

Article

# An Exploratory Assessment of Significant Tourism Sustainability Indicators for a Montane-Based Route in the Drakensberg Mountains

Sarudzai Mutana\*, and Geoffrey Mukwada

University of the Free State, Department of Geography, Bloemfontein 051, South Africa;  
gmukwada@gmail.com or mukwadaG@ufs.ac.za

\* Correspondence: mutanasimangos@gmail.com or 2015237114@ufs4life.ac.za; Tel.: +27-810963665

**Abstract:** This paper assesses the use of the Global Sustainable Tourism Criteria (GSTC) indicators for monitoring tourism along a mountainous route. The study was carried out along a mountain route in the Drakensberg Mountains of South Africa. A survey was carried out among tourism businesses, local communities and local government officials located along the Maluti Route, which passes through the eastern part of the Free State Province of South Africa. This study constitutes the first assessment in which the GSTC indicators are applied in the assessment of the sustainability of route tourism in South Africa. The study first evaluated the importance of each indicator by considering the level of application in tourism business organisations before examining the perceptions of local community members and local government officials regarding the applicability of the indicators in the assessment of tourism sustainability. The results suggest that there is a general appreciation of tourism sustainability among tourism business operators although shortcomings were evident on environmental and socio-economic indicators. In conclusion, the paper suggests ways through which tourism sustainability could be enhanced among different players along the Maluti Route.

**Keywords:** Tourism sustainability; Indicators; mountain tourism; route tourism; Drakensberg Mountains.

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## 1. Introduction

The use of tourism sustainability indicators is a pre-requisite for guiding and managing the development and practice of tourism in different destinations [1]. This is particularly important in destinations where tourism activity is intensifying around fragile and /or protected areas[2]. Mountainous regions have become a key focal point for sustainable development discourse[3]. Apart from being the water towers of the earth and repositories of rich biological diversity, mountains have become target areas for recreation and hubs of cultural integrity and heritage tourism. Paradoxically, mountain specificities attract a lot of pressures for their environments[4]. While approximately 12% of the world population depends directly on mountains, Ives notes that the goods and services provided by mountains to humanity are important to at least half of humanity[5]. Tourism is one such service, whose potential economic advantage to mountain communities has the potential of simultaneously causing unprecedented negative impacts to the environment, socio-cultural and economic states, if not monitored. The aim of this study was to assess the application of the Global Sustainable Tourism Criteria (GSTC) indicators to a South African mountain route as a first step in understanding the level of tourism sustainability and develop a set of primary indicators for monitoring tourism sustainability in the area. The GSTC consists of the most recent set of sustainable tourism indicators which are applicable worldwide[6]. Odermatt reports that during the International Year of Mountains-2002, the Food and Agricultural Organisation of the United Nations (FAO) which was appointed the lead agency received an extraordinary number of enquiries from countries which needed technical and methodological help

in sustainably developing their mountain regions[7]. However, the major challenges faced by mountain regions are related to the development of indicators to monitor sustainable development in the mountains. Odermatt notes that tourism is one of the key areas where countries still grapple with methodologies of monitoring sustainability[8]. While a number of indicators were developed since the Brundtland Report[9] to date, indicators that are specifically applicable to mountainous areas in developing countries have been limited[10].

Available evidence shows that travel to mountainous areas has gradually increased since the time of the Grant Tour, and now account for between fifteen percent and twenty percent of the world tourism[11]. Travel to mountains is expected to continue to grow as more and more people seek to enjoy the serene, picturesque and 'spiritual' environments found in mountain destinations[12]. This increased importance of mountains as key tourist destinations has led to the year 2002 being declared the International Year of Mountains. However, the undisturbed enjoyment of tourism in mountainous regions is a paradox[13],[14],[15]. Tourism is on record as having the potential to bring adverse socio-cultural, environmental and economic impacts to mountain regions' ecology and communities. Thus, it is capable of destroying the very root of its own existence. This speaks to the sustainability discourse. Odermatt indicated that mountain environments are rapidly changing and are susceptible to accelerated soil erosion, landslides and rapid loss of habitat and genetic diversity[ 16 ]. Furthermore, mountains are generally associated with widespread poverty[17]. All these specificities related to mountain areas imply that sustainable development of mountains is imperative if these environments are to be preserved for future generations. The United Nations has declared 2017 as the International Year of Sustainable Tourism Development, showing the importance of sustainable development in in this rapidly growing sector[18].

Tourism sustainability is a hotbed of differing interpretations owing to the fact that the term is drawn from the broad generic term, which exhibits the same nature [19],[20],[21]. Lui, notes that defining sustainability and sustainable development in operational terms has proved problematic, leaving scholars without consensus on the matter [22]. The most basic definition of sustainable development was provided by the Brundtland report (Our common future) where sustainable development is defined as 'development that meets the needs of the present without compromising the ability of future generations to meet their own needs' [23]. Straightforward as the definition seems, it has been subject to a wide array of interpretations, especially in the tourism sector [24]. As a result, the definition has been used as a form of ideology, and as a political catch-phrase, as well as a concept, process or as a product [25]. The definition of sustainable tourism has also left scholars grappling for a common understanding. Albeit there are varying applications of sustainability to tourism, Butler' so far provides the simplest interpretation of sustainable tourism, that is 'tourism which is in a form which can maintain its viability in an area for an indefinite period of time' ([26] pp.29). More recent definitions seem to resonate with Butler's definition. For example, Mazilu defines sustainable tourism as 'tourism that meets the needs of present tourist and host region while protecting and enhancing opportunities for the future[27]. In this paper we define sustainable tourism as the practice of tourism which achieves social equity (through meaningful local community participation), economic efficiency (by ensuring viability and visitor satisfaction) while preserving the environment (through rational use of available natural resources and biodiversity conservation) to ensure that future generations may have the opportunity to provide a better tourism product within the same destination. There is general agreement among authors in the field of sustainable tourism that indicators are a pre-requisite for achieving sustainable tourism[28],[29],[30],[31],[32]. UNESCO and UNEP emphasize the importance of sustainable tourism indicators as a tool for understanding success or failure of sustainable tourism in a destination[33]. It may therefore prove rather difficult for tourism operators and communities in a destination to have basic understanding of what needs to be improved if there are no indicators which inform the monitoring process.

