The Rhino Impact Investment Project—a new, outcomes-based finance mechanism for selected AfRSG-rated 'Key' black rhino populations

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Abstract

This article provides a detailed overview to date of the Rhino Impact Investment Project (RII). It shall explain in detail the overall objectives of RII—in principal, to develop the world's first outcomes-based finance mechanism for a single species in order to overcome a variety of common problems seen in securing adequate funding for rhino conservation. A core part of RII relates to the rigorous selection process used to determine the sites to be included in the first iteration of this project, and this article focuses in detail on that process. Furthermore, the article shall examine the governance and management activity frameworks to be used for the RII, including the development of the African Rhino Theory of Change.

Additional key words: Rhinoceros, Impact bonds, black rhino growth rate, conservation finance

Résumé

Cet article vise à fournir un aperçu détaillé de la mise en œuvre du Projet d'Investissement de l'Impact des Rhinocéros (IIR). Il expliquera en détail les objectifs de l'IIR—principalement: développer le premier mécanisme de finance au monde axé sur les résultats pour une seule espèce, pour permettre de surmonter une quantité de problèmes couramment rencontrés durant l'obtention du financement nécessaire pour la préservation des rhinocéros. L'un des buts principaux de l'IIR est lié au procédé rigoureux de sélection utilisé pour déterminer les sites qui devront être inclus dans la première version de ce projet, et cet article se concentre sur ce procédé. En outre, cet article examinera les cadres de gouvernance et de gestion qui seront utilisés pour l'IIR, y compris le développement de la Théorie du Changement du Rhinocéros d'Afrique.

Mots-clés supplémentaires: Rhinocéros, contrats à impact, taux de croissance des rhinocéros noirs, financement de la conservation

Introduction

Funding for rhino conservation often suffers from a number of constraints:

Competition for limited funds

With the advent of the current and continuing rhino poaching crisis in 2007, security needs and associated costs have risen and competition for funds is intense. Although some major funders of rhino conservation have emerged during the last few years, public funds are inadequate for the scale of the global rhino conservation problem.

Short-term grants for discrete projects

Grants are for a limited period, usually ranging from 1-3 years. Long-term and ambitious planning is made more complicated by the uncertainty of continued funding. Funders often require a discrete, ring-fenced project, as opposed to covering annual operating costs or permitting adaptive management techniques, with a specific end date by which the project goal must be achieved.

Inflexible grants and budgets

Grants are tied to a pre-defined set of activities and expected outputs, with limited opportunities to adapt the project according to changing circumstances once it is underway. Capital expenditure may be ineligible for or limited to a small proportion of the overall grant budget.

Onerous reporting requirements

Programme managers without the support of an International Non-Governmental Organization or state agency and associated back-office staff may struggle to comply with the complex and frequent narrative and financial reporting required by donors.

Need to raise matched or leveraged funding

Funders often require the beneficiary field programme to demonstrate a sustainable funding plan; however there are limited opportunities for many rhino conservation programmes to earn income. (E.g.: there are limits to growth of rhino-focused-tourism, and photographic tourism can be highly volatile in response to exogenous threats; with the increasing security costs involved in protecting rhino populations, live sale prices are levelling off or declining, and live sales of rhinos are not allowed in all Range States; trophy hunting of rhinos is only allowed in South Africa and Namibia at present; international trade in rhino horn is banned by CITES and legalised domestic trade in rhino horn is only allowed in South Africa, though that too is fraught with complexity).

Established grant programmes are under threat

The U.S. Fish and Wildlife Service's Rhinoceros and Tiger Conservation Fund supports more than a dozen Key 1 and Key 2 black rhino populations through its grants, which total c. US $1-1.2 million per year. There are, however, fears that the current US administration will cut the budgets of its Multinational Species Conservation Funds.

Lack of accountability

Few funders explicitly and carefully define upfront what is meant by "success" or, if they do, define success as a set of outputs rather than outcomes (*e.g.*, more patrolling rangers, rather than more rhinos). Similarly, there are few examples of linking performance to any kind of reward or punishment based on success / failure, apart from deciding whether to fund the programme again or not. In addition, and perhaps as a consequence of this unfocused approach, data and reporting are often limited, so successes cannot be tracked easily and replicated in other sites.

