Resilience in the face of adversity: The case of Zimbabwe's Communal Areas Management Programme for Indigenous Resources

Vincent Jani
Department of Geosciences,
Nelson Mandela University,
PO Box 77 000, Port Elizabeth, South Africa

Abstract

Zimbabwe's community-based natural resource management (CBNRM) programme known as the Communal Areas Management Programme for Indigenous Resources (CAMPFIRE), an approach to development implemented in the mid-1980s to bestow rights over wildlife to local communities, has faced a plethora of shocks and stresses emanating from the country's political and socio-economic problems. These shocks and stresses, which have reduced the sustainability of the programme, include, inter-alia, elite capture, poor governance, the demise of participatory processes, hyperinflation, withdrawal of donor funding, declining revenues, an international ban on trophy imports and the impact of global travel restrictions following the outbreak of COVID-19. CAMPFIRE has, however, withstood these challenges and exhibited resilience in the face of adversity. This study sought to analyse the factors contributing to the resilience of Zimbabwe's CAMPFIRE programme in northern Zimbabwe from 1989-2021 using qualitative methods, including in-depth interviews with heads of households and key informants. These were complemented by onsite observations, secondary sources and archival records. The factors contributing to CAMPFIRE's resilience included building institutional and technical capacity, enforcement of the CAMPFIRE guidelines, implementation of the direct payment system (DPS), development of social capital and abundance of wildlife resources. Lessons learnt from the resilience of the CAMPFIRE project can be applied to similar CBNRM projects facing such challenges as well as to proffer coping and recovery strategies for pandemics such as COVID-19.

Keywords: Changing conditions; CBNRM; CAMPFIRE; resilience; sustainability; Zimbabwe

1. Introduction

Zimbabwe pioneered the community-based natural resource management (CBNRM) programme known as the Communal Areas Management Programme for Indigenous Resources (CAMPFIRE) during the mid-1980s to stimulate conservation, sustainable use of natural resources and rural development in the impoverished, wildlife-rich communal areas neighbouring protected areas (Child, 1996; Martin, 1986; Metcalfe, 1994; Murphree, 1990). The programme aimed to reverse the loss of wildlife on communal lands and promote wildlife as an economic land use for poverty alleviation (Frost & Bond, 2008; Martin, 1986; Murphree, 1990). This followed the realisation that wildlife could only have a future outside protected areas if wildlife production became a viable land-use option for rural communities (Martin, 1986; Metcalfe, 1994). CAMPFIRE was first initiated in the Nyaminyami and Guruve Rural District Councils (RDCs) in 1989 following the granting of Appropriate Authority (AA) status to the two districts in 1988 to manage wildlife on behalf of local communities (Child, 1996; Machena et al., 2017). The rationale for CAMPFIRE was that local communities would be spurred to participate in wildlife conservation if they received conservation benefits (Machena et al., 2017; Manyena et al., 2013).

Despite its flaw of bestowing rights over wildlife on RDCs instead of communities sharing land with wildlife (DeGeorges & Reilly, 2009; Logan & Moseley, 2002; Murphree, 1997), the CAMPFIRE programme showed a lot of promise as it promoted wildlife conservation, rural development and generally improved livelihoods, especially during the 1990s (Balint & Mashinya, 2008; Taylor, 2009). CAMPFIRE has, however, faced shocks and stresses emanating from political and socio-economic problems, mainly prevalent post-2000 (Balint & Mashinya, 2006, 2008; Mapedza & Bond, 2006; Rihoy et al., 2007). These challenges included hyperinflation which seriously eroded CAMPFIRE benefits to producer communities and RDCs, loss of donor funding, the capture of benefits by the local elites, poor governance, the demise of participatory processes, and politicisation of the programme (Balint & Mashinya, 2006, 2008; Mapedza & Bond, 2006; Muyengwa & Child, 2017; Rihoy et al., 2007).

The withdrawal of donor funding following negative publicity generated by the Zimbabwe government's fast-track land reform programme (Chaumba et al., 2003; Wolmer et al., 2004) negatively affected all monitoring and oversight (Balint

& Mashinya, 2006, 2008; Rihoy et al., 2007). This resulted in the local elite capturing CAMPFIRE benefits (Mapedza & Bond, 2006; Muyengwa & Child, 2017).

This was compounded by the imposition of economic sanctions on the country by the West (Hove, 2012), which resulted in the withdrawal of international conservation agencies (Balint & Mashinya, 2008; Mapedza & Bond, 2006). Furthermore, the country's relations with many Western nations deteriorated resulting in a sharp decline in: tourist arrivals; foreign currency earnings; multilateral and bilateral funding; and foreign direct investment (Balint & Mashinya, 2006, 2008). As a result, the growth and progress CAMPFIRE experienced in the 1990s stalled (Taylor, 2009).

Additionally, the ban on the importation of elephant (*Loxodonta africana*) and lion (*Panthera leo*) trophies into the United States led to a decline in revenue, which demonstrates the vulnerability of the programme (Machena et al., 2017). The programme has also suffered another setback emanating from global travel restrictions following the outbreak of the SARS-CoV-2 virus and its associated novel coronavirus disease (COVID-19) (Mudzengi et al., 2020; Mudzengi et al., 2021a; Mudzengi et al., 2021b).

