Local communities’ perceptions on the role of tourism in protected areas

Dr. Limpho Lekaota*  
Department of Hospitality, Tourism and PR  
Vaal University of Technology, South Africa  
E-mail: limphol@vut.ac.za

Mr. Rofhiwa S. Khashane  
Master’s student, Vaal University of Technology  
South Africa  
E-mail: Rofhiwa.Khashane@univen.ac.za

Corresponding author

Abstract

Tourism is poised to play a greater role than ever before in terms of job creation, empowerment and economic growth, both on the global stage and in South Africa. Community participation should be considered essential to get community support, and the acceptance of tourism development projects, in addition, helps to make sure that employment and/or entrepreneurship are related to the local community’s needs. The main aim of the current research was to analyse local communities’ perceptions of the role of tourism in the protected areas concerned. The analysis was approached on the basis of surveying the local communities concerned. The quantitative approach adopted as the chosen research method ensured that the required descriptive statistics could be derived from the research material available. A non-probability sampling approach was used to collect the data. The study was conducted in two villages, Ka-Mhinga and Ka-Matiani, adjacent to the Kruger National Park. Based on the results obtained, the surveyed community members of Ka-Mhinga and Ka-Matiani were found to share similar perceptions regarding the broader community participation in, and decision-making control of the tourism operations in the area. The participants from the two villages who perceived themselves as being excluded from the managerial decisions taken agreed significantly more strongly with the exclusion factor than the participants who perceived themselves as having been included in the managerial decisions taken regarding the protected areas. The study concluded that a budget for education and training should be provided by both the government and the protected areas. The involvement of the communities adjacent to the Kruger National Park in tourism planning would be likely to promote their participation in tourism. The residents of the communities of Ka-Mhinga and Ka-Matiani should form part of the related control processes and decision-making.

Keywords: Tourism, protected areas, communities’ roles, tourism development, Kruger National Park.

Introduction

The local communities that live adjacent to national parks should be involved in sociocultural activities which foster the appreciation of their host culture among outsiders, and which serve to encourage the development of their cultural assets, including dance, customs, handicrafts, architecture, food, and theatre (Frost & Laing, 2013:67). Tourism developers should promote a form of tourism that respects the local society, culture and heritage. Negative sociocultural impacts may consist of the loss of cultural identity, particularly when the tourists are from the developed world, and the hosts are located in a developing country (Mason, 2008:37). The parks, which are often major tourist attractions, tend mostly to promote local culture (Luck & Kirstges, 2002:166). The local communities should play a role in the protected areas, which should, inevitably, lead to the development of a sense of environmental responsibility.
National and provincial conservation agencies play an important role in developing and managing state conservation land for tourism purposes, as a form of environmental responsibility. The idea that ecotourism could provide the incentive for conservation through the establishment of a system of national parks has long been held. The Tourism Master Plan of the United Nations Development Programme and the United Nations World Tourism Organization in Lesotho (Tovmasyan, 2016:429) states that the mission of rural tourism is to ensure the growth of levels of public awareness regarding the values of the available resources, as well as the facilitation of community and public access to the site in question, and the provision of appropriate services, including opportunities for interpretation, research and education. The Master Plan in question also stresses that the purveyors of tourism should seek to ensure the effective integration of the protected area system into the different social, economic and environment spheres, and the promotion of sustainable lifestyles and land use among, and by, the communities living adjacent to the protected areas. Recognising the importance of community participation/involvement in tourism management in order to play a role in protected areas, the aim of the present study is analysis of the communities’ perceptions of their role in the protected area concerned. The participants in this study were the local communities from Ka-Mhinga and Ka-Matiani, pertaining to the prevailing problem.

