Just for interest (rates)...

There are some paradoxes in rhino demography. On the one hand, we need to "think big" by concentrating our efforts and resources on populations that are large enough to develop long-term genetic and demographic viability. On the other hand, we need to make an effort for every individual rhino because small numbers add up, in due course, to bigger numbers.

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Rhinos are relatively slow-breeding animals and sometimes develop skewed sex ratios that compromise their reproductive rate. Yet, even slight gains in growth percentages, above an average level, have a compounding effect that can be surprisingly effective in enabling a rhino population to outbreed poaching attrition.

The bottom line is that, just like financial investing, the key to building numbers is to regard every percentage point of population growth as critical, to build a cushion of rhino biological capital to survive recessions and to continually work on the enabling conditions for rhinos to breed themselves out of decline, even if we can't completely prevent poaching.

From the early 1990s, the rhino populations in Zimbabwe's Lowveld region were concentrated in large enough areas of good habitat to allow significant growth. From small numbers, three of these populations have expanded significantly, despite major poaching knocks. By giving these rhinos plenty of space and mating opportunities, they have maintained biological growth rates that enable them to save themselves from longterm poaching declines.

The chart below shows, with real data¹, the population status that was achieved (Actual rhino population) during a period when the annual biological growth rate of the black rhinos was around 10% per year. This compares with what would have happened (**Projected rhino population**) if the population had instead achieved an inherent growth rate of 7% while suffering the annual poaching losses that occurred.



Status of Lowveld rhino population 2007-21

The Lowveld Rhino Trust's star example of a single rhino who required huge effort to save, but has since repaid that effort with interest is Siabuwa. Siabuwa was rescued from the heavily poached Zambezi Valley just over 30 years ago. She was translocated to join 36 other introduced individuals, similarly rescued in their ones, twos and fours, to form a founder population in Bubiana Conservancy in Zimbabwe's southern Lowveld. Once settled, Siabuwa's population averaged a 13% annual growth rate and has been able to maintain a significant population, despite experiencing staggering poaching losses.

Black rhinos are socially complex animals and maintaining stable social networks is critical for their breeding performance. In these settled Lowveld populations, it is not uncommon for females to produce their first calf at five years old, as opposed to the seven-year average for the species, and to have an intercalving intervals of less than 24 months, compared 30 months for most black rhinos.

Combine this with effort made to save every individual you possibly can by treating wounded



Actual v projected rhino population By year

animals, rescuing orphans (to put back into large, wild populations) and recovering even single stray rhinos like Siabuwa, the value of these individuals adds up.

Siabuwa, who sadly past away in August 2023 from old age, had ten calves, who have gone on to produce 28 calves of their own thus far, with a further 11 "great-grand-calves" already born and one great-great-grand calf. A total of 50 black rhinos, with space for more.

¹ Actual figures redacted for security reasons.

² Because of the high poaching offtakes post-2014, the 5% calving rate simulation becomes impossible: there are simply not enough rhinos left alive.

In her lifetime, Siabuwa had 10 calves, who in turn, have (so far) produced 28 calves of their own, with a further 11 'great-grand-calves' already born.