

Ecotourism resilience: The case of Mahenye community project, Chipinge District, Zimbabwe

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Abstract

Zimbabwe has endured economic, socio-political and biophysical environmental changes that have resulted in ecotourism facing significant challenges. The Mahenye community ecotourism project has however, managed to withstand these challenges over time. This research sought to analyse the factors influencing the resilience of community ecotourism at Mahenye, Chipinge District, southeast Zimbabwe from 1982 to 2020. Research methods included desktop research, key informant interviews, critical content analysis, observations and researchers' prior knowledge about Mahenye. The factors influencing ecotourism resilience at Mahenye included resource richness and attractiveness, tourism-product diversification, intra-communal cohesiveness, social energy, a supportive private sector and non-governmental organizations and management of risk factors. These factors ensured that the venture remained operational despite socio-economic, political and biophysical change. It is hoped the resilience lessons and experiences from Mahenye can be shared and adapted to enhance the success of other similar ecotourism ventures under changing operating environments.

Keywords: Changing environmental conditions, conservation, ecotourism resilience, livelihoods, sustainability

Introduction

The tourism industry in Zimbabwe has faced significant challenges as a result of economic and socio-political environmental changes, which intensified post-2000 (Balint & Mashinya 2006; Mudzengi & Chiutsi 2014). While most aspects of tourism governance and



environmental management in Zimbabwe are generally viewed negatively (see Gandiwa, Sprangers, van Bommel, Heitkönig, Leeuwis & Prins, 2014), projects that have been resilient in the face of stress are crucial to assisting Zimbabwe remain a tourist destination (Nyaupane, Prayag, Godwyll & White, 2020). One such case study is that of the Mahenye community ecotourism project in the southeast of Zimbabwe. Resilience refers to the capacity of a social-ecological system to absorb shocks and disturbances whilst retaining both form and function (Walker & Salt, 2006). Resilience also denotes the stability of a system in the face of unexpected changes (Gunderson, 2000). In management literature, resilience describes the capacity of an organization to adapt to disturbances and seize opportunities emerging from the changing environment (Prayang, Chodhury, Spector & Orchiston, 2018; Hall, Prayag & Amor, 2018; Smit & Wandel 2006). In some cases the term has been defined as the capacity of institutions to survive hostile environmental circumstances and remain operational (Rudolph & Reppenning, 2002). It has also been applied to define organizations that have the ability to remain dynamic and relevant despite changing times (Coutu, 2002; Jamrog, McCann, Lee, Morrison, Selsky & Vickers, 2006; Jia, Chowdhury, Prayag & Chowdhury, 2020). Resilience requires adaptive capacity (Magis, 2010; Strickland-Munro, Allison & Moore, 2010; Chowdhury, Prayag, Orchiston & Spector, 2019) and can be considered an attribute that can mitigate uncertainty (Espiner, Orchiston & Higham, 2017).

