of employed people in respondent's household other than respondent from Sample Survey of Glenmore Residents.

1.7 Household income

Question 8: Where does the majority of your household income come from?

Table 15 Source of majority of respondent's income.

Source of income	Number	Percent
Employment in Glenmore	12	14,8%
Self-employed in Glenmore	14	17,3%
Pensions	30	37,0%
Money sent from other family members living elsewhere	3	3,7%
Other sources of income	22	27,2%
Total	**81**	**100,0%**

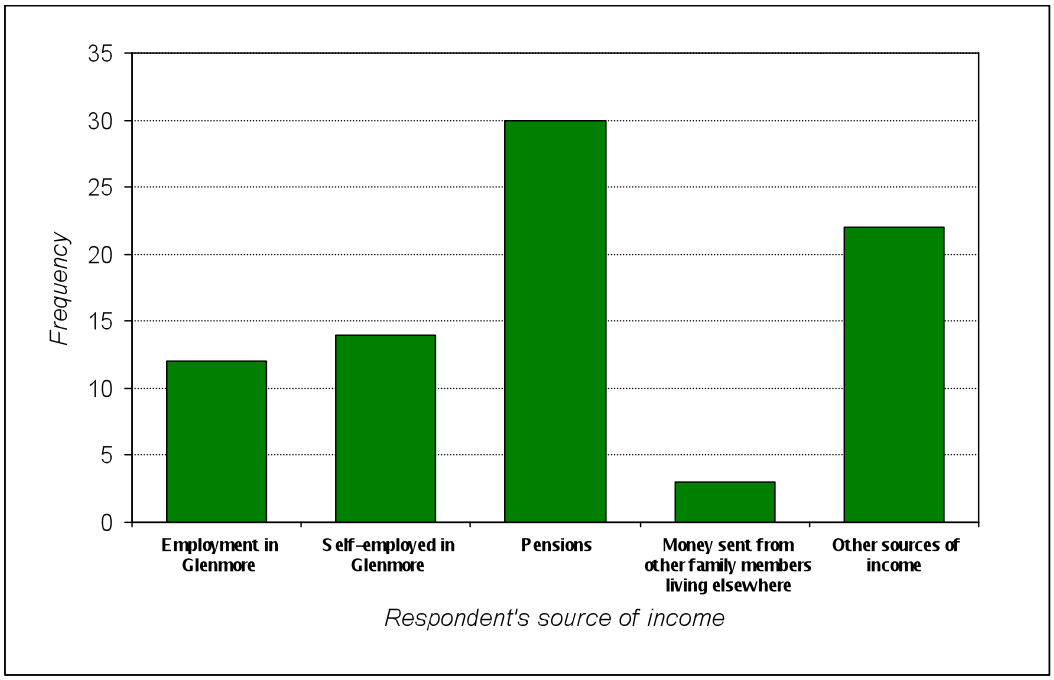

Figure 11 Source of majority of respondent's income.

1.8 Education of respondent

Question 9: What is your highest level of education?

Table 16 Level of education of all respondents in Sample Survey of Glenmore Residents.

Education	Frequency	Percentage
No formal education	12	17,1%
Grade 1-7	22	31,4%
Grade 8-10	14	20,0%
Grade 11-12	19	27,1%
Post school education	3	4,3%
TOTAL	**70**	**100,0%**

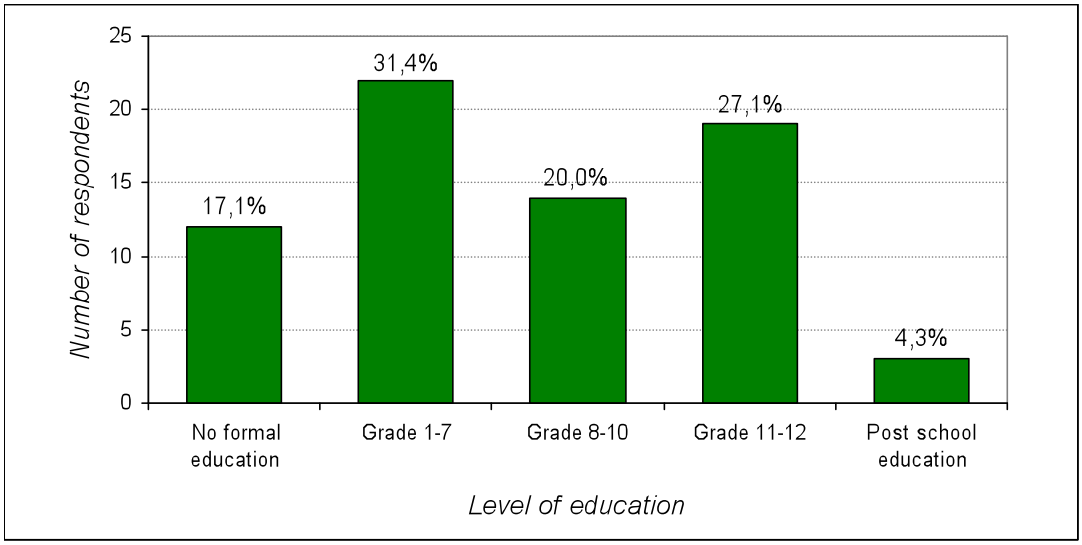

Figure 12 Level of education of all respondents in Sample Survey of Glenmore Residents.

1.9 Skills of respondent

Question 10: What do you consider to the most important job skills that you have that may assist you in getting a job in the next six months? *(Even if you are currently employed!)*

Table 17 Skills possessed by all respondents by category from Sample Survey of Glenmore Residents.

Skills	Frequency	Percentage
Administrative	8	5,4%
Agriculture	9	6,0%
Construction	13	8,7%
Handicraft	24	16,1%
Hospitality	83	55,7%
Social Services	6	4,0%
Other Skills	6	4,0%
TOTAL	**149**	**100,0%**

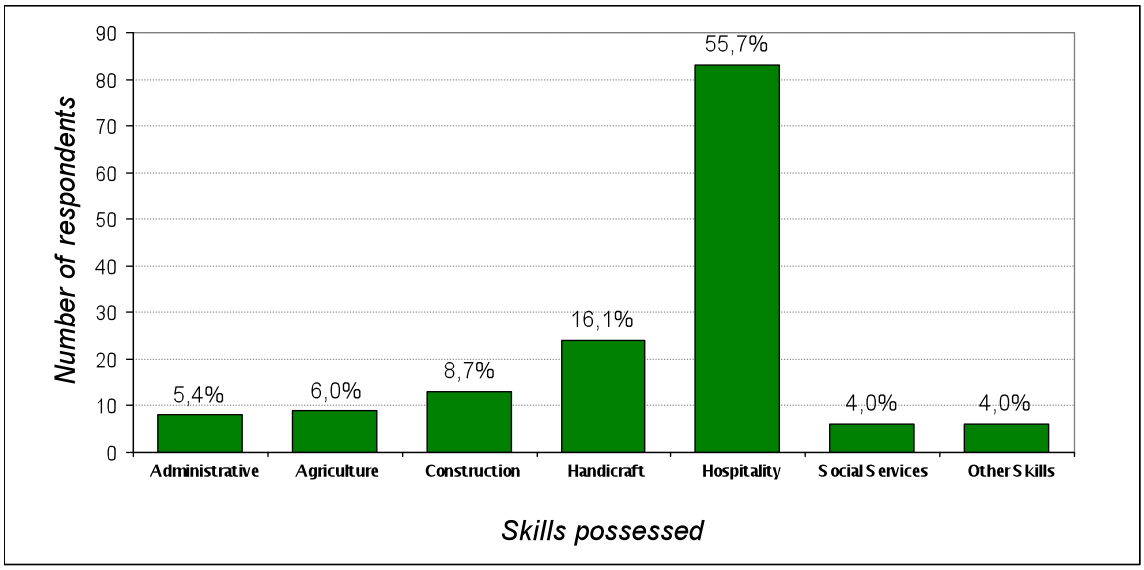

Figure 13 Skills possessed by all respondents by category from Sample Survey of Glenmore Residents.

Table 18 Skills of all respondents by category and skill from Sample Survey of Glenmore Residents.

Category	Skill	Number of respondents	Percent
Administrative	Bookkeeping	1	0,7%
	Computer skills	6	4,0%
	Storekeeping	1	0,7%
Agriculture	Animal husbandry	2	1,3%
	Animal slaughter	1	0,7%
	Gardening	1	0,7%
	Landscaping	1	0,7%
	general	4	2,7%
Construction	Bricklaying	2	1,3%
	Carpentry	2	1,3%
	Electrical	2	1,3%
	General	1	0,7%
	Painting	3	2,0%
	Pipelaying	1	0,7%
	Plastering	1	0,7%
	Plumbing	1	0,7%
Handicraft	Dressmaking	1	0,7%
	General	5	3,4%
	Knitting	1	0,7%
	Leather making	1	0,7%
	Making traditional clothing	1	0,7%
	Sewing	15	10,1%
Hospitality	Catering	5	3,4%
	Cleaning	16	10,7%
	Cooking	23	15,4%
	Housekeeping	12	8,1%
	Laundry	26	17,4%
	Waitress	1	0,7%
Other skills	Driving	3	2,0%
	Mechanic	1	0,7%
	Security	2	1,3%
Social services	Child Minding	2	1,3%
	Hair dressing	1	0,7%
	Nursing	1	0,7%
	Teaching	1	0,7%
	Tradional healing	1	0,7%
	Total	**149**	**100,0%**

1.10 Crime in Glenmore

Question 11a: Do you consider crime to be a problem in Glenmore village?

Table 19 Respondents perception of crime in Glenmore from the Sample Survey of Glenmore Residents.

Crime a problem	Number	Percent
Crime is a problem	52	64,2%
Crime is not a problem	29	35,8%
Total	**81**	**100,0%**

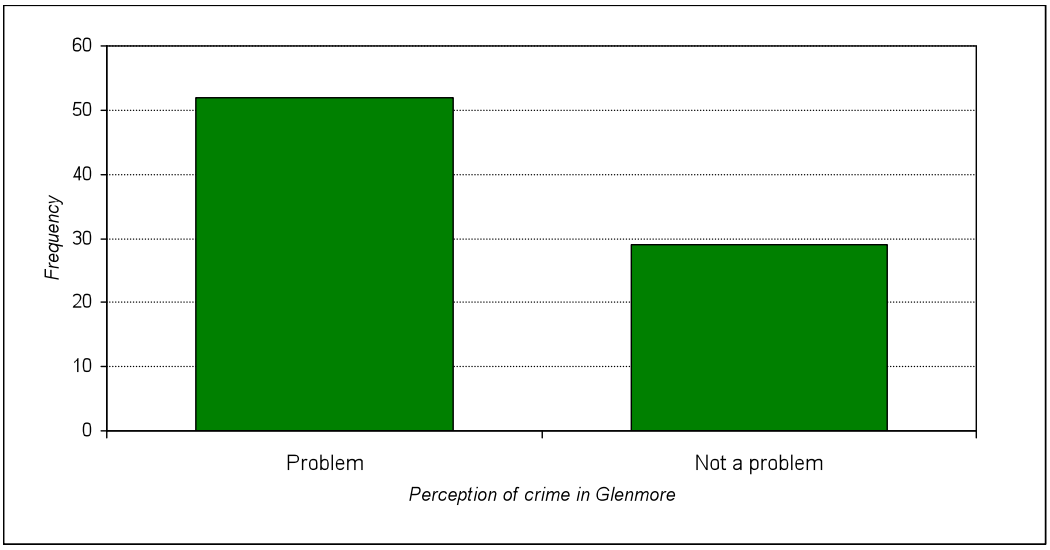

Figure 14 Respondents perception of crime in Glenmore from the Sample Survey of Glenmore Residents.

