

A kiss of life: Marrying ecology with local livelihoods on private protected lands

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Abstract

There is an increasing acknowledgement of the importance of the private sector to biodiversity conservation strategy throughout the world. However, in spite of the recent proliferation of private protected areas and their increasing role in international biodiversity conservation, their coverage in the literature has been superficial. The slowness in acknowledging the expanding role of privately owned parks means that even their response to the international call for all protected areas to incorporate the livelihood needs of adjacent communities has also not been well researched. This paper assesses the livelihood benefits from a private protected area, Malilangwe Private Wildlife Reserve in south-eastern Zimbabwe, to the adjacent Chizvirizvi community. There has been no research to look into the livelihood benefits of Malilangwe Private Wildlife Reserve to surrounding communities. Various instruments, including a questionnaire, structured interviews, group discussion and observation, were employed in gathering primary data on the livelihood benefits from Malilangwe Private Wildlife Reserve to the Chizvirizvi community. The study identified three main livelihood benefits from Malilangwe Private Wildlife Reserve to Chizvirizvi, namely: household income enhancement, education enhancement and health promotion. This shows that private protected areas in Zimbabwe are contributing positively to local livelihoods.

Keywords: biodiversity conservation, livelihood benefits, private protected area, rural, community

1. Introduction

The call for protected areas to incorporate the livelihood needs of adjacent communities, which has been emphasised and re-emphasised at various international fora, has been well received by most conservation practitioners and policy makers [1, 2]. There is an increasing acknowledgement of the importance of the private sector to biodiversity conservation strategy throughout the world [3, 4], along with the realisation that statutory protected public lands alone will not suffice [4].

The second half of the 20th century witnessed a marked proliferation in private nature reserves [3, 5, 6, 7]. Among the key factors behind the boom in private nature reserves include the failure of national parks to adequately protect biodiversity; rising societal interest in biodiversity; and the growth of the international nature-based tourism industry [3, 8, 9, 7]. Private protected areas involve activities outside the public sector that are independent of government control, and usually, but not always, carried out for profit [3]. There is a wide range of private operators including individual or family owned businesses; publicly listed companies; organisations that rely on donations from private entities, corporations, or membership subscriptions independent of state funds; and organisations with independent management structures that may receive funding from government but having an ability to refuse such funds [3, 10, 4].

Despite the recent proliferation of private protected areas and their increasingly large role in international biodiversity conservation, there has been little systematic analysis of their characteristics and implications [3, 11, 4, 8, 12]. Coverage of private protected areas in the literature has been superficial and sporadic [8]. For example, the first and strongest modern

reference to privately owned parks was Recommendation 10 from the 1982 First World Congress on National Parks [8, 12]. In addition, it was only at the 2008 World Conservation Congress that a call for the establishment of the world's first Private Protected Area Task Force, to look into ways of enhancing the role of private protected areas worldwide, was made [12]. The slowness of the conservation literature in acknowledging the expanding role of the privately owned parks [3, 12] has also meant that their response to the international call, for protected areas to incorporate the livelihood needs of adjacent communities, has also not been well researched.

This paper assesses the livelihood benefits from a private protected area, Malilangwe Private Wildlife Reserve (MPWR) in south-eastern Zimbabwe, to the adjacent Chizvirizvi community. In apparent reflection of the superficial and sporadic coverage of private protected areas in the international biodiversity conservation literature, research on biodiversity conservation and rural livelihoods in post-independence Zimbabwe, has emphasised community-based conservation at the expense of private and other protected areas, which have received much less scholarly attention. More specifically, there has been no study to look into the livelihood benefits of MPWR to surrounding communities. This paper, therefore, is my attempt to add on to the limited literature on how private protected areas in Zimbabwe are positively contributing to the livelihoods of local communities.

2. Literature review

Despite their apparent newness, private protected areas have

benefited local livelihoods in various ways, leading some scholars to view them as a panacea, a holy grail, of conservation and development [8]. The main social strength of private protected areas is that they incorporate two important social themes in conservation and development with respect to resource control, that is, participation and devolution [13, 8]. Private nature reserves represent a bold step towards devolution of resource control to the rural poor and other citizens by involving them as stewards of their countries' natural resources [14, 8]. In addition, private protected areas represent participation taken to the extreme in which locals control decision-making where residents "own the table instead of merely being offered a place at it" [8]. Colombia's network of well-organised private reserves is evidence of how private nature reserves can benefit the citizens of a country [8]. In other words, local communities, either as individuals or as groups, could be the owners of private protected areas, with all the associated benefits accruing to them.

