Dear Capacity4dev Team,

I am honored to serve as a brand ambassador for your esteemed platform. As the Solo Founder & CEO of The middle Road platform (www.themiddleroad.org), I am sharing a recent article that I published on my startup's portal. Please feel free to publish it on your network, as it will be immensely beneficial for your readers. It's part of our premium content on The Middle Road, but I'm happy to share it here.

I would have liked to include a couple of videos, and the links to these videos are provided below. Both videos are freely available on The Middle Road YouTube channel.

<https://www.youtube.com/watch?v=AxrDxoKkdro>

https://www.youtube.com/watch?v=zzinwra1b7U&t=22s

Please free to reach out at nishant@themiddleroad.org for any queries. I thank you.

Best

Nishant

[**The World Bank came out with a $150 million Wildlife Conservation Bond (WCB), the first of its kind globally. an impact-focused Sustainable Development Bond**](https://www.worldbank.org/en/news/press-release/2022/03/23/wildlife-conservation-bond-boosts-south-africa-s-efforts-to-protect-black-rhinos-and-support-local-communities)**to protect black rhinos in South Africa and support local communities.**This intense publication discusses the Wildlife Conservation Bond issued by the World Bank. An in-depth analysis of the bond discusses various facets of the new financial innovative instrument. Includes a small note on social impact bonds binary exotic option structure.

Structured as an impact bond, [**the Wildlife Conservation Bond**](https://www.worldbank.org/en/news/press-release/2022/03/23/wildlife-conservation-bond-boosts-south-africa-s-efforts-to-protect-black-rhinos-and-support-local-communities), WCB moniker Rhino Bond focuses on outcome-driven payment. It works like a development impact bond with the outcome payer, a non-government entity. The innovative financial instrument is part of blended finance to drive private capital for wildlife conservation and protection, focusing on protecting black rhinos in South Africa and supporting local communities. The bond proceeds' vital purpose is to increase the final rhino population growth rate with the [**Global Environment Facility**](https://www.thegef.org/), the largest trust-based multilateral fund investing in nature, as the outcome payer. The Wildlife Conservation Bond, a collaborative instrument, involves multiple actors through the public-private partnership model to enhance funding for conserving, preserving, and improving wildlife and the biodiversity-ecosystem. These partnerships are essential in co-financing to enhance private capital within the development sector.

**# South Africa in a nutshell**



South Africa, the third-largest economy in Africa, and a key emerging market globally registered a -6.43 percent growth rate in 2020 (OECD) due to the pandemic.

The economy rebounded to 4.9 percent in 2021 according to Statistics department of South Africa. The country relies heavily on mining precious metals like platinum, where it remains a global leader with more than 80 percent of global reserves. Tourism is a vital industry hit due to COVID-19. But the country consistently suffers from a high unemployment rate, with 12.8 percent of the youth unemployed. South Africa has a dismissal employment rate defined as the ratio of employed to the working-age population. The working-age population refers to people aged 15 to 64. This indicator is seasonally adjusted, and it is measured in terms of thousand persons aged 15 and over; and in numbers of employed persons aged 15 to 64 as a percentage of the working-age population. The annual consumer inflation stood at 5.7 percent 1, which is most likely going up due to high food prices. The country depends on multilateral's grants to solve complex problems within the development sector. Africa is the most youthful continent, with more people less than 30 years than any other continent, and unemployment remains one of the most significant problems. In such a situation, it's more dependent on attracting additional capital for human development work.