Literature

The role of protected areas
South African National Parks (SANParks) was established in terms of the National Environmental Management: Protected Areas Act, 2003 (Act No. 57 of 2003) (Swemmer & Taljaard, 2011:205). To protect the biodiversity on which the future of tourism in SANParks depends, the body practises a policy framework as a guideline to the sustainable management of the protected areas (Trzyna, 2014:39). The policy leads to the execution of the best practicable and environmentally friendly decisions (Mello, 2007). Management plans and policies are developed by SANParks to guarantee that management decisions are guided by environmental concerns by way of such execution principles as: the purchasing and procuring of eco-friendly products and materials; the minimising and preventing of waste; the conservative use of such precious resources as water; and the use of sustainable energy (Mangope, 2015). Furthermore, SANParks plays a significant role in the promotion of South African tourism, as targeted in both the domestic and the international markets (Kruger, Saayman & Saayman, 2010:137). SANParks also focuses on building strategic partnerships at international, national, and local levels, in terms of backing the conservation of the natural and cultural heritage of South Africa. Furthermore, SANParks ensures that South Africans participate, and become involved in, biodiversity initiatives, and that all its operations have a synergistic existence together with the adjacent communities for their mutual socio-economic and educational benefit.

Tourism planning
Planning is concerned with anticipating and regulating change in a system, so as to promote arranged development to expand the social, economic and environmental benefits of the development process involved (Ford, 2015:17). To achieve tourism benefits, planning should become a succession of operations that are designed to lead to the achievement of each goal, or to the balancing of numerous goals (Ford, 2015:17). Planning is commonly seen as a way of maximising the benefits of tourism within the area concerned, while justifying the challenges that
might result from the development (Timothy, 1999:371; Chen, Lu & Ng, 2015). The emphasis in planning is usually on the generation of income and employment opportunities, as well as on ensuring resource conservation and tourist satisfaction. The local hosts should be involved in all tourism planning, meaning in all the aspects of promoting sustainable tourism. The host communities have the right to participate in planning activities that affect their daily lives (Inkson & Minnaert, 2018). It is precisely through planning that under- or low-developed destinations can fall in line with the guidelines for further tourism development. For those countries which are already developed, planning can be used as a means of renewing the tourism sector, and of maintaining its future viability (Carrillo & Jorge, 2017:98).

Tourism planning is a decision-making process that is aimed at directing future tourism development activities, and at solving future challenges. It is also the process of choosing objectives, and of determining what should be done to achieve them (Buhalis & Law, 2008:623). Planning is viewed as a very important part of the process by which tourism is managed by governments at the national, local and organisational levels (Veal, 2017). Tourism planning considers other features related to tourism, such as the country’s economy and land use planning. Tourism is greatly affected by many features of planning, such as the national government’s economic planning, and sectorial and land use planning, which are regularly applied to tourist sites, or to the protected areas, and rural development (Veal, 2017). Every development process starts with the acknowledgement by the local or central government, in consultation with the private and public sectors, that tourism involves the making of desirable development choices that can be expanded in a planned manner (Wood, 2014:2654). To design a development plan effectively, it is essential to have a clear understanding of the development objectives to be achieved at the national, regional and/or local levels (Drumm & Moore, 2005:85). Veal (2017) identified the following objectives: job creation; the support of public services; economic diversification; the provision of recreational opportunities for tourists; and the conservation, or development, of traditional buildings.

According to Andriotis (2012:73), the community-based planning process consists of such essential principles as providing the local residents with a real-time monitoring process to supervise tourism development; encouraging the local residents to participate in the planning and allowing them to exchange information and opinions with the planners; and devising projects and plans for tourism development that are mutually complementary. Tourism planning has a number of objectives, such as the coordination of the disjointed tourism sectors, and the creation of a method for the structured provision of tourist facilities over reasonably large geographic areas (Currie & Falconer, 2014:162). Involving the local residents is, undoubtedly, required for the success of many tourist destinations. Local community involvement ranges from inclusion in the planning and development stage of a venture, to the ownership and function of the business.