In response to these funding challenges, in 2014, several key stakeholders in the rhino community began to conceptualise an innovative financing mechanism for rhino conservation, drawing on the success of the impact bond market. What was envisioned was a funding model that would attract new, non-traditional donors to rhino conservation efforts, direct them to some of the most important rhino populations, and monitor and evaluate performance over a period of years in order to reward and focus attention on the populations that were able to demonstrate the best "return on investment", defined as the best rhino growth performance.

In 2016, the RII was launched as an initiative of United for Wildlife (UfW), an unprecedented partnership between seven of the world's leading wildlife charities and The Royal Foundation of The Duke and Duchess of Cambridge and The Duke and Duchess of Sussex. The

RII is seeking to address rhino conservation using an outcomes-based financing model, building the first such instrument for species conservation targeting a financial return. The objective of the RII project is to transform conservation financing by demonstrating a scalable outcomes-based financing mechanism that directs additional private and public sector funds to improve the management effectiveness of priority rhino populations.

Outcomes-based financing instruments are innovative financing instruments that have been gaining traction as a way to entice private capital to help address challenging social problems traditionally funded by the public sector. Tapping into the impact investing market and applying outcomes-based financing tools, can potentially unlock additional funding for critical conservation areas and improve management effectives. In an outcomes-based financing contract, pre-financing or the upfront investment is provided by investors motivated by financial return or return of capital and positive impacts. The investors are paid a pre-agreed return on their investment based on achieving pre-agreed outcomes. The outcomes-payers who return the investors' capital are entities motivated by the non-financial outcome, or impact, but they only pay if outcomes are delivered which ensures they are achieving value for money.

Implementation of the RII is led by the Zoological Society of London (ZSL) and the project is funded by the Global Environment Facility, the UK Government through the IWT Challenge Fund, UfW and ZSL. The United Nations Development Programme is the GEF Agency implementing and executing activities consistent with both the GEF mandate and national sustainable development plans. The RII has received implementation support on technical conservation, conservation finance and legal from Implementation Partners including Credit Suisse, DLA Piper, Fauna & Flora International, the IUCN SSC African and Asian Rhino Specialist Groups (AfRSG and AsRSG), Kenya Wildlife Service (KWS), The Nature Conservancy, UBS and WWF-UK. Conservation Capital is the appointed RII Finance Manager and Conservation Alpha is the appointed RII Performance Manager.

Methodology

The Model

The RII financing model—very likely to be called the Rhino Impact Bond—shall direct impact investment funds toward selected sites to finance management interventions for rhino conservation. Figure 1 details an overview of the model (See colour plates: page iii).

In overview, the RII team works with participating black rhino sites (see 'Site Selection' below for further information on how those sites were selected) to develop five year, fully costed strategies to maximise black rhino population growth rate at that site (see 'African Rhino Theory of Change' below for further information on the various component parts of the strategies). Linked to these strategies is a target net population growth rate that each site must aim to achieve, expressed as an annualised, averaged percentage over the course of the five years (see 'Outcome Metrics and Key Performance Indicators' below for further information on this calculation). The implementation of these agreed strategies by the sites is then paid for by "investors", and "outcome-payers" commit contractually to pay the investors back their original investment plus or minus a pre-defined yield relative to the degree of outcome success (which is measured against achievement of the net population black rhino population growth target determined at the start of the RIB). For example, if the net population growth rate target is achieved across the sites, then the outcome-payers may pay back the investors their original investment plus the pre-agreed yield for achieving that target. If the rhino performance is just below the target then the investors may receive back their original investment plus a smaller yield; and if the rhino performance is extremely poor, the investor may receive back less than their original investment. In essence, this is a payment-for-performance model. The results achieved are to be independently evaluated by a third party to ensure that they are valid and accurate and an appropriate evidence trail exists.

