

WILDLIFE TRANSLOCATIONS – A DISCUSSION PAPER

THE ZAMBEZI SOCIETY – August 2022

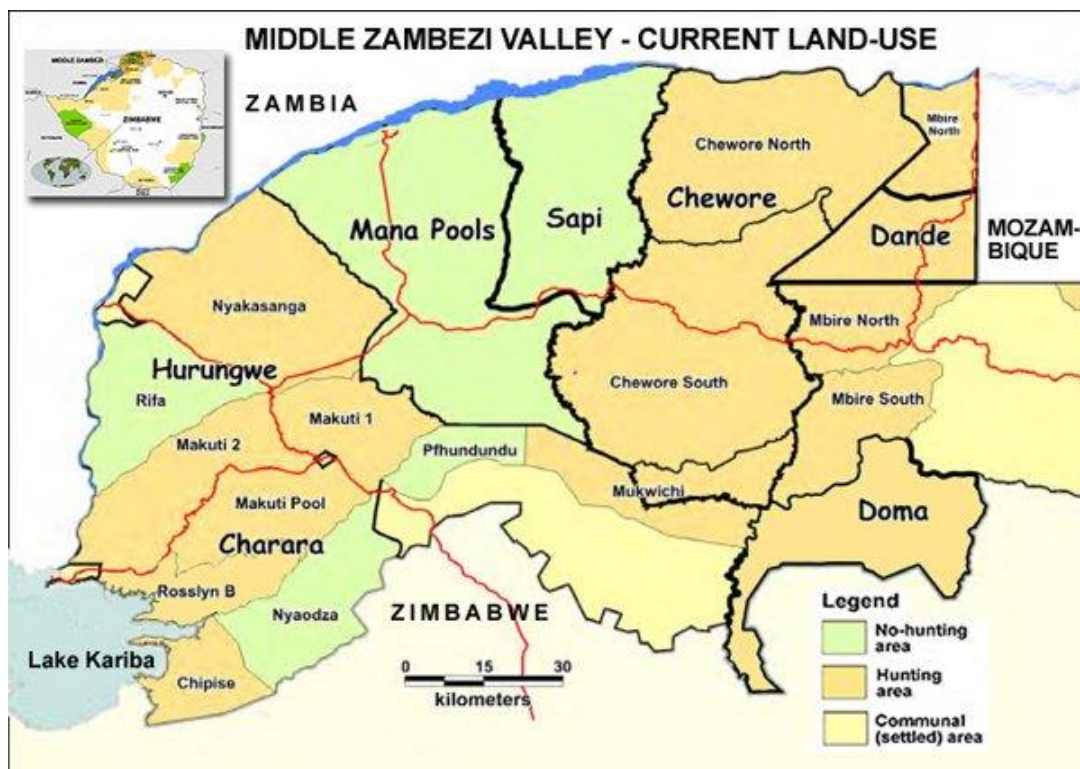
This Zambezi Society discussion paper and consultation is prompted by a wildlife translocation exercise taking place in the Sapi area east of Mana Pools National Park, and within the Middle Zambezi World Heritage Site and Biosphere Reserve. We welcome further discussion, comments and opinions from our readers and from experts in the field.

DISCLAIMER

We, as Zambezi Valley stakeholders, have not been privy to any relevant research, expert opinion or risk analysis and assessment that might have supported the decision-making process which arrived at the need to translocate species into the Mid-Lower Zambezi Valley. We have also not been privy to any follow-up monitoring as a result of the collaring and tracking of ten elephants that were moved into the Rifa area in 2018. It is possible that lessons might have been learned from this research exercise. We understand that two of the translocated Rifa matriarchs (20%) died in the 2019 drought – the fate of their families remains an open question.

A platform has existed since 2015 for information sharing and input from relevant and skilled stakeholders: The **Northern Region Elephant Management Committee** and its five siloed task forces. This committee, chaired by the Zimbabwe Parks Wildlife Management Authority, ensures an adaptive and dynamic planning process for Elephant Management in the Zambezi Valley areas. The last meeting took place at the end of 2021. Its task forces provide ongoing functionality.