Despite these shocks and stresses, CAMPFIRE has demonstrated its resilience over the past 20 years as it continues to provide benefits to local communities as well as fund wildlife conservation and rural development (Jani et al., 2022; Machena et al., 2017; Nelson et al., 2021; Rihoy et al., 2007; Tchakatumba et al., 2019). The resilience concept, which has been adopted by global development institutions such as the United Nations Development Programme (UNDP), helps to contribute toward the attainment of the United Nations (UN) 2030 Sustainable Development Goals (SDGs) through development projects such as community-based conservation (Mudzengi et al., 2021a). Resilience refers to the ability of a social-ecological system to absorb shocks or cope with disturbances whilst retaining both form and identity (Gallopin, 2006; Nyamwanza, 2012). It also refers to the ability of individuals or society to rebound from adversity (Berkes & Folke, 1998; Holling, 1973). In this regard, resilience is understood as emerging from the effort within individuals or society to self-organise and prosper in the middle of crises (Nyamwanza, 2012). The term has also been used to describe the capacity of institutions to withstand hostile environmental circumstances (Luers et al., 2003; Nelson et al., 2007). Resilience is linked to adaptive capacity (Gallopin, 2006; Magis, 2010; Strickland-Munro et al., 2010), which refers to the extent to which a given system can change its circumstances to become less vulnerable to disturbances or shocks (Luers et al., 2003). Adaptive capacity focuses on a system's long-term strategies in response to vulnerability instead of short-term coping actions (Nyamwanza, 2012). Balint and Mashinya (2008) indicate that resilience is the ability of local community-based conservation institutions to maintain good governance practices despite isolation, corruption, limited capacity, political instability and lack of external support. Murphree (1997) asserts that local institutional resilience helps community-based conservation to flourish.

The CAMPFIRE programme provides lessons on the resilience of CBNRM in the face of adversity emanating from the post-2000 political and socio-economic challenges (Machena et al., 2017; Nelson et al., 2021; Rihoy et al., 2007). Studies have shown that even though CAMPFIRE has lost its hype of the 1990s, it continues to provide wildlife-related benefits to local communities as well as fund wildlife conservation and rural development (Jani et al., 2022; Machena et al., 2017; Manyena et al., 2013; Nelson et al., 2021; Rihoy et al., 2007; Tchakatumba et al., 2019). A review of the programme by Machena et al. (2017) shows that CAMPFIRE still devolves 45%–60% of CAMPFIRE revenue to producer communities. Furthermore, the country's declining economic performance has forced the CAMPFIRE programme to become self-sufficient and adapt to crises (Rihoy et al., 2007; Taylor, 2009), resulting in the programme overcoming extreme challenges compared to other CBNRM programmes (Nelson et al., 2021). For example, Rihoy et al. (2007) argue that the Mahenye CAMPFIRE project is evolving and resilient because it has empowered local communities to challenge elites who usurped power as well as negotiate with their local government representatives to solve their problems. Rihoy et al. (2007) further predicted that CAMPFIRE would remain robust and resilient as local communities would learn to adapt to crises. However, factors influencing the resilience of the programme have not been investigated. Thus, this study aims to assess factors influencing the resilience of the CAMPFIRE programme in the face of political and socio-economic challenges.

2. Methodology

2.1. Study area

The study is based on qualitative data collected from Chapoto Ward (see Figure 1), an area that covers 300km^2 in the mid-Zambezi valley, Mbire District, in northern Zimbabwe between January 2017 and December 2021. Chapoto Ward is bordered by Mozambique to the east and Zambia to the north along the Zambezi River and shares boundaries with Chewore and Dande Safari areas. The area is characterised by low and variable rainfall averaging between 350-650 millimetres per annum and a mean annual temperature of 25°C (Fritz et al., 2003; Mupangwa et al., 2006). It is covered

by deciduous dry savannah, dominated by Mopane trees (*Colophospermum mopane*) (Fritz et al., 2003). The mid-Zambezi Valley has a wide variety of large herbivore and carnivore species (Baudron et al., 2011; Jani et al., 2020b).

The study area was chosen because it has abundant wildlife and it is one of the first sites where the CAMPFIRE programme was initiated in 1989 (Baudron et al., 2011) following the granting of AA status over wildlife to Guruve RDC in 1988 (Muyengwa & Child, 2017; Taylor, 2009). Mbire was formerly part of Guruve RDC before its commissioning as an independent district in 2007 (Jani et al., 2022). Chapoto Ward is of conservation significance since it is part of the Zimbabwe-Mozambique-Zambia (ZiMoZa) and Lower Zambezi-Mana Pools (LoZaMaP) Transfrontier Conservation Areas.