The concept of resilience has been incorporated by global development institutions such as the United Nations Development Programme (UNDP) and World Bank (WB) (Turner, 2010). Resilience can help ensure development projects such as community ecotourism contribute towards the attainment of the United Nations (UN) 2030 Sustainable Development Goals (SDGs). Prior to the year 2000, the Mahenye community ecotourism project faced a number of challenges (Murombedzi, 2001). Climate change meant that the African elephant (*Loxodonta africana*) trophy hunting quota was not exhausted during drought years resulting in lower revenues accruing to the community from trophy elephant hunting fees (Murphree, 2001). Since the year 2000, the Mahenye community ecotourism project has experienced elite capture, bad management, nepotism, intimidation, weak local participatory processes, withdrawal of donor funding, the removal of external capacity building support and lower revenues due largely to a poor macro-economic environment (Balint & Mashinya, 2006; Chiutsi & Saarinen, 2017). These challenges emanated from ineffective governance and the Zimbabwean government's 'fast track' land 'reform' programme (Bond & Manyanya, 2002; Chaumba, Scoones & Wolmer, 2003; Wolmer, Chaumba & Scoones, 2004). Additionally, the European Union and the United States of America imposed economic sanctions on the country (Chiutsi, Karigambe, Mukoroverwa & Mudzengi, 2011; Mudzengi & Chiutsi, 2014). Foreign companies and donors also fled, international conservation agencies withdrew, international relations with many Western nations deteriorated, international tourist arrivals declined sharply, foreign earnings were greatly constricted, sources of multilateral and bilateral funding declined, foreign direct and portfolio investment (in tourism in particular) dried up, inflation rose, unemployment and underemployment increased and the Gross Domestic Product experienced negative growth (Balint & Mashinya, 2006; Bond & Manyanya, 2002; Chiutsi et al., 2011; Ferreira, 2004; Mudzengi & Chiutsi, 2014; Van Ameron, 2006). Of late, starting from early 2020 the Mahenye project has faced another challenge, a health shock emanating from the impacts of the novel coronavirus (COVID-19) and the associated lockdown (Mudzengi, Gandiwa, Muboko & Mutanga, 2020). The COVID-19 lockdown has led to international travel restrictions, arrival quarantines and health certificate requirements, thereby destroying the global tourism industry for much of 2020 and 2021 (Gössling, Scott & Hall, 2020; Lindsey et al, 2020; Sucheran, 2021; United Nations World Tourism Organisation, 2020).



Despite these challenges the Mahenye ecotourism project has remained operational, except during 2020 when government instructed tourism players to close business in attempts to reduce the spread of COVID-19. Despite this, there has been no academic interrogation of the factors that have led to the continued operation of the Mahenye ecotourism. Currently, innovative attempts to provide the Mahenye ecotourism with more impetus include the Jamanda Community Conservation and Development Trust (in 2018) to empower local people to take a central role in the management of various conservation-based enterprises in their area (Wildlife in Livelihood Development Programme, 2015). The Jamanda Community Conservancy is a communal game park and the principles that led to its establishment are similar to the ones that led to the formation of the Chivaraidze Game Ranch in Chiriwo Ward, mid-Zambezi Valley in 2004 (Mombeshora & Le Bel, 2010). The principles aim at devolving power over wildlife resources to local community structures at the sub-district level. However, the Chivaraidze Game Ranch has since deteriorated due to the capture of benefits by the local political elite (Mombeshora & Le Bel, 2010). Such a scenario has not yet been reported in the Mahenye ecotourism project, hence drawing research interest. Further, analyzing resilience factors at Mahenye within the sustainable development framework could inform processes that ensure the ecotourism project benefits vulnerable sections of community instead of the elites.

Study site

The Mahenye community ecotourism project is located in Mahenye Ward, Chipinge District (Figure 1), in the remote but natural attractive southeast boundary area of Zimbabwe with Mozambique. In the last population census, the Mahenye Ward had a total population of 3 671 with 707 households in 2012 (Zimbabwe National Statistical Agency, 2012). Mahenye is dominated by the Shangaan people, known as the Tsonga or Hlengwe, who, in precolonial times occupied the southeast lowveld of Zimbabwe (Mombeshora & Le Bel, 2009; Murphree, 2001; Tavuyanago, 2017). The traditional Shangaan socio-political life clusters around chiefs and headmen. The royal Shangaan families in southeast Zimbabwe include Chiefs Mahenye and Tshovani and Headman Chitsa (Mombeshora & Le Bel, 2009). The Shangaan are a minority community in Zimbabwe (Murphree, 2001). The Mahenye ecotourism venture was chosen as it served as one of the early models for the development of the CAMPFIRE in Zimbabwe and the CBNRM approach in Sub-Saharan Africa (Chaumba et al., 2003; Murphree, 2001). Mahenye is also within the Great Limpopo Transfrontier Conservation Area (GLTFCA). The Transfrontier Conservation Areas (TFCAs) initiatives seek to promote and facilitate regional peace, tourism, biophysical conservation, cooperation and socio-economic development in Southern Africa (Dutton & Archer, 2004; Ferreira, 2004).