Question 11b: Why do you consider crime to be or not be a problem in Glenmore village?

Table 20 Reasons why respondents consider that crime is not a problem.

Reason	Number	Percent
Low level of crime	9	36,0%
Policing	2	8,0%
Unaware of crime	14	56,0%
Total	**25**	**100,0%**

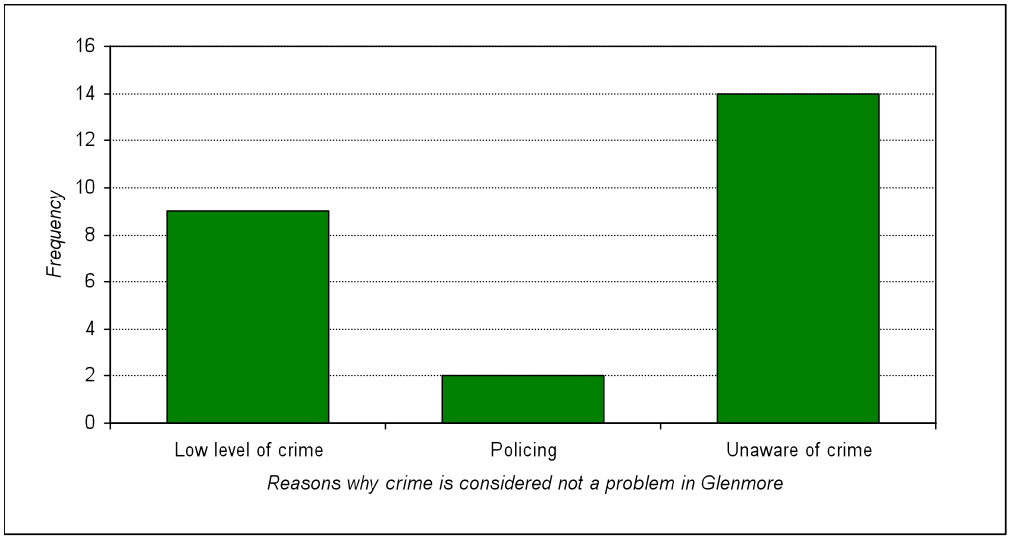

Figure 15 Reasons why respondents consider that crime is not a problem.

Table 21 Reasons why respondents consider that crime is a problem.

Reason	Number	Percent
Assault	2	4,9%
Housebreaking	17	41,5%
Poaching	3	7,3%
Stock theft	6	14,6%
Theft	13	31,7%
Total	**41**	**100,0%**

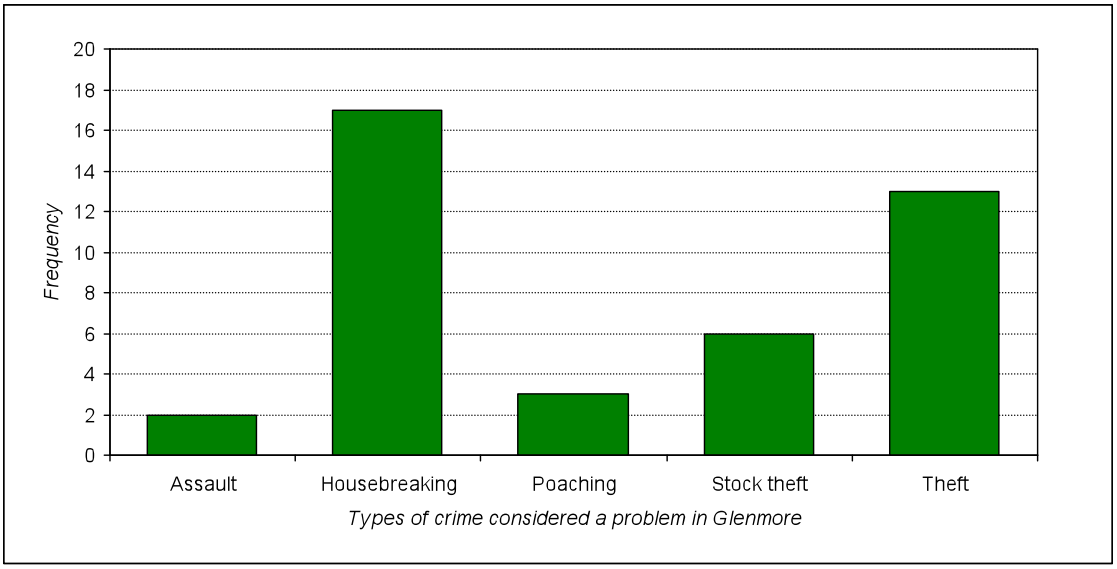

Figure 16 Reasons why respondents consider that crime is a problem.

Table 22 Respondents who do not think that crime is a problem in Glenmore.

Category	Description of problem
Low level of crime	▪ It's not a big problem though it sometimes happens. ▪ It's not a big problem. People may steal small things but I won't consider crime to be a big problem. ▪ No big crime has ever happened in Glenmore. Though things like TV's get stolen, they in time are found. ▪ Not much crime happens here in Glenmore. ▪ Since it's a small community, there are few misbehaving youths. As youths we are taught from childhood to respect and abide to the rules set by our parents therefore not too much involved in crime. ▪ There isn't high crime in Glenmore, compared to other villages or towns. People in here believe in cooperating. If someone has got a problem, he /she shares with the other person and gets some help. ▪ Used to have a high rate of crime but its better now. ▪ Very scarcely happens. ▪ Yes it happens, but not frequently.
Policing	▪ No, because police always patrol to control any violence or stealing. ▪ No, because police are usually present in the village, doing their routine patrols thus less crime happens.
Unaware of crime	▪ Has never witnessed crime happening. ▪ I'm still new in this village so I have not witnessed crime happening or even heard of it. ▪ I've never witnessed crime happening but some people say housebreakings are occurring. ▪ Life is very quite here. ▪ Life is very quite in terms of crime. ▪ Never heard of any criminal activity happening. ▪ Never witnessed it happening. ▪ Never witnessed or heard of it. ▪ No, because I and the people whom I know haven't experienced it happening. ▪ No, because I've got a year in Glenmore, so I've never witnessed crime happening. ▪ No, because I've never heard of it taking place. ▪ No, because I've never witnessed crime happening in Glenmore. ▪ No, because ever since she has been in Glenmore, nothing disturbing has ever happened. ▪ No, because I spend a lot of my time at school so I haven't witnessed crime happening.

Table 23 Respondents who do think that crime is a problem in Glenmore.

Category	Description of problem
Assault	▪ Assault is the most frequent crime. When having a little argument you are beaten up. ▪ Have witnessed youths fighting and stabbing each other at the shabeen.
Housebreaking	▪ Due to a lack of an income or food, our kids get involved in housebreaking. ▪ Due to poverty, there are lots of housebreaking reports. ▪ DVD's and microwaves have been the target items in recent years by thugs. ▪ House breaking is very common. TV's and Hi-Fi's are the targets. ▪ Housebreaking is very common. ▪ Housebreaking usually happens. ▪ Housebreakings are popular especially in the northern part of Glenmore. ▪ In past years, housebreakings were common. Now the level has just declined. ▪ My house was once burnt down by thugs. Someone also tried to rape me but failed. ▪ My neighbour's house was once broken into by thieves. ▪ Property is usually stolen in houses. ▪ Stealing is very common. TV's and Hi-Fi's are targets. ▪ Television sets are being stolen nowadays. ▪ There is a lots of housebreakings due to lack of work. ▪ Thieves once came to my house at night while asleep but they couldn't break through because when I screamed, neighbours came rushing and the thieves fled. ▪ We receive reports of houses being broken into. ▪ We teachers are the targets, especially when we are on holidays our houses are broken into.
Poaching	▪ Due to poverty most parents are involved in poaching in the game reserve, so as to cater for their families. ▪ Poaching is the biggest problem. ▪ Unemployed males get involved in poaching in the reserve.
Stock theft	▪ Fewer people have afforded to join business projects due to a lack of an income. The majority decide to go and steal from the poultry project because they can't afford to buy the live chickens. ▪ Stealing of livestock is very common. ▪ They like to steal our sheep and any property which attracts them. ▪ They steal chicken from poultry projects. ▪ They steal our livestock, pigs and other valuable things. ▪ Last night, the poultry project was broken into.
Theft	▪ Committing crime is Glenmore's lifestyle, especially on month ends. Stealing and fighting always happens. ▪ Daylight robbery still is a problem. ▪ Robberies are common here. ▪ Stealing happens, but not frequently. ▪ Stealing happens but it's much lower than at other places or townships. ▪ Stealing is a problem. ▪ Stealing is a problem. ▪ Theft is a problem in Glenmore. ▪ Theft is our biggest problem. ▪ Theft of property happens. ▪ They steal our property. ▪ Though the rate is low, stealing still happens. ▪ We can't provide our kids with enough money due to poverty, so they prefer to go and steal at other people's homes.
General	▪ It's controllable, though it happens.

	▪ But not vast. ▪ Crime happens but it's different from other towns because the crime rate is very low. ▪ Due to poverty.

1.11 Immigration from Glenmore

Question 12: Do you plan on moving away from Glenmore permanently?

Table 24 Respondent's future residence in Glenmore as determined by Sample Survey of Glenmore Residents.

Future residence	Male	Female
Stay in Glenmore	16	38
Move away	4	12
TOTAL	**20**	**50**

Figure 17 Respondent's future residence in Glenmore as determined by Sample Survey of Glenmore Residents.

Table 25 Place to where respondents who want to leave Glenmore will immigrate.