Even where locals do not own them, private protected areas, like most other protected areas, are often involved in outreach activities in areas in which they are established so as to offer tangible benefits and compensation to those negatively affected [15, 16]. Outreach activities are very broad and therefore context-specific. One of the most popular outreach activities among conservation areas is that of benefit-sharing, which entails the provision of development-oriented services such as schools, health, roads, and water [15]. However, such services require constant follow-ups so as to prolong their usefulness to communities [15]. Benefit-sharing programmes can also be difficult to implement, simply because they are small and not necessarily consistent with broader regional development policy [17, 18, 19, 15, 2]. The success of benefit-sharing as an outreach strategy therefore heavily depends on follow-ups and the need to take into consideration the broader socio-economic and political context within which such strategies are being carried out.

While there are multiple benefits provided by protected areas to local communities, only one direct benefit, employment creation, can show empirical evidence of having reduced poverty [20, 21, 22]. The establishment of a protected area, including private protected areas, often involves the hiring of local people as aids in operating it [21, 22]. Employment creation in protected areas often comes through ecotourism activities. Ecotourism has been defined as "travel that generates financial support for protection and management of natural areas, economic benefits for residents living near natural areas, and support for conservation among these residents" [17]. Ecotourism can contribute to poverty reduction for locals through provision of jobs mainly in accommodation and guiding [15, 23, 21, 22]. The poverty reduction role of ecotourism can greatly be enhanced where the tourism operators hire and train local people [20, 21]. Employment creation from nature-based tourism is further enhanced by the service nature of the tourism industry where a high proportion of the jobs involve low-skill jobs which can competently be done by often lowly educated people from the local communities [21, 22]. Of concern with protected-area employment, however, is the fact that, due to limited skills, most locals often get lowly-paid conservation jobs [21].

Ecotourism also brings with it indirect benefits to locals, often

in remote areas, in the form of roads, communication infrastructure, clinics, schools and shopping facilities established primarily for supporting tourism [17, 21]. There is also the multiplier effects whereby tourism creates opportunities and downstream effects for other people besides the wage earners through the opening up of new markets for local services and products including sales of crafts, cultural services and small enterprises [15, 21]. A World Bank study on global tourism found out that the typical tourism multiplier is between 2 and 3, meaning that each dollar spent by a tourist generates 2 or 3 more dollars in the national economy [21].

There are, however, several uncertainties about ecotourism as a conservation-development mechanism [21]. First, tourism is too sensitive to elements such as terrorism attack, economic decline, civil war or disease outbreak often resulting in a sudden drop in tourist arrivals [15, 21]. Several decades of successful conservation can suddenly disappear as tourism-dependent local people are forced to unsustainably exploit tourist-attracting natural resources like wildlife for immediate livelihood needs [21, 24]. Second, there can be 'leakage' when skilled staff and luxury items are imported for a tourism operation while profits are exported, leaving only a few poverty-reducing benefits to locals [21]. Third, the seasonality of tourism comes with an uneven, unstable and therefore unreliable income stream [25, 21]. Finally, if not properly planned and managed, tourism can bring with it serious ecological impacts. [14, 25, 26, 21].

3. Methodology

3.1 Study sites

MPWR is situated in the south-eastern lowveld of Zimbabwe in Chiredzi District of Masvingo Province (20°58'–21°15' S, 31°47'–32°01' E) (Figure 1) [27, 28, 29]. MPWR is bordered by Gonarezhou National Park to the south and Hippo Valley Game Reserve in the west. MPWR also shares borders with three communal lands namely Matibi II Communal Land in the south western corner, a resettlement land to the north, and then Chizvirizvi resettlement area to the east. The Chiredzi River forms the western boundary of MPWR while the Runde River divides the reserve from Matibi II communal Land [27].