The RII project plans to launch the Rhino Impact Bond or RIB in 2020 and, at the time of writing, the RII project is currently in discussions with potential investors and outcome-payers. It is anticipated that investors shall be "impact investors", namely those who are looking to achieve both positive impact and generate a financial return at the same time. This is a growing market segment and is typically defined

to include: dedicated impact investment money mangers, (ultra) high net-worth individuals, family offices and foundations. Outcome-payers shall likely include those types of institutions who already fund conservation and are interested in this financing model because, inter alia, it transfers the financial risk of non-performance to the private capital markets (i.e. investors) and because they are increasingly interested in delivering on outcomes (more rhino) rather than just outputs (for example, more rangers or more kilometres covered by rangers which does not necessarily equate to more rhino). Candidates for this role include, for example, public entities (such as development finance institutions, multilateral and bilateral finance institutions) and also private entities (such as foundations and NGOs).

Management and Governance

Following a tender process, Conservation Capital, which has led the development and financing of more than 75 conservation enterprise initiatives in 25 countries, was appointed Finance Manager, with Giles Davies and Glen Jeffries as the principal points of contact. Conservation Alpha, a new company formed by Chris Gordon and Chris Barichievy, both of whom worked on the gap assessments and preliminary Theory of Change for each of 13 long-listed sites (for more information on the Theory of Change and Site Selection, see headings below), was chosen as Performance Manager.

Site selection

The RII pools rhino sites into a diversified portfolio to offer a single conservation-financing instrument at scale. The portfolio approach enables investors' risk to be diversified across multiple sites and countries. This is beneficial for de-risking the product to catalyse investment and for reducing the cost of rhino outcomes, i.e. the financial return expected or required by investors to compensate for their risk exposure and impact return.

An analysis and screening of global rhino populations was conducted in 2014–2015 by UfW in conjunction with the AfRSG. This analysis was used in preparation, scoping and planning for the RII Project. In particular, this analysis informed the selection of sites to be invited to participate in the RII Project.

The RII Project has used the IUCN SSC African and Asian Rhino Specialist Groups' rhino population classification system to identify a smaller subset of priority populations that could potentially be considered for inclusion in the RII Project. Of the 133 rhino populations (including African and Asian) rated as either Key One or Important, the AfRSG and AsRSG identified 34 priority rhino sites across the world's major rhino range states, which house 76% of all wild rhinos. Of these 34 priority rhino sites, 25 are in Africa and 9 are in Asia.

In compiling a priority subset of populations for consideration for inclusion in the RII Project it was decided to group potential sites/populations by the three rhino species in Asia and by the three black rhino subspecies in Africa. White rhino populations are also found in areas with all three black rhino subspecies. All sites in Africa with a Key 1 rated population of white or black rhino (>100 animals), plus Key 2 black rhino populations (>50 animals) with potential to become Key 1, were included in the priority subset, with the majority of sites conserving both species. Since there are approximately four times more white rhino than black rhino, a proportionately greater (4x) weighting per black rhino compared to per white rhino was proposed, with priority for sites with both species. Additional recommended criteria included the selection of populations with sufficient precision of monitoring/estimation, selection of in-range populations and active contribution to a rhino metapopulation managed under a national rhino conservation strategy.

It is considered that the RII would be most suitable for the two African species and the Greater one-horned rhino. Whilst the Javan and Sumatran species are both Critically Endangered, pressures on their populations are mainly due to lack of habitat rather than the illegal wildlife trade; in addition, both species have extremely small population sizes that are also difficult to estimate, meaning that impacts of interventions may not be sufficiently measurable for a RII. Therefore, it is suggested that a more traditional donor-based mechanism would be more appropriate than a RII to fund interventions to conserve these two Asian species.

Several of the African sites were not considered an appropriate fit at the time of rhino population analysis (2014-2015) for the RII Project for a range of practical reasons. These include technical genetic queries, unconfirmed population sizes, trans-border management challenges, political sensitivities as well as strategic and management uncertainty.