Place of immigration	N	Percent
Alexandria	1	6,3%
Cape Town	2	12,5%
East London	1	6,3%
Grahamstown	5	31,3%
Plettenberg Bay	1	6,3%
Port Alfred	1	6,3%
Port Elizabeth	4	25,0%
United Kingdom	1	6,3%
Total	**16**	**100,0%**

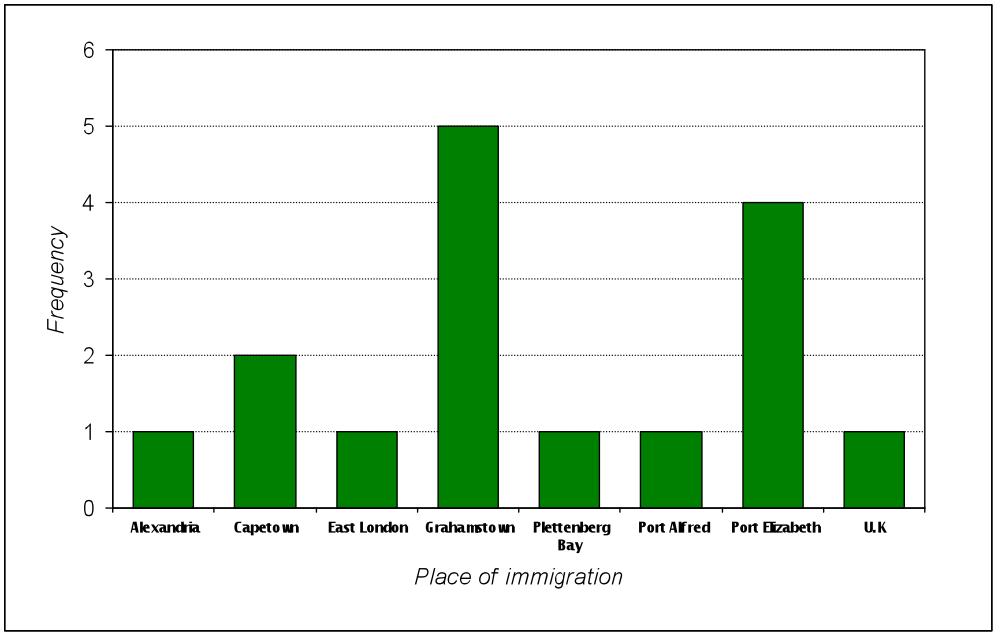

Figure 18 Place to where respondents who want to leave Glenmore will immigrate.

Table 26 Respondent's motivation to remain in or move away from Glenmore.

Move or stay	Reason	Number of respondents	Percent
Remain in Glenmore	Employed in Glenmore	1	1,5%
	Farming in Glenmore	3	4,4%
	Inexpensive to live in Glenmore	1	1,5%
	Just arrived in Glenmore	3	4,4%
	No other options	1	1,5%
	Other	1	1,5%
	Relatives in Glenmore	2	2,9%
	Security	3	4,4%
	Settled in Glenmore	31	45,6%
	Too old	6	8,8%
Move away	Better opportunities	4	5,9%
	Place of origin	4	5,9%
	Relatives there	8	11,8%
	Total	**68**	**100,0%**

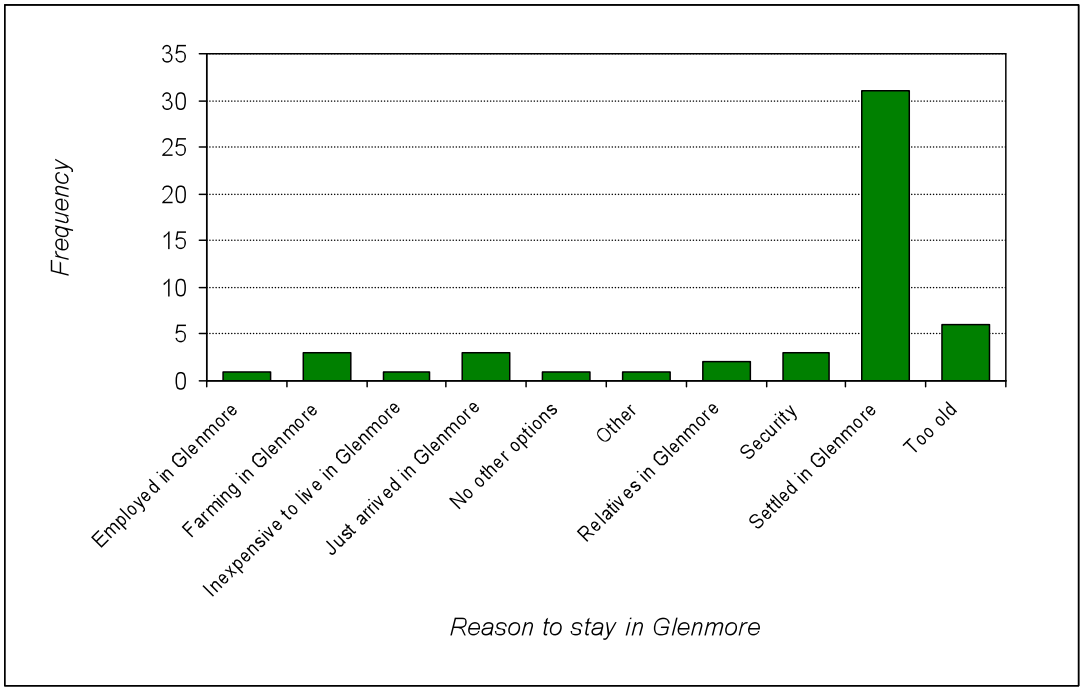

Figure 19 Respondent's motivation to remain in Glenmore.

Table 27 Respondent's motivation to stay in Glenmore.

Motivational category	Description of motivation
Employed in Glenmore	▪ No because I've got a permanent job here.
Farming in Glenmore	▪ I like farming. Glenmore is a perfect place for me because we've got a small piece of land to plant our crops. ▪ We grow our own food here. I like this place. ▪ We like this place because of our fields and the low cost of living.
Inexpensive to live in Glenmore	▪ Life is very cheap here.
Just arrived in Glenmore	▪ I hope to make this my permanent home. ▪ No because we've just arrived in Glenmore, so we better stay for a while and see if we can like it. ▪ No. I have just arrived in Glenmore so hasn't yet made plans to move away.
No other options	▪ I've got no relatives elsewhere to welcome me. So I can't relocate.
Other	▪ No.
Relatives in Glenmore	▪ My whole family and friends are here so I've got no plans to move. ▪ No because we as a family, are used to this place.
Security	▪ No, because Glenmore is a very quite place. I hate places which are very violent and with lots of killings and corruption. ▪ No, because i feel secure living in Glenmore. ▪ Though crime is here, but it's much better to stay here in Glenmore. I like this place.
Settled in Glenmore	▪ Haven't yet made plans to relocate ▪ I'm now used to staying in Glenmore. ▪ I'm used to staying in Glenmore. No plans to move. ▪ I'm used to staying in Glenmore. Staying at another place will make life tough for me. ▪ Maybe, if I finish school, but as for now I haven't thought of relocating. ▪ Maybe if forced by my kids to go live with them, but as for now I'd like to stay. ▪ Maybe, if my husband is forced to relocate then we would move, but we haven't made plans for that. ▪ No, because I would like to help uplift my community so that we can compete with other townships like Peddie or Alice. ▪ No. I'm used to staying in Glenmore. ▪ No. We were forced to come relocate here so I don't have any place to go live again. ▪ No because I like staying in Glenmore. ▪ No because I want to help improve our community. Leaving will make poverty increase. ▪ No, because I'm looking after the house. I'm the only one living in this house in our family. My brothers are working in Johannesburg ▪ No, because I'm planning to die here. ▪ No, because I'm used to staying in a village. Glenmore is the place to be. ▪ No, because in Glenmore we've got a lot of power and lights, compared to moving to other places, so I won't prefer moving to another place. ▪ No, because life is very quite in here.

	▪ No, because long back we used to relocate frequently, so I'm now tired of it.
	▪
	▪ No, because there is no one to look after my house and property. My family is in Grahamstown. ▪ No, because we like Glenmore, and its very quite here. ▪ No, but if forced to, by parents then I will relocate. ▪ No plans to relocate. ▪ No, because I'm now used to staying in Glenmore. I'd to prefer stay here for the rest of my life. ▪ No, because this is now our home. We can't risk ourselves moving to another place. ▪ No. I can go and work at another place but will eventually come back to stay in Glenmore. This is home. ▪ This is home, so I've got no plans to move or go work somewhere else. ▪ This place is different from town life. People cooperate in here. No plans to move away. ▪ Though I am employed in Plettenberg Bay, I still do have a piece of land here in Glenmore which helps my family when they run out of money. ▪ I will move to Port Elizabeth but I will eventually come back here. ▪ I would prefer to die here.
Too old	▪ I'm now too old to relocate. ▪ No, because I'm too old now and this is going to be my place of burial ▪ No, because we are now too old so we better die here in Glenmore ▪ No, because I won't prefer to relocate again due to old age. ▪ We are now too old and would prefer to die in Glenmore as my husband is buried here. ▪ We are now too old. We can not consider relocation

Table 28 Respondent's motivation move away from Glenmore.

Motivation category	Description of motivation
Better opportunities	▪ I believe it is where I can have a better chance to improve my education. Employment opportunities are much higher than here in Glenmore and other surrounding towns. ▪ I'll be looking for a job. I prefer it because I like to get surrounded by my tribe - Blacks/Xhosas. ▪ I'll go to look for work. Its nearer to home. ▪ I'm going to look for work. I like adventure. It's also closer to home.
Place of origin	▪ That's were I grew up. ▪ That's where I come from. ▪ That's where I come from. I'll be moving there at any time because I can't find employment here. ▪ I used to stay in Grahamstown, so compared to Glenmore, I'm planning to go back to Grahamstown.
Relatives there	▪ Following my relatives. ▪ I'll be going to stay with some of my family members who stay in Cape Town ▪ I'm just here for work. After retirement I'm going back home. ▪ It's where some of my family members are. ▪ My home is in Port Elizabeth. I came here to look after my husband who is very sick: one day I'll go back home. ▪ My relatives stay there.

1.12 Problematic youth in Glenmore

Question 13: What do you consider to be the biggest problems with the youth of Glenmore?

Table 29 Respondents perception as to the problems with the youth of Glenmore from the Sample Survey of Glenmore Residents.