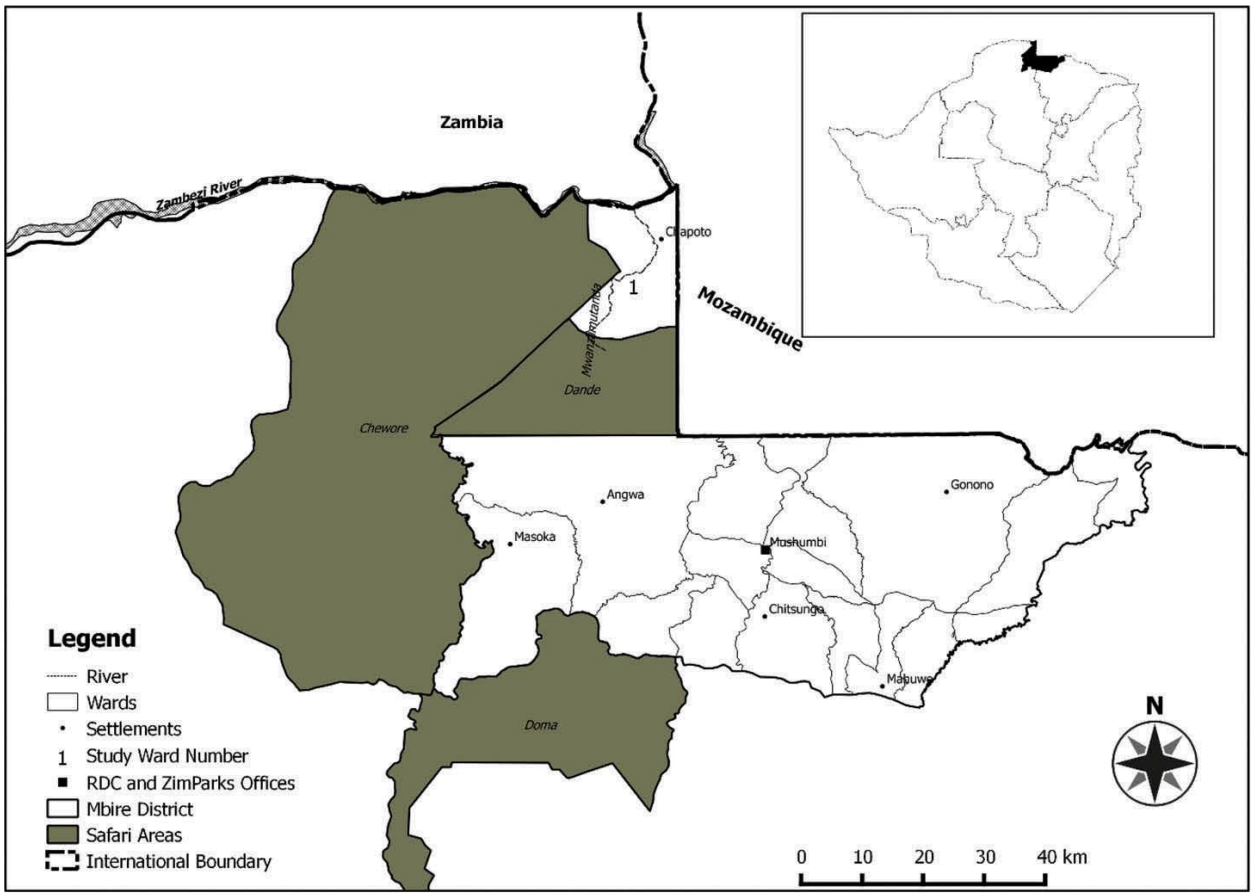

Figure 1. Map of Mbire District showing Chapoto Ward and the safari areas (Source: Author)

Chapoto Ward is populated by two ethnic groups, namely the Chikunda and the Doma located on the eastern and western banks of the Mwanzamtanda River, respectively (Jani, 2022; Mberengwa, 2000). The ward comprises 24 villages found in five Village Development Committees (VIDCOs), namely Chiramba, Mariga, Chansato, Chiruhwe and Nyaruparo (Jani et al., 2019). The 2012 census put the number of households in Chapoto Ward at 705 and the total population at 3 180 (Zimstat, 2012). The ward had 991 households as of December 2016 (Jani et al., 2020a).

Because of rainfall variability, most of the people in Chapoto engage in the subsistence-oriented growing of maize (*Zea mays*) along the banks of the Mwanzamtanda River and also grow drought-tolerant crops such as sorghum (*Sorghum bicolor*) and millet (*Pennisetum glaucum*) in upland fields (Mberengwa, 2000). The Doma, who are former hunters and gatherers, practise small-scale subsistence agriculture and rely on gathering tubers and honey, fishing and food aid while the Chikunda practise both cash crop and subsistence farming (Matema & Andersson, 2015; Mberengwa, 2000). Cotton (*Gossypium* spp.) is the main cash crop grown by the Chikunda. The Chikunda rear goats (*Capra hircus*), cattle (*Bos taurus*), sheep (*Ovis aries*) and donkeys (*Equus asinus*) while the Doma mainly keep free-range chickens (*Gallas domesticus*).

