

Implementation of a rhino endowment model for community participation in rhino conservation, Save Valley Conservancy, Zimbabwe

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The Save Valley Conservancy (SVC) is situated in Zimbabwe's south-east Lowveld. It was established in 1991 when a conservancy constitution was adopted that binds 24 former cattle ranches into a single wildlife management unit. Provided the socio-political environment is conducive to its further development, it will remain one of the largest private protected wildlife areas in Africa (over 300,000 hectares). It aims to become a cornerstone of the wildlife tourism industry in the region, which would also involve the Great Limpopo Trans-Frontier Conservation Area (TFCA), linking the conservancy with Gonarezhou National Park and other private and community-based wildlife projects.

From the outset, the conservancy has followed the principle that its land use must be sustainable—ecologically, economically and socio-politically. The ecological and economic attributes of a large conservancy such as this have been well demonstrated. Before a phase of political uncertainties associated with Zimbabwe's 'fast track' land-reform programme, which began in 2000, the conservancy had paid attention to socio-political dimensions, notably by forming the Save Valley Conservancy Trust in 1995 to serve as the agency to catalyse development projects at the interface between SVC and the communities surrounding it. Some 120,000 people in 20,000 families living in 16 neighbouring wards are the intended beneficiaries of the trust.

A memorandum of understanding was signed between SVC and the five relevant rural district councils (Bikita, Buhera, Chipinge, Chiredzi, Zaka). The memorandum establishes a joint committee of these councils and confirms the SVC Trust as their fiduciary instrument for projects related to the conservancy. It establishes the basis of liaison whereby both the rural district councils and SVC, through a positive incentive arrangement, support the objectives of conserving biodiversity and sustainably using biological resources for the benefit of all those who live in this area.

When the SVC Trust had been formed, WWF proposed that it secure funds to purchase wildlife as founder stock in the conservancy, from which the trust would be able to generate a sustainable revenue flow by annually selling progeny at market prices. This would be a win-win situation for all parties since this wildlife endowment would enhance the economic viability of the conservancy's tourism operations by adding to the area's wildlife attractions, and thereby stimulate employment. At the same time adjacent communities would hold a significant stake in the wildlife resources within the conservancy and gain a sense of proprietorship. Additionally, opportunities may arise for the SVC Trust to acquire shares in tourism ventures or possibly in land that can be allocated or leased to the trust for tourism or hunting concessionaires, under the wildlife-based land reform programme. The income derived from the trust's investments would be ploughed into community projects such as socio-economic enterprise, conservation, food security and social welfare.

A proposal was submitted through the World Bank for a medium-sized grant from the Global Environment Fund to set up this wildlife endowment plan for the SVC Trust. However, the political and economic problems that developed in Zimbabwe led to the World Bank withdrawing its support and to a general decline in donor interest, so the wildlife endowment plan did not progress.

During 2005 it became apparent that the nearby Malilangwe Trust needed to decrease the white rhino population on the land it owned, comprising 40,000 ha. The white rhino population, developed from breeding stock the trust had imported from South Africa, had built up to 78—and thus was overstocked as shown by increased fighting between rhinos. It led to two mortalities in 2004. At the same time, Save Valley had a small population of only nine white rhinos—a population that needed to be supplemented in order to achieve genetic and demographic viability.

WWF therefore proposed to Malilangwe Trust that some rhinos be moved to Save Valley under the community endowment concept.

This proposal was made in view of the fact that in Africa the community is involved in too few rhino conservation situations nor does it benefit from them. The communal conservancies in Kunene Region of Namibia are the only significant example of community-based projects that involve rhinos. The KZN/WWF Rhino Range Expansion Project in KwaZulu-Natal aims to establish rhino populations on communal land but this will still take time. The Save Valley project can be a further model for community involvement in breeding an endangered species; once demonstrated, such a method is likely to become more broadly applied in the region.

Restocking the Great Limpopo TFCA with rhinos from Save Valley and having donors pay the SVC Trust for these animals is envisaged as the optimum scenario.

Features of the agreement

All parties to the agreement (which included the Zimbabwe Parks and Wildlife Management Authority, which has management control over Specially Protected species) agreed:

- Proactive management to prevent overstocking of white rhinos (at Malilangwe) and to prevent inbreeding (at Save Valley) is clearly in the interests of the species.
- The rhinos are to be allocated in accordance with a community endowment scheme under which the SVC Trust will be entitled to the tradable asset value of the first three progeny born and to half of the progeny thereafter.
- The remaining half of the progeny will become available for further restocking initiatives in the Lowveld (notably into the Great Limpopo TFCA).

