



# **Sustainable Development Finance and Investments in the Age of COVID-19**

## Theoretical and policy implications for Africa

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# Sustainable Development Finance and Investments in the Age of COVID-19

## Theoretical and policy implications for Africa

Jacob Park\*

### Abstract

As African countries try to strike a balance between their short-term governmental budgetary needs along with their long-term sustainable development goals (SDG) funding priorities amidst a global pandemic, this paper explores new and emerging models of SDG investment and finance and examines how these models might be applicable to the African context. After a review of the academic literature and analysis of three mini case studies (climate change investment & finance, conservation impact investment fund, and development impact bond), this paper examines two SDG-related investment and finance questions: Firstly, what types of policy and business mechanisms can most effectively catalyse and accelerate the financing, particularly private sector-support, of SDG priorities? Secondly, which financial mechanisms have the best potential for Africa in terms of applicability and suitability? To fully understand what role blended finance and other SDG finance mechanisms are likely to have in Africa's post-pandemic transformational future, this paper argues that the international community needs to deepen its understanding of three critical issues and questions: 1) the nexus of finance, innovation, and sustainable development in a non-WEIRD (Western, Educated, Industrialised, Rich, and Democratic) context; 2) what constitutes systematic and transformative (versus transient and incremental) innovation, and 3) the context for scalable triple nexus financing solutions.

**Keywords:** Africa, blended finance, impact investment, sustainable development finance

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## 1. Introduction: Framing the problem

Kafue National Park<sup>1</sup> in Zambia might be a good starting point to understand how Africa and the issues of COVID-19 and sustainable development intersect in the year 2021. As one of the largest protected areas in Africa, Kafue National Park is a beautiful collection of rivers, woodlands, teak forests, and open plains home to hundreds of rare bird species and mammals, including lions, cheetahs, and leopards. Despite such problems as poaching, habitat fragmentation, and the loss of connectivity to other nearby ecosystems, wildlife tourism efforts in recent years have encouraged the local communities around the national park to see animals as an economic asset rather than as a threat to their wellbeing, while philanthropic grants from the U.S. and Europe provided funding to protect conservation zones. When the COVID-19 pandemic arrived in Zambia, however, the economic impact was immediate. The tourist economy just vanished overnight, and poachers were able to enter the Kafue National Park without worrying about being detected. Bushmeat poaching problems exploded within Kafue's conservation zones, with the amount of bushmeat seized by rangers increasing from about 100 pounds in 2019 to more than 3,300 pounds in 2020 (Nuwer, 2020).

The global tourism sector accounts for more than US\$ 8 trillion worldwide and about 10% of the global jobs, while wildlife tourism generates more than US\$ 29 billion and employs 3.6 million people in the case of Africa. Due to COVID-19, it is estimated that 90% of African tour operators have experienced a 75% or greater decline in their bookings, and some have experienced almost a 100% drop in their revenue (Lindsey, et al., 2020). Beyond the economic impact on local communities and the budgets of national governments, such a dramatic decline in tourism revenue poses a critical threat to Africa's conservation and environmental sustainability efforts since tourism revenue, along with donations and development aid, account for nearly all the funding resources for the continent's 7,800 terrestrial protected areas. Even before the COVID-19 crisis, tourism revenue and development aid did not adequately finance the conservation needs of African parks and reserves, with 90% of the nearly 300 protected savannah ecosystems in Africa facing a collective deficit of at least US\$ 1 billion and representing more or less "paper parks" or areas designated for conservation solely in name (Lindsey, et al., 2018).

Wildlife tourism represents an important economic sector for many African countries, but it is not the only African industry that has been negatively impacted by the COVID-19 pandemic. According to the UN Initiative on Financing for Development in the Era of COVID-19 and Beyond (2020), as the result of the global pandemic crisis, the world's gross domestic product is estimated to decline by 4.9%, foreign direct investment 40%, and remittances 20% respectively in 2020, and as a result, African governments are likely to be confronting a short-term financing gap of at least \$44 billion in 2020 (Selassie, 2020). Looking beyond the short-term economy at the sustainable development goals (SDG) financing gap within the context of sub-Saharan Africa, the region's annual additional

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<sup>1</sup> Kafue National Park, <https://www.zambiatourism.com/destinations/national-parks/kafue-national-park>

spending requirements are estimated to be 24% of the continent's GDP or about \$420 billion<sup>2</sup>. What makes this financing gap such an economic challenge for many African countries is that over 20 of the 54 African countries are in or at a high risk of debt distress (Gaspar, et al., 2019).