Acting on behalf of producer communities, RDCs sign lease contracts with Safari operators to market hunting quotas, mostly to international trophy hunters (Gandiwa et al., 2013; Taylor, 2009; Tchakatumba et al., 2019). At the ward level, democratically-elected councillors chair Ward Development Committees (WADCOs), which are responsible for

consolidating the various development plans from all Village Development Committees (VIDCOs) into ward development plans as well as coordinating local development programmes in line with RDCs' district development plans (Matema & Andersson, 2015).

2.2. Data collection

Qualitative data were collected using in-depth face-to-face interviews with 60 randomly selected heads of households, onsite observations, secondary sources, and archival records. Face-to-face semi-structured interviews were also conducted with key informants knowledgeable about the CAMPFIRE programme who included Charlton McCallum (CM) Safaris, CAMPFIRE Association (CA) Director, Mbire RDC CAMPFIRE official, Chapoto Ward Councillor, the local Chief and the ward Anti-Poaching Unit (APU) Chairperson. Discussions were tape-recorded with the full consent of the respondents. Data on CAMPFIRE benefits and community projects were obtained from the Mbire RDC, the Chapoto Ward Wildlife Management Committee (WWMC) and CM Safaris. The research was conducted with permission from the local traditional leadership after explaining the objectives and purpose of the research. The respondents gave their informed consent to participate after being pre-informed of the purpose of the study as well as the anonymity and confidentiality of their responses.

2.3. Data analyses

After the transcription of the qualitative data, thematic analysis was used to identify the main themes of factors contributing to the resilience of the CAMPFIRE programme. Data were coded into five categories or themes using the coding procedures suggested by Thomas (2006).This involved grouping data into categories that formed a comprehensive picture of respondents' views (Elo & Kyngäs, 2008; Thomas, 2006). Results were presented in a narrative approach corroborated by selected quotes from the respondents.

3. Results and discussion

Findings show that the resilience of the CAMPFIRE programme has been influenced by: the building of institutional and technical capacity; enforcement of the CAMPFIRE guidelines; implementation of the direct payment system (DPS); development of social capital; and abundance of wildlife resources.

3.1 Provision of institutional and technical support

Significant technical and institutional support provided to the CAMPFIRE programme by the CAMPFIRE Collaborative Group (CCG) using grants from the United States Agency for International Development (USAID) resulted in effective local-level governance and the generation of significant wildlife revenues in some communities (Child et al., 2003; Nelson et al., 2021). The CCG comprised the University of Zimbabwe's Centre for Applied Social Sciences (CASS), Zimbabwe Trust (ZimTrust), Africa Resources Trust, the World Wide Fund for Nature (WWF), the Ministry of Local Government, Rural and Urban Development (MLGRUD), the then Department of National Parks and Wild Life Management (DNPWLM), now Zimbabwe Parks and Wildlife Management Authority (Zimparks), and the CA (Child et al., 2003; Taylor, 2009). The CA Director and Mbire RDC CAMPFIRE official attributed the resilience of the CAMPFIRE programme to good programme design and capacity building at the ward, district and national levels during the early years of the programme. They indicated that this was complemented by significant donor funding amounting to over USD35 million over nearly 15 years.

The support from the CCG encompassed training communities in financial and wildlife management, research and monitoring, policy development, as well as funding for infrastructural development and capital equipment (Machena et al., 2017; Taylor, 2009). Furthermore, Ward CAMPFIRE committees were taught basic organisational skills such as book-keeping and taking minutes during meetings while natural resource monitors and community leaders were taught wildlife management skills such as quota setting, monitoring hunts, problem animal monitoring, counting wildlife and fire management (Child et al., 2003). The work of the CCG was complemented by CAMPFIRE coordinators in the DNPWLM who put a lot of effort into capacity building by facilitating the provision of significant technical and institutional support that enhanced effective local-level governance and improved managerial capacity both at the district and ward levels (Child et al., 2003; Muyengwa & Child, 2017; Nelson et al., 2021).

Despite the withdrawal of donor funding, capacity building has continued in Mbire District with the formation of the Dande Anti-Poaching Unit (DAPU) by CM Safaris in 2014. According to the Safari Operator, DAPU comprises at least 40 game scouts involved in conducting anti-poaching operations in the entire district. The WWF also continues to provide capacity building such as initiating the Management Oriented Monitoring System (MOMS), a community-based approach to wildlife monitoring and management (Diggle, 2006; Stuart-Hill et al., 2005) which began in Masoka Ward and is being rolled out to other wards. Zimparks has also been involved in capacity building. According to a Zimparks

official, the authority recently trained a group of 23 rangers, including 10 from the Doma community, in anti-poaching operations, problem animal control, and monitoring hunts. The inclusion of the Doma was meant to encourage them to participate in the CAMPFIRE programme and also assist in reducing illegal hunting.

In their review of CAMPFIRE, Child et al. (2003) found out that capacity building strongly contributed to the sustainability and resilience of the programme. Therefore, the resilience of the CAMPFIRE programme underlines the importance of good programme design and the long-term benefits of capacity building and working at the very lowest levels. Non-Governmental Organisations and conservation agencies were also instrumental in ensuring the resilience of CBNRM in Namibian Conservancies (Machena et al., 2017).