Problem with youths	Number	Percent
Alcohol	52	30,2%
Crime	29	16,9%
Drugs	11	6,4%
Loitering	10	5,8%
Morals	27	15,7%
Pregnancy	10	5,8%
Violence	25	14,5%
Work ethic	8	4,7%
Total	**172**	**100,0%**

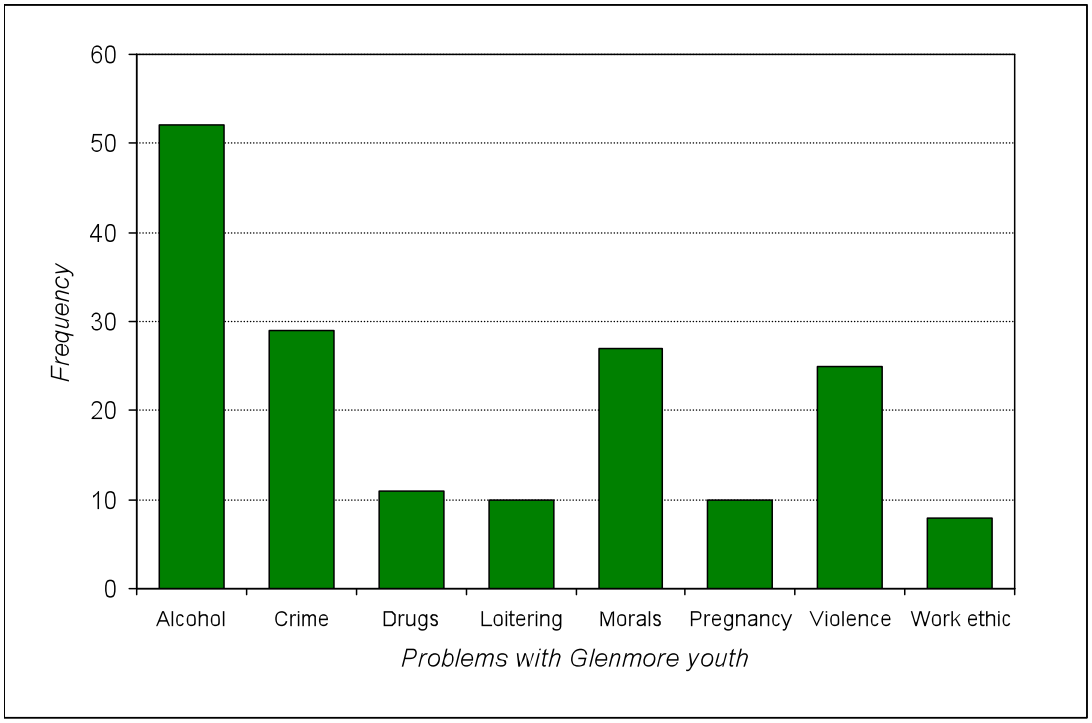

Figure 20 Respondent's perception as to the problems with the youth of Glenmore from the Sample Survey of Glenmore Residents.

Table 30 Respondents perception as to problems with the youth of Glenmore from the Sample Survey of Glenmore Residents.

Category	Description of problem with youth in Glenmore
Alcohol	▪ Boozing ▪ Boozing is also a big problem. ▪ Drinking a lot. ▪ Drinking especially on weekends. ▪ Drinking especially on weekends. ▪ Drunkenness is also a major problem especially on weekends. ▪ Due to a lack of social activities to do in Glenmore, youths prefer to take alcohol as a way of relaxation. This results in fighting between them after they are all drunk. ▪ Heavy drinking. ▪ Heavy drinking is the biggest problem I can recognize. ▪ Taking too much alcohol. ▪ They do drink a lot. ▪ They like going to shabeens.
	▪ They like going to shabeens. ▪ Too much drinking.

Category	Description of problem with youth in Glenmore
	▪ Too much drinking. ▪ We drink a lot but that's the only way to relax in Glenmore.
Crime	▪ Cell phone robbery if you aren't careful. ▪ Getting involved in stealing. ▪ House breaking. ▪ Most housebreaking is committed by them. ▪ Others are getting involved in poaching in the game reserve and when caught they are imprisoned. ▪ Some youths are getting involved in housebreaking due to lack of an income. ▪ Stealing ▪ Stealing ▪ Stealing ▪ Stealing ▪ Stealing ▪ Stealing ▪ Stealing ▪ Stealing ▪ Stealing ▪ Stealing ▪ Stealing ▪ Stealing ▪ Stealing ▪ Stealing ▪ Stealing ▪ Stealing ▪ Stealing of chickens in nearby farms. ▪ Stealing our goats. ▪ Stealing sheep and household items due to lack of employment. ▪ Stealing used to happen, but now is better. ▪ The housebreakings rate is also increasing at a faster rate. We believe it's the youth who commit the housebreakings. ▪ Theft is another problem. ▪ They beat up old people.
Drugs	▪ Smoking ▪ Smoking ▪ Smoking ▪ Smoking. This all happens due to unemployment. ▪ Smoking dagga. ▪ Smoking dagga and other type of drugs. ▪ Some do smoke. ▪ Some youths are getting involved in smoking while still young. ▪ Taking drugs. ▪ Taking drugs. ▪ Taking drugs.
Morals & Discipline	▪ Loitering at night. ▪ Loitering in the streets. ▪ Loitering in the streets at night. ▪ Loitering in the streets at night. ▪ Making noise when loitering in the streets at night. ▪ Making noise, roaming the streets at night. ▪ Misbehaving. ▪ Misbehaving sometimes.
	▪ Roaming around the streets at night. ▪ Sleeping late at night, roaming the streets.

Category	Description of problem with youth in Glenmore
	▪ Bad manners. ▪ Bad morals. They like to insult. ▪ Bad morals/Insulting. ▪ Disrespect ▪ Disrespect ▪ Disrespect ▪ Disrespect ▪ Disrespect
	▪ Disrespect ▪ Disrespect ▪ Disrespect ▪ Disrespecting their teachers. ▪ Gossiping ▪ Insulting ▪ Insulting is also common. ▪ Insulting is common. ▪ Insulting. ▪ Lack of good behaviour. ▪ Most of them commit adultery at an early age. ▪ No respect to others. ▪ No respect to parents who aren't theirs. ▪ Our youths are disrespectful. ▪ Some don't listen to teachers. ▪ Some of my colleagues disrespect our teachers. ▪ Some of them want to act as adults by joining us at shabeens, which isn't good for youths. ▪ They are rude. ▪ They disrespect us old people.
Pregnancy	▪ Early pregnancy. ▪ Early teenage pregnancy. ▪ My daughters are having pregnancies at an early age. It's a problem which I've no idea how to solve it. ▪ Pregnancy at an early age. ▪ Teenage pregnancies. ▪ Teenage pregnancy. ▪ Teenage pregnancy. ▪ Teenage pregnancy. ▪ They like to move around the streets at night, resulting in some of them getting early pregnancies ▪ Unemployment results in teenage girls getting early pregnancies because if they are fortunate to have a kid, the government gives them a child grant of R200. So they do it in anticipation of that money.
Work ethic	▪ Assaulting old people. ▪ Beating up people in the streets at night especially on holidays. ▪ Fighting ▪ Fighting ▪ Fighting ▪ Fighting ▪ Fighting ▪ Fighting ▪ Fighting, resulting in stabbing each other. ▪ Fighting and Stabbing each other. ▪ Fighting each other.
	▪ In the past years, murders used to happen. ▪ Rape

Category	Description of problem with youth in Glenmore
	▪ Rape ▪ Some get involved in rape cases. ▪ Stabbing each other. ▪ Stabbing each other when drunk. ▪ Stabbing each other. ▪ The biggest problem is street fighting. ▪ They usually fight each other. ▪ Violence; i.e. fighting each other. ▪ Violence which results in fighting. ▪ Violence – fighting. ▪ We've had cases of people stabbing each other especially at shabeens. ▪ When mistreated, we usually insult. ▪ Cannot judge them on laziness. ▪ Dropping out early at school; Taking drugs. ▪ Laziness ▪ Laziness ▪ Laziness ▪ Most girls don't finish their schooling. ▪ My colleagues are lazy. They don't put an effort on trying to start their own businesses. ▪ They are lazy when given tasks to do.

1.13 Government intervention

Question 14: If the government had to provide for the youth of Glenmore, what would you suggest that the government provides?

Table 31 Categories of government interventions to assist Glenmore youth.

Category	Number of respondents	Percent
Education	41	27,9%
Employment	19	12,9%
Enterprise / Entrepreneurial	25	17,0%
Governance	1	0,7%
Handicrafts	3	2,0%
Music	7	4,8%
Self-help	27	18,4%
Social / Cultural clubs	10	6,8%
Sport	14	9,5%
Total	**147**	**100,0%**

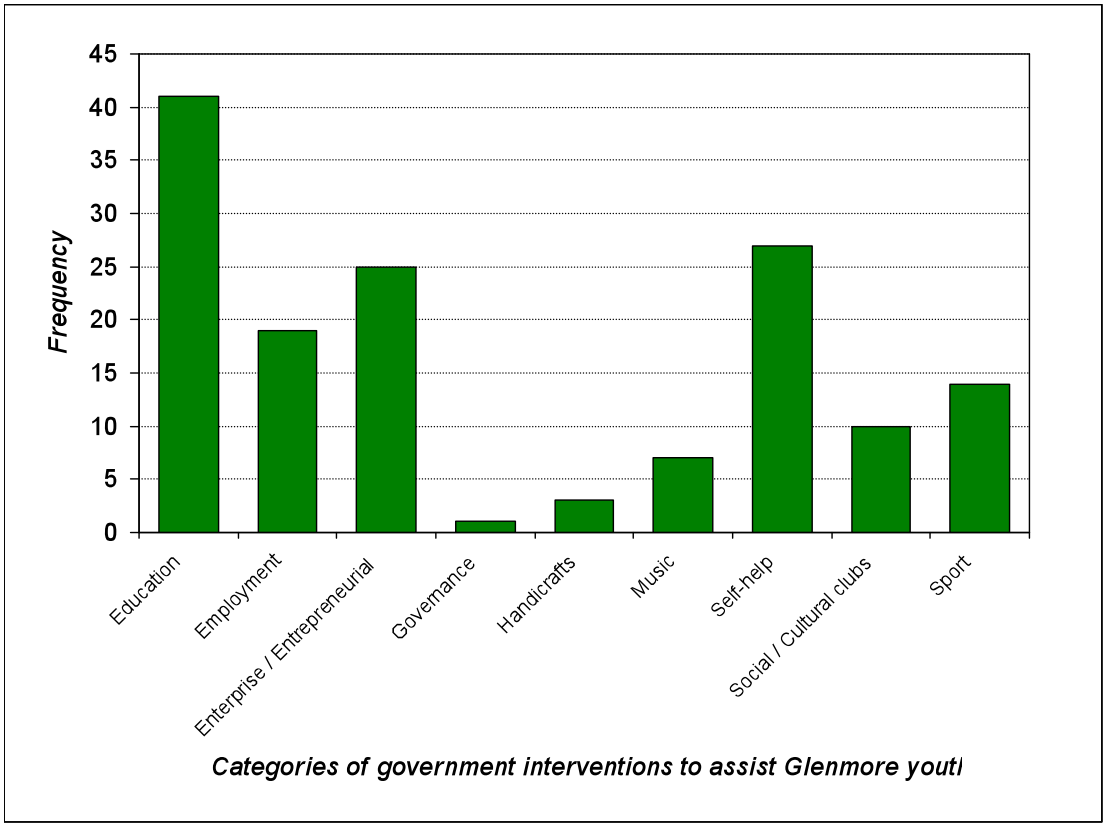

Figure 21 Categories of government interventions to assist Glenmore youth.