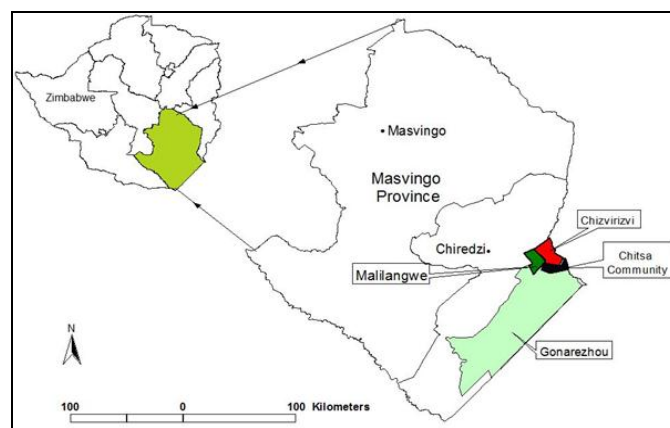


Fig 1: MPWR and Chizvirizvi resettlement area

MPWR was formed in 1994 when the Malilangwe Trust purchased Lone Star Ranch and a neighbouring property, resulting in one of the largest private game reserves in the

country. Some cattle losses due to persistent droughts in the 1980s turned the southeast lowveld of Zimbabwe away from cattle ranching towards game ranching. MPWR occupies 39 378 ha (400 km²) of land [29, 30, 28]. The MPWR is secured by an electric fence, though this does not completely stop occasional breaks by bull elephants [31].

Immediately to the east of MPWR is the Chizvirizvi resettlement area (Figure 1). The accessibility of the Chizvirizvi community to MPWR, which has attracted more conservation-development initiatives from the conservation area compared to other surrounding communities, influenced its selection as a suitable case in assessing the livelihood benefits of MPWR to surrounding communities. In addition, the settlement of the Chitsa people along the whole Chizvirizvi-Gonarezhou National Park boundary (Figure 1) has effectively cut off the Chizvirizvi community from the national park. For this reason, the Chizvirizvi community is not part of the national Communal Areas Management Programme for Indigenous Resources (CAMPFIRE) programme, as only those communities sharing a boundary with public protected areas are involved in the national community-based natural resources management programme. The isolation of Chizvirizvi from Gonarezhou National Park has in turn increased its interaction with MPWR.

3.2 Data collection and analysis

This paper forms part of a broader research on conservation and rural livelihoods that I conducted in south-eastern Zimbabwe between March 2012 and December 2014 involving two case studies and multiple objectives. It focuses on one case study, Malilangwe, and one objective, livelihood benefits from conservation. Follow-up field visits were conducted in August 2016 so as to keep pace with any latest developments in the study area since the initial fieldwork.

A total of 150 questionnaires, representing 50% of the approximately 300 targeted households in the Chizvirizvi resettlement area, were self-administered through simple random sampling. The questionnaire solicited for information on perceived livelihood benefits to the Chizvirizvi residents from MPWR.

Structured interviews were also held with selected key informants in both MPWR and Chizvirizvi. In MPWR these included the Director, the Resident Ecologist, the Human Resources Manager, the Community Outreach Officer, and selected game guards. In Chizvirizvi, the key informants included the Chief, selected village chairpersons, the Councillor, school heads or their representatives, and the sister-in-charge at Chizvirizvi Clinic. Other key informants in Chizvirizvi included representatives from selected feeding points for the feeding scheme being bankrolled by MPWR, and the Agricultural Research and Extension Officer for the area. Purposive and snowball sampling were employed in identifying key informants in MPWR and Chizvirizvi.

A group discussion was also held in Chizvirizvi so as to enable the gathering of in-depth information on the livelihood benefits from MPWR. A total of 15 group discussants were gathered with the help of research assistants who also resided in the study area. The selection of the group discussants was informed by the need to gather balanced views in terms of gender, age, level of education and socio-economic status

regarding the livelihood benefits from the private protected area.

Non-participant unstructured observation was also useful in data collection. Observation was particularly useful as a means of verifying information gathered from other information sources as regards livelihood benefits from the private protected area to Chizvirizvi.

Responses from the questionnaire respondents were calculated into percentage frequencies. On the other hand, qualitative data was analysed narratively in line with the research objective.