In addition, community members can sit on advisory boards and tourism planning agencies, and they can participate directly in the management of a project, depending on its size (Training Aid, 2018). Participation ranges from being the recipients of unskilled job opportunities and handouts, to more successful and active involvement, which can result in joint partnership, planning and participation (Inkson & Minnaert, 2018). Kruger National Park should follow collaborative theory whereby all stakeholders form part of decision-making, empowerment, participation or involvement in the operation and management of the protected areas. Issues of coordination, collaboration and partnership are now at the forefront of much tourism research on finding new solutions to resource management and destination development problems (Smith & Richards, 2013).
Community participation in tourism

Current models of community participation, such as Arnstein’s ladder of citizen participation (citizen involvement in planning processes model), despite being applicable in the case of developed countries, can provide misleading results within the context of undeveloped countries (Széll & Chetty, 2019). Mwiru (2015) recognises numerous objectives of the community participation process in its widest sense and indicates that community participation might be thought of as a tool of empowerment. According to the researcher, development should lead to a reasonable amount of sharing, and to an enhanced level of political awareness and strength among societies, in particular among their weaker groups.

The Centre for Applied Legal Studies, Wits University (CALS Wits University, 2014) argues that community participation must not be understood as a means of enabling people to influence political decisions about the issues that affect them, but as a means of promoting mutual help initiatives. Community participation in tourism, which is a major challenge facing governments, refers to a form of voluntary action, in terms of which individuals confront the opportunities and responsibilities of citizenship (Telfer & Sharpley, 2016). Such participation is considered essential to obtaining community backing and the acceptance of tourism development projects, as well as to guaranteeing that the benefits accrued relate to the local community’s needs (Telfer & Sharpley, 2016). However, the residents tend to participate in tourism only when they are strongly inspired to do so. If their thoughts are not considered, their community participation might be lacking (Telfer & Sharpley, 2016). Host communities should form part of a participatory group in tourism for numerous reasons, such as they are more likely to know what will, and what will not, work in a particular local situation. Host community participation can add to the democratisation process, with it having the potential to increase the awareness of, and the amount of interest expressed in, local and regional issues (Telfer & Sharpley, 2016).

A key concern is the lack of community participation in the process of planning for tourism in many places. Host communities need to be the main players, with them taking part in the planning process, as well as in the management of ecotourism products, which mostly means taking risks. A particularly complex issue has been the sense of worry that is expressed among indigenous people regarding the fact that ecotourism development of some of their lands is being forced on them by the government, and by private companies, without proper consultation and participation (Stahler-Sholk, 2007:48). Furthermore, community participation has some drawbacks, as the host communities that participate in tourism might lack information on the operational and essential tools of tourism.

Interrelated with the above, Sotiriadis and Gursoy (2016) recognise some limitations on community participation in tourism management: the host communities might have cultural limitations to participating in the planning and management of tourism, and they might lack the investment money, the know-how, or the infrastructure that is required for developing tourism into a creative force; tourism might be an alien concept to residents living in isolated rural communities; and the host community members might feel that it is the government’s responsibility to plan economic development prospects for their region, so it would not be appropriate for them to take the initiative in the above regard. In addition, Kozak and Kozak (2013) state that, irrespective of the negative issues involving local community participation in tourism, local people, in general, have tended to become more involved in tourism than they used to be in the past. Gradually, citizens are becoming involved in tourism to assist in meeting their own goals of independence,
and cultural survival, although tourism development might carry definite risks for them (Hall & Page, 2014).

The involvement of local communities in tourism projects has been a major focus in the developing world (Wu, Li & Song, 2011). Furthermore, community participation is supported for environmental reasons, as well as for reasons that are interrelated with more sustainable development than in the past (Wu et al., 2011). Community participation in development paves the way for the implementation of principles of sustainable development, and it creates enhanced opportunities for the local residents to gain more benefits from the tourism development taking place in their areas than they used to do (Stone & Stone, 2011:114).

**Problem statement**

The community-based tourism planning method adheres to the fundamental principles of encouraging the local residents to participate in the planning process, and of enabling them to exchange information, and opinions, with the relevant planners (Andriotis, 2012:73). Kruger National Park is highly dependent on the goodwill and cooperation of the host communities concerned. Appropriate planning for tourism in terms of the destination communities, and the involvement of the local communities, should foster their warm reception of tourists.

To generate such goodwill, the host communities need to play a role to participate in the tourism development decision-making process, with them being able to identify the tangible roles that can be gained from the arrival of tourists in their community (Rumbles, 2018). Additional community roles to be gained from the conservation measures employed within the protected area should still be delivered to the local people, so as to enable them to participate effectively in such tourism.