Table 32 Categories of government interventions with specific actions to assist Glenmore youth.

Category	Action	Number of respondents	Percent
Education	Agricultural training	4	2,8%
	Build training facility	6	4,2%
	Business training	6	4,2%
	Loans	2	1,4%
	Resources	3	2,1%
	Skills training	10	7,0%
	Social training	6	4,2%
	Training	4	2,8%
Employment	Agricultural jobs	1	0,7%
	Building projects	1	0,7%
	Employment	4	2,8%
	Public sector jobs	1	0,7%
	Road maintenance	8	5,6%
	Security jobs	4	2,8%
Enterprise / Entrepreneurial	Agriculture businesses	4	2,8%
	Funding / Sponsorship	9	6,3%
	Resources	6	4,2%
	Start small businesses	3	2,1%

	Sub-contracting	1	0,7%
	Training	2	1,4%
Music	Competitions	1	0,7%
	Funding / Sponsorship	4	2,8%
	Training	2	1,4%
Self-help	Funding / Sponsorship	7	4,9%
	Health training	1	0,7%
	Recreation facility	2	1,4%
	Resources	9	6,3%
	Social training	6	4,2%
	Voluntary projects	2	1,4%
Social / Cultural clubs	Funding / Sponsorship	2	1,4%
	Recreation facility	8	5,6%
Sport	Activities	5	3,5%
	Funding / Sponsorship	7	4,9%
	Training	2	1,4%
Total		**143**	**100,0%**

Table 33 Entities that Government should provide for the youth of Glenmore from the Sample Survey of Glenmore Residents.

EDUCATION	
Sub-category	**Description of action**
Agricultural training	▪ Encourage youth to do agriculture at school because we've got a large area of land which doesn't have any serious agricultural activity taking place on it. Usage of this land will make increase crop production in our village. ▪ Glenmore life is all about farming. If government could introduce teachers in crop production so to improve our farming techniques, then our youths will benefit greatly. ▪ Introduce farming schemes for our youth but they will first need to be trained. ▪ Today's youth lack proper agricultural training. If agricultural training seminars were introduced then we would improve our agricultural sector ▪ Train them in livestock rearing. Glenmore has a lot of fallow land good for rearing livestock. This will make a good industry for them.
Build training facility	▪ Build a college for them because I struggled to teach my daughter when she had to learn far away in Grahamstown. If a college is built nearer then life will be easier for us. ▪ Built a tertiary training centre here in Glenmore so that our youths don't leave us for other places. ▪ Built up a college for them here in Glenmore. This will help us parents in cutting costs for transport for them to go and do their tertiary education very far away. ▪ Establish business training centres here in Glenmore. By so doing most of our school leavers won't have to travel to places like Grahamstown to seek tertiary education, thus we will be cutting transport costs. ▪ Our matric students are very bright in Mathematics. Though intelligent, they struggle to get employed because of having no tertiary qualification. If government could built up training facilities where they get to be taught new skills.

	▪ Put up a college for them in Glenmore so as for them not to go and study elsewhere.
Business training	▪ If workshops are held for youths by the government to teach us how to be good in businesses - train us how to make our businesses much more profitable which we would appreciate. ▪ Introduce courses on how to start small enterprises so that our youths can have something to do after schooling.
	▪ Teach them how to handle a business.
	▪ Teach them how to handle small businesses. We don't have a shop that sells electricity and we are forced to travel to Peddie to buy it. If some of our youths could get governmental aid to open up such a shop here then our life would be made easier. ▪ Teach us business skills. We only got two shops in Glenmore. We as youths can open up new, much bigger shops to cater for our community, when taught business basics. ▪ Train them about financial management so as to help themselves in difficult circumstances.
Loans	▪ Most youths in Glenmore passed Grade 10 but they can't further their education due to lack of financial backing. If government could help by offering grants to these youths to undertake certain courses which will boost their careers.
	▪ Our youths fail to get scholarships to go to varsities after completing school. Let government encourage donors to provide scholarships to bright students from our community.
	▪
Resources	▪ Improve teaching standards in subjects like computers. We have fewer computers at our school and there is a specific grade in which computer studies are conducted. More youths will become computer literate if the school is provided with more computers. ▪ Our school has got a shortage of computers, so if government could come up with more computers or even introduce computer studies at the lower primary school, then my colleagues would become more skilled at a younger age. ▪ Provide us with computers at the ABET school. Then our youths will get computer skills to be able to easily get employed. Teaching them skills like bookkeeping or catering will also help them to become competitive in today's competitive world.
Skills training	▪ Foreign tourists want to eat their home staple food. Thus if government can introduce schools which teach about foreign types of food then we can work in restaurants. ▪ Improve our educational standards at school. Introduce more technical subjects and bring in more teachers. ▪ Introduce courses for them so as to gain skills, e.g. carpentry, brick making etc. ▪ Open up tertiary schools where technical skills are taught. This will make youths start relying on themselves rather than always rely on their parents, even in their late twenties.
	▪ Our village homes don't have proper flushing toilets and showers. If government could employ or train our youths to do plumbing, then our youths would get skilled and improve our infrastructure by building proper toilets.
	▪ Teach them building skills (small businesses) so they can be valuable people in our society of Glenmore. ▪ Train our youth in basic skills like being carpenters or electricians, then we won't spend a lot of money seeking help from places like Grahamstown where skilled people stay.

	▪ Train our youths to do technical jobs like plumbing. This will help them to easily find jobs or even to do part time jobs. Maybe we may see a contracting firm rising from our youths due to such initiatives. ▪ Train them in technical jobs. We've got a shortage of carpenters in Glenmore. ▪ We've got large schools but with a lot of drop outs. If computer learning skills are introduced to all grades then those who drop out early can still have a skill to show off.
Social training	▪ Please train them / hold meetings with them to learn to learn how to behave. Teach them ways to rather spend their time on up building things rather than to do bad things. ▪ Provide them with training and resources to boost the security of this community. ▪ Teach them at seminars how to work together as a group. Our youths don't have any business minds because each one of them does something which only he wants. There is lack of cooperation. ▪ Train our youths in leadership skills. Involve them in organisations which are functional in Glenmore like Action Aid and Masifunde. This will help them to be good future leaders. ▪ Train our youths to become social workers, thus jobs will be created. ▪ Train them in security services.
Training	▪ Let government also start catering studies at school then our youths will have more skills learnt at school to help them after school. ▪ Most youths here don't work due to lack of governmental support. Offer them training courses like security courses. ▪ Offer us with different types of training courses so that we become more skilled, thus uplifting our community. ▪ Teach them about Travel and Tourism because very soon we will be having a world cup in 2010. This will give them the opportunity to get employed in this rapidly growing industry.

EMPLOYMENT	
Sub-category	**Description of action**
Agricultural jobs	▪ Introduce big farming areas around Glenmore that will recruit a huge number of youths in Glenmore. This will help our youths to get themselves busy, rather than spend time loitering in the streets.
Building projects	▪ Create jobs for our youth. One way is by building us a post office, in Glenmore. We struggle in postal activities. We have to go to Grahamstown to get access to it.
Employment	▪ Bring on building contractors to come and renovate /build the clinic as it is too small. Our youths will get jobs. ▪ Introduce employment opportunities so that we can have something for feeding ourselves. ▪ Offer our youth with employment opportunities. This will reduce the poverty which is in our community. ▪ Provide employment opportunities for them.
Public sector jobs	▪ Encourage NGO's to employ vast numbers of non employed youths in Glenmore. This will help reduce unemployment.
Road maintenance	▪ Bring on road maintenance contractors so that our roads can be repaired. Our youths will be getting employed and infrastructure improved. ▪ Bring road maintenance contractors because our roads are full of potholes. This will make our youths get employed. ▪ Create jobs; e.g. Road maintenance, then recruit our youths. In so doing we'll be reducing the unemployment level in Glenmore. ▪ Get them involved in road maintenance jobs. Our roads are beyond repair. ▪ Get us involved, road maintenance works here in Glenmore. Our roads are beyond repair. ▪ I believe our youths are hard working. If road maintenance contractors could be introduced to maintain our roads, i.e. put up a tarred road along Alice -Grahamstown via Glenmore, then we would have created jobs to our youth, and infrastructure improved. ▪ Our youths don't have money to go and open up their own businesses. If government could introduce road maintenance works then youths will get jobs to get money to start small businesses.
	▪ Provide employment opportunities for the youth such as repairing and maintaining our roads.
Security jobs	▪ Create security jobs for them to join. In so doing they learn the importance of not stealing. ▪ Enrol them in the SAPS as police officials , thus they will reduce crime ▪ If government could also beef-up our security by recruiting our youths and train them as security officers (SAPS), rather than recruiting outside Glenmore, then our youths would both get employment and also help reduce crime in the community. ▪ Introduce jobs for them like community policing .Thus they will lessen the amount of crime.

ENTERPRISES & ENTREPRENEURSHIP	
Sub-category	**Description of action**
Agriculture businesses	▪ Encourage the youth to do farming like rearing livestock, etc. Our land is good for crop production too but most youths don't want to get involved due to laziness. If government could get involved in persuading these youths we might see a change. ▪ Encourage them to do poultry projects. They will first need to be trained. This will help our youths to become better leaders for tomorrow. ▪ Help us start a livestock production project. Most youths don't finish school so they can spend most of their time rearing livestock than doing bad things. ▪ We are taught agriculture at school but after completion, we don't pursue those trades due to lack of resources and funding to start our own agricultural schemes. Let them help us in this regard.
Funding / Sponsorship	▪ Fund them in crop production projects, and then they will learn to rely on themselves. ▪ Fund us to start livestock rearing projects. ▪ Help them start a scheme, e.g. crop production. Funding is needed. ▪ Help us with funding so as to boost our crop, poultry production and sewing projects. In so doing more youths will join because of the financial viability of the projects. ▪ Help us with funding to start businesses, in smaller groups not large groups. This will result in less conflicts and everyone involved putting up all effort to make the business succeed. ▪ Offer us loans to start small businesses like selling second hand clothes which can be bought at a cheap price in Grahamstown, then we can sell them at a cheap price to our locals. This will make us business minded people. ▪ Provide funding to start crop production schemes. Most youths in Glenmore love their agricultural studies ▪ Provide resources and funding so to start small business enterprises, e.g. crop production. This will lessen poverty in our village. ▪ We've have a single functional poultry project. Chicken meat is highly in demand here. So if government could help the youth in funding them to start their own poultry projects, they will positively have a market.
Resources	▪ Give us material and capital to do laundry businesses.
	▪ Provide them resources to start small businesses like a bakery. We as residence struggle to find basic commodities like bread sometimes. If a bakery is introduced in Glenmore then we would have reduced unemployment and starvation. ▪ Provide us material to start our own bakery. Bread only comes from Grahamstown, so if we can have our own bakery then some of the youths will get jobs and knowledge to conduct/manage a business. ▪ Provide us with resources and funding so as to start small business projects. Currently we have only two spaza shops in Glenmore. More are needed. ▪ There is also an opportunity for our youths to do businesses like hair saloon. The problem is lack of materials and resources. If government would come forward, it would help them to have something of their own to survive on. ▪ We are also good in hair dressing, but lack material to start a big business. We will appreciate it if the government could provide for us in this respect.
Start small businesses	▪ Encourage them to open up small businesses like spaza shops. They should be encouraged to work in a cooperative state, i.e. work in groups.