4. Results and discussion

4.1 Household income enhancement

One of the identified livelihood benefits to the Chizvirizvi community from MPWR was income enhancement at the household level. The MPWR has created employment opportunities for the people of Chizvirizvi. An interview with the Human Resources Manager revealed that MPWR employed a total of 320 employees. MPWR policy on employment is that 65% of employees come from Chiredzi District of Masvingo Province, 25% come from the other districts of Masvingo Province while the remaining 10% comes from anywhere in the country. MPWR does not only look at communities surrounding it such as Chizvirizvi when hiring employees but also considers those from other areas as, according to the Human Resources Manager, this would go against the labour laws of the country which stipulate that any Zimbabwean can work anywhere in the country. The Human Resources Manager further stated that, while local people may have the advantage of hearing about job vacancies earlier than those from afar, lack of requisite qualifications sometimes hinders them from securing the jobs. For this reason, most local people fit into low-paying jobs requiring little or no skills such as housekeeping, gardening and game scouting. Only 7 out of 35 middle-level supervisory jobs (20%) were being held by locals, that is, people from within Chiredzi District (including Chizvirizvi), with the rest coming from other parts of the country. Conservation literature notes that local people bordering protected areas carry a disproportionately huge burden of the negative social, cultural and economic impacts from conservation areas and, therefore, should benefit more from conservation-development initiatives than those communities further from the conservation areas [32, 33, 34]. In light of the above, MPWR could adopt a deliberate policy prioritising those communities immediately adjacent to it, including Chizvirizvi, in terms of access to livelihood benefits from the conservation area, including employment opportunities.

10% of the questionnaire respondents in Chizvirizvi indicated that they, or members of their households, were employed by MPWR. The respondents were further asked to indicate the salaries that they, or members of their households in conservation-related employment, were getting. The majority (53.3%) of the Chizvirizvi residents employed by MPWR were earning between US\$201 and US\$250, 26.7% were earning between US\$251 and US\$300, 6.7% were earning between US\$50 and US\$100, while 13.3% were earning over US\$400 per month. The average salary from conservation-related employment in Chizvirizvi was US\$258.

MPWR has also enhanced household incomes in Chizvirizvi through the stimulation of business opportunities for the people. 52% of questionnaire respondents in Chizvirizvi indicated that the private protected area had stimulated some business opportunities in their area. Interviews with key informants and also group discussions in Chizvirizvi confirmed that conservation had stimulated business opportunities for the local people, with the selling of crafts to tourists identified as the main business opportunity that had been stimulated by the private protected area. MPWR has also helped with the construction of Kambako Cultural Centre in Chizvirizvi where tourists come to buy wooden carvings and various other traditionally woven artifacts as souvenirs. In addition to promoting the selling of crafts to tourists MPWR also hires some traditional dance groups from Chizvirizvi to come and perform to tourists.

MPWR has also indirectly contributed towards the enhancement of household incomes in Chizvirizvi by committing material and financial resources towards the establishment of the large self-contained plots in the resettlement area. The five-hectare arable plots on which people had been settled by government in the early 1980s were not sufficient for most households to grow enough food. The Malilangwe Trust donated various resources for the surveying, mapping and demarcation of the plots currently occupied by the Chizvirizvi residents averaging about 75 hectares each. Most key informants interviewed indicated that the self-contained plots had improved their lives significantly. While aridity still remained a major challenge to farming, most people indicated that, in a good season, they can harvest between 20 and 30 tonnes of maize leaving them with surplus for sale. The Agricultural, Research and Extension Officer for Chizvirizvi indicated that, while the soils in the area were relatively fertile, on average, one in every two to three farming seasons has good rains. Others also indicated that they produce some cash crops such as cotton and sorghum. The relatively large plots allow the farmers to do all their activities within their plots, including crop production and livestock grazing, which acts as a strong incentive for sustainable natural resource use and management. In addition, MPWR regularly hosts land-use planning workshops with the farmers in Chizvirizvi. Thus, by funding the setting up of the self-contained plots, MPWR has, in addition to indirectly enhancing household incomes in the area, also helped in eliminating from Chizvirizvi the 'tragedy of the commons' dilemma, often cited as the main cause of environmental degradation in the communal and resettlement areas of Zimbabwe.

In addition, MPWR has sponsored the setting up of gardening projects in some parts of Chizvirizvi. The beneficiaries of these projects, mainly women and the elderly, said that they sometimes sell surplus vegetables for cash income. However, the gardening project was no longer running smoothly due to lack of borehole maintenance by MPWR. At the time of fieldwork, only one garden near the Chief's homestead was operational.