3.2. Enforcement of the CAMPFIRE guidelines

The existence of a well-established fiscal distribution system during CAMPFIRE's formative years and the placing of emphasis on the principle of returning benefits to producer communities helped to sustain the devolution of revenues to communities and ensure the programme's resilience (Child et al., 2003; Machena et al., 2017). Chapoto respondents and key informants attributed the sustainability of the CAMPFIRE programme to the disbursement of 50% of CAMPFIRE revenue directly into the community's bank account. The money was mainly used for community projects (see Table 1). Respondents indicated that household dividends were last paid in 1997.

Table 1. Projects financed using CAMPFIRE revenue in Chapoto Ward (1993-2016)

Year	Project
1993	Construction of Chapoto Clinic
1994	Purchase of grinding mill
1999	Purchase of a tractor
2001	Construction of Chapoto Primary School block
2001	Construction of Chapoto Secondary School block
2004	Construction of Chapoto Secondary School block
2008	Purchase of a 35-ton truck
2011	Setting up of a community herd of cattle
2015	Construction of house for the agricultural extension officer
2015	Purchase of a 35-ton truck
2016	Construction of Chapoto Primary School block
2016	Construction of an Information Centre

Source: Chapoto WWMC

Fiscal devolution occurred because the DNPWLM insisted that producer communities should receive the bulk of the CAMPFIRE revenues (Child, 1996). This was done by putting pressure on RDCs to directly return revenue to sub-district levels by enforcing the 2002 CAMPFIRE Revenue Guidelines (Child et al., 2003). Additionally, a firm stand by the DNPWLM, with the Minister setting a target of 80% for communities, and commitment by councils to the CAMPFIRE principles helped to thwart attempts by the MLGRUD to have councils appropriate the bulk of the revenues (Child, 1996). Furthermore, the DNPWLM closely monitored fiscal devolution and encouraged RDCs to present the revenues disbursed to producer communities during national CAMPFIRE workshops (Child, 1995, 1996; Child et al., 2014). Moreover, staff members in RDC CAMPFIRE units, as well as Council Secretaries, showed commitment to supporting CAMPFIRE guidelines (Child et al., 2003). Conformance monitoring by the DNPWLM ensured fiscal devolution and collective action, which has contributed to CAMPFIRE's robustness and resilience even after the withdrawal of technical support post-2000 (Child et al., 2003).

The effort put by the DNPWLM into ensuring RDC cooperation in returning revenues directly to producer communities resulted in some RDCs devolving more than 50% of revenue to communities by 1992 (Child, 1993), and by 1993, 63% of revenues reached communities, which later increased to 73%, by 1995 (Child, 1995, 1996; Child et al., 1997). Some districts performed better. For example, the Chundu community in Hurungwe received 70% and 80% of gross CAMPFIRE revenue in 1992 and 1993, respectively (Bird & Metcalfe, 1995). Likewise, fiscal devolution in Binga increased from 59% in 1995 to 74% in 1996 (Conyers, 2002) and the Binga RDC was still disbursing between 70% and 80% to communities in 2001 (Jones, 2004). According to the CA Director, most districts are currently disbursing 50% while Hwange and Tsholotsho Districts are paying 55% and 60%, respectively, to producer wards. This shows that the principle of returning benefits to the producer communities has survived the turbulent environment, which further demonstrates the robustness and resilience of the original CAMPFIRE principles (Child et al., 2003).

Child et al. (2003) argue that fiscal devolution leads to improved rural democratisation and governance of natural resource management. The strength of fiscal devolution was demonstrated in Chikwarakwara village, Beitbridge, where 150 registered community members democratically decided to use their wildlife revenues to construct a school, pay household dividends and set up a community grinding mill (Child, 1993; Child & Peterson, 1991; Child et al., 1997). This was made possible because Chikwarakwara village's procedure for distributing CAMPFIRE revenue was participatory, transparent, accountable and democratic (Child, 1995, 2006; Child & Peterson, 1991). This was also done in the Hurungwe district where 4 villages in Ward 1 collectively decided to disburse USD36 000.00 to 849 registered households (Metcalfe, 1994). The same situation occurred in Masoka where collective decision-making on the use of CAMPFIRE revenue fostered transparency and accountability (Murphree, 1997; Taylor & Murphree, 2007). This demonstrates the importance of emphasising participatory governance and benefit-sharing at the community level, which characterised the initial programme implementation. Fiscal devolution has also contributed to the resilience of the programme in Namibian Conservancies where communities receive 100% of the revenue (Jones, 2007).

3.3. Introduction of the Direct Payment System

Fiscal devolution was strengthened by the introduction of the Direct Payment System (DPS). According to a Mbire RDC CAMPFIRE official, CM Safaris deposited CAMPFIRE revenue directly into the bank accounts of the 3 main stakeholders, namely the Chapoto community, Mbire RDC and CA, who received 50%, 46% (31% for wildlife management and 15% RDC levy) and 4%, respectively, using the DPS after every hunt or every month. This was confirmed by the Chapoto WWMC and Safari Operator records. Before the introduction of the DPS, the safari operator used to deposit the money into the RDC's bank account, which would, in turn, disburse it to the communities and CA, thereby capturing some of the revenue belonging to the communities. According to the CAMPFIRE Association Director, at least ten RDCs, including Beitbridge, Binga, Bulilimamangwe, Chipinge, Chiredzi, Gokwe North, Hwange, Mbire, Nyaminyami and Tsholotsho, were implementing the DPS.