Mahenye is characterized by a tropical savanna climate. The average monthly maximum temperatures are 25.9°C in July and 36°C in January. The average monthly minimum temperatures range between 9°C in June and 24°C in January (Gandiwa, Chikorowondo, Zisadza-Gandiwa & Muvengwi, 2011). Annual average rainfall is ranges from 400 to 600mm. Rain fed crop cultivation is limited, making ecotourism an important non-agricultural livelihood source (Mudzengi et al., 2020; Murphree, 2001). Mahenye is also mainly covered by mixed mopane (*Colophospermum mopane*) and combretum (*Combretum*) woodland with dense riverine forest found along the Save River, supporting a broad range of floral, fish and avian species (Gandiwa, 2011; Murphree, 2001). Bird species of significant interest recorded in the area include the southern banded snake eagle (*Circaetus fasciolatus*), Madagascar squacco heron (*Ardeola idea*), green coucal (*Ceuthmochares aereus*) and the barred cuckoo (*Cercococcyx montanus*) (Murphree, 2001). Further, a wide variety of animal species are found in the area including the African elephant, leopard (*Panthera pardus*),

buffalo (*Syncerus caffer*), giraffe (*Giraffa camelopardalis*), zebra (*Equus quagga*), hippopotamus (*Hippopotamus amphibius*), impala (*Aepyceros melampus*) and kudu (*Tragelaphus strepsiceros*).

The main ecotourism activities or products at Mahenye are both consumptive such as trophy hunting and fishing and non-consumptive such as game drives, photographic safaris, birdwatching and identification, canoeing, village tours and scenic views, for example, at Chivilila Falls along the Save River (Chilo Gorge, 2018; Gohori, 2020). The other main economic activities are crop cultivation and livestock rearing. The main crops cultivated are sorghum (*Sorghum bicolor*) and maize (*Zea mays*). The livestock reared include cattle (*Bos taurus*), goats (*Capra hircus*), donkeys (*Equus asinus*) and poultry (Gandiwa, Heitkönig, Lokhorst, Prins & Leeuwis, 2013a). There is also community gardening, selling crafts and curios to tourists and selling traditional beer brewed from Ilala palms (*Hyphenea petersiana*) called *Njemani*. Some local residents are also employed at the Chilo Lodge which accommodates ecotourists. Some local residents work as natural resource monitors and game scouts. Further, local residents also perform traditional dances to ecotourists at cultural festivals (Gohori, 2020).