We hope that this Paper will generate respectful discussion with the object of improving our collective understanding of the Zambezi Valley's wildlife resource for its long-term and sustainable future.



SYNOPSIS

The translocation of a range of wildlife species into the Mid-Lower Zambezi Valley is not a rewilding intervention. The current populations in the Sapi and surrounding protected areas are above their respective thresholds-of-concern. Any spare funding resources should rather go toward the custodianship of the current wildlife resource. The Sapi project is not a conservation intervention. The motivation seems to align more with an animal welfare intervention – the rescue of a number of animals from a source area that is deemed overpopulated. This being the case a more appropriate destination than Sapi would be the far more depleted wildlife areas in the Sebungwe region of the Zambezi Valley (on the southern shores of Lake Kariba).

There are several drivers of ecological change and wildlife population dynamics across the Zambezi Valley – each requiring research and understanding of its cross-linking impact with other species and the environment. It has not been possible to fully articulate these below, but [World Conservation Union \(IUCN\) Guidelines](#) strongly recommend that the drivers are identified, researched and managed before any decisions are made about translocation of wildlife species.

It is understood that the current Sapi project may extend over a two-year period (but this is unclear to most stakeholders). There is therefore time to more fully interrogate and craft an inclusive and informed response, in contrast to the current approach which appears to have bypassed the input of skilled and experienced on-the-ground people. We therefore urge that in this first year of the operation, a minimum translocation should take place.

It is recommended that an impartial expert is commissioned to produce a thorough report to a panel, who have no vested interest in the outcome, chaired by ZPWMA. The assessment needs to have a long term view, taking into account the possibility of re-introducing black rhinoceros into the Zambezi Valley at some point in the future.

DRIVERS OF WILDLIFE POPULATION DYNAMICS

What follows is not intended to be a thesis on each driver, rather to draw the reader's awareness to the complexity of wildlife population dynamics. These drivers will impact all species to some extent.

Habitat

Over recent decades the wildlife range outside protected areas has lost biodiversity value, largely due to human settlement, expanding agriculture (mainly tobacco and cotton) and deforestation. Wholesale deforestation has two main causes: wood fuel for small scale tobacco growers to use in their inefficient barns, and wood fuel sold into the cities.

Extensive sections of the middle region of the protected areas, below the Zambezi escarpment, consist of homogenous expanses of mature Mopane forest (see image below) - where the nutritional value is relatively low for most wildlife species.



Areas of riverine forest fringe are being damaged by small-scale, seasonal, illegal gold miners. In some cases, where the gold outcrops on hillsides, the vegetation is removed. They also continue to be impacted by seasonally high elephant densities.

Fires

“Hot” fires burn across what is left of the grazing for wildlife outside the protected areas. In addition, fires also ravage the grassland in the mountainous regions which comprise some 40% of the protected areas. Some effort is made to undertake fire management, but resources are limited for this activity and the terrain is extremely rugged. These fires are often set by poachers of honey and bushmeat. Furthermore, in some of the hunting areas, the operators or concessionaires do not clear firebreaks as required by the terms of their lease. Significant herbivore grazing is destroyed, and, in the case of hot burns, browse is also damaged.

Water

The water flow through the stream and river system is very seasonal in the Zambezi Valley. The catchment areas stretch well behind the protected area into agricultural land which in some cases is heavily cultivated. The heavy rains pick up topsoil, underlying soils and sands. This suspended load is carried through the steep mountain terrain at speed. Some of the load, due to the volume of water, is carried all the way to the Zambezi, but much is deposited along the river systems in the flatter parts of the middle section of the Valley.

In decades past, wildlife could survive well into the dry season due to remnants of water left in these river systems. In other areas elephants were able to dig using their trunks to recover sub-surface water. However, most of these water sources are no longer accessible – covered by up to 2 metres of sand brought down from the upper catchment areas, while the water continues to flow subterranean. Even deep rocky pools in the larger rivers of the escarpment have been replaced by sand. To a limited extent this negative impact has been alleviated by the introduction of inland water sources at tourist camps where boreholes have been drilled or well-points sunk into the sands.