### **Sustainable Tourism Indicators**

Tourism sustainability indicators are a set of well-established frameworks based on multi-dimensional conceptualizations of sustainability[34]. Agenda 21, the output document of the

United Nations Conference on Environmental Development (UNCED), emphasizes the importance of indicators as tools of sustainable resource management[35]. Odermatt asserts that indicators are the most useful tool for measuring and monitoring a concept as complex as tourism sustainability[36]. It reduces large volumes of information into a simple and easy to understand form[37]. Furthermore, UNESCO and UNEP describe indicators or criteria as an expression of goals that a destination wants to achieve by sustainable tourism development or a state or the improvement that is needed in specific features of a destination or region[38]. If these criteria are fulfilled or if the indicators are available, then tourism can be developed in a sustainable way. Indicators are at times also defined as figures which demonstrate the state or change in a certain criterion, and each criterion has one or more indicators. UNESCO and UNEP also argue that indicators can be differentiated through weighting to show the differing degrees of improvement of a criterion[39]. However, in our view, it is not always important to weigh the indicators, especially where a destination is creating or applying the indicators for the first time (baseline)[40]. In view of this assertion, the varying tourism sustainability indicators available can all be applied in a valid manner as long as one only picks those indicators of a specific criterion that are contextually applicable to the destination under review. Many sets of tourism sustainability indicators have been developed so far[41],[42],[43],[44]. However, tourism indicators for specific mountain routes are not a common area of discourse among tourism researchers[45],[46]. The main research gap in this area is related to the assessment of the performance of indicators in specific mountain environments thereby making the global indicators more applicable and acceptable by local tourism players. This can be done using already available tourism sustainability indicators developed by the Global Sustainable Tourism Council, WTO, European Commission and other such organisations.

Odermatt discusses tourism sustainability indicators based on the Driving Force-Pressure-States-Impact-Response Framework[47]. According to this framework, the basic sectorial trends influencing sustainable mountain developments (Driving Forces) generate stress, which can be economic, socio-cultural or environmental (pressures) on the mountain environment, which are viewed as impacts or current conditions of sustainability (states) and effects of such states (impacts) which finally require efforts by society to move towards sustainability (responses). Indicators should be developed as a method of implementing responses. In line with this suggestion, we propose that tourism sustainability indicators should be aligned with a destination's circumstances. Furthermore, although we agree with Odermatt's argument, this model says nothing about the process of developing the responses, which in our view should involve the perceptions of the community and all the other key stakeholders as much as possible[48]. This is especially important in mountain communities where there is strong social cohesion resulting from many years of seclusion, strong common values and unique culture. As such, if the indicators are developed by a single group of players in the tourism industry, it is possible that the other groups will not contribute to the expected behaviors to improve the indicator scores. Furthermore, sustainability is interpreted differently by different stakeholders, yet the impacts of non-availability of sustainability are felt communally. In fact, tourism is generally a social industry[49].

### **The GSTC: A Review**

The Global Sustainable Tourism Criteria (GSTC) were first published in 2012 after years of global research and consulting[50]. It is envisaged as a set of baseline standards which every destination or tourism business should aim to achieve. By its nature, the GSTC is not meant to be the maximum that a destination or tourism business should exhibit but a standard or first step towards sustainability[51]. It is an effort to come to a common understanding of sustainable tourism and is regarded as the minimum any tourism business should aspire to reach. The criteria are also designed to be adjusted to suit the context of each organization or destination. This characteristic makes the criteria highly applicable to mountainous regions where each destination is bound by a local culture or by local circumstances or locational peculiarities. It also implies that one can easily develop context specific indicators using the GSTC baseline standards as the minimum benchmark.

The GSTC is also important for educating and raising awareness for tourism sustainability, or even for measurement and evaluation of tourism sustainability. Its development is viewed as an

effort to develop a common language in sustainable tourism. It is designed along four pillars, namely sustainable management, socio-economic impacts, cultural impacts and environmental impacts. The Global Sustainable Tourism Council has to date developed four different sets of indicators (1) criteria for the Tourism and Hospitality Industry, (2) criteria for tourism destinations (3) criteria for Hotels and (4) criteria for tour operators. These four different sets of indicators are arranged around the same pillars, although each set has indicators that are leaning to issues that are important for the sub-sector for which it was designed. The current study used the criteria for the Tourism and Hospitality industry to assess tourism organisations along the Maluti Route. The GSTC Industry Criteria which was last updated in December 2016 has 40 indicators divided into four classes as shown in Table 1.