[**Infographic: Mobilizing Investors to Protect Endangered Rhinos | The World Bank site**](https://www.worldbank.org/en/news/infographic/2022/03/23/mobilizing-investors-to-protect-endangered-rhinos)

**#  Rhino Bond Blending All the Way**

Over the years, the population of rhinos has dwindled from a global population of 1,00,000 in 1960 to 5495 in 2017. Rhinos are a key species within the natural habitat as they protect other species and are a source of livelihood for humans residing in the surrounding ecosystem. Conserving black rhinos has many positive externalities; rhinos protect other species, enrich the biodiversity ecosystem for a richer flora and fauna, less carbon footprints etc. The impact instrument will create 2300 jobs, bring 15300 hectares under improved management and provide clean water and habitat for pollinators that support local citrus production. The Rhino Bond targets two wildlife-protected areas in South Africa – the Addo Elephant National Park (AENP) and THE Great Fish River Nature Reserve with proceeds marked for Park Managers to conserve, protect and grow the black rhino's population.  One of its kind, the payment of the bond depends on the final rhino population growth rate. [Issued by IBRD with a triple-A credit rating](https://www.worldbank.org/en/news/feature/2022/03/23/south-africa-pioneers-innovative-wildlife-conservation-bond-to-protect-black-rhinos-and-support-local-communities), structured by Credit Suisse, the sustainable development bond is backed by sustainable development bond principles. The bond has a higher rating than South Africa's sovereign rating, appealing to private investors, such as asset managers, endowment funds, etc. Graph: The middle Road.

The offering in financial jargon is like a structured financial instrument, a mix of capital protected and participation instrument. The capital guarantee is embedded in WCB. Financial participation securities have a variable interest or coupon linked to an underlying index example SOFR linked bonds. Financial institutions use zero-coupon bonds with embedded options to design capital-protected securities. A very innovative and exciting financial instrument, the Rhino Bond pays a balloon payment at the end of the tenure (principal + outcome linked income) rather than periodic coupon payments. The middle Road classifies these products under sustainable finance - sustainable bonds. At the same time, this financial instrument involves multiple actors or entities through a collaborative model e.g. outcome payer a non-government entity, evaluators. WCB has impact bond characteristics, to [**know more read about these bonds**](https://themiddleroad.org/impact-bonds-the-middle-road-insights/).

**Refer to the** [**Online Courses**](https://themiddleroad.org/onlinecourses/) **–**[**Fixed Income Securities Introduction**](https://themiddleroad.org/courses/fixed-income-securities-introduction/) **is free; impact evaluation and impact bonds are specialized courses.**

**Types of Sustainable Finance Bonds**

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**Implementors**: [**South African National Parks (SAN Parks),South African National Parks (SANParks), The Eastern Cape Parks and Tourism Agency (ECPTA)**](https://projects.worldbank.org/en/projects-operations/project-detail/P174097)

 "Activities supported by this bond aim to increase rhino population growth by 4% while also improving the management of over 150,000 hectares and providing over 2,300 jobs for local communities in and around both protected areas – a welcome boost in a region severely impacted by COVID-19," said Carlos Manuel Rodriguez, GEF CEO and Chairperson.

One of the critical strategic use of blended capital is to enhance funds in the development sector, especially in low and middle-income countries. To attract capital from the private sector, especially institutional investors, the idea of catalytic first loss capital evolved. Although mixed capital can include both concessional and non-concessional Finance, IFC deployed about $560 million of concessional development funds between 2010 and 2016 to support more than 100 projects in 50 countries. The data signifies the skew towards concessional finance as part of blending. Development Finance Providers take the first loss capital through guarantees, grants, insurance working as different ways of integrating capital for credit enhancement. The rise of impact investments globally will help structure new sources of finance and boost blended finance as a form of capital for addressing sustainable development goals. A lot will depend on how the rules and regulations support the emergence of innovation in the development space backed by sustained political goodwill.