	▪ Help us start businesses which provide early returns, not the ones which take too long to bring profits. ▪ Introduce institutions whereby youths gather and get taught how to be good in conducting small businesses like Catering.
Sub-contracting	▪ Give us an opportunity to do subcontracting in the building sites which need subcontracting.
Training	▪ Hold seminars with our youth and teach them to have trust in each other if they are to start small businesses. A lot of businesses in Glenmore fail due to lack of cooperation. ▪ Let government support the projects which currently exist. They are almost dying due to lack of good financial management. Our youth lack a future in these projects. ▪ Most government sponsored contracts here result in discrimination. Leaders employ their relatives. If government could remove such people then most of our youths will get employment opportunities.

HANDICRAFT
▪ During our heydays we used to make beads and traditional items. Nowadays it's not happening. If government could come up with a plan to encourage them to make or uplift our traditional type of clothing then I'll be very pleased. ▪ Encourage them to go back to our old way of making traditional clothing. We are always ready to help them. They just lack motivation. ▪ Encourage youths to make and sell traditional clothing. This has since stopped because no one encourages this generation to continue from where we left off. First world life is being inculcated into them.

MUSIC & DRAMA	
Sub-category	**Description of action**
Competitions	▪ We are involved in school choirs but we don't go and compete with other schools. If government could introduce musical competitions for us then we would start taking music seriously.
Funding / Sponsorship	▪ As youths, we are involved in musical groups, so if the government could provide us with funding or organise musical concerts for us so that we can compete with other musical groups from other regions, it will help us alleviate poverty. ▪ I wish to be a musician. If government could give support to I and my colleagues in terms of instruments and also if a recording company could support us then we might come up with a strong musical group here in Glenmore. ▪ We have got a school choir but lack funding so as to compete with other schools. Let the government give us funding and choir uniforms. ▪ We have musical groups but lack sponsorship and funding so as to compete with other groups from neighbouring towns. If given funding, we may come up with a nationally recognised musical group in Glenmore.
Training	▪ If a singing teacher could also be introduced to the local schools then we may have musical groups emerging from Glenmore. ▪ Our youths in Glenmore are good in activities like drama. I think if the government introduces drama concerts for them whereby an award is given, then we will be uplifting our youths.

SELF-HELP PROJECTS & PROGRAMMES	
Sub-category	**Description of action**
Funding / Sponsorship	▪ As youths, we like soccer, so if government could fund us in giving us sporting utensils and training kits, we would appreciate it. ▪ Encourage them to have self help groups. Thus they will make small groups whereby they donate few monies and share it at the end of the year. Thus they will learn to be self dependant. ▪ Fund our youths to start sewing projects because lots of girls in Glenmore know how to do sewing. ▪ Fund those youths who come and clean our homes for free. Then they will have some money to take care of their needs. In so doing more and more youths will grow up learning to have tender care for adults. ▪ Give them a chance to utilize the skills which they learn at school, e.g. sewing. They lack funding or resources to begin their own businesses after school completion. ▪ Give us funding to start youth clubs like musical clubs. ▪ We've got local youth groups known as Stars of tomorrow, which help old people, i.e. cooks for them. These groups lack financial support because we Glenmore residence are poor, so can't give them money. If government could fund them for their good work.
Health training	▪ Involve our youths in voluntary workshops which teach about HIV /AIDS. Glenmore is having a big number of teenagers with kids but without being married. If care is not taken, we will then see a rise in HIV infection.
Recreation facility	▪ Help us to start weekly youth meetings whereby youths gather to talk about the different kind of misbehaving which they do. In so doing we will be improving our community. ▪ Introduce a place which girls can do child minding. This will help give these youth girls a chance to have a better way of tender care towards all.
Resources	▪ Help the start sewing projects. Most girls in Glenmore do like sewing. The problem is the shortage of sewing machines. ▪ If provided with resources to start small groups which do things like sewing, in such a way less crime will be happening because they will keep themselves busy. ▪ If we can also be helped in having special warehouse prices for we business people in Glenmore. Glenmore residence are poor, so putting up lower prices for them will help reduce poverty ▪ Most youths join our local clinic on voluntary basis due to lack of jobs. If government could increase our local clinic so to accommodate the rising number of school leavers who also want to join then we would have created jobs. ▪ Provide us with resources to help our old aged Grandparents, Clean their houses and wash their clothes. ▪ Provide us with sewing machines so as to start new sewing projects. ▪ Provide us with sewing machines so that we can start a clothing business. My friends and I were taught sewing concepts at school, but we cant utilise our skills due to a lack of resources. ▪ Provide us with sewing machines, so girls will be spending a lot of time together, thus limiting early pregnancies. ▪ Youths drop out early at school due to hunger and poverty. Let government introduce a feeding scheme at all schools, not only at lower primary schools.
Social training	▪ I'm used to life in Plettenberg Bay. Our youths in Plettenberg Bay usually gather at a central place to chat about things like HIV/AIDS and get awarded for the one with the best presentation. In so doing HIV / AIDS awareness is promoted. If Glenmore youths could do so too.

	▪ Introduce Lotto clubs / scratch card clubs; i.e. youths do like them. If available here, our youths won't trouble our old parents in demanding small monies from them. ▪ Provide them with social advisors. They can be encouraged to engage in youth clubs where members will do HIV/AIDS awareness dramas. In so doing our youths will keep themselves busy and be taught how to prevent them from contracting the disease. ▪ Set up an organisation which teaches about HIV/AIDS awareness because girls in Glenmore are getting involved in early pregnancies at an alarming rate? ▪ We've got lots of talent especially in the sewing field. We only lack self starters. If government could encourage youths but also fund them, then we will have lots of businesses conducted by our own youths. ▪ We've got small groups of youth who volunteer at the clinic. If government could encourage more youths to do such things then fund them then they will improved the lifestyle of these youths. They don't have work to do, so spend most of the time seated
Voluntary projects	▪ Involve them in voluntary projects like the Masibambane project which is aimed at giving aid to poor villagers. In so doing we will be reducing the amount of poverty in our village. ▪ Involve youths in development groups in and around Glenmore. They will have to do this in a voluntary basis, but government should come forward to offer them incentives.

SOCIAL & CULTURAL CLUBS	
Sub-category	**Description of action**
Funding / Sponsorship	▪ Introduce funding and material whereby youths will go and help with the cleaning and washing for old aged people in their homes. The highest population of Glenmore is of old people who find it very difficult to handle some of their chores. ▪ Our youths can't join us in our sewing project because we are not making any profits due to lack of funding. If government could finance us in our projects then the youths will be drawn to join us because we will be benefiting from the projects.
Recreation facility	▪ Instead of them going to shabeens, let the government give them recreational things to do, e.g. Sports trainers. ▪ Introduce clubs for the youth to spend most of their time together talking about up building things .Our youths are involved in crime because they lack people who can train them/ experienced adults. ▪ Introduce fun clubs for them. They don't have anything special to spend their daytime doing. I feel pity for them. ▪ Introduce groups where youths gather and teach each other ways to conduct their behaviour. A mentor from the government can help them in this regard because if we can send a local person, they won't listen. ▪ Our ladies try to welcome youths in their clubs/projects but the youths aren't motivated enough to join because these groups aren't competitive enough. More business management training is needed. ▪ Provide them with recreational things to do so that they don't think of doing bad things. ▪ Start youth clubs which teach about having safe sex awareness so to prevent HIV. ▪ We youths like to socialize as a group. So if government had to introduce youth clubs for us then we would appreciate it. These can be like netball clubs or anything that can bring us an income.

SPORT	
Sub-category	**Description of action**
Activities	▪ Create sporting activities like soccer in which all youths will have a chance to gather together and socialise. The activities are there but they lack motivation and support. ▪ Encourage them to get involved in sporting activities. Life for Glenmore youths is very boring because they have no social activities to do. If activities like netball are introduced then we might see a lot of change. ▪ Help start sporting activities like soccer and netball. Though available, they aren't taken seriously. ▪ Our youth's largest population are girls. If the government could set up a netball league for our girls then life in Glenmore won't be boring for them. There will also be a reduction in the number of girls leaving us for other towns. ▪ Our youths do like to watch cricket. If such sporting activities are introduced to them then they will keep themselves busy.
Funding / Sponsorship	▪ Our girl's' netball league is dying due to lack of sponsorship. If government could provide in this respect, it will be greatly appreciated. ▪ Our youth like sporting activities so if government could help them by introducing a sponsor to the soccer clubs then they would also have a way to get an income. There is big poverty in Glenmore due to the number of unemployed youths. ▪ Sponsor our local football league teams. By so doing our youths will have something to do. ▪ They do have soccer and netball teams but lack sponsorship. This has resulted in them doing bad things. Let the government come to their rescue. ▪ We need sporting kits and sponsorship in our football league. ▪ We've got a number of netball teams but the league has since ceased to exist due to a lack of sponsorship. The government may help us in this regard. ▪ We've got girls netball league teams but lack sponsorship. If government could get involved then, our youths will put in all effort and keep themselves busy in sporting activities rather than have nothing to do.
Training	▪ We've got a good stadium but lack good soccer teams. If government could bring sporting mentors to our youths in Glenmore, then we will see them enjoying life as the rest do in other parts of South Africa.
	▪ Youths in Glenmore like sporting activities. If the government can offer them with a proper trainer / motivator, then they will take it much more seriously, and if lucky, may have a good soccer player from our community playing for the National team.

1.14 Effect of tourism on Glenmore

Question 15: Do you think that tourism would have a positive or negative effect on Glenmore?

Table 34 Respondent's perception of the effect that tourism will have on Glenmore.