The DPS was introduced in 2007 after CAMPFIRE communities expressed concern that RDCs were delaying the release of their money and capturing some of it (Taylor, 2009). This followed the realisation that revenue disbursed to communities had declined to under 50% between 2002 and 2005 as RDCs captured revenues meant for producer communities in a bid to cope with their underfunding (Child et al., 2014). This was compounded by the decimation of the value of wildlife reaching communities because of the hyperinflationary environment (Child et al., 2014). As a result, the Masoka community in Mbire District was the first to overcome the issue of declining fiscal devolution by lobbying for the introduction of the DPS. Members threatened to stop conserving wildlife if their demand was not met, arguing that they were entitled to a fair share of the revenue since they coexisted with wildlife (Jonga 2006; Murphree, 2005; Muyengwa & Child, 2017; Taylor & Murphree, 2007). The intervention by the CAMPFIRE Association resulted in RDCs accepting that at least 50% of CAMPFIRE revenue should be returned to producer communities (Jonga, 2006; Taylor, 2009; Taylor & Murphree, 2007). It also resulted in a countrywide agreement that safari operators would deposit communities' share of CAMPFIRE revenue into ward-level bank accounts with Zimparks always reminding RDCs of their obligations (Taylor, 2009; Taylor & Murphree, 2007). This victory by the communities demonstrated the importance of social capital development.

The Chapoto respondents appreciated the DPS because it ensured that their revenue was deposited on time, which enabled them to plan how to use it. They, however, expressed concern that despite the introduction of the DPS, members of the WWMC, including the Chief and Councillor, coopted CAMPFIRE revenue for personal use. This was done by excluding ordinary community members from decision-making.

Despite the challenges of elite capture, the implementation of the DPS was the most progressive development because it demonstrated that CAMPFIRE had empowered communities to challenge the existing rules to address the capture of CAMPFIRE benefits by Councils (Taylor, 2009). The DPS was viewed as a process of empowering communities to manage their resources (Machena et al., 2017). It helped in: returning benefits directly to producer communities; improving income flows to the communities; ensuring timeous payment of revenue; reducing transaction costs; enhancing producer communities' appreciation of the value of wildlife; and helping them to budget revenue and better plan for its use (Machena et al., 2017; Manyena et al., 2013). A recent review by Machena et al. (2017) shows that the DPS has improved income flows to producer communities. In this regard, most communities are currently receiving 50% of CAMPFIRE revenue (Jani et al., 2022; Machena et al., 2017; Mutandwa & Gadzirayi, 2007; Ngwerume & Muchemwa, 2011; Taylor, 2009; Tchakatumba et al., 2019) with Muzarabani disbursing 55% (Jani, 2013).

3.4. Development of social capital

The CAMPFIRE programme in Chapoto Ward has demonstrated a lot of social capital development among the local communities in terms of knowledge, rights and understanding of the source of problems bedevilling CAMPFIRE, thereby

contributing to the resilience of the programme (Jani et al., 2022). The programme has empowered local communities to recognise challenges such as elite capture, misuse of funds and demise of participatory processes.

Social capital refers to mutual trust, shared knowledge, norms, sanctions and connectedness within groups, which make it possible for intended goals to be achieved (Dhesi, 2000; Pretty & Smith, 2003). Mbaiwa (2011) posits that social capital emphasises that trust between individuals and collective action are critical for the attainment of shared outcomes.

Despite the limited direct benefits at the household level, respondents in Chapoto wanted the programme to continue because they appreciated community projects funded by CAMPFIRE revenue. Similar findings were reported by Tchakatumba et al. (2019). Local communities in Chapoto were aware of the problems which needed to be addressed. For example, they wanted AA status over wildlife to be devolved to the sub-district level so that they could actively participate in decision-making and also receive the bulk of CAMPFIRE revenues. They demanded greater decision-making authority related to tendering for concessions, the election of WWMCs and choice of expenditure following the demise of participatory decision-making in 2006. They argued that they should have more control of the CAMPFIRE programme since they shared boundaries with wildlife which destroyed their crops and depredated their livestock. As one respondent noted:

Previously, decisions related to the use of CAMPFIRE revenue were made by the community during an annual general meeting. However, the WWMC, which is controlled by the Chief and Councillor, is now single-handedly making decisions (Middle-aged Chikunda male respondent, Chansato).

This positive social capital development contributes to the sustainability of the programme (Musavengane & Simatele, 2017; Pretty & Smith, 2003; Tchakatumba et al., 2019). However, this social capital was overridden by higher-level forces beyond the communities participating in CAMPFIRE. This was compounded by CAMPFIRE communities' lack of clear rights over wildlife (Balint & Mashinya, 2006; Dzingirai, 2003; Machena et al., 2017; Mushayavanhu, 2017), which weakened their ability to deal with corruption and elite capture by the local ward leadership (Muyengwa & Child, 2017; Rihoy et al., 2007).