The result of the drying up of inland water is that animals are now forced to go to the Zambezi River earlier in the dry season and in greater numbers. This is taking its toll on the riverine vegetation which was once a sustainable food source, but is rapidly becoming depleted (image below courtesy of Flying for Wildlife).



Poaching

For at least a 10-year period up to 2016 poaching had a significantly negative impact on the elephant, and possibly, buffalo populations in the Zambezi Valley.

The results of the 2014 aerial census (which showed a 40% loss since the previous survey) produced a strident response by Zimbabwe Parks and Wildlife Management Authority and its law-enforcement support entities. Poaching subsequently diminished significantly, from a “high” in 2016 to “low” in the last few years. Currently, poaching is assessed not to be a significant contributor to population decrease. It is however essential to keep law enforcement

capacity intact and at the ready, as the tide can turn very quickly. The Zambezi Valley's custodians (the ZWPMA) and its dedicated support entities are underfunded in this arena.

Hunting

In some areas of the Zambezi Valley, the hunting outfits are outstanding conservationists and could be used as a benchmark for conservationist-hunting in Africa. They provide law-enforcement support and have institutionalized responsible offtake quotas. However, there are other hunting areas within The Valley that have been subjected to sustained periods of unsustainable quota or offtake allocations.

Seasonal movement

Elephant and other species over the generations have learnt to undertake seasonal migration. They head inland at the onset of the rains and for a period of time after the rains in search of food which is normally abundant. Then in the dry season, they head back to the Zambezi River for water and have to compete with all the other wildlife species for food, in a very narrow stretch of riverine vegetation.

Elephant disposition in relation to tourism

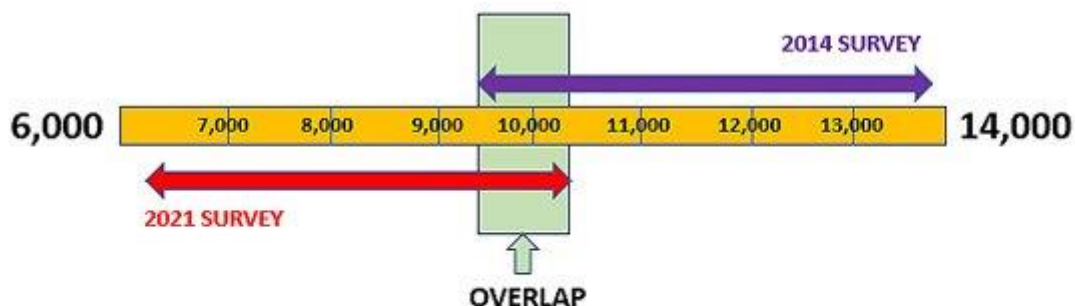
Generally the wild elephant across the Zambezi Valley and in Mana Pools in particular, have a calm disposition which is largely tolerant of tourism. The tourist industry has thrived on this characteristic.

Elephants from Zimbabwe's SE Lowveld areas are renowned to have a much more aggressive attitude. To introduce elephant into the Zambezi Valley from this particular source could put tourists and guides at some risk. It could also change the much-valued wilderness experience of places like Mana Pools and Sapi, which is key to the tourism industry's branding for photographic safaris in these areas.

SPECIES PROPOSED FOR TRANSLOCATION

Elephant: Aerial surveys appear to show a downward trend in the elephant population in the Mid-Lower Zambezi Valley in the last decade. However, because of the wide "range of confidence" interval of these surveys (see below) we need to treat the results with a degree of caution.

ZAMBEZI VALLEY ELEPHANT SURVEY CONFIDENCE RANGE



Regardless of the above, according to expert opinion (see the end of this paper) current population densities of elephant in the Mid-Lower Zambezi Valley area do not indicate a need for additional animals.

The **Northern Region Elephant Management Committee** has been a dynamic and functioning entity since 2015. It appears that it has not been consulted. It is inevitable that introduced animals will move beyond the Sapi. To its west lies Mana Pools National Park. As mentioned above, there are potential risks to the tourism industry in Mana Pools both in terms of changes to elephant behaviour and to wilderness value. To the east of Sapi lie Chewore and Dande which are both hunting areas, as is Nyakasanga to the west of Mana Pools.

