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## **Research Manuscript**

### **An assessment of local community engagement in wildlife conservation: a case study of the Save Valley Conservancy, South Eastern Zimbabwe**

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## **Abstract**

In Southern Africa, human and wildlife interactions have significantly increased over the past decade resulting in complex conservation conflicts. For instance, conservation conflicts in the Save Valley Conservancy (SVC) in the southeast lowveld of Zimbabwe have grown to a level of drawing the concerns of various players, both within and outside the protected area. However, these players are of diverse opinions and interests calling for an inclusive, effective and multi-integrated stakeholder engagement strategy that addresses these needs and opinions in a transformative conservation framework. As humans and wildlife share space, stakeholder engagement becomes a critical component of wildlife management and transformative

conservation. In this study, we analysed the conservation conflicts in the SVC. Data were collected between April and May 2020 through focus group discussions and interviews with 20 key purposively sampled informants. This study results revealed a lack of an effective, inclusive, integrated multi-cross-sectional stakeholder engagement plan as one of the major contributing factors to the existence of conservation conflicts in the SVC. It is concluded that, there is limited participation by community members and generally no shared views among the community members on viable land use options in the SVC. This study proposes for an integrated cross-sectional stakeholder working framework which does not only inform conservation practitioners but also fully addresses the prevailing conservation conflict scenarios emanating from the exclusion of humans from protected areas and the encroachment of wildlife in human settlements.

**Key Words:** conservation conflict, Save Valley Conservancy, stakeholder engagement, transformative conservation, wildlife conservation.

## 1. Introduction

In the year 2000, Zimbabwe embarked on a fast track land redistribution exercise that sought to address the historical colonial imbalances by making sure that most of the landless people were resettled in gazetted farms. This Fast Track Land Reform (FTLR) program implemented represents one of the key radical redistributive land reforms in Zimbabwe (Moyo, 2011; Chambati, 2013). It reversed the racially skewed agrarian structure and discriminatory land tenure system inherited from the colonial rule whereby over 6,000 large scale white farmers and a few foreign and nationally owned agro-industrial estates controlled most of the prime land, water resources and bio-reserves while relegating the majority of the indigenous population to marginal lands (Moyo, 2011; Chambati, 2013; Mapfumo, 2015; Chipika and Malaba, 2016).

One of the key aspects of the 2000 land reform programme was an emphasis on the direct redistribution, equity and land for crops, with little attention on wildlife management (Wolmer et al., 2004). The attempt to incorporate inherently extensive wildlife management into resettlement schemes runs directly counter to the rhetoric and technical biases of land reform programmes in Zimbabwe (Wolmer et al., 2004). Hence, a new political terrain rapidly unfolded with new actors and new institutions (Chaumba et al., 2010). This intentionally or unintentionally resulted in the 2000 land reforms transforming all the affected areas such as the Save Valley Conservancy (SVC) significantly and in certain circumstances converted wildlife areas into agricultural land. Currently, several factors continue to undermine development in the Save Valley, impacting on the SVC as well as on local communities that mostly rely on dry subsistence farming, and end up trapped in a vicious cycle of poverty.

The SVC consists of a diverse set of owners and operators. In the northern part, which was not affected by the land reform, most properties there are supported by Bilateral Investment

Promotion and Protection Agreements (BIPPA) (Kreuter and Warner, 2010). In the southern part of SVC, the land reform brought significant changes, with large settlements in the western and eastern areas, with wildlife areas transformed into crop and livestock spaces (Scoones et al.; 2012). The other remaining wildlife pockets in the SVC are now under the ownership of the Zimbabwe Parks and Wildlife Management Authority. However, local communities also face challenges in making a living from agriculture and livestock production without irrigation in the semi-arid climate.

The human-livestock-wildlife interface is multifaceted and has both positive and negative implications for health, the environment and economics (Kock, 2005). The wildlife conservation efforts need take many actions to reduce the decline of species and habitats; key among them is to shift from operating under a framework focused predominantly on a narrow set of wildlife interests, to a social-ecological paradigm and concomitant approach to wildlife conservation that embraces the interests and participation of a broader public (Jacobson et al., 2010; Decker et al., 2016). Wildlife management has been an option to communities living in the SVC but this has not been fully utilised due to varying reasons and circumstances. Therefore, the objectives of this study were to: (i) to document stakeholder engagement platforms in SVC, (ii) to establish the nature and causes of HWC in SVC, and (iii) to assess community members' perceptions regarding wildlife conservation and other land uses in SVC.

### **1.1 Theoretical framework**

This study is anchored on the transformative conservation framework, which envisages a multi-stakeholder approach to enhance wildlife conservation in the SVC (Mashapa et al., 2021). The framework connotes fundamental, broad, and durable changes to human relationships with nature. It points to the fundamental reorganization necessary for global conservation initiatives

to stem ecological catastrophe (Fougeres et al., 2022). Transformative conservation rethinks the relationships between nature, society, individuals, and risk in light of nature's contributions to people, equity and justice, and sustainable development goals. Restructures systems to create durable change at large geographic, ecological, political-economic, and demographic scales; and ultimately conserves biodiversity while justly transitioning to net negative emissions economies and securing the sustainable and regenerative use of natural resources (Fougeres, 2020).