Social capital development was also demonstrated when the Chapoto community questioned the capture of benefits such as game meat from animals killed during problem animal control (PAC) by the local elites, including the Chief, Ward Councillor and Council officials. According to respondents, meat allocation to the community had declined because a cropping quota for meat, an allocation for meat apart from PAC and trophy hunts, which the community utilised as per need, had been appropriated by the elite for national holidays as reported by Matema and Andersson (2015). For example, one respondent cited incidents involving the appropriation of buffalo meat in 2012 and 2013 as well as elephant meat in 2012 and 2016 by Mbire RDC officials. The respondent said:

There were heated exchanges when council officials appropriated buffalo and elephant meat. Some angry community members threatened to physically assault council officials (Middle-aged Chikunda female respondent, Chansato).

The above sentiments demonstrate that social capital formation resulted in community members realising that the main problem bedevilling CAMPFIRE was elite capture. Similar findings were reported by Rihoy et al. (2007).

Furthermore, respondents questioned the appropriation of funds to purchase a motorbike for the Chief, as well as the allocation of stipends and mobile phone credit to the Chief and Councillor without consulting community members. The capture of benefits was achieved by controlling the WWMC. This shows that community members were aware of the need for collective decision-making regarding the issue. This was expressed by one respondent who said:

The Chief and Councillor control the WWMC so that they can use CAMPFIRE revenue for personal benefit. They receive money from CAMPFIRE coffers yet ordinary members receive nothing. The Chief sometimes demands money for new tyres and fuel for his vehicle which he received from the government (Middle-aged Chikunda male respondent, Chiruhwe).

Additionally, respondents viewed the chairing of the WWMC by the Councillor, a government employee, as a tactic for elite capture. As one respondent said:

We feel that it is inappropriate for the Councillor to chair the WWMC since he is an employee of the RDC who sits in council meetings. This means he controls decision-making in the WWMC and cannot represent the interests of the community at the council level (Middle-aged Chikunda male respondent, Nyaruparo).

The above sentiments show that people are now aware of their rights and are trying to demand them. They knew that the chairing of the WWMC by the Councillor since 2008 represented a re-centralisation of decision-making contrary to the main tenet of CBNRM.

A similar example of social capital formation was reported by Muyengwa and Child (2017) who found out that community members in Masoka, Mbire District, forced the Headman to relinquish control of the community truck which he had personalised by threatening to torch it. This social capital formation also made it possible for local communities in Masoka to negotiate with the RDC for an increased share of revenue in 2005 following the capture of revenue by the council (Muyengwa & Child, 2017; Taylor & Murphree, 2007).

Likewise, social capital formation empowered the Mahenye community to collectively identify challenges such as elite capture, non-accountable use of funds, poor leadership, governance issues and the controversy over the awarding of a safari hunting contract, as the source of their problems (Rihoy et al., 2007). For example, after identifying the issue of corruption in tendering for the hunting concession, they advocated for a transparent re-negotiation of a new hunting contract for the period 2008-2010, which signalled the restoration of tendering accountability and a return to transparency (Rihoy et al., 2010). Again, following the Chief's usurpation of the powers of the WWMC from 2001 to 2005, the Mahenye community demanded the holding of transparent WWMC elections in 2005 after appealing to the CAMPFIRE Association and RDC, thereby bringing back accountability (Rihoy et al., 2007). The significance of social capital development in the sustainability of CBNRM has also been discussed in Botswana (Mbaiwa, 2011; Mbaiwa & Stronza, 2010) and South Africa (Musavengane & Simatele, 2016).

3.5. The abundance of wildlife resources

The resilience of the CAMPFIRE programme is demonstrated by the fact that sport hunting in Chapoto has continued to generate income despite the political and socio-economic crisis that has bedevilled Zimbabwe post-2000. This is attributed to the fact that Chapoto Ward is located in the mid-Zambezi Valley, which is endowed with huge wildlife populations (Baudron et al., 2011; Jani et al., 2020a; Jani et al., 2020b). This enhances hunting tourism, which generates 90% of CAMPFIRE revenue (CAMPFIRE Association, 2016; Gandiwa et al., 2014; Machena et al., 2017; Taylor, 2009). The intensity of wildlife resources increases in wards 1 (Chapoto), 2 (Angwa) and 11 (Masoka), which share immediate boundaries with Safari Areas (Nyamwanza, 2012). The study area is home to three Safari Areas, namely Chewore, Dande and Doma (Chanza & Musakwa, 2021; Nyamwanza, 2012). It also shares its borders with Mozambique and Zambia which are important sources of roaming elephants. According to the Safari Operator and Mbire RDC CAMPFIRE official, 18 species are available for hunts. For example, because of abundant wildlife, a total of USD1 043 839.84 was generated in Chapoto Ward mainly from trophy hunting between 2009 and 2021, of which USD521 919.92 was allocated to producer communities and used for community projects, household benefits and resource management, while Mbire RDC and the CAMPFIRE Association received USD480 165.93 and USD41 753.99, respectively (see Table 2).