**Table 1.** Global Sustainable Tourism Criteria for Industry

Criteria/Pillar	Code	Indicators
<b>A. Effective sustainable management</b>	A1-A10	<ol style="list-style-type: none"> <li>1. Have a sustainable Management plan</li> <li>2. Legal compliance</li> <li>3. Reporting and communication</li> <li>4. Staff engagement (training on sustainable tourism)</li> <li>5. Customer experience</li> <li>6. Accurate promotion</li> <li>7. Building and infrastructure compliance with zoning requirement</li> <li>8. Building and Infrastructure impact and integrity</li> <li>9. Buildings use locally acceptable materials</li> <li>10. Building and infrastructure allow accessibility by all</li> <li>11. Land and water Property rights</li> <li>12. Information and interpretation (culture and heritage)</li> <li>13. Destination engagement (active participation in sustainable destination planning)</li> </ol>
<b>B. Social and Economic benefits to local community</b>	B1-B9	<ol style="list-style-type: none"> <li>1. Community support (pro-poor activities)</li> <li>2. Local employment</li> <li>3. Local purchasing</li> <li>4. Local entrepreneurs support</li> <li>5. Exploitation and harassment ( policies to protect youths and women</li> <li>6. Equal opportunity</li> <li>7. Decent work (safe and secure work environment)</li> <li>8. Community service (od not jeopardize community's access of basic services)</li> <li>9. Local livelihoods (land, rights of way)</li> </ol>
<b>C. Benefits to Cultural Heritage</b>	C1-C4	<ol style="list-style-type: none"> <li>1. Cultural interactions (guidelines of tourists agreed with locals)</li> <li>2. Protecting cultural heritage</li> <li>3. Presenting culture and heritage</li> </ol>

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		4. Artifacts
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<b>D. Benefits to the environment</b>	<b>D1</b>	<b>Conserving resources</b>
		1. Environmentally preferable purchasing
		2. Efficient purchasing
		3. Energy conservation
		4. Water conservation
	<b>D2</b>	<b>Reducing pollution</b>
		1. Greenhouse gas emissions
		2. Transport
		3. Wastewater
		4. Solid waste
		5. Harmful substances
		6. Minimize pollution
	<b>D3</b>	<b>Conserving Biodiversity, ecosystems and landscapes</b>
		1. Biodiversity conservation
		2. Invasive species
		3. Visits to natural sites
		4. Wildlife interactions
		5. Animal welfare
		6. Wildlife harvesting and trade

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In this framework, all the indicators are given equal weighting. Hall et al note that the GSTC looks at whether or not the indicator is being applied in terms of either present or absent, not how it is being applied[52]. Some authors have argued for weighting indicators to reflect their importance in a destination. For example see[53]. However, there is also convincing evidence that, the weighting indicators sometimes distorts their importance, especially since weighting criteria still lack sufficient argumentative grounding[54]. Among the many methods of weighting, there are conflicting convictions; expert based Delphi technique[55] data based[56] or equal weighting[57]

Mikulic believes that whereas expert opinion is the most relevant, in the absence of such, it is better to use equal weighting for the identified indicators[58]. Rather than argue for allocating weights to tourism sustainability indicators, we are persuaded that the process of identifying relevant indicators for a destination is more important in a mountain destination where relationships are sensitive and where people live closer to their environment and culture. In this paper, we identify key GSTC indicators that have been successfully applied by the industry, which are considered as important by both the community and the tourism industry as primary to the achievement of tourism sustainability. We also use the information gathered from both expert in-depth interviews and community viewpoints to suggest other indicators which should

complement the identified GSTC indicators in helping push the tourism sustainability agenda in the area.

## 2. Study Area

The present study was carried out along a section of the Maluti route. The route stretches over 700 kilometres striding three provinces of South Africa. The name Maluti is derived from the Sesotho word meaning 'mountains'. Situated within the foothills of the Drakensberg Mountains, the Maluti Route follows an Afromontane belt whose altitude ranges from 1800 to 3000 meters. The Drakensberg Mountains are the highest mountains in southern Africa. According to the original plan of the route, it starts in Mpumalanga Province, enters the Free State and Eastern Cape provinces before passing through Lesotho, via Ficksburg and the Maluti-Drakensberg Trans-frontier Conservation Area, a joint conservation initiative between South Africa and Lesotho that was commissioned in 2014. The key attractions along this route are the picturesque mountainous environment, the unique culture of the mountain people, as well as the local climate. It is not clear how the Maluti Route was established. Some sources for example [www.malutiroute.com](http://www.malutiroute.com) state that it was established as part of Open Africa's (A South African NGO)'s African Dream project which established thirty eight tourism routes in Africa. Other sources note that it was developed under the Maluti-Drakensberg Transfrontier agreement between South Africa and Lesotho[59]. The Maluti Route connects places which have been identified in the Free State Provincial Spatial Development Plan (2011) as tourism nodes (Harrismith, Golden Gates Highlands National Park, Clarens, Fouriesberg and Ficksburg.) The Free State Spatial Development Plan envisions the Maluti Route as an ecotourism area, intimating its expected sustainable tourism approach[60]. For a while, the Maluti Route development has been dormant, with each of the concerned provinces renaming short stretches of the same route in a bid to promote the activities that relate to their own fraction. For example, the eastern Free State Tourism Board has now rebranded a stretch of the route connecting Harrismith and Ficksburg as the 'Eagle Route'. The scope of this paper is this rebranded (Eagle Route) section of the Maluti Route and is based on the key identified tourism nodes of Harrismith, Golden Gates Highlands National Park, Clarens, Fouriesberg and Ficksburg (Figure 1).