Predators : In 2022, Wildcru are undertaking field work for an intensive predator survey from Sapi to Nyakasanga. The results of this research should be considered before importing more predators into The Valley. The result of the 2015 intensive predator survey done by WildCru in Mana Pools did not indicate a shortage of lion or hyena.

Buffalo: The diminishing inland water and food availability in the Zambezi Valley as described above are likely to be major contributors to any decrease in the buffalo population. Due to the concentration of large herds around remaining water sources, predator offtake by hyena and lion will continue to be impactful, especially on the newborns and juveniles. The Sapi habitat (being Mopane dominant) does not lend itself the addition of buffalo.

Rhino: Although the introduction of black rhinos is not proposed in the current Sapi exercise, options need to be considered for re-introduction of this species into the Zambezi Valley in due course, after appropriately detailed planning in accordance with international best practice for such exercises. Water distribution will be critical to the distribution of rhinos, who will need to set up their home ranges and social structure according to permanent water sources. Therefore, planning for rhinos to concentrate into a secure, viable population, and also enabling the most cost-effective concentration of anti-poaching resources, will require careful consideration of the impacts of elephants on the most secure, reliable water sources. This is a key example of the range of potentially cascading impacts of elephant introductions, particularly when the additional elephants lack experience in the optimum use of browse and water resources in the area, and may well tend to over-utilize certain sites rather than spreading their impact through seasonally appropriate movements.

FUNDING

Funding is already a scarce resource required to maintain and increase current law enforcement and research, and to tackle the drivers of wildlife population dynamics. The question to be asked is: Will this species introduction project bring ongoing support funding for the next 5 years?

It is worth highlighting that it is a myth that net tourism and hunting income can cover the costs of conservation. There are vast areas of the Zambezi Valley where the nature of the landscape is completely unsuitable for any form of tourism. These areas nevertheless have valuable biodiversity and habitat that needs protection. Innovative methods of supplementing the net income from tourism and hunting therefore need to be sought. Is it responsible to be adding to the problem by introducing additional animals that need protection without the requisite funding being available to even protect the existing wildlife population?

A CASE STUDY – CHITAKE SPRING

The impact of drivers of change listed above are brought into focus by taking stock of the changes/shifting dynamics that have taken place around Chitake Spring in the southern section of Mana Pools in the last 8 years.

The Spring currently consists of a ribbon of water that is about 30% of its former reach compared to 8 years ago. It is estimated that between one and a half to two meters of sand have been laid over the lower reaches, thus submerging the Spring's water (see image below). This long stretch of water is no longer available to the impressive herds of buffalo and

significant number of elephants that visit the spring (driver: upstream deforestation and local bank erosion).



The wildlife, buffalo in particular, are now forced to drink in the remaining stretch, thus falling easy prey to hyena and lion – especially in the hotter months. Aside from adult buffalo the juveniles and young are targets. From time-to-time young elephant fall prey. (driver: reduced inland water). Animals (particularly plains game) have to travel long distances in search of grazing (driver: fires)

The increased pressure of tourism further disrupts the animals at Chitake Spring. Although the water reach has reduced significantly, the number of tourists camps remains the same and by definition, therefore, tourist density affecting the area of the Spring has increased by threefold. A large herd of buffalo just requires one or two camera trigger-happy tourists to scare them away. At times three herds can be seen trying to drink over a 24-hour period. Under such circumstances, recharge of surface water does not occur with this demand.

As mentioned earlier, in the long-term, water sources like Chitake Spring might be prime areas for re-introduction of rhino. This should be taken into consideration prior to the translocation of other species into such areas.

AN ALTERNATIVE WAY? EXPERT OPINION SOUGHT

The publicity and marketing associated with the current Sapi exercise gives the misleading impression to the general Public that translocations are a viable tool for managing wildlife populations. The reality is not so straightforward. Workable alternatives need to found as a matter of urgency.