Transformative conservation requires supporting practitioners and stakeholders to mobilize and take collective action. This includes especially those who live and work where conservation occurs (Fougeres et al., 2022). A transformative framework which recognizes the diversity of human values and relationships with nature, and how nature contributes both directly and indirectly to good quality of life is fundamental (Lundquist, 2021). Transformative conservation should therefore be understood as a long-term process, requiring both individual agency and collective action by societies and should combine both food production and biodiversity conservation strengthening the socio ecological systems and address adaptation by communities to global change. Conservation actions most often occur in peopled seascapes and landscapes (Colloff et al., 2017; Bennett and Roth, 2019; Mupepele, 2021).

The conservation community is moving towards more integrative and collaborative approaches to conservation (Cumming et al., 2015; Guerrero et al., 2015; Tengö et al., 2017; Therville et al., 2017). Conserving wildlife today requires a change in orientation to and understanding of conflict, as well as the capacities and approaches needed to achieve long-lasting success. A good transformative conservation process should give attention to the dialogue and relationship-building needed to foster dignity, respect, and trust among stakeholders, as well as to support more effective decision-making around and commitment to tangible solutions (Decker et al., 2012). Engaging local stakeholders is a central feature of

many biodiversity conservation and natural resource management projects globally (Sterling et al., 2017). Thus, the overall objective of engaging stakeholders in SVC needs to improve the livelihoods of rural communities through sustainable and climate resilient management of natural resources which is well in line with the context of the United Nations 2030 Agenda for Sustainable Development (Bleischwitz et al., 2018).

Over the past decade, national governments, international bodies, non-governmental organizations, and donors have shown an increasing interest in promoting good governance for protected areas, because good governance is a prerequisite for protected areas' long-term future (Alcorn et al., 2005). The survival of both indigenous peoples and the natural world lies in the ability of people concerned with the two sets of issues to find common ground and work together (Redford and Painter, 2006). During the land reform exercise in the year 2000, parts of SVC was transformed into agricultural land impacting negatively on wildlife conservation.

Resettlement communities in Zimbabwe have been documented to have complicated institutional settings due to overlapping powers amongst; *de facto and de jure* institutions (Mberekho et al., 2015). These institutions and their interactions over time influence the way individuals and communities experience the plethora of stressors that confront them rendering them vulnerable (Mberekho et al., 2015). However, beliefs and attitudes of local people towards protected areas are increasingly being considered in conservation planning (Anthony and Moldovan, 2008). Access to basic social services in these settlements is limited including health, water, sanitation and education. Infrastructure is limited; there are high human wildlife conflicts (HWC), which besides the threat for humans also impacts on crop and livestock production. Conflict management requires parties to recognise problems as shared ones, engage with clear goals, transparency, and an awareness of trade-off opportunities (Redpath et al., 2013).

Most HWC stem from differences in land use practices between various stakeholder groups, especially where the wildlife in question is a resource that can be exploited for economic or cultural benefit, or where the conservation of wildlife is at odds with human population growth or development pressure (White and Ward, 2011). While the rhetoric goes on local communities surrounding and surrounded by wildlife continue to be vulnerable in particular to food insecurity and diseases and this therefore calls for a transformative stakeholder engagement approach to conservation that gives relief to humans and wildlife co-sharing space in the SVC. Greater involvement of those living in and around protected areas can contribute to protected areas and landscape conservation (Whande et al., 2003). Engaging local stakeholders is a central feature of many biodiversity conservation and natural resource management projects globally (Sterling et al., 2017). Core to the planning–implementation gap in conservation is the failure to achieve the necessary shared vision and collaboration among typically diverse stakeholder groups to translate conservation assessments and plans into sustained on-ground outcomes for conservation (Biggs, 2011).

## **2. Materials and Methods**

### **2.1 Study Area**

This study was conducted in Ward 24 of Chiredzi district which covers the greater part of SVC in southeast Zimbabwe (see Lindsey et al. (2009) and Matseketsa et al. (2019) for detailed description of SVC). The SVC ( $20^{\circ} 22' S$  and  $31^{\circ} 56' E$ ) is located along Save River stretching from the Birchenough Bridge in Chipinge District to Chiredzi District, southern Zimbabwe (Mhuriro et al., 2018). The SVC is located in natural agroecological region IV which is one of the driest regions in Zimbabwe. It occurs at an elevation of 480-620m, with deciduous woodland savanna, low and variable rainfall (474-540 mm per annum) and poor-quality soils

(Lindsey et al., 2009). The SVC is the largest model of amalgamated privately owned ranches devoted to wildlife production in Africa (Du Toit, 2017). The original SVC comprised of 24 properties with a total area of over 3500 km<sup>2</sup> (Du Toit, 1998; Lindsey et al., 2012). These properties consolidation into the SVC falls into two Districts; Bikita in the north (1,631 km<sup>2</sup>) and Chiredzi to the south (1894 km<sup>2</sup>). The SVC also forms the northern part of the Great Limpopo Transfrontier Conservation Area (GLTFCA) (Makumbe et al., 2022; Mahed et al., 2022). The SVC is bordered primarily by high-density communal lands (of between 11 and 82 people per km<sup>2</sup>), with some commercial agriculture to the south and east (Pole, 2006). The commercial land of the SVC is surrounded by communal land on which some 119 000 communal farmers (try to) make a living (Wels, 2000). During the Fast Track Land Reform Programme, people were settled in some parts of the ward which used to be part of the wildlife conservancy areas. Local communities in the SVC are making a living from farming sorghum (*Sorghum bicolor*), cotton (*Gossypium herbaceum*) and livestock. Sugar cane (*Saccharum officinarum*) and citrus are planted successfully on irrigated land and is key economic driver in the region (Lindsey et al.; 2012, Matseketsa et al., 2019). Low rainfall restricts the land uses to irrigated crop production, commercial cattle and game ranching on extensive privately owned ranches, safari hunting on state land and communal Lands, and dry land subsistence farming in the overcrowded Communal Lands (Du Toit 1998).