Although more than a third of the required financing for African SDG needs was expected to come from the private sector, the actual contributions from the private sector have so far been significantly smaller, at only 4-8% (Brookings, 2020a). The task African countries face in trying to strike a balance between their short-term governmental budgetary needs along with their long-term SDG funding priorities is even more challenging amidst a global pandemic. This paper explores new and emerging models of SDG investment and finance and then examines how these models might be applicable to the African context. By reviewing the academic literature and analysing three mini case studies, the following two questions are examined:

- *What types of policy and business mechanisms can most effectively catalyse and accelerate the financing, particularly private sector-support, of SDG priorities?*

There is a key emphasis in this paper on the concept of “blended finance”, which can be defined as “catalytic capital from public or philanthropic sources to increase private sector investment in sustainable development”<sup>3</sup>. According to the OECD, blended finance is the “strategic use of development finance for the mobilisation of additional finance towards sustainable development in developing countries” by mobilising “commercial capital towards projects that contribute to sustainable development, while providing financial returns to investors”<sup>4</sup>. Blended finance encompasses a range of approaches that mix private and public sources to achieve a specific social and environmental impact (e.g. development impact bonds) while achieving market return for investors and risk mitigation for investments in developing countries.

- *Which financial mechanisms have the best potential for Africa in terms of applicability and suitability?*

Goal 17 of the United Nations Sustainable Development Goals (SDGs) states that “a successful sustainable development agenda requires partnerships between governments, the private sector and civil society” and that “urgent action is needed to mobilize, redirect and unlock the transformative power of trillions of dollars of private resources to deliver on sustainable development objectives”. This paper examines how Africa as a region can best utilise blended finance mechanisms to “mobilize, redirect, and unlock the transformative

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<sup>2</sup> According to UN (2014), the pre-pandemic annualised global SDG financing gap was estimated to be \$2.5 trillion.

<sup>3</sup> Convergence (2020). Blended Finance Primer. Retrieved November 22, 2020, from <https://www.convergence.finance/blended-finance>.

<sup>4</sup> OECD <https://www.oecd.org/dac/financing-sustainable-development/blended-finance-principles/>

power (...) of private resources to deliver on sustainable development objectives” (UN 2017) as well as to serve potentially as market-based financial solutions to the COVID-19 health crisis.

## 2. Background

### 2.1. Theory and practice of finance, innovation, and market development

The global capital market, which consists of the \$95 trillion equities and \$105 trillion fixed income or bonds, among others, is one of, if not the largest economic sector in the world (SIFMA, 2020). While modern financial instruments such as mortgage-backed securities, pension funds, and mutual funds can be traced to 18th-century Netherlands (Rouwenhorst, 2016), the actual theoretical framework of finance and innovation did not materialise until Joseph Schumpeter placed finance at the centre of his theory of innovation in 1939. Modigliani and Miller elaborated on the relationship between finance and innovation in 1959, while Hall and Lerner (2009) highlighted the roles of the public governmental sector and private venture capital markets in fostering innovation (Mazzucato & Semieniuk, 2018).

Recent literature on finance, innovation, and market development has a more explicit focus on social norms and community development. According to Flora and Flora (1993), the finance, innovation, and market development nexus contains three important community dimensions: (1) symbolic diversity, that is, to the degree that community-level orientation turns toward inclusiveness; (2) resource mobilisation, that is, communities need to localise their resources (e.g., local food production), and (3) quality of linkages (particularly information) in formal and informal community networks. Sharp and Flora (1999) and Fortunato and Clevenger (2017) argue that community embeddedness and collective action play an important role in economic development, while Klinenberg (2018) underscores the importance of “social infrastructure”, which he defines as the physical spaces and organisations that shape the way people interact (e.g., libraries, playgrounds, churches, cafés, community gardens), in building community social capital and economic development.

Given the centrality of the role the financial market plays in business sustainability, there has also been active academic scholarship on the role the financial market plays in both undermining and enhancing sustainable business practices. Pressure from financial markets can undermine business sustainability efforts (Bansal & DesJardine, 2014) by shrinking the investment horizons of managers (DesJardine & Bansal, 2019) and discouraging firms to invest less in long-term corporate social responsibility practices (David et al., 2007). However, the rapid increase in capital flows into sustainable investing on the global level has led to the exploration of how investment firms integrate environmental, social, governance (ESG) data (Arjaliès & Bansal, 2018), how key considerations in sustainable investing evolve over time (Dumas & Louche, 2016), and how the rise of sustainable investing varied between countries (Yan et al., 2019).