**# Types of Blending Instruments**

**Development Finance Providers** take the first capital loss through guarantees, grants, insurance, tools used for blending capital for credit enhancement. Guarantees cover the first set of failures; Grants might include the first loss guarantee or capital deployment without repayment over a fixed time. Grants also have money for technical assistance for the completion of the project correctly to develop capacity and scale up the business model. While guarantees are the most widely used in blending capital, especially in infrastructure projects, more instruments include pay for success (social and development bonds, among others), securitization, hedging, and junior equity/ subordinated debt and collective investment vehicles. **Blended finance** will play a critical role in achieving Sustainable Development Goals (SDGs) by 2030. As we advance, there will be more synergies between Blended Finance and SDGs in the development sector. **Blended finance,**not to be confused with bending finance**,**is fast becoming an essential and potent tool for bridging the yearly **$3 trillion** gap to meet the[**UN Sustainable Development Goals (SDGs)**](https://sustainabledevelopment.un.org/?menu=1300) target by **2030**. Blended finance is not a panacea for the global development crisis. Still, it works as an innovative way to pool commercial capital to aid risk-adjusted return for development projects. The OECD defines blended finance as the strategic use of development finance to mobilize additional finance towards sustainable development in developing countries.

This is a defining change in the scope of blended finance from its work as various financial structuring instruments to its strategic use as a form of finance to eradicate social inequity.

 The means to attract additional capital for implementation of SDGs through governments, foundations, development finance institutions through concessional (soft loans with lower interest rates and/or longer repayment duration) or non-concessional resources or public or private relationships gives a defining new policy perspective to blended finance. The key objective of blended finance is to catalyze the implementation of Sustainable Development Goals globally. Blended finance offers private investors a first loss guarantee, mezzanine, or senior debt to cushion against potential losses with actors from the development space, i.e., donors, multilateral development banks, and development finance institutions taking equity first loss. Various instruments are used to mobilize capital like Shares in CIVs, Guarantees, Syndicate loans, credit lines, and direct investment in companies. The idea of catalytic first-loss capital evolved to attract capital from the private sector, especially institutional investors. Guarantees work in covering the first set of losses, while Grants might include a first loss guarantee or deployment of capital without any repayment over a fixed period. Grants also have money for technical assistance to complete the project, explicitly developing capacity and scaling up the business model. While guarantees are the most widely used in blending capital, especially in infrastructure projects, more instruments, including pay for success (social and development bonds, among others), securitization, hedging, junior equity/ subordinated debt, and collective investment vehicles, incorporated today. The[currency exchange fund (TCX)](https://www.tcxfund.com/) launched a currency exchange to buffer volatility through swaps and forward agreements to mitigate the risk of currency volatility in Africa. Many development institutions invest in the dollar or euro, which is converted into the local currency in Africa and open to currency risk. TCX removes the risk by absorbing any capital loss due to currency fluctuations, a massive deterrent for investors investing in Africa. Subordinate debt or junior equity is the first loss capital cushion, i.e., in case of adversity, they incur the losses. They are always next in line of cash flows to senior debt or common equity.

**Collective Investment Vehicles** include a structure that rewards cash flows in seniority, i.e., senior debt over subordinate debt or junior equity. Collective Investment Vehicles are designed as special purpose vehicles to attract the pool of capital from different actors, including development finance providers, foundations, endowment funds, high net worth people, and institutional investors, including pension and asset managers. Private equity funds loosely inspire collective investment vehicles' payback structure. The structure blends multiple cash flows into tranches depending on investors' risk appetite. The deal flows like a waterfall structure wherein senior debt or equity gets compensated before subordinated debt or junior equity. Coming to the waterfall, this structure is widely used in private equity in rewarding cash flows to investors, i.e., general partners and limited partners, including terms like preferred return, internal rate of return, carried interest, and catch up (Look into them later). The structure could have a mezzanine trance between senior trance and subordinate trance and has the second line to cash flows from the project. The senior tranche has an investment-grade rating for attracting institutional investors. This structure does not follow the usual risk-adjusted return compensation since private investors have a higher return cushion on the first loss from the project cash flows. This structure helps attract more capital through a preferred return to investors so development providers can diversify to more projects in low or middle-income countries.