Effect of tourism on Glenmore	Number	Percent
Positive	77	92,8%
Negative	1	1,2%
Maybe	5	6,0%
Total	**83**	**100,0%**

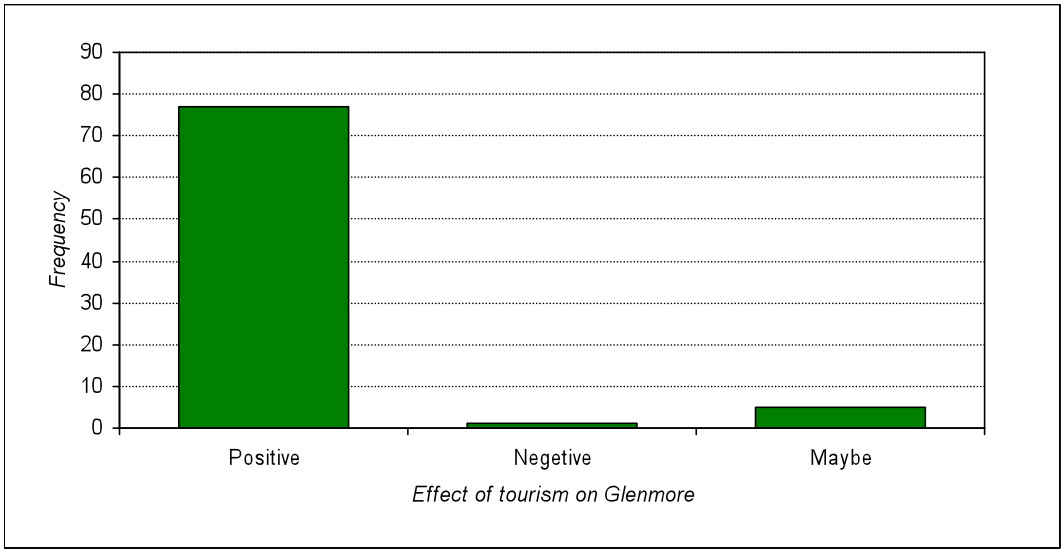

Figure 22 Respondent's perception of the effect that tourism will have on Glenmore.

Table 35 Respondent's positive perceptions of the effect that tourism will have on Glenmore by category of perception.

Category	Number of respondents	Percent
Economic benefits	15	19,5%
Education	1	1,3%
Emigration reduced	2	2,6%
Infrastructure development	3	3,9%
Job creation	43	55,8%
Skills development	2	2,6%
Social upliftment	11	14,3%
Total	**77**	**100,0%**

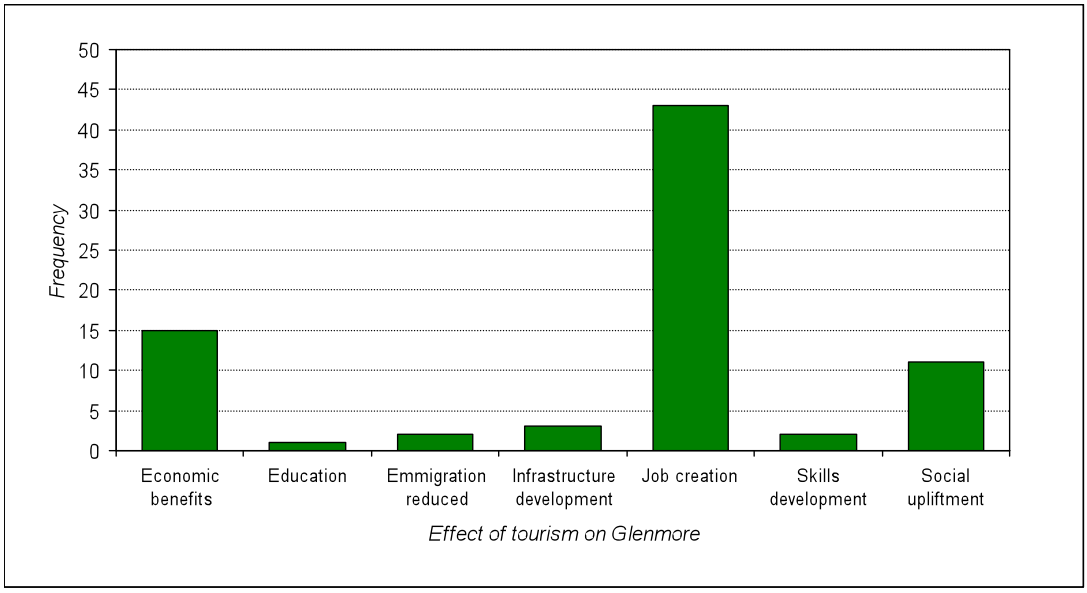

Figure 23 Respondent's positive perceptions of the effect that tourism will have on Glenmore by category of perception.

Table 36 Respondent's positive perceptions of the effect that tourism will have on Glenmore by category of perception.

POSITIVE EFFECT	
Sub-category	**Effect of tourism on Glenmore**
Economic	▪ Being nearer to towns like Grahamstown it means Glenmore will one day be economically strong. ▪ Glenmore will have a much better economy compared to what we have now. ▪ If having a fully booked lodge, then we as residence in Glenmore will get the chance to build accommodation for them, thus will be improving our economy. ▪ It will have a positive effect .Tourists will bring us tips and will teach us new skills. ▪ It will have a positive effect because an area with tourists visiting has got a better economy and our community will be known country wide. ▪ It will have a positive effect because we used to work on farms in Kenton on Sea, so we are used to working along with whites, which means tourism will be of a major success in Glenmore. ▪ It will have a positive effect on Glenmore because its one of the best opportunities that can bring successful outcomes to our community. ▪ Our businesses will be uplifted, i.e. more customers will be available (tourists). ▪ Our crop production and poultry projects will benefit because their produce will be sold to the nearest lodge. ▪ Positive because if a lodge is built here then those projects which do poultry or crop production will have a market for their produce. ▪ Positive because if tourists arrive, they bring money into our society. ▪ Positive because our poultry projects will get a big market for their produce. ▪ There will be an improvement in the living standards of people of Glenmore village. ▪ Tourists will provide a market for our projects, i.e. crop production and poultry. ▪ We will benefit as Glenmore residence. If the lodge is fully booked then some of the visiting tourists will come to live/rent in some of our houses which aren't being occupied.
Education	▪ Having tourists next to us will help because we can easily understand some of the things we learn in Geography by asking the visiting tourists.
Emigration reduced	▪ Tourism will reduce the number of youths who leave Glenmore for other areas, to search for work. ▪ Tourism will reduce the number of youths who leave Glenmore to search for work in other areas. Jobs will be created.
Infrastructure	▪ It will improve our infrastructure in Glenmore. ▪ Positive effect because it's a long time since the government placed an improvement in terms of infrastructure to our community of Glenmore. ▪ Positive. Our infrastructure will improve

POSITIVE EFFECT	
Sub-category	**Effect of tourism on Glenmore**
Jobs	▪ Glenmore will benefit because youths get jobs. ▪ If a joint venture/partnership with local people is established with the contractor to build the lodge , then we will improve our community and we would have created jobs for ourselves. ▪ In a coincidence, one of us may be employed by one of the visiting tourists. ▪ It will be of a positive effect because the fortunate ones will get jobs thus reducing the unemployment level in our village.
	▪ It will have a positive effect because as for now, jobs are very scarce here, so tourism might improve the situation. ▪ It will have a positive effect because as youths we will be guaranteed employment opportunities after completing our schooling. Thus, fewer youths will be leaving Glenmore to search for work elsewhere. ▪ It will have a positive effect because jobs will be created. ▪ It will have a positive effect because maybe my sons will get employed or even start selling items which tourists may get attracted to ▪ It will have a positive effect because people like me, may get employed as a driver, thus moving tourists around the reserve. ▪ It will have a positive effect because the level of literacy in our community will rise as youths will be putting all effort to compete to get jobs in this tourism industry. ▪ It will have a positive effect because we have older brothers who don't work, so tourism will provide jobs to them. ▪ Jobs will be created and youths will be getting used to handling foreigners, thus learning other cultures. ▪ Part of the Glenmore population will get employed, thus reducing the amount of unemployed people. ▪ Positive. Glenmore has produced lots of graduates but the large amount of them goes to look for work somewhere, due to lack of jobs here. Bringing tourism here would mean job creation some of those who've left for other places may come back. ▪ Positive. We are currently having the highest number of unemployed youths. Bringing tourism to us will help to reduce the unemployment level in Glenmore. ▪ Positive. You would have created jobs for us. ▪ Positive. Jobs will be created and modern infrastructure will be constructed. ▪ Positive. Jobs will be created for our youths. ▪ Positive. Maybe my granddaughters will get jobs. Tourism will definitely have a positive effect at Glenmore. ▪ Positive because anyone in Glenmore who's got skills like carpentry, brick making, painting, etc, will get a chance to be employed if a tourist site is to be built. ▪ Positive because bringing tourism nearer would help us find jobs at a convenient place rather than go to look for work at other places. ▪ Positive because I may get a job as a watchmen. Poverty and unemployment will go down. ▪ Positive because it will be an addition to the employment sector in Glenmore. ▪ Positive because it will draw our youths the attention not to leave this township of Glenmore. Jobs will also be created. ▪ Positive because jobs will be created for our kids. ▪ Positive because jobs will be created, though not all of them will be employed. ▪ Positive because most of us are unemployed and bringing tourism here will reduce the unemployment level.
	▪ Positive because we will get employed.

POSITIVE EFFECT	
Sub-category	**Effect of tourism on Glenmore**
	▪ Positive because we would get jobs. ▪ Positive effect because jobs will be created. ▪ Positive effect because jobs will be created. ▪ Positive effect because me as a bricklayer, I don't usually get bricklaying part time jobs, so I can also work as a security guard at the tourist lodge. ▪ Positive effect. Jobs will be created. There isn't any industry which employs people here except working on farms. Tourism will create jobs. ▪ Positive. Jobs and infrastructure will improve. ▪ Positive. Jobs will be created. ▪ Positive. Jobs will be created. We've got a lot of jobless school leavers here in Glenmore. ▪ Positive. We will get jobs, though not all of us but at least we will get a group of employed people ▪ Positive. We'll be grateful if tourism is introduced here in Glenmore because then our youths may get a chance to get employed. ▪ Positive. We would have reduced the unemployment rate ▪ Since we are next to the river Great Fish, I think it will be of a positive effect and will bring success to us because tourists will bring us employment opportunities. ▪ Some of us will get jobs. ▪ That will be a way to reduce unemployment. It will be of positive effect. ▪ Youths in this village have nothing to do, so get involved in crime. By having a tourist site here they will spend most of their time getting involved in trying to get employed; i.e. reducing crime.

Skills	▪ During construction of the lodge, our youths will get the chance to learn skills to become skilful handy-man, e.g. bricklaying / carpentry. ▪ Positive because it will teach us how to deal with the tourists; ie practically rather than theoretical which we are taught at school.
Upliftment	▪ It will have a positive effect because through tourism our village will come to be recognised by various people. ▪ Positive because Glenmore will become a little famous due to tourists who will be visiting from abroad. ▪ Positive effect. Our community will get to be known better by people from other areas. ▪ Positive. It will be a way of community upliftment. ▪ Positive. Its one way of uplifting our community. Jobs will be created. Infrastructure will also become more attractive. ▪ Tourism will improve the image and popularity of our community. ▪ We are used to working alongside visitors, so we wont have a problem with the tourists who will visit. ▪ We will be grateful if tourism is introduced because then maybe our village will rise to be like Grahamstown. ▪ We will have a chance to learn foreign cultures. ▪ Yes it will have a positive effect. We will appreciate it if its introduced in Glenmore. ▪ Yes it will.