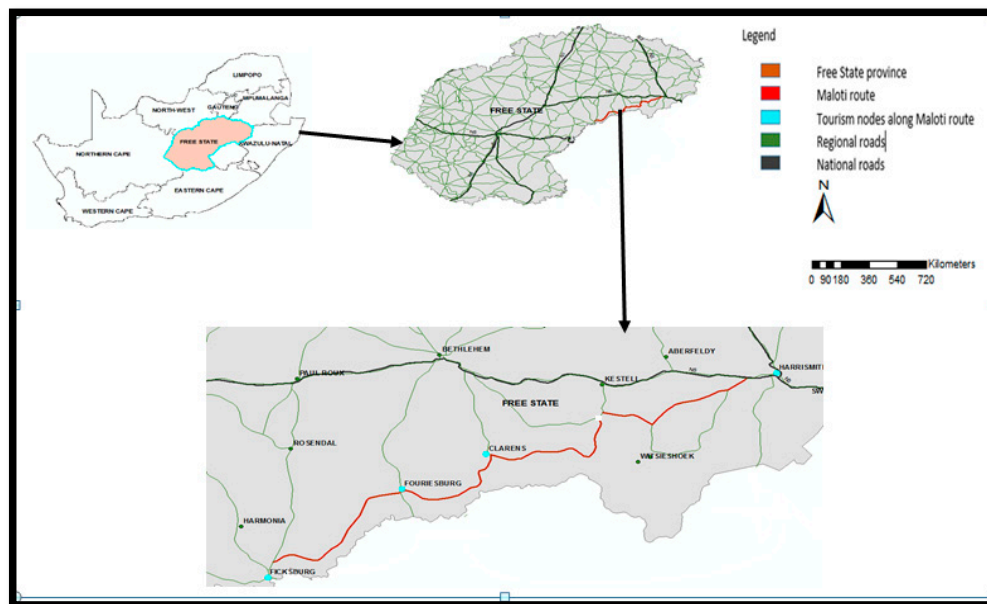


Figure 1. Position of Maluti Route in Eastern Free State Province of South Africa

## 3. Materials and Methods



A mixed method approach was used to gather and analyze data in this study. A survey was conducted among 80 business operators within the tourism and hospitality industry in the tourism nodes of Harrismith, Golden Gates Highlands National Park, Clarens, Fouriesberg and Ficksburg. Indicators from the GSTC (Industry) were used to draw up a set of key questions on different sustainability pillars. The questionnaire used a 5-point Likert scale from strongly agree (5) to strongly disagree (1). The researchers then reduced the Likert scale to three to reflect Agree, Disagree and neutral for analysis purposes. The questionnaire also had other questions which solicited for further explanations for example after a set of questions on each GSTC pillar, the responded would be asked to provide further information about specific questions in that section. The GSTC criteria is the most recent set of indicators which have also been hailed for being applicable for use in destinations in the whole world[61]. The GSTC were used to develop sustainable tourism guidelines for a number of destinations in its first year of publication. South Africa is one of those countries, whose current draft set of guidelines for responsible tourism were designed on the basis of GSTC indicators[62]. This implies that the tourism operators should mainstream the same criteria in their operations to enhance sustainable tourism development. The survey exposed the performance of each of the indicators in the study area. Similar questions were used in 250 informal interviews with community members found in the same tourism nodes where the surveyed tourism operators are located. In-depth interviews were also conducted with two local government officials to understand their views about which of the GSTC indicators are most applicable for tourism sustainability in the area. The methodology used is in line with approaches used by other researchers involved in similar studies[63];[64]. In view of the importance of community involvement in establishing tourism sustainability indicators in mountain regions[65], evaluated the perceptions of local community members to check if they agreed with the views of tourism experts (local government officials) and tourism operators. Where possible, observation was used on site to validate responses obtained from the business operators. We also used tourists' comments on TripAdvisor to validate the responses from business operators, especially where indicators had a link with the way tourists complaints were handled. Mkono extensively used the same method in assessing tourist views about authenticity food related entertainment/ 'eatertainment' [66].

Survey data was analyzed using SPSS (Version 22) to identify the dominant views of the respondents. The frequencies of the responses of tourism operators on each indicator were interpreted to determine the strength or perceived importance of the indicator among the tourism sector players. Indicators which scored the highest frequencies were interpreted as highly applicable for the tourism operators in the area. To complement this approach, responses from the community members and local government officials were used to check whether they considered the same indicators as important in achieving tourism sustainability in the area. Results from observation and content analysis of TripAdvisor were used to check whether the indicators were being applied to the satisfaction of the tourists frequenting the route. We then compared the views of all the three group of stakeholders and identified the indicators which are applicable in guiding tourism sustainability along the route. These are listed and briefly discussed in the results section of the paper. These indicators are the ones which featured the most amongst the responses that emanated from the different categories of stakeholders.