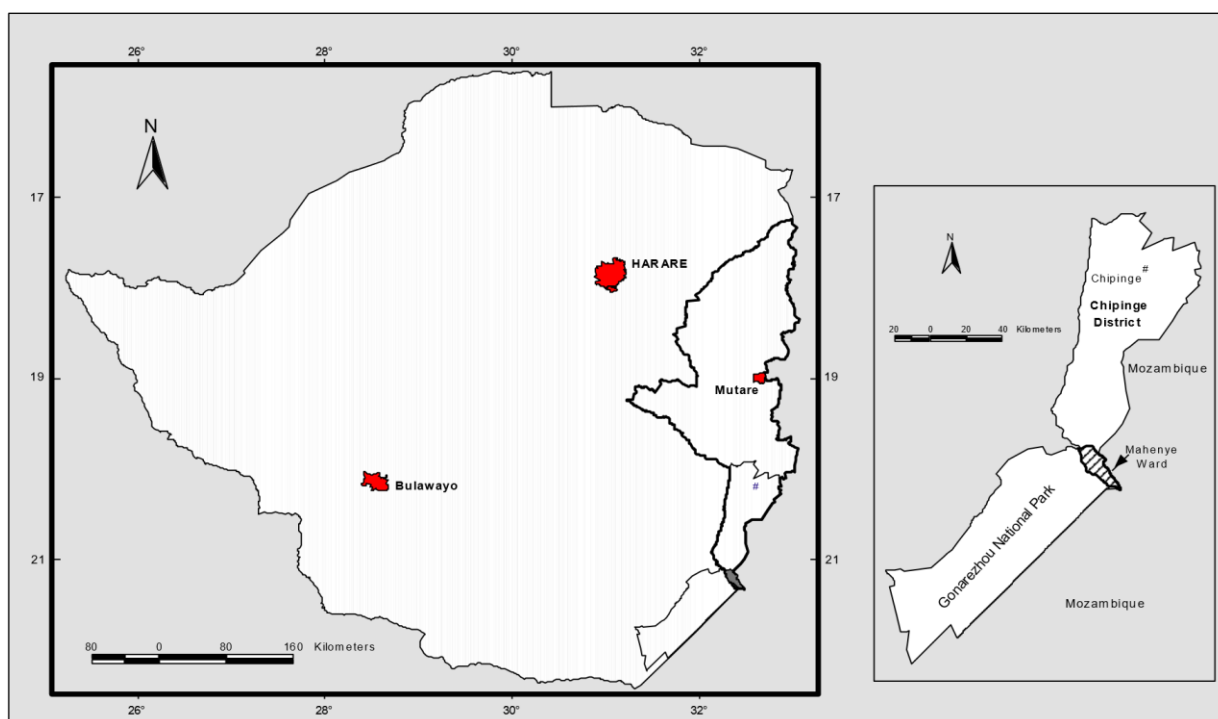


Figure 1: Mahenye Ward in southeast Zimbabwe (Source: Authors)

Research design and methodology

The study also used the case-study approach. A case study is a research design involving an in-depth and detailed examination of a subject of study, as well as its related contextual conditions (Yin, 1994). Virtual (remote using video links) key informant interviews were also carried out with an academic affiliated with the University of Zimbabwe Centre for Applied Social Sciences and a Chipinge Rural District Council (RDC) CAMPFIRE official. Interviews were also carried out with other three key informants with experience in the Mahenye ecotourism venture hereafter referred to as Key Informant 1, Key Informant 2 and Key Informant 3. These key informants are residents of Mahenye Ward and have experience in working for the community-based ecotourism project as CAMPFIRE committee members and employees of the Jamanda Community Conservancy. Engaging more research



participants from Mahenye was also problematic given poor access to virtual technologies in the remote community. The interviews were done in June 2020. The interviews followed on-site observations carried out in May 2019.

Results and discussion

Findings indicate that the following factors have influenced the resilience of ecotourism at Mahenye: (1) resource richness and attractiveness, (2) tourism-product diversification, (3) intra-communal cohesiveness, (4) social energy, (5) involvement of the private sector and non-governmental organisations and (6) management of risk factors. Some of these factors have also been key in the resilience of other similar ecotourism projects elsewhere especially in Namibia.

Resource richness and attractiveness

The Mahenye ecotourism venture has a resource endowment which is adequate to support an ecotourism business yielding significant annual revenues and inputs to community infrastructure. Mahenye has diverse wildlife species, abundant wild animals and unique wilderness characteristics. Key Informant 3 noted that “The abundance of vegetation and animal species at Mahenye attracts visitors from all over the world. There is also an abundance of elephants, species that attract sport hunters like magnets attracting metals”. The remoteness of Mahenye also helps promote the ecotourism venture’s attractiveness. As ecotourists are more environmentally conscious, the ability of Mahenye to continuously offer the natural attractiveness and remoteness that tourists desire in destinations is vital to ensure good visitor experiences. This is also supported by Balmford, Green, Anderson, Beresford, Huang, Naidoo, Walpore and Manica (2015) who note that ecotourists are more willing to visit remote and attractive areas. The significance of resource richness and attractiveness is also demonstrated by community ecotourism projects under the Living in a Finite Environment (LIFE) programme in Namibia (Boudreaux, 2010; Boudreaux & Nelson, 2011; Jones, 2001; Jones & Murphree, 2001; Machena, Mwakiwa & Gandiwa, 2017). Ecotourism resource richness and attractiveness result in high visitation numbers at Mahenye (Mudzengi et al. 2020). This in turn motivates communities to reduce their exploitation of wild plants and animal species (Kiss, 2004; Stronza & Gordillo, 2008; Weaver & Lawton, 2007). The income generating potential of sport hunting at Mahenye was the least affected by the political and socio-economic crisis post 2000 (Gandiwa, Heitkönig, Lokhorst, Prins & Leeuwis, 2013b; Lindsey, Roulet & Romanach, 2007). It is thus, important for a locality to be well-endowed with biophysical attractions if its ecotourism enterprise is to be resilient in the face of challenges.