Currently, the communities of Ka-Matiani and Ka-Mhinga have limited roles in the operation of tourism in the Kruger National Park. There is minimal involvement in the protected area, in terms of employment, and access to operation and management of the Park. Mabunda (2004, argues that, until now, the Park-related concerns of the adjacent communities have revolved around economics and employment, poverty and natural resources utilisation. The Ka-Matiani and Ka-Mhinga communities remain excluded from any tourism activities taking place within the protected area. The local communities are not involved in the relevant decision-making processes, with the Park authorities tending to suspect the nearby communities of involvement in poaching activities (Spenceley, 2008:285).

**Research objectives**

The main aim of the current study is to analyse the local communities’ perceptions of the role of tourism in the protected areas concerned, among the community members of the Ka-Mhinga and Ka-Matiani villages. To achieve the main objective, the following secondary objectives required attention:

- To analyse the perceptions of the role of tourism in the protected areas by means of an in-depth literature review.
- To examine the perceptions of the role of tourism in relation to the Kruger National Park;
• To draw conclusions about, and to make recommendations regarding, the communities' role in the protected areas.

Methodology

The required data were collected by means of the quantitative method. Quantitative approach involves a number of respondents, together with findings and interpretation used to establish interrelationships amongst variables using frequencies and percentages. The quantitative approach used allowed the researcher to base his research on the theory of perceptions of the role of tourism in protected areas. The Statistical Package for Social Sciences (SPSS 21.0) was used to capture multiple variables simultaneously. The empirical evidence collected was analysed so as to either accept or to refute the theory regarding the perceptions of the role played in the conducting of tourism in protected areas. The questionnaire used in this study was developed based on the literature review on the perceptions of communities regarding the role of protected areas.

The local communities’ perceptions of the role of tourism in protected areas was analysed by means of the use of descriptive statistics, factor analysis, and the analysis of variance (ANOVA). A one-way ANOVA was applied to investigate the local communities’ perceptions of the role of tourism in the protected areas.

A quantitative research method is used when a study is intended to determine the occurrence, frequency and distribution of certain characteristics in a population, and where the data collected can be stated in numbers and analysed using statistical procedures. Such a research approach was considered to suit the current study, since it represents numerical data that can be analysed by means of certain statistical procedures. In the present study, the perceptions of groups from the local community were obtained so as to examine their roles in specific tourism activities.

Seven villages are dotted around the northern part of the Kruger National Park. In the case of the current study, the population used consisted of the community members of the Ka-Mhinga and Ka-Matiani villages. As the local communities from the chosen villages live adjacent to the protected area, they are the most affected by the daily operations and management of the Park. According to StatsSA (2016), the total population of Ka-Mhinga village is 1445, with the total population of Ka-Matiani village numbering 849.

The following formula was used, as described by Krejcie and Morgan (1970:607), to calculate the sample size:

\[ S = \frac{X^2 N P (1-P)}{d^2 (N-1)} + X^2 P (1-P) \]

with (S) standing for sample size; \((X^2)\) for the desired confidence level; \(N\) for the population size; \((P)\) for the population proportion; and \(d\) for the degree of accuracy expressed as a proportion. For the current study, a sample size of 500 was sufficient, using the calculation formula.

The sampling framework of the proposed study encompassed obtaining first-hand accounts of the perceptions of Ka-Mhinga and Ka-Matiani villagers on the role of tourism in the protected areas. Convenience sampling was used to select the community members concerned. Because convenience sampling was used in the case of the community members from Ka-Mhinga and Ka-
Matiani, the community members in the population did not each have the same chance of being included in the sample. The data collection consisted of: the questionnaire, the data collection procedure, permission to collect the data and the ethical considerations.

Research results

Factor analysis of the community’s role in the protected areas

The questionnaire addressed the roles that community members played, or that they can play, in the protected areas. A factor analytic procedure was utilised in terms of the 14 items in the section to see whether fewer variables could be formed than there were at the start. An initial factor analytic procedure, using PCA and Varimax rotation, indicated that the parameters for inclusion therein were of sufficiently high value to continue (KMO = 0.721 and Bartlett’s sphericity, ρ=0.000). Items C28 and C34 were removed due to a low MSA (<0.50), and items C24 and C33, which had communality values of <0.30, were also removed.