Table 1. Six preliminary indicators of rhino conservation area management effectiveness

1.	Security	Can a Protected Area (PA) effectively protect its rhino population? • Overt Security • Covert Security • Investigations
2.	Monitoring	Can the PA effectively monitor and manage its rhino population?
3.	Biological Management	Does the PA have the habitats/conditions/expertise for rhino management?
4.	Management	Is the PA managed effectively?
5.	Socio-political	Does the PA involve local stakeholders in rhino conservation?
6.	Financing	Does the PA have the necessary operating budget year on year?

The above approach filters the 34 IUCN SSC Rhino Specialist Groups' priority rhino population sites down to 23 sites globally, 18 in Africa and 5 in Asia.

In order to mitigate implementation risk and to increase the probability of success, the RII is focusing on sites in Africa in the first phase, where the data is deemed most robust in linking potential interventions with the targeted KPI of net rhino population growth rate. If there is a demonstrable proof of concept, the model could be scaled up to include sites in Asia in the second phase. As such, the 5 Asian sites were not selected to move forward. Additionally, 3 of the 18 African sites invited to participate indicated a preference to do so only once there is a demonstrable proof of concept and the model is being scaled.

Following detailed discussion with relevant range states and specific rhino conservation programmes, 13 sites were short-listed for detailed consideration. Gap assessments were conducted by a group of experts in rhino conservation, and a high-level Theory of Change and budget for each developed.

The RII developed a bespoke rhino focused gap assessment tool to assess and score the selected sites' ecological, managerial and financial capacity to achieve impact. The site assessments are an aggregation type approach with a quantitative focus on management defined gaps and a management estimated cost of the interventions. The site assessments allow for both intra-site comparisons, as well as comparisons between sites to ascertain a state of rhino conservation relative to management defined goals.

The quantitative assessment was based on six primary indicators of rhino conservation area management effectiveness; see Table 1.

For each of the indicators, a series of questions was asked: What does the site have; what does the site need, and how much will it cost to get there?

Importantly, the answers to these questions were driven by the site management agencies. Following the gap assessment, at a workshop held in August 2017 in Cape Town the sites were then evaluated by a panel according to a set of site-selection criteria and drawing on the results of the gap assessments. The evaluation panel comprised recognized experts, including members of the AfRSG, in rhino management, Protected Area (PA) management, and security with experience of conservation in Africa. The panel evaluated sites based on five criteria, see Table 2:

Table 2. Five criteria evaluation of rhino conservation area management effectiveness

1.	The importance of the site/proposal for rhino conservation: What is the relative importance of the population for global rhino conservation?
2.	Intervention strategy: Is there a logical, well thought out ToC to produce the desired results, and how large will the impact of these interventions likely be?
3.	Agency and site manager track record: Does the track record and status of the management agency and individuals involved engender confidence that the intervention strategy will be delivered?
4.	Cost effectiveness: Can the proposed intervention strategy be implemented more efficiently and/or is there any obvious aspirational spend which does not have a causal link to achieving rhino outcomes?
5.	Risk profile: An assessment of the risk of failure of the plan, and therefore the investment.

The criteria allow for subjectivity in appraising sites, and each site was discussed to generate consensus, but the ranking was done on an individual basis per site. Each panel member ranked each of the above categories from 0-10 based on their opinion after discussions. The ranks for all categories were summed, and each site scored accordingly. The results were then aggregated to plot expert driven scoring of site importance versus evaluation of confidence in the site ToC and intervention strategy presented in the assessment reports. This allowed for the obviously 'good fit' and 'bad fit' sites to be easily identified and highlighted the 'marginal' sites to be debated. The marginal sites were then discussed, and consensus reached as to which sites should be included in the next phase of the RII project. The panel identified seven sites as being both significantly important to the continental and national rhino strategies and having the capability to deliver against an RII outcomes-based financing mechanism, six of which agreed to participate in the investment readiness phase of RII. All of the sites selected were black rhino populations. This was not intentional or by design, however it is important to note in hindsight that the single sub-species focus allowed for a simpler and more transparent financing mechanism.