## 2.2 Study Design

A mixed methods approach was adopted in this study. The mixed methods approach to research provides researchers with the ability to design a single research study that answers questions about both the complex nature of a phenomenon from the participants' point of view and the relationship between measurable variables (Williams, 2007). According to Almeida (2018), the

use of mixed methods makes it possible to overcome the limitations of either the qualitative or the quantitative methodologies when applied singularly, allowing the researcher to get rich information that could not be obtained using each method alone. The qualitative approach helped in explaining the phenomena, while the quantitative approach was important in examining collected statistical data.

### **2.3 Sample size and data collection**

A survey was carried in ward 24 of Chiredzi district and data were collected in April and May 2020 through two methods, that is, focus group discussions were conducted with a seven (7) member committee (farm chairpersons) and 84 randomly selected community members and traditional leaders and semi-structured interviews with 20 key informants purposively selected. Key informants were selected based on their knowledge, background and positions held in society and these included the Ward Councillor, the government extension staff in relevant departments and village heads. Data collected focused on an assessment of the stakeholder engagement platforms available in the SVC, the nature and causes of HWC and the perceptions of community members towards the SVC. To understand the nature and causes of HWC in SVC; focus group discussions were held in each area (Masapasi, Levanga, Mkwesine Ranch, Chegwhite and Senuko). These parameters help in understanding the transformative conservation in the SVC. Permission to conduct the survey was sought from the Chiredzi Rural District Council and village heads.

Semi-structured interviews were held with 20 key informants purposefully selected based on their knowledge, background and positions held in society and these included the Ward Councillor, the government extension staff in relevant departments and village heads. Secondary data used in this study were collected from the Livestock Production Department

(LPD) in Chiredzi district and gave us all the data on Human and Wildlife Conflict. as shown in Table 1, a total of 111 (55 females and 56 males participated).

**Table 1: Sample size and data collection methods**

Category	Number of participants			Data collection method
	Male	Female	Total	
	(%)	(%)	(%)	
Farm Chairpersons	7(13)	0	7 (6)	Focus Group Discussion
Community members	36 (64)	48(87)	84(76)	Focus Group Discussion
Key informants	13(23)	7 (13)	20(18)	Semi-structured interview
Total	56(50)	55(50)	111	

## 2.4 Data Analysis

The thematic content analysis method was used to analyse qualitative data in this survey. For thematic content analysis, a six-step process: familiarisation, coding, generating themes, reviewing themes, defining and naming themes and writing up following Caufield (2019). This approach made it possible to analyse data recorded on semi-structured interview transcripts. Further, a cross tabulation method was used to analyse association and frequency of variables.

### **3. Results**

#### **3.1 Stakeholder engagement platforms in SVC**

The results showed limited platforms for members of the community to participate in stakeholder engagement activities in the SVC. The majority of participants as shown in Table 2 indicated that 98% ( $n = 89$ ) stated that they had never participated in consultative meetings; only 2% ( $n = 2$ ) who said they participated in consultative meetings. Annual planning meetings, Community Areas Management Programme for Indigenous Resources (CAMPFIRE) meetings and community share ownership meetings were the available stakeholder platforms in SVC. However, 98% ( $n = 89$ ) participants had no knowledge of this platform and only 2% ( $n = 2$ ) were in the know. On the other hand, 100% ( $n = 91$ ) were not aware of CAMPFIRE meetings and all of them (100% ( $n = 91$ )) have no knowledge about the existence of community share ownership in SVC.

**Table 2: Engagement platforms in SVC and responses by participants.**

The total participation in table 2 is 100% and it excluded the 7 key informants.

Platform	Knowledge of the platform		Participation	
	Yes (%)	No (%)	Yes (%)	No (%)
Consultative meetings	2(2)	89 (98)	2 (2)	89 (98)
Annual planning meetings	4 (4)	87 (96)	0	91 (100)
CAMPFIRE meetings	0	91 (100)	0	91 (100)
Community share ownership	0	91 (100)	0	91 (100)

### 3.2 Human wildlife conflict in the SVC

The results showed that elephants (*Loxodonta africana*) constituted the highest number of reports on problem animals with 385 reports received from the period 2014-2018 (Table 3). A total of 316 reports on lions (*Panthera leo*) were received within the same period killing a total of 15 animal and 2 people injuring 1 in the same period. A total of 261 reports on buffalo (*Syncerus caffer*) as another common species under problem animals were recorded within the same period 2014–2018. Overall, 1201 reports were received and 13 people were killed

injuring 19, while 187 cattle were killed while 224 goats and 38 donkeys were killed by wildlife in SVC within the same period.