4.2 Education enhancement

MPWR has also channelled some financial and material resources towards the enhancement of education in

Chizvirizvi. Chizvirizvi has two primary schools, Mwenje and Benzi, and one secondary school, Dhumisani Secondary School. The conservation area has supported these schools in various ways. At Mwenje and Benzi Primary Schools, MPWR has refurbished all the classroom blocks and toilets at the schools. The refurbishments involved the replacement of doors and window panes, the renovation of floors and roofs, re-plastering and re-painting at a cost of several thousands of dollars. The refurbishments have given the schools a completely new and modern look.

MPWR also connected Mwenje Primary and Dhumisani Secondary Schools to the national electricity grid. Interviews with the authorities at these schools revealed that the availability of electricity had significantly reduced staff turnover, enabling the schools to retain experienced staff. The conservation area also donated some computers and a printer to Dhumisani Secondary School which has enabled the school to teach computer skills to its pupils. Dhumisani Secondary School also received a television set, a video cassette player and some educational tapes which the school uses as teaching aids. In 1999, MPWR facilitated for Dhumisani Secondary School to identify a sister school in the USA which subsequently led to the development of a cultural exchange programme involving the exchange of students and teachers for two weeks every year between the two schools. However, the exchange programme never kicked off as it was overtaken by political developments since 2000 which have seen the country increasingly being isolated internationally.

MPWR has also sourced and donated stationery and textbooks to the three schools in Chizvirizvi. As a way of instilling hard work and competition among students, MPWR regularly donates book and cash prizes for excelling students on prize giving days at Mwenje, Benzi and Dhumisani Schools. MPWR also started a bursary scheme in 1996 through which it paid both tuition and public examination fees for less-privileged hardworking students at the three schools. The conservation area has also sponsored some students at various tertiary institutions in the country including the University of Zimbabwe, Midlands State University, Solusi University and Great Zimbabwe University. Between 1997 and 2008 MPWR funded the education of a total of 700 primary and secondary school students and 16 university students, with some of these beneficiaries coming from Chizvirizvi. However, the bursary scheme has been suspended due to the current economic downturn in the country.

Every year, MPWR hosts grade six pupils from Mwenje and Benzi Primary Schools for a one-week educational tour of the conservation area. Some environmental awareness workshops are also organised for the kids during this period. The tours and workshops are quite useful to the kids as Environmental Science is part of their curriculum, which gives them an opportunity for conceptualising and contextualising concepts they learn at school. In addition, the tours and workshops are important as they instil in the kids the importance of conserving natural resources at an early stage in their life.

MPWR has also sourced and donated some sporting equipment, uniforms and balls for various sporting activities including soccer, netball and volleyball for the schools in Chizvirizvi. In addition, MPWR regularly sponsors sporting tournaments for the schools in Chiredzi District in which the

schools in Chizvirizvi also participate, with winning schools getting money and trophies, among other prizes. It is important to note that sporting is now increasingly recognised worldwide as an important career and livelihood source. By sponsoring various sporting activities in schools, MPWR is helping in identifying and developing the sporting talents of these children. This has the potential to radically transform the lives of some of these children and their families, especially those not academically gifted, through potentially successful future careers in sport.

While MPWR has played an important role in the enhancement of education in Chizvirizvi, sentiments among various respondents in the study site were that more still needed to be done. Participants at a group discussion in Chizvirizvi indicated that the area needed one more secondary school and one more primary school. One participant at the group discussion stated that, instead of refurbishing already existing schools, MPWR could have used the money to build another school thereby alleviating the shortage of schools in the area. Some students travel for about 15 km to get to Dhumisani Secondary School, the only secondary school in the area. Other students who stay far away from the school have resorted to renting some rooms at Chizvirizvi Shopping Centre, which some respondents said may expose the young students to social ills such as drug abuse and prostitution due to lack of parental monitoring.

4.3 Community health

MPWR has also committed various resources towards the improvement of health in Chizvirizvi. In 1997, MPWR financed the erection of a fence around the old Chizvirizvi Clinic. This was followed in 1999 by the construction of a waiting-mothers' shelter at Chizvirizvi Clinic. The sister-in-charge at Chizvirizvi Clinic indicated that the construction of the waiting-mothers' shelter significantly reduced the number of women dying from pregnancy-related complications in the area as such complications could now be diagnosed and attended to early. In addition, the expecting-mothers' shelter has also reduced the number of women giving birth at their homes, which was resulting in the death of many pregnant women.