African Rhino Theory of Change

A Theory of Change (ToC) is a clearly articulated chain of cause and effect explaining what interventions are required to get from where one is to where one wants to be. In short, the African Rhino ToC shall help to guide the investment and ensure that sites are considering the known drivers of rhino growth rate, and always clearly linking "activity" with "anticipated result". The process has been applied to the idea of growing rhino populations at individual sites. Implementation of a ToC, to be effective, requires consistent feedback loops between implementation actions and the achieved consequences i.e. it has to be adaptive. As part of the RII project, although it is designed to have wider application across all African rhino sites, a ToC has been developed for "growing more rhino as quickly as possible" (see Outcome Metrics and Key Performance Indicators heading section below). The move to increase numbers of rhino, as one of a number of interventions to counter poaching is a common objective in many rhino management plans.

In order to achieve this, the ToC for site-level rhino growth has four thematic areas of intervention, each of which has sub-themes, as shown in Figure 2 below. As this ToC is dealing with a natural context and not an agricultural one, the core focus of the approach is to create an environment where rhino can breed naturally. For this to happen rhino need: appropriate habitat, sufficient range, normal (i.e. not accelerated) attrition rates and
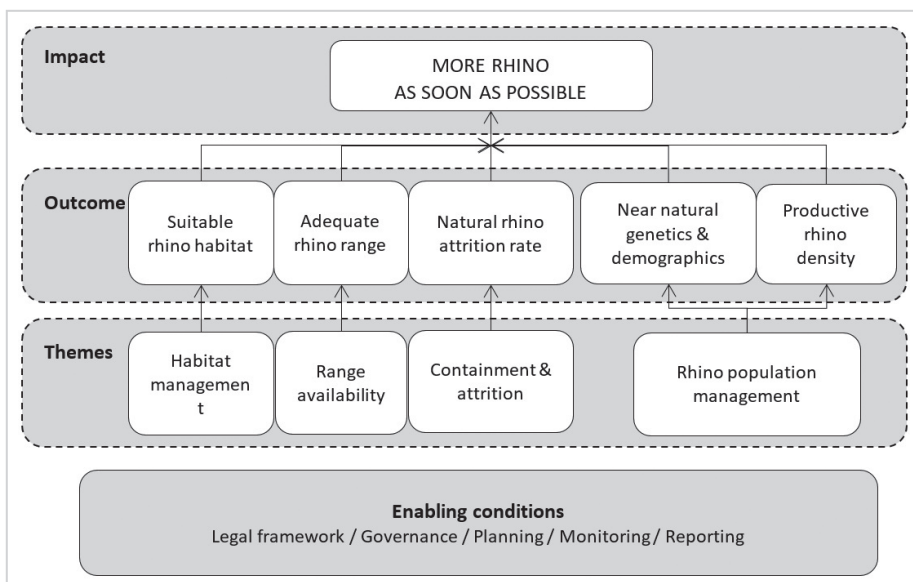

Figure 2. Four thematic areas of intervention, with sub-themes

near normal population demographics. There are thus four thematic intervention areas: habitat management; range availability; containment and attrition; and rhino population management.

The entire ToC needs to be underpinned by an enabling environment. The enabling environment is a consideration of a wide range of "non-rhino" factors that, in turn, enable efficient implementation of the ToC. For example, strong management and governance structures and secure land tenure for the population.

The specific details of what interventions are required at an individual site will depend on the local details and history and will need to be worked through by people with local expertise. Under the theme of rhino population management it is important to aim for a natural age and sex structure in a population, and the effective management of population density has been demonstrated to promote growth.

It is also important to note that the ToC approach encourages adaptive management to enable protected area managers to respond to changing on-the-ground conditions as appropriate. Any material departure from the ToC in this regard would need to be approved by the Finance Manager and Performance Manager.

The ToC was endorsed by a meeting of rhino specialists (managers, researchers and consultants) at the second Rhino Science and Management Meeting (The Dinokeng Workshop) in March 2018 at Mongena Lodge, Dinokeng Game Reserve, South Africa and was published in the academic journal Conservation Science and Practice in 2019[1].

Outcome Metrics and Key Performance Indicators

The RII KPIs for measuring outcome success and triggering payments were identified and informed by the rhino conservation ToC, and were defined in consultation with and endorsed by the Chair and Scientific Officer of the AfRSG. More rhino as soon as possible is measured by Net Growth Rate. The Net Growth rate =

(Rhino(y2) - Rhino(y1)) / Rhino(y1). Rhino(y2) = Rhino (y1) + births (y1) - death (y1) + immigration (y1) - emigration (y1).