**Table3: Deaths and injuries caused by wildlife**

Species Involved	Reports Received 2014-2018	Problem Animals Killed 2014-2018	People		Domestic Animals Killed 2014-2018		
			Killed	Injured	Cattle	Goats	Donkey
Elephant	385	57	0	0	0	0	0
Hippo	120	19	2	0	0	0	0
Buffalo	261	93	2	7	0	0	0
Lion	316	15	2	1	165	174	29
Crocodile	74	12	6	9	0	1	0
Hyena	33	11	1	2	20	38	9
Leopard	12	1	0	0	3	12	0
<b>Total</b>	<b>1201</b>	<b>208</b>	<b>13</b>	<b>19</b>	<b>187</b>	<b>224</b>	<b>38</b>

Source: Chiredzi District Livestock Production Department, 2022, Human and Wildlife Conflict data – Chiredzi Rural Development Council - Environment Department, 2022

It was evident that, HWC in SVC were on the increase and this is caused by a number of factors. Communities in SVC have no other income generating sources besides exploiting resources within their surroundings. The illegal harvest of mopane trees to extract charcoal was on the increase. Domestic animals had to scramble for pastures in SVC leading to increased reports on communities losing their livestock to wildlife and also people losing their lives during the process. Increased population in SVC has seen communities expanding their

settlements into protected privately owned properties and this entails the clearance of large tracts of land for settlement (Fig. 1). The cutting down of trees has reduced space and the natural habitat for wildlife in SVC.



**Figure 1:** (a) A disturbed cattle owner standing beside his cow which had fallen victim to lions in SVC. (b) an arrested poacher in SVC (c) charcoal bags loaded in a truck ready for sale after being extracted from mopane trees in SVC. (d) Land being cleared for farming and settlement in SVC. (e) burning mopane trees to extract charcoal in SVC. **Photo credit:** Joseph Antipas, 2020.

### 3.3 Community members’ perception on the SVC

The majority of community members and traditional leaders 74% ( $n = 67$ ) had negative perception towards the idea of wildlife conservancy and only 14% ( $n = 13$ ) had positive perception and 12% ( $n = 11$ ) were neutral (Table 4). Those who had negative perceptions on wildlife conservation said that they didn’t like the idea because it was a waste of land and some of the wild animals are a threat to them besides destroying their crops given that there are no secure boundaries.

**Table 4: Community members’ perceptions on land use in SVC**

Land use	Participant category		
	Community members (%)	Farm Chairpersons (%)	Key informants (%)
Crop production	53(48)	4 (4)	1 (1)
Ranching (livestock)	7 (6)	1 (1)	4 (4)
Wildlife conservancy	0	0	11 (9)
Mixed	24 (21)	2 (2)	4 (4)

The majority of community members, i.e., 48% ( $n = 53$ ), preferred the land to be used for crop production while 21% ( $n = 24$ ) pointed out that they preferred mixed land use and 6% ( $n = 7$ )

opted for ranching. None of the community members reported that they wanted the land to be used for wildlife conservancy. During the focus group discussions, the community members explained that they were against the idea of wildlife conservancy; they regard it as a waste of land which could be used for crop production. The views of traditional leaders regarding land use are comparatively the same to those of community members. The majority of traditional leaders 57% ( $n = 4$ ) would like the land to be used for crop production while 4 ( $n = 2$ ) said that they prefer mixed land use while 1% ( $n = 1$ ) favours ranching. Most of the key informants (10%;  $n = 11$ ) said that the land should be used for wildlife conservancy and 4% ( $n = 4$ ) opted for ranching with the other 4% ( $n = 4$ ) thought of a mixed land use approach with only 1% ( $n = 1$ ) reporting that it should be used for crop production.

#### **4. Discussion**

This study established that community participation in wildlife conservation in the study area is very limited. Stakeholder engagement can only be realised if community members are provided an opportunity where they discuss issues with operators of wildlife conservancies. This will bring common understanding and goes a long way in addressing the challenges being encountered in the wildlife conservancy. The participation of a diverse group of people in a systemic process of collecting, discussing, and analysing scenarios builds shared understanding (Peterson et al., 2003). The two traditional leaders who said that they participated in the consultative meetings explained that it was just once off and there was no proper structure to coordinate meetings.

Stakeholder engagement is not only key but the missing ingredient to conservation conflicts which have been so rampant in SVC. The issue of transformative conservation would

be difficult to achieve in SVC if there would still be such pockets where communities and wildlife could not share space in harmony. Human settlements in the park threaten conservation efforts, and mixed views on the proposed game fence were observed (Muboko and Bradshaw, 2018). Some protected areas remain settled or have recently been partially settled by people with prior claims on the area (Milgroom, 2012; Mombeshora and le Bel, 2009).

It was also established that there was no effective communication strategy between stakeholders in the study area and the few consultative and planning meetings have registered poor attendance thus affecting community participation which could help in resolving conservation conflicts in SVC. Communities and other stakeholders need be made aware of each and every program and planning meetings. The attendance and contribution of each and every stakeholder is vital so that there is a shared view and common understanding of the main issues that affect development in SVC. For protected areas to be resilient (and to contribute to broader social-ecological resilience), they must be able to adapt to changing social and ecological conditions over time in a way that supports the long-term persistence of populations, communities, and ecosystems of conservation concern (Cumming et al., 2015).

The present study recorded that HWC was widespread in SVC mainly because wildlife and human populations coexist and have limited resources. Large areas of woodland have been cleared for subsistence farming within SVC (Lindsey et al., 2012). Frequently, wildlife poses a direct threat to the lives of people irking out an existence in or close to their habitat, hence, wildlife has no value outside the protected areas, it dwindles and disappears either through active persecution, loss of habitat or competition with livestock (Prins et al., 2012). Matseketsa et al. (2019) observed that HWCs occur around the edges of protected areas where there are high human and wild animal interactions. Such is the case with SVC where reports of HWCs are increasing. Expansion for agricultural purposes and the growth in human population are key contributing factors of HWC in SVC (Matseketsa et al, 2019). HWCs are one of the biggest

obstacles for community-based natural resource management in Zimbabwe, this situation has been exacerbated by the 1999 land reform which resulted in Africans settling on former white owned commercial farms, as well as game safari land and sections of protected areas (Le Bel et al., 2011). Wildlife species damaging crops can cause substantial losses to farmers and at the same time create negative attitudes against wildlife and conservation efforts that may result in negative interactions against wildlife and lead to HWCs (Gross et al., 2018).