## **4. Results and Discussion**

### *4.1. Demographic profile of respondents*

The results from the survey revealed that 76% of the business operators who responded to the questionnaire survey were male managers, while 84% of the community respondents were male household heads. Among the tourism businesses, respondents were either owners of tourism businesses or managers of these businesses. Most of them had sufficient knowledge about practices in the tourism sector as well as their organisations. The community respondents were either household heads or members of families who had stayed in the area for at least ten years, which made them competent enough to comment on what they believed to be important for the

development of tourism in the area. Sixty-five percent of the community respondents were either employed in the tourism sector or had significant interaction with the sector on a daily basis through selling curios or provision of other services to tourists. McGehee and Andereck, associated length of stay in an area as a key factor in determining a person's knowledge and attitude towards the tourism area[67]. In their study in Arizona State, they established that people who had stayed in an area from childhood had more reliable information about the benefits from tourism since benefit expectations normally increase with age. Similar observations were also registered by Perdue et al, who liken tourism with a social exchange[68]. As people grow in a tourism area, they expect benefits from tourism, hence initially they will support the tourism industry until such a time when they realise that no benefits would accrue from it. This study's sample was therefore made of this group which is regarded as having a deep knowledge of tourism's offering against their expectations since they had stayed in the area of study for a considerably long time. The tourists whose comments were selected from Trip Advisor were those who had visited the Maluti Route at least twice. In some cases, tourists would post comments of changes that they had noticed between their first visit and their second visit which show improvement or decrease in the attractiveness of the environment or the quality of service. Tourists are regarded as an important source of information in mountain areas because they always make their decisions according to their perceived benefits of visiting these areas[69]. These pull factors should be maintained or improved to ensure that there is a constant flow of tourists to a destination[70].

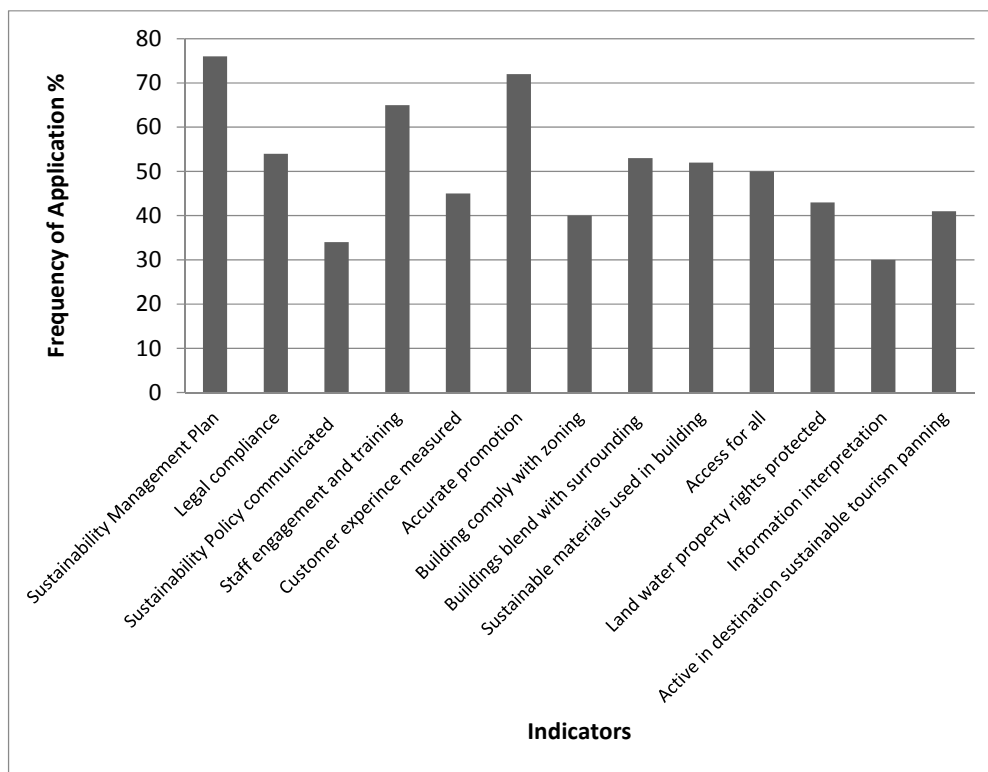
#### *4.2. Effective Sustainable Management*

The GSTC pillar on effective sustainable management comprise 14 indicators[71]. This set of indicators basically seems to demonstrate economic sustainability. Based on the frequencies generated on the GSTC indicators by the survey, seven indicators were applied the most by the players in the tourism sector.

Although 76% of tourism businesses indicated that they had sustainability plans, only 42% of them could describe in detail the contents of such plans. This may imply that although the business organizations along the Maluti Route appreciate the importance of sustainability plans they lacked the knowledge on how to design such plans. This lack of knowledge was also evident on the application of the indicator on measuring customer experiences. When content analysis of the TripAdvisor reviews of the same organisations was undertaken it emerged that 95% of all the complaints raised by customers through the online platform went unaddressed. This could imply that the tourism business owners are still using the manual guest comment books placed in the premises and are oblivious of the modern platforms through which customers express their grievances. Mkono established that many small and medium tourism service providers have not yet fully appreciated online platforms as sources of feedback for their businesses. As such, their voices are silent online, resulting in customer complaints and comments going unanswered[72] As shown in Figure 2, the results of the survey indicate that the majority of tourism business organisations situated along the Maluti Route focus on promoting economic viability more than cultural and legislation related criteria.

They give greater attention to marketing customer satisfaction and provision of a safe and secure environment to their customers in order to promote economic viability at the expense of cultural and heritage issues. These findings seem to confirm Halseth and Meiklejohn's findings that tourism in the small towns of eastern Free State has great potential but is still in its infancy [73]. This calls for support from government to raise awareness on key tourism sustainability issues.