Tourism-product diversification

Mahenye ecotourism products and services are diverse; ranging from sport hunting, wildlife viewing, scenic views, fishing, canoeing, accommodation provision, traditional dances and selling curios. According to the Chipinge RDC CAMPFIRE official: “The project at Mahenye has varied sources of income due to broad tourism attractions on offer”. The Mahenye’s ecotourism started with safari hunting which rapidly reached a threshold set by resource limitations. Tourism-product diversification included non-consumptive ecotourism post 1995 has increased revenue generation. Mahenye ecotourism revenue increased from around USD 15 000 in 1991 to USD 40 000 in 1997 as activities were diversified beyond trophy hunting (Murphree, 2001). Further, between 1997 and 2000 non-consumptive ecotourism generated a total of US\$ 38 642 for Mahenye (Chigonda, 2014). Product diversification was a seized opportunity by local management rather than a response to



imposed policy (Murphree, 2001). This is similar to studies in other parts of the world such as Botswana (Lenao, 2013; Mbaiwa, 2011; Mbaiwa & Stronza, 2011; Stone & Nyaupane, 2016), Nepal (Nyaupane & Poudel, 2011), Thailand (Treephan, Visithusmajarn & Isaramalai, 2019), and the Global South in general (Bramwell & Lane, 2013; Saarinen & Lenao, 2014).

Social capital: Intra-communal cohesiveness

The Mahenye community's in-group solidarity, rooted in history enabled the ecotourism venture to be resilient in the face of structural and legal constraints. These constraints included insecure land tenure and unwillingness by the RDC to devolve decision making powers to sub-district levels. On-site observations at Mahenye further showed that the community works together in creating community vegetable gardens using proceeds from ecotourism. Key Informant 2 noted that: "The Mahenye community are empowered by their Shangaan identity as they work together in unity to preserve natural and cultural resources in their area thereby promoting ecotourism". Social capital is explored as a collection of dimensions of trust, social cohesion, solidarity and cooperative actions necessary for ecotourism sustainability (Musavengane & Simatele, 2017). The people of Mahenye are, within the Chipinge District of Manicaland Province, ethnically discrete. All the other 30 rural wards of the district comprise primarily of Shona-speaking Ndaue people. Administratively Mahenye's neighbours are not only in a different district (Chiredzi), but also in a different province of Zimbabwe (Masvingo), while others are in Mozambique as the area lies on the Zimbabwe/Mozambique border. These factors help create a sense of collective communal interest (Mudzengi et al., 2020). The significance of community cohesion in fostering ecotourism sustainability was also discussed in Mexico (Foucat, 2002; Monteros, 2002), Thailand (Treephan, Visithusmajarn & Isaramalai, 2019), Panama and Costa Rica (Cusack & Dixon, 2006) and Chile (Pilquimán-Vera, Cabrera-Campos & Tenorino-Pangai, 2020).