**# Wildlife Conservation Bond Payment Structure**

Wildlife Conservation Bond (WCB) is a blended instrument to co-finance development activities with private wealth. The Issuer is [**IBRD**](https://themiddleroad.org/global-bytes/ibrd-and-sustainable-development-bonds-impact-report/) with The Global Environment Facility as the outcome payer. For example, The Global Environment Facility has mobilized $119 billion in co-financing for environmental initiatives in developing countries in the last 30 years. Structured by Credit Suisse, the financial instrument will have independent evaluators to calculate the rhino population growth over time. The bond is issued at a discount to its par value. The key performance indicator is the final rhino growth rate, the determinant of the performance linked to payment to investors at the end of the five-year bond. Conservation success payment is capped at 9.17 percent for outcomes more than 4 percent. For example, if the final rhino growth rate is 5 percent or 10 percent, the conservation success payment will be 9.12 percent of the bond's par value. The conservation success payment is a one-time payment paid at the end of the bond. The term sheet of the bond mentions the issuer will pay a Conservation Success Payment to Noteholders at maturity, which will be determined based on the rhino population growth rate in AENP and GFRNR over the term of the bonds. The maximum Conservation Success Payment is $13.76 million.  The SDG bonds are issued at 94.84 percent of the aggregate nominal amount; the rhino bond's conservation success payment is only principal if the growth rate is less than or equal to 0%. The payment structure is listed herein.

The bonds would be redeemed on par, i.e., the nominal amount or par value of $1000; the investors have the potential upside of $51.6 per $1000 in five years in the worst-case scenario with principal guarantee. This bond is designed partially like a bullet bond without any periodic coupon payment. The final payment is a balloon payment, which includes the principal amount and interest paid (pay for success outcome based) as a percent of the principal or nominal value. In this bond, the redemption amount would be the par value of the bond ($150 million) plus the conservation success payment depending on the rhino population growth rate. The bond is non-callable; investors do not have the flexibility to redeem the bonds before five years. This gives a lot of flexibility to strategize and implement interventions linked to outcomes. The steps are long term in nature, benefit both implementor's and investors for a mutual social good with measurable impact. The total return for investors would be the earnings through the discount of the bond 'plus the outcome payment. Since the bond is principal protected with the best investment-grade rating, these bonds have no risk of losing capital.

The outcome payment [**(the results focused grant by The Global Environment Facility)**](https://www.thegef.org/newsroom/blog/new-lifeline-wildlife-conservation-finance) could have high social and environmental risks owing to the efficacy of interventions employed for boosting black rhino growth. However, the risks could be limited as the fund is clearly targeting a moderate growth of 4 percent per annum with independent evaluators. Conservation Alpha is the calculating agent and Zoological Society of London the verification agent, with a professional backed team of wildlife experts designing, implementing and measuring interventions, the innovative structure looks promising and appetizing. Further, this is the first of its kind, giving a little comparison with peers; therefore, the added feature of principal guarantee is an excellent initiative to attract capital from pension and endowment funds. Classified as debt instruments, these structures' have many attributes of alternatives with outcome pay for success like social impact bonds. Therefore, they can have a wider appeal due to features tuned to various asset classes.

**# Impact Bonds Binary Call Options**

Impact Bonds have an outcome-driven payout structure and are of different types. Many don't have principal guarantee and this section is relevant for social and development impact bonds.  The outcomes of these impact bonds can be binary, although there are rewards for multiple outcomes at times. The prime reason for these results-based financing is to structure payout only if you have reached predetermined targets. Payout is not guaranteed but linked to an outcome. Although most of the impact bonds achieve success in their interventions, one of the biggest pitfalls of this instrument is that the key performance indicators could be easy to achieve.



Since impact bonds are outcome driven with no certainty of payment they work as a European Exotic Call Option like a Exotic Binary Call Option. Each periodic payment structured as a separate exotic call option dependent on strike price. Strike price equated to K which is the outcome.

Call options are contracts in which the holder has the right but not an obligation to buy an underlying asset at a pre-determined price. European call options are a type that can only be exercised at maturity. For example, you are bullish on Tesla Inc. stock. Anticipate the price is going to rise.