**Figure 2.** Effective Sustainable management application along the Maluti Route

Community members who are employees of tourism organisations gave slightly different responses to those given by their managers in terms of staff engagement and training. A considerable number indicated that they were not sure of their role in sustainable tourism. The training that they periodically get is more to do with customer care and skills to do the work that they are hired for. Whereas all the GSTC indicators are applied significantly along the Maluti Route, the results show that guiding guest behavior is not regarded as important for sustainability management. Overall, the tourism business operators who are based along the Maluti Route met most of the criteria that promote sustainability management with the exception of guidance of customer behavior. Responses from community members indicated that the tourists who visit the route do not seem to receive any guidance in terms of protection of local culture. They associated the moral degradation experienced in mass tourism areas like Clarens as a direct result of tourism. Indicators on zoning do not seem to be relevant to the mountain route and tourism business operators are not applying them in their organisations. In-depth interviews with a representative from the Department of Tourism established that the small towns along the Maluti route were not planned as tourism nodes. As such, most tourism organisations especially lodges are converted homes. Hence, there are no zoning regulations which differentiate the mountainous route from the rest of the country.

In light of the above discussion, we recommend that, apart from those indicators that are being actively applied, the following should be added to the list of indicators for the mountainous route under the pillar of effective sustainable management;

1. Designing and implementing a long term sustainability plan
2. Adoption of responsible tourism guidelines
3. Modernisation of methods of assessing customer satisfaction, and

4. Development of staff training programmes covering roles of different players in sustainable tourism development

#### 4.3. Social and economic benefits of tourism

The majority of tourism business organisations along the Maluti Route are not maximizing social and economic benefits of tourism to the community. As such they criteria perform poorly on this criterion as demonstrated by responses from both the business organisations and community members. The results on social and economic criteria consist of nine indicators. Table 2 presents the frequencies of the application of each of these indicators among the respondent organisations. Overall, the results show a limited appreciation of social impacts of tourism on the local community. There is limited participation in charity activities by tourism business organisations which could imply the limited level of the importance of poverty alleviation potential of the tourism sector in the area. This is contrary to the vision expressed by the Free State provincial government, as stipulated in the Spatial Development Plan for the province, which envisions the Maluti Route as an ecotourism route. The situation is also contrary to Wong's assertion that ecotourism is important for the ecologically fragile and culturally rich mountainous areas and is one of the few opportunities available to raise the standard of living for poor communities [74]. Worldwide, in most mountain regions tourism is regarded as one of the few options available for tackling the problem of poverty among in communities where more than 80% of community members are poor. In their research in Fourisberg and Clarens, Halseth and Meiklejohn lamented the approach to tourism in the two small towns where tourism is thriving, yet no benefits are trickling down to the local community. Clarens is regarded as the 'City's Countryside' due to the large numbers of tourists who travel to the destination from the Metropolis of South Africa (Pretoria and Johannesburg)[75]. The extensive purchase of second homes has resulted in gentrification, with ethnic groups now occupying informal settlement of Kgubetswana. Gentrification is defined by Glass as the 'process of transformation of premises resulting from in-migration which puts pressure on native groups, increase living costs and change land use and land value'. This means that there is a constant production of space for more affluent users at the expense of poor native groups[76]. This is a major challenge for tourism sustainability because a gentrified mountain community is not sustainable[77]. This is because the unique cultures of ethnic groups are among the unique pull factors bringing tourists to mountain destinations[78].

**Table 2.** Frequencies of indicators showing social and economic impacts of tourism

Indicator	Responses		
	% Frequency (Agree)	% Frequency (Disagree)	% Frequency (Neutral)
Community support	15	56	34
Local employment	78	13	9
Local purchasing	23	65	12
Support to local entrepreneurs	12	76	12
A policy is in place against exploitation and harassment	43	49	8
We offer equal employment opportunities for women and local minority groups	51	43	6
Employees working for tourism organisations are paid at least a living wage	89	8	3
Community services	90	8	2
Local livelihoods	92	7	1

As noted in Table 2, the fact that the tourism business operators have ensured that tourism does not jeopardise the local's access to basic means of livelihood within the local community means that they understand the need for locals to be protected from their operations. However, it is alarming to

note that only 51% of the organisations consider the guaranteeing of equal employment opportunity of women and youths as important. The UN Conference on Sustainable Development which was held in Rio de Janeiro in 2012 (Rio+20) indicated poverty eradication as one of the key approaches to sustainability, where employment of youths and women contributes a significant level toward poverty reduction in outlying areas. The global sustainable development goals require the eradication of poverty as a key issue. In mountain areas where tourism has managed to reduce poverty, women and youths have been employed in various tourism related activities such as tour guides, owners of small business enterprises and cultural groups. Eighty-nine percent of the organisations indicated that their employees get at least a living wage. However, the informal interviews carried out with community members indicated that in 95% of cases, the tourism businesses pay very low wages to employees from local communities, most of whom are employed in menial and seasonal jobs, while expatriate employees and white top management employees usually get higher wages. This, however, could be understandable, considering that most local employees lack the needed skills and hence remain in low ranking jobs. Overall, this points to the limited potential of the tourism sector in poverty reduction along the Maluti Route. The social and economic opportunities that tourism avails to mountain communities are not always obvious to the communities due to many reasons which include the fact that local communities may lack the skill to start benefiting from tourism. Local communities may also lack the skills needed for them to fully participate in the tourism industry. Hence, if there is no intervention, poverty alleviation will remain outside the tourism industry's agenda. Maroudas et al assert that local communities usually lose out from opportunities that tourism avails because they are normally not economically independent so as to be able to negotiate equally in decision making. Furthermore, in many instances, they lack experience and crucial knowledge on planning tourism services. In fact, they do not know where to start when it comes to actively participating in tourism's economic activities [79]. This calls for ecotourism approaches where the tourism organisations collaborate with communities, helping them with the necessary skills on hosting tourists, then realise a win-win environment which empowers the local community and at the same time guaranteeing the tourism organisations of the support from the communities. The following indicators may need to be added to those that are already being actively applied, including:

1. Adoption of a pro-poor role within mountain communities, and
2. Existence of a plan to work with local communities in providing tourist services

#### 4.4. Cultural impacts of tourism

The majority of the sustainability indicators included in this category have been met by tourism business organizations along the Maluti Route. Table 3 indicates that most organisations respect the value of historical artefacts, and hence do not trade or sell them. Also, the fact that most organisations use local artefacts to decorate their premises is a sign of the value they attach to the local culture. During the survey of the business organisations, it was observed that most hotels, lodges and restaurants used local Basotho hand-made artefacts to decorate their premises, thus indicating the value that tourism business operators communicate about the protection of local heritage. However, a limited number of business organisations appreciate the importance of jointly designing a heritage code of conduct in consultation with the community. Such a code could regulate the behavior of tourists when visiting culturally and historically sensitive sites. The Drakensberg Mountains has a wide variety of culturally sensitive sites, for example caves, rock painting sites and local shrines, where the early Basotho people used to perform rites of passage and rain-making ceremonies. Experiences from the Northern Rocky Mountains show that establishing a code of conduct is crucial for regulating mountain tourism, since mountain tourism can be a major source of conflict between tourism and local communities[80]. For example, Reeves, relates cases where tourists were collecting sacrifices left by local community members in prayer shrines for their mountain gods, causing conflict with local communities[81].

**Table 3.** Frequencies of indicators showing cultural impacts of tourism

Indicator	Responses		
	Frequency (%)	Frequency (%)	Frequency (%)
	Agree	Disagree	Neutral
Cultural interaction	23	65	22
Protecting cultural heritage	95	1	2
Presenting culture and heritage	98	0	2
Artefacts	94	2	4

The evident disjoint between the local community and business organisations in terms of guiding tourist behavior within indigenous communities and at cultural sensitive sites can never be overemphasised. Results from the community survey confirmed this disjoint since a considerable percentage (73%) of the members of the local community indicated that the native culture is not given the value it deserves. Hence many youths in towns like Clarens and Fourisburg have fallen prey to cultural corrosion. Many of them are now dressing and behaving like tourists. To some extent, levels of prostitution have been reported to be increasing in the small towns along the route. In light of this, we suggest the basic understanding of native culture by tourism business organisations be added as an indicator under the cultural impact pillar. This is essential since some people who purchase second homes in this area may not be familiar with the culture of this area. Simons emphasises the importance of local community as a nucleus of the tourist product on offer. Any tourism service provider who does not have knowledge about local culture should feel challenged to learn it and project it as a 'symbol of hospitality' [82]. In light of this we suggest the addition of protection of local culture among tourism sustainability criteria.

#### 1. Organisation understands and protects local culture

#### 4.5. Environmental impacts of tourism

The GSTC environmental impacts indicators are grouped into three sub-groups (1) conserving resources -4 indicators; (2) Reducing pollution -6 indicators; and (3) Conserving biodiversity, ecosystems and landscapes-6 indicators. Altogether, the pillar on environmental impacts consists of 16 indicators. The survey results show that 12 of these indicators are being significantly met by tourism business operators along the Maluti Route. There is a considerably high level of appreciation of some indicators among tourism business operators, for example, use of renewable energy (89%) and the adoption of measures to reduce energy consumption (76%). More complicated indicators, for example measuring carbon footprint (23%) fetched the lowest score. Hall et al, established that there is a tendency in the tourism and hospitality sector to select indicators that are easy to measure instead of the complicated ones [83]. Notwithstanding the high performance of organisations' environmental impact indicators along the route, the GSTC indicators leave out some key aspects of environmental sustainability applicable to a mountain environment, for example measuring the level of stress that the environment is subjected to by tourism, for instance as a result of the number of tourists per square kilometres, amount of land covered in vegetation and the ratio of locals to tourists. The local community showed limited knowledge of the environmental impacts of tourism to the environment as well as how indicators can be used to assess tourism sustainability along the route. Results from the observations that were made along the route show that in places where there were high levels of tourism, waste management is becoming a challenge, especially where tourism nodes are located close to informal settlements. In Clarens, for example, large deposits of household waste could be observed near the Kgubetswana informal settlement whereas places around the tourist facilities were generally clean. It is not clear whether the waste deposited near the informal settlements was actually from tourist facilities or from the informal settlement. However, considering available evidence from other mountains, waste management has been observed as a major challenge in mountain destinations [84]. Among African mountains,

Kilimanjaro is the most researched mountains and a significant number of studies have confirmed the challenge of waste disposal among tourism organisations [85]. Human excrement from locations in higher altitudes of the mountain has also been associated with water pollution in lower water bodies.

In the Golden Gate Highlands National Park, where a number of tourist activities have the potential to put pressure on the environment, some signs of environmental stress were observed along popular hiking routes. Slope failures were also observed in the park, where roads curve sharply. However, some popular canoeing sites showed signs of increasing invasion by alien plants, which if not adequately managed could cause the degradation of these sites. One respondent from the Golden Gates Highlands National Park exclaimed;

“When I was young we used to canoe in this water, but now the pool is almost covered in reeds! I wonder what could have happened!”