The Zambezi Society urges further dialogue on this very important issue and is seeking the opinion of various biological, ecological, veterinary and conservation experts in the field regarding the issue of wildlife translocations, with particular reference to those taking place into the Sapi area of the Zambezi Valley. We welcome informed contributions to the debate.

WE WELCOME YOUR INFORMED INPUT TO THIS DISCUSSION.

PLEASE E-MAIL US WITH YOUR COMMENTS

[EMAIL US](#)

Opinion 1: Dr David Cumming (Wildlife researcher and conservationist in Zimbabwe and Southern Africa since the 1960s)

Firstly, I don't think this is an ecological problem or one for an ecologist to resolve. The facts about elephant numbers in the Zambezi Valley are clear and despite the figures of the latest survey the density across the valley is in the region of 0.75 elephant per sq km resulting in ongoing impacts on woodlands. The ecological evidence available indicates that a density of less than 0.5 elephant per sq km would lead to a more reasonable balance between elephant numbers and impacts on woodlands and many other species of animals (insects, birds, and mammals). The issue of what level of elephant impact on woodlands and biodiversity is desirable is a value (or aesthetic) judgment and one that should be dealt with as a policy matter by Zimparks and stakeholders in setting the upper and lower thresholds of potential concern for elephant numbers and impacts in the Valley

Save Valley Conservancy does have an overpopulation of elephant but the numbers are now at a level where removing 400 elephant, from a population that is growing at 5% per annum or more, is not going to solve their problem. To return to a manageable population of about 1,300 elephant at a density of 0.5 per sq km from their current population of 3,500+ they will need to remove more than 3 thousand elephant over the next decade - which is unlikely to happen.

Opinion 2: Vernon Booth (Freelance Wildlife Management Consultant) Zimbabwe

The large-scale translocation of a variety of large wildlife from the Save Valley Conservancy (SVC) to the Sapi Safari Area (SSA) currently being coordinated by the Great Plains Foundation (GPF) in conjunction the Zimbabwe National Parks and Wildlife Authority (ZimParks) will impact the broad ecology of the Mid-Zambezi Valley and have wider implications for wildlife management in Zimbabwe. An in-depth discussion paper that provides the history and scientific background data questioning the validity of this translocation exercise is available.

From the SVC perspective, the objective is to reduce numbers of wildlife because of drought and excessive habitat damage while that of the GPF is to increase wildlife in the SSA i.e., "re-wild" the Valley. But are the objectives valid? For the SVC, the answer is superficially yes, but this translocation does not solve the problem in the long-, or even medium-, terms and does not address the wider ecological and socio-economic problems resulting from excess elephant populations in the south east lowveld.

The view of GPF is that the wildlife populations of the SSA are below what they should be. If this is true, what caused this and have the causes of the decline been removed? By all accounts any illegal hunting that was occurring is now under control and, further to this, no other hunting takes place any longer. Yet the elephant numbers continue to decline, pointing to other fundamental ecological parameters (e.g., drought, fire, declines in habitat suitability). If the reasons for the declines are still present, then there is no point in undertaking this translocation. Moreover, it is not clear what baseline is being used by GPF to arrive at the conclusion that the SSA is understocked. The SSA has never held high densities of wildlife, due to its ecological characteristics, and introducing further animals will not solve this: it may even make the situation worse. Above all, the "elephant problem" is simply being shifted from the SEL to the Valley.

Taking these factors into consideration, the likely outcome of this exercise is to temporarily (few years at most) ease the pressure on the SVC. For the SSA, the excess elephant population density identified in the nationally approved management plan will be exacerbated, leading to:~

- Further habitat damage
- Potential deaths of elephants from starvation
- Out migration of elephants to Mana, Chewore and Lower Zambezi NP in Zambia
- Increased human wildlife conflict

A key factor that is not discussed is that this exercise will introduce elephants renowned for being aggressive. The potential to adversely affect the tourism industry in Mana Pools and in Zambia, where tourists are accustomed to the placid nature of resident elephants, is high.