Social energy

Mahenye has been fortunate in having local leadership that is supportive and committed to make the ecotourism project work for the benefit of the community. Key Informant 1 noted that: The community is inspired by dedicated individuals including Stockil as they work to ensure the success of ecotourism at Mahenye. Stockil has used his vast networks and experience in wildlife ranching and private organisations to facilitate good relations between the community and the Zimbabwe Parks and Wildlife Management Authority, support anti-poaching units and bring capital investments in the form of lodge development". Social energy are the insights, ingenuity and commitment of dedicated individuals who are in positions of influence (Murphree, 2001; Boudreaux, 2010). A number of respected elders, the local school headmaster, elected Ward councilors and Ward Wildlife Committee members have been very supportive in terms of making the ecotourism project work for the benefit of the community (Mudzengi et al., 2020; Murphree, 2001). Social energy has also been key in the resilience of community ecotourism in Namibia (Boudreaux & Nelson, 2011). Positive protected area staff-local community relationships are important for promoting tourism development and enhancing wildlife conservation (Mutanga, Muboko & Gandiwa, 2017; Mutanga, Vengesayi, Muboko & Gandiwa, 2015).

However, the Mahenye ecotourism project experienced some decline from the year 2000 to 2009 when the traditional community leaders usurped power from the elected CAMPFIRE committee and then mismanaged project activities and funds as noted by Balint and Mashinya (2006) and Mudzengi et al. (2020). This was only addressed with the holding of free and fair elections which entirely removed the traditional leadership from CAMPFIRE.



Nevertheless, the project continued running during the period of decline due to significant income from elephant trophy hunting and other non-consumptive ecotourism activities (Gandiwa et al., 2013b; Lindsey et al., 2007).

Involvement of the private sector and non-governmental organisations

The positive involvement of private and non-governmental organizations has also been key in ensuring ecotourism resilience at Mahenye. Key Informant 2 also noted the involvement of private and non-governmental organisations in the use of baobab (*Adansonia digitata*) trees to commercially produce pulp, seed oil, baobab tea infusion and flavoured yoghurt at Mahenye. These organizations include Phyto-Trade Africa, Speciality Foods for Africa, Indigenous Tea Company of Zimbabwe and Southern African Alliance for Indigenous Resources (SAFIRE). The Chipinge RDC CAMPFIRE official also noted that: “African Sun Limited, River Lodges of Africa, Stockil and non-governmental organizations have played a big role in building capacity in ecotourism product development and marketing as well as environmental conservation within the Mahenye community”. Supportive involvement of some private sector and non-governmental organisations like Mahenye Safari Lodge and Chilo Lodge developed in partnership with African Sun Limited (formerly Zimbabwe Sun Limited) enabled the Mahenye ecotourism project to continue running despite poor macro-economic fundamentals in Zimbabwe post 2000 (Mudzengi et al., 2020). Chilo Lodge is now under the ownership of River Lodges of Africa (Machena et al., 2017). Further, in the 1990s during the initial glory of the Mahenye ecotourism venture, the CAMPFIRE Association provided administrative support to the local community and Chipinge RDC. Other national and international non-governmental organizations, which had acted as implementing agencies for donor funds (to underwrite CAMPFIRE development), also had capacity building responsibilities (Muir-Leresche, Bond, Chambati & Khumalo, 2003). Enlightened non-governmental organisation involvement has also resulted in the establishment of the Jamanda Community Conservation and Development Trust to empower the local people to take an even more central role in management of various conservation-based enterprises in their area (Wildlife in Livelihood Development Programme, 2015). Private and non-governmental organisations as well as international donors and conservation agencies have been key in the resilience of community ecotourism initiatives in Namibia (Boudreaux & Nelson, 2011; Machena et al., 2017).