Table 37 Respondent's negative perceptions of the effect that tourism will have on Glenmore by category of perception.

NEGATIVE EFFECT	
Sub-category	**Uncertain of the effect of tourism on Glenmore**
Economic	▪ Being nearer to towns like Grahamstown it means Glenmore will one day be economically strong. ▪ I think it will, but will also depend on the number of visitors. ▪ It will depend on how many tourists will be visiting. ▪ It depends on how many tourists will be visiting. ▪ It will depend on how many tourists will be coming. I can't say if it will have a positive or negative effect. ▪ It will depend on how many tourists will be visiting .If more tourists come then there will be a positive effect on Glenmore. ▪ Negative effect because bringing tourist facilities here will increase crime because our kids will be stealing from the visiting tourists.

Sample Survey of Glenmore Residents: Data from database **(Excludes open ended questions)**

Question Number

Quest	*ERF*	Date	1	2	3a	*4*	5	*6a*	6b	7a	7aii	*7aiii*	7aiv	8a	8b	8c	8d	9a	*9b*	11a	12a	12b
1	*43*	17-Sep-07	Male	28	*Single*	19	*2*	0		Unemployed								Grade 8-10	*Currently involved in a part time course in plumbing through the ministry of labour.*			East London
2	*221*	18-Sep-07	Female	50	*Widowed*	13	*7*	0		Unemployed								Junior school	*None*			
3	*510*	18-Sep-07	Female	15	*Single*	15	*4*	0										Junior school	*None*			Grahamstown
4	*551*	18-Sep-07	Female	57	*Widowed*	28	*8*	0		Unemployed								No formal education				
5	*1*	18-Sep-07	Male	65	*Married*	28	*3*	0		Unemployed								No formal education				Alexandria
6	*53*	18-Sep-07	Female	70	*Married*	28	*7*	0		Unemployed								Junior school	*None*			
7	*150*	18-Sep-07	Female	32	*Married*	7	*5*	0		Glenmore school	*ABET Educator*		Part-time					Post school education	*Senior Primary Teachers Diploma, Computer Literate ABET Educator*			
8	*51*	18-Sep-07	Female	56	*Divorced*	28	*2*	0		Unemployed								No formal education				
9	*52*	18-Sep-07	Female	22	*Single*	22	*6*	0		Unemployed								Grade 11-12				Cape Town
10	*268*	18-Sep-07	Male	16	*Single*	6	*2*	0		Unemployed								Grade 8-10				
11	*259*	18-Sep-07	Female	24	*Single*	10	*7*	0		Port Elizabeth	*Cook at a restaurant*		Permanent					Grade 11-12				Port Elizabeth
12	*264*	18-Sep-07	Male	22	*Single*	5	*2*	0		Unemployed								Grade 11-12				
13	*362*	18-Sep-07	Male	80	*Married*	28	*4*	0		Unemployed								Junior school				
14	*453*	19-Sep-07	Female	18	*Single*	18	*8*	0		Unemployed								Grade 8-10				U.K
Quest	*ERF*	Date	1	2	3a	*4*	5	*6a*	6b	7a	7aii	*7aiii*	7aiv	8a	8b	8c	8d	9a	*9b*	11a	12a	12b
15	*247*	19-Sep-07	Male	24	*Single*	12	*5*	0		Unemployed								Grade 8-10				Cape Town
16	*519*	19-Sep-07	Female	19	*Single*	19	*4*	0		Unemployed								Grade 11-12				Port Elizabeth

17	*616*	19-Sep-07	Female	31	*Single*	17	*2*	0	Unemployed			Grade 8-10		
18	*385*	19-Sep-07	Female	20	*Single*	5	*3*	0	Unemployed			Grade 11-12		Grahamstown
19	*673*	19-Sep-07	Female	51	*Divorced*	21	*5*	0	Unemployed			Junior school		Grahamstown
20	*664*	19-Sep-07	Female	44	*Married*	28	*4*	0	Unemployed			Junior school		
21	*583*	19-Sep-07	Female	66	*Divorced*	7	*3*	0	Unemployed			Junior school	*I did a catering course*	Port Elizabeth
22	*629*	19-Sep-07	Male	24	*Single*	1	*5*	0	Unemployed			Junior school		
23	*620*	19-Sep-07	Female	62	*Widowed*	28	*5*	0	Unemployed			No formal education	*None*	
24	*708*	19-Sep-07	Female	36	*Divorced*	28	*1*	0	Unemployed			Grade 11-12		
25	*396*	19-Sep-07	Male	54	*Divorced*	16	*2*	0	Unemployed			Junior school	*None*	
26	*120*	20-Sep-07	Female	38	*Married*	2	*5*	0	Unemployed			Junior school		Grahamstown
27	*216*	20-Sep-07	Female	67	*Widowed*	28	*2*	0	Unemployed			No formal education		
28	*545*	21-Sep-07	Female	31	*Widowed*	28	*1*	0	Unemployed			Grade 11-12		
29	*674*	22-Sep-07	Female	65	*Single*	23	*6*	0	Unemployed			No formal education		
30	*276*	20-Sep-07	Female	70	*Widowed*	10	*3*	0	Unemployed			No formal education		
31	*87*	25-Sep-07	Male	49	*Married*	28	*3*	0	Plettenberg	*Farming*	Permanent	No formal education		
32	*250*	25-Sep-07	Female	22	*Single*	22	*3*	0	Unemployed			Grade 11-12		Port Elizabeth

Quest	*ERF*	Date	1	2	3a	*4*	5	*6a*	6b	7a	7aii	*7aiii*	7aiv	8a	8b	8c	8d	9a	*9b*	11a	12a	12b
33	*111*	25-Sep-07		Male	55	*Married*	17	*6*	0		Unemployed							Grade 8-10	*Holds certificate in Installing House Electrical Service Connections (under non-live conditions)*			
34	*419*	25-Sep-07		Female	59	*Widowed*	28	*6*	0		Glenmore Clinic	*Cleaner*	Permanent					Junior school				
35	*28*	03-Oct-07		Female	47	*Married*	28	*5*	0		In Peddie	*General assistant at a hospital*	Permanent					Grade 8-10				
36	*31*	03-Oct-07		Male	49	*Married*	28	*4*	0		Unemployed							No formal education				
37	*36*	03-Oct-07		Male	31	*Single*	1	*1*	0		Unemployed							Grade 11-12	*Did a security course*			
38	*108*	03-Oct-07		Female	27	*Single*	18	*6*	0		Unemployed							Grade 11-12				
39	*128*	02-Oct-07		Female	42	*Married*	6	*2*	0		Unemployed							Junior school	*Poultry rearing course*			
41	*181*	03-Oct-07		Female	41	*Divorced*	28	*4*	0		Unemployed							Grade 8-10	*Holds certificate in small business training*			
41	*149*	03-Oct-07		Female	27	*Single*	21	*4*	0		Unemployed							Grade 11-12				
42	*210*	03-Oct-07		Female	45	*Single*	28	*1*	0		Just retired.							Grade 11-12				
43	*226*	03-Oct-07		Female	39	*Single*	8	*1*	0		Glenmore	*Volunteer at the clinic*	Part-time					Grade 11-12	*Did a Catering course*			
44	*231*	03-Oct-07		Female	51	*Married*	17	*2*	0		Glenmore	*Teacher at Qaqambile Senior*	Permanent					Post school education	*National Professional Diploma in Education*			Grahamstown
45	*246*	04-Oct-07		Female	27	*Single*	27	*5*	0		Unemployed							Grade 11-12	*Did ABET education*			
46	*300*	03-Oct-07		Male	25	*Married*	1	*1*	0		Glenmore	*farmer*	Part-time					Grade 8-10				
47	*332*	03-Oct-07		Female	64	*Divorced*	1	*3*	0		Unemployed							Junior school				
48	*372*	04-Oct-07		Female	61	*Married*	7	*3*	0		Unemployed							Grade 11-12				
49	*398*	04-Oct-07		Female	42	*Single*	28	*2*	0		Unemployed							Grade 8-10				
50	*404*	04-Oct-07		Male	35	*Single*	28	*0*	0		Unemployed							Grade 8-10	*None*			

Quest	*ERF*	Date	1	2	3a	*4*	5	*6a*	6b	7a	7aii	*7aiii*	7aiv	8a	8b	8c	8d	9a	*9b*	11a	12a	12b
51	*411*	02-Oct-07		Male	49	*Married*	12	*5*	0		Unemployed							Junior school				

52	*417*	02-Oct-07	Female	23	*Married*	15	*4*	0	Unemployed			Grade 8-10			
53	*470*	04-Oct-07	Female	19	*Single*	17	*4*	0	Unemployed			Grade 11-12			
54	*481*	04-Oct-07	Male	57	*Married*	28	*4*	0	Unemployed			No formal education			Port Alfred
55	*512*	02-Oct-07	Female	29	*Single*	33	*3*	0	Unemployed			Grade 8-10			
56	*555*	02-Oct-07	Female	77	*Widowed*	28	*4*	0	Unemployed	Junior school					
57	*566*	04-Oct-07	Male	42	*Single*	17	*1*	0	Glenmore	*Works on a farm.*	Part-time	Junior school	*None*		
58	*567*	03-Oct-07	Female	28	*18*	18	*2*	0	Unemployed			Grade 11-12			
59	*570*	03-Oct-07	Female	45	*Married*	18	*5*	0				Junior school			
60	*594*	04-Oct-07	Male	33	*Married*	28	*3*	0	Glenmore (family Business)	*Assistant Mechanic*	not applicable	Post school education	*Certificate in Mechanics. Also has certificate in First aid and Home based care.*		
61	*610*	04-Oct-07	Male	23	*Single*	6	*1*	0	Unemployed			Grade 11-12	*None*		
62	*614*	04-Oct-07	Female	67	*Widowed*	28	*3*	0	Unemployed			Junior school			
63	*621*	02-Oct-07	Female	48	*Married*	26	*7*	0	Unemployed			Junior school			
64	*630*	02-Oct-07	Female	57	*Widowed*	28	*6*	0	Unemployed			No formal education			
65	*644*	02-Oct-07	Female	26	*Single*	26	*6*	0	Unemployed			Grade 11-12			Plate
66	*678*	02-Oct-07	Female	67	*Widowed*	28	*3*	0	Unemployed			Junior school			
67	*680*	02-Oct-07	Female	56	*Married*	21	*6*	0	Unemployed			Junior school			
68	*702*	04-Oct-07	Male	32	*Single*	28	*1*	0	Unemployed			Grade 8-10			
69	*703*	03-Oct-07	Female	66	*Married*	28	*3*	0	Unemployed			No formal education			
70	*706*	04-Oct-07	Female	45	*Widowed*	28	*3*	0	Unemployed			Junior school			