Attention must also be drawn to the consequences of introducing lion and buffalo to the SSA. There is ample evidence to show that introducing lions to areas where there are already resident populations, as is the case in SSA, results in territorial conflicts often leading to deaths. Regarding buffalo, there is no information regarding their disease status, especially with respect to introducing strains of Foot and Mouth Disease (FMD) to the Valley and beyond. This places the cattle industry in the Guruve and, Mbire communal areas in the Valley and in Zambia at risk.

This exercise is a culmination of the failure to address the fundamental problem facing the overall management of wildlife in the SVC. Similarly, the habitats of the SSA are not adequate to support the diversity and numbers of wildlife that are necessary to create a viable photographic wildlife business. And whilst the ZimParks tries to justify this on the grounds of mitigating drought, they do not mention that the Valley is equally suffering from a debilitating drought.

The reality is that pursuing a high-profile public relations exercise and asking the public to pay for it does nothing to "re-wild" the Valley. The likely outcome is a situation that is WORSE for the SSA, GPF and ZimParks.

Opinion 3: Prof. C.H.D. Magadza Ph D. (Founding Fellow African Academy Of Sciences, Founding Fellow Zimbabwe Academy of Sciences, Chairman Man and Biosphere (MAB: Zimbabwe) Committee, Co-recipient of the IPCC Nobel Peace prize 2007 (IPCC).)

My observations of elephant behaviour in the SE Lowveld support Dave Cumming's point that translocating elephants from this area to Mana Pools, or anywhere they are likely to meet tourists, would have a negative impact on the tourist industry.

The problem of overpopulation is not a Save Valley problem only. A recent article says there are 100,000 elephants in Hwange National Park. About four years ago it was put at 60,000, for a park that is recommended to hold no more than 1,000 elephants.

The problem of elephant numbers is going to get worse.

How about sterilisation? In the old elephant culling system, parks marksmen would round a chosen herd and at the command, every elephant in the herd would be dead in a few seconds. How about doing this with chemosterilant darts? instead of bullets and sterilise all females in a herd! I believe this has been tried in S. Africa, darting elephant females with tranquilisers and then injecting a sterilising agent.

Opinion 4 Jan Teede (author of Zambezi - River of the Gods, African Thunder and A Field Guide to Mana Pools National Park.)

On the elephant population issues, I hear a great deal about the need to reduce populations, and talk of re-instigating culling as a necessary objective. What I never seem to hear is the now tried and tested method of immunocontraception, which has shown that it is perfectly possible to stabilise and even reduce populations by this method.

There is absolutely no justification for culling. If the Save Conservancy feel they have too many elephants, why don't they contact Dr. Audrey Delsink, one of the pioneers of the above procedure? I am in constant contact with her and would be most willing to provide an introduction.

Opinion 5: Richard Johnson (former wildlife veterinarian/ecologist)

I question if there is a specific need for movement inwards to Sapi of most of the proposed translocated species.

As Sapi has been a hunting area for many years, the fixed annual hunting quotas should have resulted in reasonably stable species numbers, so unless there have been massive over offtake of species, either legally through hunting or from illegal poaching, there should be no need to supplement their numbers. Otherwise, there would be an argument for doing this for every hunting area.

Further, the premise should normally be to improve in situ protection against poaching, and the local species should increase naturally. This would only need to be altered in the case of specific species, such as black rhino. There is definitely a case for translocations in the case of locally extinct animals, where the protection has been given to ensure survival (Gonarezhou black rhino reintroduction 2020).

It seems hard to believe that impala are a species in Sapi which give rise to serious population concerns. In the Zambezi floodplain, Impala have in fact needed to be culled on several occasions, due to overpopulation concerns.

Elephant can increase at a very high rate, given proper protection, as in Gonarezhou or Hwange, where there are definite concerns over over utilisation of certain areas and vegetation. As David Cummings described, the elephant number in the Zambezi Valley may well be at the correct level for the environment, with no need for translocation from Save.

If the Save Conservancy has the position of too many animals, the best solutions should be increased hunting quotas and culling of plains game to supply reduced price local meat, with limited movement where the environment case can be made, for genuine restocking projects.

I feel therefore that the Sapi proposals are in fact a glamour project to gain media interest and funds. The money could be better used for the Sapi's management in other ways.

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