Emphasizing and building shared understandings of fundamental assumptions regarding wildlife conservation could enhance the participatory process, improve ecological understandings, and aid conservation success (Heisel et al., 2021). Very few are realising benefits from wildlife conservation proceeds in SVC this has strained relationships. The nature of this perceived poor relationship is attributed to a host of factors, key among them being, lack of wildlife-related benefits and escalation of wildlife-induced costs, which are crucial in determining local community's support for conservation (Matseketsa et al., 2019; Zibani, 2019). Identifying solutions for the coexistence of humans and wildlife requires an understanding of both environmental and social dimensions (Konig et al., 2020, 2021). Being semi-arid, SVC, no meaningful crop cultivation could be carried out without need for irrigation and this leaves cattle ranching and wildlife conservation being the most favourable options which needs to be considered and hence the need to engage the same communities for their support.

This study showed that there was need to educate all stakeholders on the importance of wildlife conservation emphasising much on its positive contributions to country's Gross Domestic Product (GDP) and how communities could directly and indirectly benefit from such initiatives. Local people's knowledge about natural resources conservation are influenced by education and awareness programmes, services and benefits local people receive from conservation related projects (Jalilova and Vacik, 2012). Wildlife conservation efforts have not

fully addressed poverty within communities as evidenced by loss of fertile agricultural land, outlawing access to natural resources, destruction of agricultural crops, livestock decimation due to diseases from wild animals, and elusive employment prospects (Kangalawe and Noe, 2012, Noe and Kangalawe 2015). Evidence based on reports points to local communities' hatred of parks and dismissed the poverty alleviation benefits as an illusion given the huge social capital loss accentuated by involuntary relocation and spike on HWCs (Gadd, 2005). Our findings corroborate those of Mbereko et al. (2017) who also made similar observation that some institutions involved in the management of the Protected Areas are failing to promote the participation of the local community in the decision-making processes. This has often led to communities not sharing the same view with other stakeholders on wildlife conservation in SVC. Our study showed that communities in SVC continue to have negative perceptions towards wildlife as they still think they could not share space with wildlife.

Communities juxtaposed to protected areas often disproportionately accrue the costs of conservation, but they can also receive benefits from the existence of a protected areas. The extent to which local communities benefit or incur costs as a result of residing next to protected areas is of interest to conservationists and policy-makers (Matseketsa et al.; 2018). Local communities should be involved from the planning phase of community-based tourism projects, which were meant to benefit them socio-economically, while also empowering them to participate actively in the conservation of local environmental assets (Hlengwa and Maruta, 2020). All players in SVC need to find a very even common ground and engagement platform where each and every stakeholder big or small is regarded as key and is allowed to be heard, given equal opportunities to participate, and equally contribute to the development of communities and promote wildlife conservation.

Protected areas can no longer be thought of as ecological islands that function independently of the broader social-ecological system in which they are located (Cumming et

al., 2015). The study found that communities in SVC are not seeing the benefits of wildlife hence there is need to start regular engagements and consultative meetings with communities, initiating and implementing programs and projects in the area that are sensitive to the plight and challenges faced by communities in the area. Failure to link conservation and development in Trans Frontier Conservation Areas (TFCAs) may not be without consequences. The long-term future of the core protected areas within TFCAs is likely to be compromised if not threatened, unless those living on the edge support their continued existence (Cumming and Andersson, 2017).

## **5. Conclusion**

This study has shown that there is lack of participation by community members in SVC and as a consequence, there was no shared view between the community members and SVC. Although there were platforms to participate in SVC, it was established that the majority of community members are not aware and/or are not invited to such platforms to enable them to participate. Given this, SVC's activities were viewed negatively by community members and regarded as a waste of land that could be used for farming activities. It is of paramount importance for community members to participate in wildlife conservation so that they can embrace and support the idea. Without meaningful participation by community members, wildlife conservation is not likely to be a success. One of the major challenges in SVC is HWCs, and this is mainly caused by lack of shared understanding in relation to wildlife conservation. There is need for meaningful engagement of community members regarding wildlife conservation. This can be realised by having consultative meetings and planning meetings. Having representatives of community members in the SVC planning meetings and annual review meetings. There is need for community engagement regarding the issue of boundaries in SVC.

### **Data Availability**

The data are available from the corresponding author upon reasonable request.

### **Conflicts of Interest**

The authors declare that there are no conflicts of interest in this article.