Given that the Malilangwe Trust purchased and imported the founder stock at considerable expense and has further invested in protecting and managing the population, it was agreed that a custodianship arrangement would allocate these 10 rhinos, under which the Malilangwe Trust has the right to reclaim 10 rhinos in future. In addition, the Malilangwe Trust wishes to be consulted on allocating the progeny that are translocated from the conservancy, while the SVC Trust gains the income from their sale. It was agreed as a matter of principle (and as a factor that could well influence further investment of the private sector in rhino importa-

tions) that the Malilangwe Trust would retain due rights over the assets in which it had invested.

Undertaking the operation

A rhino capture unit comprising WWF personnel, a veterinarian from the Wildlife Veterinary Unit of the Department of Veterinary Services, and staff of the Malilangwe Trust undertook the capture and translocation of 10 white rhinos during the period from 22 May to 4 June 2005. No injuries or mortalities occurred during this operation, which followed standard rhino translocation procedure, including using a WWF fixed-wing aircraft to survey and coordinate the rhino darting exercises, and a helicopter from which the veterinarian could dart the intended rhinos once they had been identified. The list of rhinos to be translocated was very specific, and it took into account genetic and demographic considerations for both the source population (Malilangwe) and the recipient population (Save Valley).

The 10 rhinos comprised 2 adult males, 4 adult females, 3 subadult males and 1 female calf. Eight were fitted with horn-implant transmitters for radio-tracking, but the horns of the two smallest rhinos were too small for the devices to be fitted.

The rhinos were held in pre-release pens (bomas) on Sango Ranch in the north of Save Valley and were released after they had settled down. Thereafter they have been regularly radio-tracked and by September 2005 had settled well. Three of the translocated rhinos have joined white rhinos that were already in Save Valley. (It is of interest that two of these resident white rhinos had been attached to black rhinos in the absence of companions of their own species but reverted to same-species associations as soon as they had the opportunity.)

The Zimbabwe Minister of Environment and Tourism, the Hon. Francis Nhema, visited Save Valley on 15 June 2005 and officiated in a ceremony to hand the rhinos over to the SVC Trust. This ceremony was attended by local MPs, senior district government officials, and representatives of the Malilangwe Trust, the SVC Trust and the Save Valley Conservancy.

Anticipated outcome

In view of the slow rate at which rhinos reproduce, this will be a long-term programme. Table 1 indicates a likelihood of rhino breeding over 20 years. Until

Table 1. Model: 10 rhinos are introduced; the first 3 calves and half of all succeeding calves go to the Save Valley Conservancy Trust

Year	Rhino numbers	Annual gain	SVC Trust gain
2005	10	0	0.0
2006	11	1	1.0
2007	11	0	0.0
2008	12	1	1.0
2009	13	1	1.0
2010	14	1	0.5
2011	15	1	0.5
2012	16	1	0.5
2013	17	1	0.5
2014	18	1	0.5
2015	20	2	1.0
2016	21	1	0.5
2017	23	2	1.0
2018	24	1	0.5
2019	26	2	1.0
2020	28	2	1.0
2021	30	2	1.0
2022	32	2	1.0
2023	34	2	1.0
2024	36	2	1.0
Total gain to SVC Trust			14.5

Zimbabwe's wildlife operations regain tourist interest and donor confidence, opportunity to sell progeny from the breeding herd will be limited, which also adds to the long-term nature of return from this community investment. Nonetheless, it has clearly established a model for community involvement, and the principle is likely to be as important for building better community relations as the actual financial return on this investment.

New thinking on white rhino bomas in the big game parks of Swaziland

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Traditionally, white rhinos have been confined in solid, close-pole barriers where the animal's will to escape is overcome by its inability to break through the poles. The animal then submits to its new surroundings, where it either starts eating after some days or embarks on a hunger strike.

Hunger strikers are common among white rhinos newly placed in a boma. The dilemma for a boma manager is whether to release the rhino before it loses too much condition or to hold it for another day or two in the hope that it will start eating. Often animals have been caught and moved long distances to a boma, and releasing them in poor condition into an unfam-

iliar range that is often already occupied is not only undesirable—it may be positively dangerous!

Most white rhinos that adapt to boma life start eating between the third and seventh day of confinement. It is generally accepted that animals that are on hunger strike or are consuming insufficient food should be released by day 7. If a hunger-striking rhino remains confined, it will eventually become weak and die, despite a plentiful supply of good-quality feed being offered.

A hunger strike is not the sole determinant of when to release a rhino from the boma, as other factors such as body condition, age, sex, pregnancy, release site,