The remaining 10 items were subjected to a PCA with Varimax rotation, resulting in two first-order factors that explained 42.31% of the variance present. The first factor, which was named the “Inclusion of community in the management of protected areas,” had a Cronbach reliability of 0.701. The items contained in the factor, and the means and factor loadings, are shown in Table 1.1.

Table 1.1 The mean scores and factor loadings of the items in community inclusion in the management of protected areas

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
<th>Mean</th>
<th>Loading</th>
</tr>
</thead>
<tbody>
<tr>
<td>C32</td>
<td>Community members form part of the policymakers for the protected area.</td>
<td>3.21</td>
<td>0.746</td>
</tr>
<tr>
<td>C25</td>
<td>Community members form part of the stakeholders’ partnerships in the protected areas.</td>
<td>3.08</td>
<td>0.698</td>
</tr>
<tr>
<td>C27</td>
<td>Community members form part of the decision-makers regarding the protected areas.</td>
<td>3.07</td>
<td>0.699</td>
</tr>
<tr>
<td>C21</td>
<td>Community members form part of the management of the protected areas.</td>
<td>3.06</td>
<td>0.640</td>
</tr>
<tr>
<td>C31</td>
<td>Community members provide goods and services (e.g. in terms of food and accommodation) to tourists visiting the area.</td>
<td>2.89</td>
<td>0.582</td>
</tr>
<tr>
<td>Average</td>
<td></td>
<td>3.06</td>
<td>0.673</td>
</tr>
</tbody>
</table>

The mean of 3.06 indicates a neutrality of opinion with respect to the community inclusion of the community in the management of the protected area.

The item with the highest factor loading was C32 (0.746), indicating the representivity of the item in the factor, namely “Community members form part of the policymakers for the protected area”.

The item concerned also had the highest mean score and indicated the smallest amount of agreement. It would appear as though the item, and indeed the factor, gave rise to varied opinions, most probably as the result of those persons who had to administer the management of the area.
agreeing with the statement, while many of the community members did not agree that they were involved in the self-same management policies.

An analysis of C32 indicated that 35.0% of the participants strongly agreed and agreed with the item, whereas 55.5% indicated disagreement and strong disagreement with the item. Literature strongly supports community involvement in protected areas. For instance, Carius and Job (2019:21) emphasise that greater community involvement is likely to enhance revenue of communities involved in conservation of protected areas. The distribution of data for the factor is shown in Figure 1.1.

![Histogram and boxplot of community inclusion in management](image)

Figure 1.1 Histogram and boxplot of community inclusion in management

The mean value of 3.06, and the median of 3.00, both indicate the neutrality of opinion and the normality of data distribution.

The second factor (FC1.2), which also contained five items, was named “Exclusion of the community from the management of the protected areas”, and had a Cronbach reliability of 0.534. The low reliability observed was probably due to the use of double negatives in the wording of the items involved. The items, together with their mean scores and factor loadings, are given in Table 1.2.

![Histogram and boxplot of community inclusion in management](image)

Table 1.2 The mean scores and factor loadings of the items in terms of community exclusion from the management of the protected areas

<table>
<thead>
<tr>
<th>FC1.2 – Exclusion of the community from the management of the protected areas (α=0.504)</th>
<th>1.00</th>
<th>2.00</th>
<th>3.00</th>
<th>4.00</th>
<th>5.00</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frequency</td>
<td>50</td>
<td>40</td>
<td>30</td>
<td>20</td>
<td>10</td>
</tr>
</tbody>
</table>
Community members are not involved in any decisions regarding the protected areas.

2.24 0.620

Community members are not consulted in the decision-making process undertaken in relation to the protected areas.

2.30 0.576

Community members promote the conservation of culture in their environs.

2.26 0.564

Community members lack control over the tourism projects that are undertaken within their community.

2.35 0.518

Community members should participate in the operation of the protected areas.