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## References

1. Alcorn, Janis B., Andres Luque, Wendy Weisman, Dewi Suralaga, Shekhar Singh, Ronald Zeballos, Lily Rodriguez (2005), "Non-governmental organizations and protected areas governance." In Governance Stream of the Vth World Park Congress, pp. 1-44. Canada, Parks Canada and IUCN World Commission on Protected Areas (WCPA) Ottawa and Gland.
2. Almeida, F. (2018). Strategies to perform a mixed methods study. *European Journal of Education Studies*. Strategies 5(1),137 -151
3. Anthony, B., and Moldovan, D. (2008). Poised for engagement? Local communities and Macin Mountains National Park, Romania. *The International Journal of Biodiversity Science and Management*, 4(4), 230-241.
4. Bennett, N. J., and Roth, R. (2019), Realizing the transformative potential of conservation through the social sciences, arts and humanities. *Biological Conservation*, 229, A6-A8.
5. Biggs, D., Abel, N., Knight, A. T., Leitch, A., Langston, A., & Ban, N. C. (2011). The implementation crisis in conservation planning: could "mental models" help? *Conservation Letters*, 4(3), 169-183.
6. Bleischwitz, Raimund, Catalina Spataru, Stacy D. VanDeveer, Michael Obersteiner, Ester van der Voet, Corey Johnson, Philip Andrews-Speed, Tim Boersma, Holger Hoff, and Detlef P. Van Vuuren (2018). "Resource nexus perspectives towards the United Nations sustainable development goals." *Nature Sustainability*, 1, (12), 737-743.
7. Caulfield, J. 2019. How to do thematic analysis. Scribbr. Retrieved on February 7 2021. Available at <https://www.scribbr.com/methodology/thematic-analysis/>
8. Chaumba, J., Scoones, I., and Wolmer, W. (2003b) 'From jambanja to planning: the reassertion of technocracy in land reform in south eastern Zimbabwe', *Sustainable Livelihoods in Southern Africa Research Paper 2*, Institute of Development Studies, Brighton
9. Chipika, J. T., & Malaba, J. A. (2016). Towards a Transformative Democratic Developmental State in Zimbabwe - Towards Democratic Development States in Southern Africa, 200.
10. Colloff, M.J., Martín-López, B., Lavorel, S., Locatelli, B., Gorddard, R., Longaretti, P.Y., Walters, G., van Kerkhoff, L., Wyborn, C., Coreau, A. and Wise, R.M., (2017) An integrative research framework for enabling transformative adaptation. *Environmental Science & Policy*, 68, 87-96.
11. Cumming, D. H. M. (2011). Constraints to conservation and development success at the wildlife-livestock-human interface in southern African Trans - frontier conservation areas: a preliminary review. *Wildlife Conservation Society*, New York.
12. Cumming, D. H., & Andersson, J. A. (2017). Whither TFCAs and people on the edge in Southern Africa? In *Transfrontier Conservation Areas* (pp. 216-227). Routledge.
13. Cumming, D. H., Dzingirai, V., & de Garine-Wichatitsky, M. (2017). Land-and natural resource-based livelihood opportunities in TFCAs.
14. Cumming, G.S., Allen, C.R., Ban, N.C., Biggs, D., Biggs, H.C., Cumming, D.H., De Vos, A., Epstein, G., Etienne, M., Maciejewski, K. and Mathevet, R, (2015), Understanding protected area resilience: a multi-scale, social-ecological approach. *Ecological Applications*, 25(2),299-319.
15. Decker, D. J., Raik, D. A. B., Carpenter, L. H., Organ, J. F., &Schusler, T. M. (2005). Collaboration for community-based wildlife management. *Urban Ecosystems*, 8(2), 227-236.
16. Decker, D. J., Riley, S. J., & Siemer, W. F. (Eds.). (2012). *Human dimensions of wildlife management*. JHU Press.

17. Decker, D., Smith, C., Forstchen, A., Hare, D., Pomeranz, E., Doyle-Capitman, C., Schuler, K. and Organ, J., (2016), Governance principles for wildlife conservation in the 21st century. *Conservation Letters*, 9(4),290-295.
18. Drouilly, M., & O’Riain, M. J. (2019). Wildlife winners and losers of extensive small-livestock farming: a case study in the South African Karoo. *Biodiversity and Conservation*, 1-19.
19. du Toit, R. (1998) ‘Case study of policies that support sustainable development in Africa: Save Valley Conservancy, Zimbabwe’, paper presented at Scandinavian Seminar College Workshop African Experiences with Policies and Practices Supporting Sustainable Development, 28–30 September 1998, Harare.
20. Fougères, D., Jones, M., McElwee, P. D., Andrade, A., & Edwards, S. R. (2022). Transformative conservation of ecosystems. *Global Sustainability*, 5, e5.
21. Fougères, D., Andrade, A., Jones, M., & McElwee, P. D. (2020). Transformative conservation in social-ecological systems. IUCN Commission on Ecosystem Management (CEM): Geneva, Switzerland.
22. Gadd, M. E. (2005). Conservation outside of parks: attitudes of local people in Laikipia, Kenya. *Environmental conservation*, 32(1), 50-63.
23. Gross, E. M., Lahkar, B. P., Subedi, N., Nyirenda, V. R., Lichtenfeld, L. L., & Jakoby, O. (2018). Seasonality, crop type and crop phenology influence crop damage by wildlife herbivores in Africa and Asia. *Biodiversity and conservation*, 27(8), 2029-2050.
24. Guerrero, A.M., Mcallister, R.R.J., Wilson, K.A., 2015. Achieving Cross-Scale Collaboration for Large Scale Conservation Initiatives. *Conservation Letters*. 8, 107–117. <https://doi.org/10.1111/conl.12112>
25. Heisel, Sara E., Elizabeth King, Francis Lekanta, Francis Lemoile, Camilla Ryan, Isaya Lemer keto, Siva Sundaresan, Erin Malsbury, and Brett Bruyere, (2021) "Assessing ecological knowledge, perceived agency, and motivations regarding wildlife and wildlife conservation in Samburu, Kenya." *Biological Conservation* 262 109305.262 (2021), Article 109305, [10.1016/j.biocon.2021.109305](https://doi.org/10.1016/j.biocon.2021.109305)
26. Hlengwa, D. C., & Maruta, A. T. (2020). A framework for facilitation of community participation in and beneficitation from CBT around the Save Valley Conservancy.
27. Jacobson, C.A., Organ, J.F., Decker, D.J., Batcheller, G.R. & Carpenter, L. (2010). A conservation institution for the 21st century: implications for the state wildlife agencies. *J. Wildl. Manage.*, 74, 203- 209
28. Jalilova, Gulnaz, and Harald Vacik "Local people's perceptions of forest biodiversity in the walnut fruit forests of Kyrgyzstan." *International Journal of Biodiversity Science, Ecosystem Services & Management* 8.3 (2012): 204-216.
29. Kangalawe, R. Y., & Noe, C. (2012). Biodiversity conservation and poverty alleviation in Namtumbo District, Tanzania. *Agriculture, ecosystems & environment*, 162, 90-100.
30. Kock, R. A. (2005). What is this infamous “wildlife/livestock disease interface?” A review of current knowledge for the African continent. In S. A. Osofsky, S. Cleveland, W. B. Karesh, M. D. Kock, P. J. Nyhus, L. Starr & A. Young (Eds.), *Conservation and development interventions at the wildlife/livestock interface: implications for wildlife, livestock and human health* (pp. 1-13). Gland, Switzerland, and Cambridge, UK: IUCN.
31. Kreuter, U., Peel, M., & Warner, E. (2010). Wildlife conservation and community-based natural resource management in southern Africa's private nature reserves. *Society and Natural Resources*, 23(6), 507-524.
32. König, H. J., Kiffner, C., Kramer-Schadt, S., Fürst, C., Keuling, O., & Ford, A. T. (2020). Human–wildlife coexistence in a changing world. *Conservation Biology*, 34(4), 786-794.
33. König, Hannes J., Silvia Ceaușu, Mark Reed, Helen Kendall, Karoline Hemminger, Henrik Reinke, Emu-Felicitas Ostermann-Miyashita EF, Wenz E, Euemia L, Hermanns T and