Table 2. Annual CAMPFIRE revenue generated in Chapoto Ward (2009-2021)

Year	CAMPFIRE revenue (USD)		
	Chapoto Ward (50%)	**Mbire RDC (46%)**	**CAMPFIRE Association (4%)**
2009	42 372.43	38 982.64	3 389.79
2010	44 562.75	40 997.73	3 565.02
2011	40 312.44	37 087.44	3 225.00
2012	46 146.00	42 454.32	3 691.68
2013	46 737.50	42 998.50	3 739.00
2014	54 717.00	50 339.64	4 377.36
2015	41 082.80	37 796.18	3 286.62
2016	50 394.00	46 362.48	4 031.52
2017	57 601.00	52 993.00	4 608.00
2018	42 512.00	39 111.00	3 401.00
2019	21 287.00	19 584.00	1 703.00
2020	8 233.00	7 574.00	659.00
2021	25 962.00	23 885.00	2 077.00
Total	**521 919.92**	**480 165.93**	**41 753.99**

Source: Chapoto WWMC

The mid-Zambezi valley is also home to the African elephant, which attracts sport hunters mainly from the United States, who bring in 70% of the CAMPFIRE revenue (CAMPFIRE Association, 2016; Gandiwa et al., 2014; Machena et al., 2017). Zimbabwe has the second-largest elephant population in Africa estimated at 82 304 (Chase et al., 2016). The significance of the African elephant is shown by the fact that trophy hunting revenue in Chapoto Ward significantly

decreased in 2015 due to the ban on the import of elephant trophies into the USA in 2014 as indicated in Table 2. Chapoto WWMC records showed that the ward lost USD13 634.20 in potential revenue in 2015 because of the ban.

Despite the setback, CAMPFIRE revenue in Chapoto Ward increased significantly to USD50 394.00 in 2016 as Americans hunted, anticipating the lifting of the ban. However, nationally, the ban resulted in CAMPFIRE revenue dropping from USD2.3 million in 2013 to USD2.1 million in 2014 and further slumping to USD1.6 million in 2015 (Gandiwa et al., 2014; Machena et al., 2017). The fact that the programme has survived challenges arising from the ban on the importation of elephant trophies into the USA shows its resilience. The significance of the African elephant in generating CAMPFIRE revenue was stressed by the CAMPFIRE Association Director who said:

The US accounts for the largest share of the market for elephant trophies with about 70% of annual revenue coming from elephant hunting. For instance, the suspension of elephant trophy imports into the US in 2014 resulted in the cancellation of 108 out of 189 elephant hunts in all major CAMPFIRE districts initially booked by US citizens, which translates to 57% of the hunts.

Despite the drastic decrease in revenue in 2019 because of foreign currency exchange rate distortions following the reintroduction of the Zimbabwean dollar, and the decline in revenue in 2020 and 2021 due to the international travel restrictions arising from the emergence of COVID-19, the CAMPFIRE programme continues to demonstrate its resilience. This shows that Safari hunting has proved to be more resilient than non-consumptive tourism activities (Frost & Bond, 2008).

The resource richness of Chapoto Ward is complemented by the aggressive marketing of hunting quotas to international trophy hunters by CM Safaris. For instance, the Safari Operator attributed the resilience of CAMPFIRE to the aggressive marketing of hunting quotas mostly to clients in the US who make up 76% of the hunting clientele as reported by Machena et al. (2017). The significance of resource richness in ensuring the resilience of the CAMPFIRE programme has also been demonstrated in Mahenye (Mudzengi et al., 2020; Mudzengi et al., 2021a; Tchakatumba et al., 2019) and Nyaminyami (Balint & Mashinya, 2008) where there are abundant wild animals such as elephants that attract sport hunters. Resource richness is also important in Namibian conservancies (Jones & Murphree, 2001; Machena et al., 2017; Naidoo et al., 2011) and Botswana's Okavango Delta (Mbaiwa, 2011; Ramberg et al., 2006).

4. Conclusion

Factors that have influenced the resilience of the CAMPFIRE programme include the building of institutional and technical capacity, enforcement of the CAMPFIRE guidelines, the introduction of the direct payment system, social capital formation and the abundance of wildlife resources. The fact that CAMPFIRE has remained robust and resilient under difficult circumstances demonstrates the effectiveness of the principles upon which the programme is based (Child et al., 2003; Jani et al., 2022). The results of this study could help policymakers to strengthen CBNRM policy in Zimbabwe and proffer strategies that could ensure the resilience of CBNRM in changing environments in an attempt to achieve the United Nations 2030 SDGs. Furthermore, similar CBNRM projects in Africa and beyond can become more resilient under difficult circumstances using the experiences of Zimbabwe's CAMPFIRE programme. Such lessons are also vital in the face of shocks emanating from the COVID-19 pandemic which have resulted in the loss of wildlife-based revenue (Mudzengi et al., 2020; Mudzengi et al., 2021a).

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