The problem of invasive plants is not unique to the Maluti Route but has been observed in other mountain destinations as well. Studies carried out in Mt Kilimanjaro, Mt Kenya and the Nepal confirmed that tourist activities are associated with the introduction of invasive plants and in some cases pollution of water which encourages the growth of some invasive plants[86]. One can therefore conclude that the environmental impacts of tourism along the Maluti Route are still limited, although it is imperative that the indicators are closely monitored. As shown in Table 4 only a limited number of organisations regard environmental management as their responsibility. Interviews with the key informants from the Department of Tourism established that most of the environmental management work falls in the hands of the local municipality. This includes the collection of litter and the general cleaning of the surroundings. However, the amount of litter observed in sections along the route (for example adjacent to Bluegumbotch village in Qwaqwa, by Kgubetswana in Clarens and in sections near the South Africa and Lesotho border in Ficksburg show that the local municipality may need help from the tourism organisations in keeping the route free from litter.

**Table 4.** Frequencies of indicators showing environmental impacts of tourism

Environmental impacts Indicator	%	% Frequency	%
	Frequency (Agree)	(Disagree)	Frequency (Neutral)
Environmentally preferable purchasing	52	34	14
Use of disposable goods vs recyclable goods	67	24	9
Energy consumption is measured	52	35	13
Sources of energy are known	89	5	6
Use renewable energy	34	52	14
Measures to minimize energy consumption	45	34	21
Policies encourage procurement of locally appropriate and ecologically sustainable products	32	52	16
Water consumption is measured	52	37	11
Measures to minimize water consumption adopted	35	53	12
Water sources are known	45	33	22
Water sourcing does not adversely affect the environmental flow	50	23	22
GHGs controlled	23	45	32
Transportation-related GHG emissions controlled.	27	65	8
Wastewater, effectively treated & no adverse effects to the local population and the environment	35	32	33



Solid waste is measured	42	52	6
Residual waste disposal has no adverse effect on the locals population and the environment	53	34	13
Limits the use of harmful substances	56	22	22
Measures to minimize pollution	65	10	25
Wild animals are not consumed or displayed or traded	56	13	31
No captive wildlife is held	45	50	5
Measures to avoid the introduction of invasive alien species.	56	16	28
The organisation actively contributes to biodiversity conservation including in natural and protected areas	52	25	23
Interactions with wildlife do not produce adverse effects on behavior of populations in the wild.	65	21	14

Environmental management is a significant factor of tourism sustainability. It is therefore not surprising that for a long time now, research on tourism sustainability has been concentrating on environmental protection. In light of this situation and the need for the tourism industry along the Maluti Route to contribute towards route cleanliness, we suggest that the following indicators be added to the current GSTC set of indicators:

1. Community participation in constant monitoring of route environment
2. Engagement of local communities to enable them to share ideas on environmental management

In the current arrangement where the local municipality has the overall responsibility for environmental management, it is imperative that there should be a close link between the municipality and tourism and hospitality organisations as far as environmental management is concerned.

## 5. Concluding remarks

The application of the GSTC candidate indicators along the Maluti Route varies from one organisation to another. The business operators seem to have different levels of appreciation of tourism sustainability which shows differences in appreciation of the whole issue of tourism sustainability. This is a common phenomenon in mountain areas where many different private organisations carry out activities in the same environment. However, the facts that the current study is concerned with a route, the practices are expected to be more organized than in other mountain destinations. Laurens underscored six factors as key to successful establishment and management of tourism routes [87]. These include an explicit pro-poor focus and community participation among others. In mountain environments, the importance of a pro-poor approach to tourism has been extensively emphasised in many parts of the world. In the Nepalese mountains, tourism has managed to transform the livelihoods of some Sherpa villagers when they started to actively participate in the mountain tourism business activities [88]. Recent evidence from Mt Kilimanjaro in Tanzania also shows that tourism is starting to improve the livelihoods of a few villagers who have managed to actively participate in the tourism activities. However, the environmental management aspect is still a challenge in many mountain destinations along the Maluti Route. Although the majority of the GSTC indicators are being appreciated by tourism and hospitality business organisations in this area, it is clear from the results that there are still many questions to be answered. (1) How can the local community be motivated to actively participate in the tourism sector? (2) Do the local community and the tourism industry along the Maluti Route understand the difference between their mountainous environment and all the other tourism destinations? (3) If so, do they understand the behavior that can make tourism sustainable in their area? It may be imperative at this infant stage of the mountain route tourism for the local government, especially through its Department of Tourism to take an active role in disseminating knowledge about the

opportunities and dangers that tourism brings to the community as well as educating the whole community about the importance of the mountain, not only to the locals who live in it, but to the whole of South Africa.

Apart from the need for a pro-poor focus discussed above, the tourism industry needs to incorporate more culturally based products. In order for this to happen successfully, it is imperative that the native communities actively participate in determining how authentically the culture will be presented to tourists, what behaviors should be prescribed to tourists when they visit these sites or events and what aspects of the local culture should be emphasized to the tourists. Another gap relates to support of local entrepreneurs. Local community members will respect and support tourism if their expectations of benefits are met. The communities along the Maluti Route view themselves as nothing more than workers for the tourism industry; a feeling that is disempowering considering that tourism is one of the few possible avenues for poverty reduction in destinations along the route.

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