2.02 0.466

The mean score of 2.23 and the median of 2.20 suggest agreement with the items, with the majority of the participants perceiving that they were excluded from the management of the protected areas. The above does seem typical of many policies, as they are usually designed by top government officials, and implemented by another official at a lower level. The data distribution is shown in Figure 1.2. The boxplot shows that at least 50% of the participants scored a value of 2.20 or lower, thus showing agreement with the factor. As such, the distribution is positively skewed, making non-parametric procedures most probably the best to use when analysing the factor. This finding concurs with prior research by Mbaiwa, Mbaiwa and Siphambe (2019:2), who found that local communities continue to be excluded from resource management, with centralisation highly favoured.

![Figure 1.2](image-url)
As an objective of the current study was to assess the association of the dependent variables or factors as formed in relation to such independent variables as age and gender, the testing of the factors is discussed below. As the participants answering the items in terms of the two factors were the same, they could be compared using a paired t-test. However, as the exclusion factor was positively skewed, the related-samples Wilcoxon Signed Rank test was used (Larsson, Englund, Struglics & Lohmander, 2015:1914). The mean of the negative ranks (FC1.2<FC1.1) was 242.02, while the mean of the positive ranks (FC1.2>FC1.1) was 130.25. The significance test had a Z= -12.08, a p-value of <0.0005, and r= -0.56. The result obtained indicates that the exclusion from the management factor was statistically significantly different from the inclusion of the management factor. In addition, the effect size of 0.56 showed a large substantive effect. The involvement of the community in the management of the protected areas seems to have been problematic, in that the participants agreed more strongly that they were more excluded from, than included in, the management of the protected areas.

**Association between the dependent factors and the two independent groups**

When two independent groups are tested for differences between their mean scores with respect to the dependent variables, the t-test can be used. Thus, the parametric t-test could be used for FC1.1, and the non-parametric Mann-Whitney U-test for FC1.2. No statistically significant differences could be found for gender (A1), or for direct income from tourism (A5). The participants were neutral in all cases, with the result possibly being due to sampling error.

**Association between the dependent factors and three or more independent groups**

When three or more independent groups are involved, one can utilise the ANOVA to see whether the groups differ at the multivariate level. Should they differ, pairwise differences can be considered at the univariate level. In the current study, the ANOVA test was used for FC1.1, whereas the independent Kruskal-Wallis test was used for FC1.2.

**Occupation of the participants**

With respect to the community inclusion in the management of the protected areas, the ANOVA test gave the following results:

\[
\bar{X}_S = 3.33; \bar{X}_{Employ} = 2.92; \bar{X}_{Unemploy} = 3.06; F(2,460) = 4.46; p < 0.05; r = 0.14
\]

Hence, at the multivariate level (consisting of three groups or variables), the groups differed statistically significantly from one another. The difference was observable between the lowest mean (for the employed) and the highest mean (for the students). The participants who were employed agreed statistically significantly more strongly with the inclusion factor than did the students. The employed were more likely to be involved with the management of the protected areas than were the unemployed, as the former were probably more visible in relation to, and involved with, community affairs than were the latter.

With respect to the community exclusion from management factor (FC1.2), the Kruskal-Wallis test indicated that the null hypothesis should not be accepted, and that there was a statistically significant difference present between the three groups.
The Mann-Whitney U-test indicated that the difference was between the employed participants and the students. The appropriate results were:

\[ Z = -2.612; \rho < 0.05; r = 0.18 \].

The conclusion can thus be drawn that there is a statistically significant relationship between one’s occupation and the extent of agreement with inclusion and exclusion from the management of the protected areas. The employed participants agreed more strongly with the inclusion factor, and less strongly with the exclusion factor than did the students.

**Highest qualification of the participants**

No statistically significant differences could be found between the highest qualification groups and either FC1.1, or FC1.2.

**Conclusions and recommendations**

The study concludes that it is generally accepted that local communities should be given the chance to practise their due role in tourism, most likely through community participation. The study recommendations are made on the basis of the study literature and the results of the study. The recommendations are provided under the following areas: education and training (which encourages positive perceptions of, and attitudes towards, tourism); community participation in tourism planning; the control of tourism schemes (including the regulation, monitoring and evaluation of tourism); and the positive impacts of tourism.

**References**