- Klose M, (2021) "Integrated framework for stakeholder participation: Methods and tools for identifying and addressing human–wildlife conflicts." *Conservation Science and Practice* 3(3), e399.
34. Le Bel, S., Murwira, A., Mukamuri, B., Czudek, R., Taylor, R., & La Grange, M. (2011). Human wildlife conflicts in southern Africa: riding the whirl wind in Mozambique and in Zimbabwe. In *The importance of biological interactions in the study of biodiversity*. Intech Open.
  35. Lindsey, P. A., Romanach, S. S., & Davies-Mostert, H. T. (2009). The importance of conservancies for enhancing the value of game ranch land for large mammal conservation in southern Africa. *Journal of Zoology*, 277(2), 99-105.
  36. Lindsey, P., du Toit, R., Pole, A., & Romañach, S. (2012). Savé Valley Conservancy: a large-scale African experiment in cooperative wildlife management. In *Evolution and innovation in wildlife conservation* (pp. 181-202). Routledge.
  37. Lundquist, C., Hashimoto, S., & Schoolenberg, M. (2021). Transformative scenarios for biodiversity conservation and sustainability. *Conservation Letters*, 14(2).
  38. Mahed, G., Brendonck, L., Nhiwatiwa, T., & Mujere, N. (2022). Ecohydrology of the Save Valley Conservancy in Zimbabwe: Initial insights into freshwater pan formation. *Authorea Preprints*.
  39. Mapfumo, A. (2015). *Livelihood strategies and food security for resettled smallholder tobacco and non-tobacco farmers: the case of Manicaland Province in Zimbabwe* (Doctoral dissertation, University of Fort Hare).
  40. Mashapa, C., Gandiwa, E., Muboko, N., & Mhuriro-Mashapa, P. (2021). Land use and land cover changes in a human-wildlife mediated landscape of save valley conservancy, south-eastern lowveld of Zimbabwe. *J. Anim. Plant Sci*, 31(2), 583-595.
  41. Matseketsa, G., Mukamuri, B. B., Muboko, N., and Gandiwa, E. (2019). An Assessment of Local People’s Support to Private Wildlife Conservation: A Case of Save Valley Conservancy and Fringe Communities, Zimbabwe. *Scientifica, Global Ecology and Conservation.*, 20, Article e00737
  42. Matseketsa, G., Chibememe, G., Muboko, N., Gandiwa, E., & Takarinda, K. (2018). Towards an Understanding of Conservation-Based Costs, Benefits and Attitudes of Local People Living Adjacent to Save Valley Conservancy, Zimbabwe, vol. 2018, *Scientifica, Global Ecology and Conservation*, Article ID 6741439, 9, <https://doi.org/10.1155/2018/6741439>
  43. Mbereko, A., Dianne, S., & Kupika, O. L. (2015). First Generation Land Reform in Zimbabwe: Historical and Institutional dynamics informing Household’s vulnerability in the Nyamakate resettlement community. *Journal of Sustainable Development in Africa*, 17(3), 21-40.
  44. Mbereko, A., Kupika, O., & Gandiwa, E. (2017). Linking Social and Ecological Sustainability: An Analysis of Livelihoods and the Changing Natural Resources in the Middle Zambezi Biosphere Reserve. *Journal of Entrepreneurial and Organizational Diversity, Special Issue on Community-Based, Collaborative Solutions to Sustainable Economic Development in and around Biosphere Reserves*, 6(1), 49-68.
  45. Mhuriro Mashapa, P., Mwakiwa, E., & Mashapa, C. (2018). Socio-economic impact of human-wildlife conflicts on agriculture-based livelihood in the periphery of save valley conservancy, southern Zimbabwe. *The Journal of Plant and Animal Sciences*, 28, 12-16.
  46. Milgroom, J. (2012) 'The elephants of democracy and unfolding process of resettlement in the Limpopo National Park', Ph.D. thesis, Wageningen University, Wageningen.
  47. Moyo, S., & Chambati, W. (Eds.). (2013). *Land and Agrarian Reform in Zimbabwe*. African Books Collective.