In 2001, MPWR financed and facilitated the construction of the new Chizvirizvi Clinic which was completed in 2002. In addition, MPWR sourced and donated medical equipment to be used at the new clinic. The building which housed the old clinic was converted into a nurses' house. The new clinic was then handed over to government.

In 2003, MPWR started the Malilangwe Child Supplementary Feeding Scheme (MCSFS) which gives fortified porridge to children from under 5 years of age up to grade seven. The feeding scheme is ongoing and targets communities around the conservation area. Children from Grade 0 to Grade 7 are given the porridge at their schools while those who are under 5 years are catered for at feeding points scattered across the communities within the scope of the scheme. At its peak in 2005, the scheme catered for about 45 000 children, though the number of beneficiaries has since reduced to about 22 000 per annum. The feeding scheme was particularly important in 2008 when the country was at the peak of an economic crisis. The sister-in-charge at Chizvirizvi Clinic also noted that:

The feeding scheme being funded by Malilangwe had played a significant role towards reducing incidences of underweight and malnourished children in Chizvirizvi, especially among the under-fives.

With one of Zimbabwe's three priority MDGs focusing on reducing by two thirds the proportion of the malnourished under-fives by 2015 ^[35], the MCSFS certainly played an important role towards the attainment of this goal.

Commenting on the MCSFS, one participant in a group discussion that was held in the area stated that:

While Malilangwe was doing well in feeding our children, we would appreciate more if we were not just given food but taught how to grow our own food. This way, Malilangwe would more meaningfully contribute towards food security in our community.

In 2007, MPWR sponsored and participated at the district-level World AIDS Day and also at the district-level World Malaria Day. MPWR also provided a 7 tonne truck in 2007 for the distribution of mosquito nets throughout Chiredzi District (including in Chizvirizvi) as part of a campaign against malaria, as malaria is a serious health challenge in the District. Through the Tunza Trust, MPWR is carrying out an ongoing HIV/AIDS awareness campaign throughout Chiredzi District. Some of the activities involved in this campaign include condom distribution, dramas, road shows, talk shows, quizzes in schools, promotion of abstinence and encouraging people to get tested and take appropriate decisions early. In 2009 MPWR provided meals for cholera victims admitted at Chizvirizvi Clinic, which had been declared a cholera centre during the cholera outbreak which hit the country in 2009. In addition, MPWR also donated latex gloves for use by medical personnel at Chizvirizvi Clinic during the cholera outbreak.

5. Conclusion

The study has identified three main livelihood benefits being derived by Chizvirizvi residents from the adjacent MPWR. The benefits include income enhancement at the household level, community health enhancement and educational enhancement. Household income enhancement by MPWR in Chizvirizvi has been achieved through employment creation, stimulation of business opportunities through the selling of crafts to tourists and the selling of horticultural products from community gardens established with the help of MPWR. MPWR has also indirectly contributed towards income enhancement at household level in Chizvirizvi by funding the setting up of the large and self-contained plots in the resettlement area, which have made it possible for most farmers to produce some surplus for sale in good seasons.

The enhancement of health in Chizvirizvi by MPWR has been brought about through various activities including the construction of the Chizvirizvi clinic and waiting-mothers' shelter, the MCSFS which provides fortified porridge to children, and involvement in activities aimed at combating malaria and HIV/AIDS. MPWR has enhanced education in Chizvirizvi through the refurbishment of Mwenje and Benzi Primary Schools; connection of Mwenje Primary and

Dhumisani Secondary Schools to the national electricity grid which has reduced staff turnover; the donation of computers, textbooks, stationery, sporting equipment and other resources to the three schools in Chizvirizvi; bursaries to students from primary to university level among other activities.

The results of the study show that private protected areas, like other protected areas in Zimbabwe, are also contributing positively to the livelihoods of neighbouring communities.

The Sustainable Livelihoods Framework identifies financial and human capital, among other forms of capital, to be key assets from which livelihoods can successfully be generated [32, 36]. Thus, by enhancing household incomes, health and education in Chizvirizvi, MPWR is contributing towards the pursuit of positive livelihood outcomes in the study area.

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