Management of risk factors

Willingness to make innovations in ecotourism development involves risk. In the Mahenye case study, successful ecotourism entrepreneurship required initiation and implementation in a context inhibited by legal and structural constraints and in a time frame far shorter than that dictated by the pace of bureaucratic procedures. According to Key Informant 1: “While Mahenye is one of the first communities to be involved in CAMPFIRE, historically it is not a product of CAMPFIRE as community-based conservation initiatives in the ward predate the CAMPFIRE Programme. An attempt to reduce poaching and promote good relations between the community and Zimbabwe Parks and Wildlife Management Authority staff at Gonarezhou National Park in 1982 led to an innovative arrangement which acted as a precursor to CAMPFIRE. The arrangement was only officially endorsed in 1991 when Chipinge RDC was granted appropriate status to manage wildlife in the district”. The Mahenye community and African Sun Limited took a calculated risk, with the concurrence of the Chipinge RDC, in developing the Mahenye Safari Lodge and Chilo Lodge (Mudzengi et al., 2020; Murphree, 2001). Thus, lodge development was initiated prior to the endorsement of the Ministry of Local Government, which oversees the running of RDCs in Zimbabwe, on



the basis of what was in effect an operational agreement rather than a legally binding document. Further, in 2015 the creation of the Jamanda Community Conservation and Development Trust with the assistance of a non-governmental organization (Wildlife in Livelihood Development Programme, 2015) for the purpose of creating a communal game park (Jamanda Community Conservancy) under the control of the local people, showed the Mahenye community's willingness to make innovative ecotourism development initiatives that involve risk taking. This is so because most state bureaucrats and RDCs are reluctant to create communal game parks which allow full devolution of authority to local communities thereby giving local people more direct control over conservation-based enterprises in their area. The RDCs fear loss of benefits if they devolve authority over conservation-based enterprises to the village level. Other examples of ecotourism projects where there is devolution to local communities include Sidinda in Hwange District, Naivasha in Chiredzi District and Ume in Nyaminyami District (Wildlife in Livelihood Development Programme, 2020). Thus, the local people will have greater property rights that enable them to have more opportunities to benefit from their biophysical resources.

Table 1: Summary of factors influencing Mahenye community ecotourism resilience and their impact

Resource base		
<i>Factor</i>	<i>Conditions that made the factor to work</i>	<i>Impact</i>
Resource richness and attractiveness	Ecotourists desire to visit remote areas with diverse wildlife resources	Increased revenue streams from both consumptive and non-consumptive ecotourism in the period before and after 2000
Social cohesion		
<i>Factor</i>	<i>Conditions that made the factor to work</i>	<i>Impact</i>
Intra-communal cohesiveness	Strong cultural identity Mahenye community's in-group solidarity	Community unison in preserving ecotourism resources in the period before and after 2000
Social energy	Support and commitment of the local leadership Mahenye community's in-group solidarity	Community unison in making the ecotourism project successful especially before 2000 and with the creation of the Jamanda Community Conservancy in 2018 Positive protected area staff-local community relationship in the period before and after 2000
Local Leadership		
<i>Factor</i>	<i>Conditions that made the factor to work</i>	<i>Impact</i>
Tourism-product diversification	Insight and commitment of the local management team	Diversified sources of ecotourism revenue in the period before and after 2000
Management of risk factors	Willingness of local management team to make innovations in ecotourism development Mahenye community's in-group solidarity	Community private partnership with African Sun Limited and River Lodges of Africa in the period before and after 2000 Creation of the Jamanda Community Conservancy giving local community a thicker bundle over natural resources Increased community benefits from ecotourism

Conclusion

The factors that played significant roles in ensuring that Mahenye ecotourism remained operational in Zimbabwe range from resource attractiveness, product diversification, social energy and management of risk. The creation of the Jamanda Community Conservancy in 2018 under the control of the local people increases chances that the resilience of the ecotourism project will benefit the grassroots unlike previously when only a few powerful elites reaped most of the rewards. The research results could inform environmental policy makers and planners on strategies of ensuring that resilient processes of ecotourism projects in changing environments empower all sections of community. This is important as it better



position ecotourism in the pursuance of the United Nations 2030 SDGs. To this end, similar ecotourism projects elsewhere can be adapted to be more resilient to environmental changes using experiences from Mahenye.

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