The stock trades at 555.38. You can buy a one-month option for a strike price of 560. If the stock goes higher than 560, you can make a profit minus the premium you pay for the option. Each lot of option has a fixed number of shares underlying the option. Call options are plain vanilla options, are standardized, and are traded on stock exchanges. Options on Tesla can be bought on the Nasdaq stock exchange. Exotic call options like binary options have a discontinuous payoff of all or nothing. Exotics are non-standardized options and are designed for specific needs. Usually, SIBs/DIBs are structured to reward only for meeting benchmark outcomes. These outcomes can be subdivided, i.e., sets of the outcome. Target 1 achieved payout 1; Target 2 achieved payout 2.

**#  Back to Wildlife SDG bond --Wrap Up**

The Wildlife SDG bond offers many features for increasing portfolio diversification and mitigating risk in portfolios. First, the bond is backed by [sustainable development bond framework](https://thedocs.worldbank.org/en/doc/43b360bfda1e6e5b8a094ef2ce4dff2a-0340012021/original/World-Bank-IBRD-Sustainable-Development-Bond-Framework.pdf), ESG compliant, and backed by a leading global multilateral. Its bond proceeds are directly addressing the UN SDG goals. Second, the instrument does not have an interest rate and reinvestment risk. Although a debt-based instrument, its outcome-based structure is unique, funded by a grant that does not correlate with global interest rates. They have no default risk but exposed to inflation risk. Third, the bond is less linked to global macro risk than other financial instruments across asset classes and more linked to the political risk within the country. An essential aspect of investment management as systemic risk cannot be diversified, and this product could have less potential systemic risk than other investment options. Finally, the bond proceeds to conserve, preserve and enhance mother nature, an excellent step for bettering biodiversity. This should be the fundamental in investing in these securities, for the greater good of the society. A small way of helping humanity, a promising innovation for roping private wealth within the social sector.

Our world needs to be protected, it's the duty of all humans to play a decisive role in nurturing and improving the biodiversity of Mother Earth. It's time to take the collective leap ahead.

The time has come to take a collective step in promoting positive externalities.

**The payout of the Rhino Bond | Source The World Bank; payment in percent approximated The middle Road**

[**Infographic: Mobilizing Investors to Protect Endangered Rhinos | The World Bank site**](https://www.worldbank.org/en/news/infographic/2022/03/23/mobilizing-investors-to-protect-endangered-rhinos)

**Suggested Reads from The middle Road**

* [Alternatives: Investment Strategies of Yale and Harvard Endowment Funds](https://themiddleroad.org/alternative-investment-strategies/)
* [What are Impact Bonds](https://themiddleroad.org/impact-bonds-the-middle-road-insights/)
* [First Humanitarian Impact Bond](https://themiddleroad.org/global-bytes/first-humanitarian-impact-bond/)
* [Mangrove Action Project Enabling Biodiversity](https://themiddleroad.org/episode-21-mangrove-action-project-enabling-biodiversity/)
* [Global Bond Market and Its Impact](https://themiddleroad.org/global-bond-market-and-impact/)

**Selected References**

* The World Bank | Wildlife Conservation Bond Boosts South Africa’s Efforts to Protect Black Rhinos and Support Local Communities
* [The World Bank | South Africa Pioneers Innovative Wildlife Conservation Bond to Protect Black Rhinos and Support Local Communities](https://www.worldbank.org/en/news/feature/2022/03/23/south-africa-pioneers-innovative-wildlife-conservation-bond-to-protect-black-rhinos-and-support-local-communities)
* [Project World Bank](https://projects.worldbank.org/en/projects-operations/project-detail/P174097)
* 1. Statistics South Africa
* 2. [South Africa - OECD Data](https://data.oecd.org/south-africa.htm)
* Department of Statistics South Africa
* GEF
* Making Blended Finance Work for the Sustainable Development Goals, Better Finance Better World
* Blended Finance Giving Voice to the private sector
* TCX fund.com
* Sustainable Banking: New Forms of Investing under the Umbrella of the 2030 Agenda

The read on Blended Finance is reposted through the publication on Impact Investing.

Disclaimer: The views expressed herein apart from the facts of WCB bond are of Nishant Malhotra. Kindly contact nishant@themiddleroad.org for any queries.