The RII measure of success is the percentage of target net rhino growth rate achieved. Primary % of KPI Target Achieved = (Actual Net Growth rate—Baseline Net Growth Rate) / (Target Net Growth Rate—Baseline Net Growth Rate). The target growth rates and baselines are based on historical data at a site and continental level. Due to the practical realities of rhino biology (e.g., gestation periods of c.15 months), the net growth rate is averaged over 5 years.

Investment Readiness

Investment Readiness is a specifically defined term within the context of RII. It is defined with reference to three key criteria, known as the Investment Readiness Criteria, these are as follows:

- Being able to demonstrate that all Enabling Conditions activities identified in the Investment Readiness work plans have been completed and all issues in respect of the same have thereby been resolved.
- A five-year budgeted black rhino conservation and intervention strategy determined to meet the requirements of the project, and signed-off by relevant management at a site and national (where appropriate) level.
- A monitoring capability that is adjudged to meet the requirements of the project in respect of reporting and auditing.

In order to assess what activities need to happen at each site in order to support that site to progress towards the status of demonstrating Investment Readiness, the Finance Manager and Performance Manager undertook a detailed scoping exercise to understand the activities that needed to be undertaken to support the sites to reach the status. This process was known as investment readiness scoping.

Investment readiness scoping was completed at five of the six sites but was not able to be completed at the sixth site, Bubye Valley Conservancy, for exogenous reasons, and that site was removed from further inclusion in the RII project. The investment readiness scoping process resulted in budgeted work plans for the sites to achieve the predefined RII Investment Readiness Criteria. These workplans were reviewed

[1]Balfour D, Barichievy C, Gordon C, Brett R. A Theory of Change to grow numbers of African rhino at a conservation site. Conservation Site and Practice. 2019; e40. https://doi.org/10.1111/csp2.40.

and approved by the Project Decision Committee. AfRSG members Dr Dave Balfour, Dr Rob Brett, Cathy Dean and Dr Naomi Doak, who were all involved in the long-listing and short-listing process, joined a Project Decision Committee to review and approve work plans and budgets for each site to achieve Investment Readiness.

The sites must work towards achieving Investment Readiness by Q4 2019 in preparation for the proposed launch date of 2020 for the financing mechanism. At the time of writing, Investment Readiness activities are under way at all five sites. Should any of the five short-listed sites fall short during Investment Readiness or fail to meet the Investment Readiness Criteria, they will be removed from the portfolio prior to the Investment Phase. Investment Readiness is assessed by an Investment Committee assembled by the Finance Manager.

Results

The financing mechanism is not due to launch until 2020. For that reason, it is not possible to report on results at this stage. A further paper to *Pachyderm* following the evaluation will hopefully be available in due course.