48. Moyo, S. (2011). Land concentration and accumulation after redistributive reform in post-settler Zimbabwe. *Review of African Political Economy*, 38(128), 257-276.
49. Mombeshora, S. and Le Bel, S. (2009) Parks, people and conflicts: the case of Gonarezhou National Park and the Chitsa community in south-east Zimbabwe', *Biodiversity and Conservation*, vol. 18. no. 10, pp.2601-2623
50. Muboko, N., & Bradshaw, G. J. (2018). Towards resolving local community and protected area management conflicts: Lessons from the Chitsa community and Gonarezhou National Park, Zimbabwe. *Int. J. Dev. Confl*, 8, 62-79.
51. Mupepele, Anne-Christine, Helge Bruelheide, Carsten Brühl, Jens Dauber, Michaela Fenske, Annette Freibauer, Bärbel Gerowitt B, KrubA, Lakner S, Plieninger T and Potthast T, (2021) "Biodiversity in European agricultural landscapes: transformative societal changes needed." *Trends in ecology & evolution* 3(12), 1067-1070.
52. Noe, C., & Kangelawe, R. Y. (2015). Wildlife protection, community participation in conservation, and (dis) empowerment in southern Tanzania. *Conservation and Society*, 13(3), 244-253.
53. Pereira, L. M., Davies, K., den Belder, E., Ferrier, S., Karlsson Vinkhuysen, S., Kim H, and Lundquist, C. J. (2020). Developing multi-scale and integrative nature-people scenarios using the IPBES Nature Futures Framework. *People and Nature*. <https://doi.org/10.1002/pan3.10146>
54. Rosa, I. M. D., Pereira, H. M., Ferrier, S., Alkemade, R., A Prins, H. H., Grootenhuis, J. G., & Dolan, T. T. (Eds.). (2012). *Wildlife conservation by sustainable use* (Vol. 12). Springer Science & Business Media.
55. Redpath, S. M., Young, J., Evely, A., Adams, W. M., Sutherland, W. J., Whitehouse, A., ... & Gutierrez, R. J. (2013). Understanding and managing conservation conflicts. *Trends in ecology & evolution*, 28(2), 100-109.
56. Scoones, I., Chaumba, J., Mavedzenge, B., & Wolmer, W. (2012). The new politics of Zimbabwe's lowveld: Struggles over land at the margins. *African Affairs*, 111(445), 527-550.
57. Sterling, E.J., Betley, E., Sigouin, A., Gomez, A., Toomey, A., Cullman, G., Malone, C., Pekor, A., Arengo, F., Blair, M. and Filardi, C., (2017), Assessing the evidence for stakeholder engagement in biodiversity conservation. *Biological conservation*, 209, 159-171.
58. Tengö, M., Hill, R., Malmer, P., Raymond, C.M., Spierenburg, M., Danielsen, F., Elmqvist, T., Folke, C., 2017. Weaving knowledge systems in IPBES, CBD and beyond—lessons learned for sustainability. *Curr. Opin. Environ. Sustain.* 26–27, 17–25.
62. 48. Therville, C., Mathevet, R., Bioret, F., & Antona, M. (2018). Navigating protected areas as social-ecological systems: integration pathways of French nature reserves. *Regional environmental change*, 18(2), 607-618.
63. 49. Whande, W., Kepe, T., & Murphree, M. (Eds.). (2003). *Local communities, equity and conservation in Southern Africa: A synthesis of lessons learnt and recommendations from a Southern African technical workshop*, Programme for land and agrarian studies. South Africa: University of Western Cape.
64. 50. White, P. C., & Ward, A. I. (2011). Interdisciplinary approaches for the management of existing and emerging human–wildlife conflicts. *Wildlife Research*, 37(8), 623-629.
65. 52. Williams, C. (2007). Research methods. *Journal of Business & Economics Research (JBER)*, 5(3).
66. 53. Wolmer, W. (2001) 'Lowveld landscapes: conservation, development and the wilderness vision in south-eastern Zimbabwe'. PhD thesis, University of Sussex, Brighton.

67. 54. Wolmer, W. (2003) 'Transboundary conservation: the politics of ecological integrity in the Great Limpopo Transfrontier Park'. Sustainable Livelihoods in Southern Africa Research Paper 4, Institute of Development Studies, Brighton.
68. 55. Wolmer, W., Chaumba, J., & Scoones, I. (2004). Wildlife management and land reform in south-eastern Zimbabwe: a compatible pairing or a contradiction in terms? *Geoforum*, 35(1), 87-98.
69. 56. Zibanai, Z. (2019). Trans-Frontier Parks: Tourism Development and Poverty Alleviation Vehicles-Lessons from Southern Africa. *International Journal of Hospitality and Tourism Systems*, 12(2), 67.