Acknowledgements

Table 3. Table of defined terms

Term	Definition
African Rhino Theory of Change, or ToC	A theory of change is a clearly articulated chain of cause and effect explaining what interventions are required to get from where one is to where one wants to be. The process has been applied to the idea of growing rhino populations at individual sites and this is known as the African Rhino ToC. The thematic parts of the African Rhino ToC are explained in more detail in the section titled "African Rhino Theory of Change" above.
Investment Committee	The Investment Committee is the committee appointed by the RII to review and approve the African Rhino ToC developed for each site and to review and approve whether a site has reached Investment Readiness.
Investment Readiness	Investment Readiness is a specifically defined term within the context of RII. It is defined with reference to three key criteria, known as the Investment Readiness Criteria, and a site has reached Investment Readiness when the Investment Committee determine that the Investment Readiness Criteria have been met.
Investment Readiness Criteria	The three key criteria are explained in more detail in the section titled "Investment Readiness" above.
Investor(s)	Those providing the upfront investment to fund the interventions in the African Rhino ToC for each site. They are paid a pre-agreed return on that investment based on the achievement of the KPI.
Key Performance Indicator, or KPI	The RII KPI is the percentage of target net rhino growth rate achieved averaged over a five-year period. The RII KPI is an outcome metric. The KPI is explained in more detail in the section titled "Outcome Metrics and Key Performance Indicators" above.
Outcomes-based financing	Upfront investment is provided by investors motivated by financial return or return of capital and positive impacts. These investors are paid a pre-agreed return on their investment based on achieving pre-agreed outcomes. The outcomes-payers who return the investors' capital are entities motivated by the non-financial outcome, or impact, but they only pay if outcomes are delivered which ensures they are achieving value for money. An impact bond is a form of outcomes-based financing model.
Outcomes vs. Outputs	Outputs tell the story of what activities have been implemented but they do not address the *value* or *impact* of those activities. An outcome is the level of performance or achievement that occurred because of an activity. For example, in a conservation context, an output might be more rangers or more kilometres covered by rangers, but an outcome measurement would be more rhino, i.e. an output does not necessarily equate to an achieved outcome (more rangers does not necessarily mean more rhino).
Outcome-payer(s)	Those returning the investors' capital if the KPI is achieved.
Rhino Impact Bond, or RIB	The financial instrument developed from the RII (working name title only).
Rhino Impact Investment Project, or RII	The objective of the RII project is to transform conservation financing by demonstrating a scalable outcomes-based financing mechanism that directs additional private and public sector funds to improve the management effectiveness of priority rhino populations.

Above. Jeffries et al. *The Rhino Impact Investment Project: a new, outcomes-based finance mechanism for selected AfRSG-rated 'Key' black rhino populations.* pp. 88-95

Figure 1. A diagrammatic representation of the Rhino Impact Bond
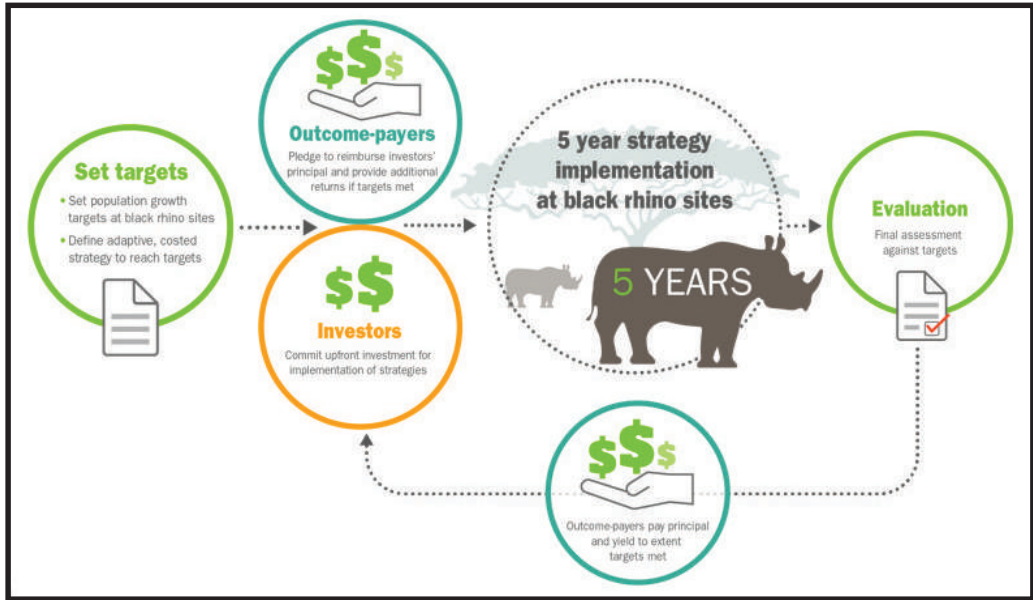
Centre and below. Ball et al. *What does it take to curtail rhino poaching? Lessons learned from twenty years of experience at Malilangwe Wildlife Reserve, Zimbabwe.* pp. 96-104

Centre left. Figure 2. During selection, candidates are challenged physically and mentally.

Centre right. Figure 3. Firearms training.

Below. Figure 4. Scout picket (Photos © *Mike B Ball*)