Over the past decade, the most influential voice in connecting finance, innovation, and the market development, particularly in terms of integrating public sector and private capital to accelerate an innovation ecosystem, may be Mariana Mazzucato, Professor in Economics of Innovation & Public Value at University College London, with her analysis of “innovation-led smart growth (...) that requires long-run strategic investments and public policies that aim to create and shape markets, rather than just ‘fixing’ failed markets” and “not only ‘de-risk’ the private sector, but also to the creation of new technological opportunities and market landscapes” (Mazzucato, 2016, p. 140). As Mazzucato (2013, p. 1) observes: “Never before than today is it necessary to question the role of the State in the economy – a burning issue since Adam Smith’s *An Inquiry into the Nature and Cause of the Wealth of Nations*. Business is accepted as the innovative force, while the State is cast as the inertial one – necessary for the ‘basics’, but too large and heavy to be the dynamic engine.”

## 2.2. Enabling future finance, innovation, and sustainable development research to be less WEIRD

In his book, *The Bottom Billion: Why the Poorest Countries are Failing and What Can Be Done About It* (2007), Paul Collier explores how one billion people in 60 different countries (most of which are concentrated in sub-Saharan Africa) are caught in what he describes as “development traps,” most visibly in countries with extensive oil & gas, mining, and other resources, and links the resource curse and institutional corruption dilemmas to these traps. I highlight the Bottom Billion book because it represents a rare scholarship that does not fall into the trap of trying to make reductionist conclusions in terms of international development across diverse socio-economic and institutional settings packaged together as “frontier economies” or something similar. The one thing these frontier economies arguments often share is that they are countries located outside of North America and the European Union, even though one argument can be generalising from a country as small in terms of population as Singapore (5.6 million) or as large as China (1.4 billion). Due to the complex panoply of diverse cultural and institutional contexts, trying to provide an analytically dense frame from which to examine “Africa” remains a challenge.

In an article published in the Behavioral and Brain Sciences Journal, Henrich, et al. argue that “behavioral scientists routinely publish broad claims about human psychology and behavior in the world’s top journals based on samples drawn entirely from Western, Educated, Industrialized, Rich, and Democratic (WEIRD) societies. Researchers – often implicitly – assume that either there is little variation across human populations, or that these ‘standard subjects’ are as representative of the species as any other population ... The findings suggest that members of WEIRD societies, including young children, are among the least representative populations one could find for generalising about humans.” (2010a, p. 61). A 2008 survey of the top psychology journals, for instance, found that 96% of the subjects were from Western industrialised countries, which only account for 12% of the world’s population (Henrich, et al., 2010b). Of course, this is not something unique to the fields of behavioural sciences, international management, or development economics. Enabling research to be less WEIRD is and remains a critical scientific methodological problem in many management, legal, and social & behavioural sciences disciplines.

### 2.3. Finance, innovation, and market development: implications for Africa

In their book, *Theory from the South: or, How Euro-America is Evolving Toward Africa* (2012, p. 1), Comaroff & Comaroff observed that “Western enlightenment thought has, from the first, posited itself as the wellspring of universal learning, of Science and Philosophy, uppercase; concomitantly, it has regarded the non-West – variously known as the ancient world, the orient, the primitive world, the third world, the underdeveloped world, developing world, and now the global south – primarily as a place of parochial wisdom, of antiquarian traditions, of exotic ways and means.” Furthermore, “(...) what if (...) we invert that order of things? What if we subvert the epistemic scaffolding on which it is erected? What if we posit that, in the present moment, it is the global south that affords privileged insight into the workings of the world at large?”

In terms of the academic management literature, however, there remains a major gap in terms of Africa-based management research (George, et al., 2016). *Theory from the South* and other forms of Africa-based scholarly research has not yet fulfilled its potential to contribute to the innovation and broader business management literature (Kolk & Rivera-Santos, 2016). Although there is an emerging management and social sciences scholarship on inclusive market development (Mair, et al., 2012), frugal innovation (Numminen & Lund, 2017; Weyrauch & Herstatt, 2016), sustainable business model development (Bocken, et al., 2014), and grassroots innovation (Seyfang & Smith, 2007), management research on innovation, finance, and market development in the context of Africa continue to be underdeveloped.

## 3. Main focus of the paper

### 3.1. Blended financing approaches to sustainable development priorities

Institutional failure to provide adequate financial support for global climate change or some other sustainable development priority is a long-standing tradition of the United Nations and other international organisations. At the 1992 U.N. Conference on Environment and Development (UNCED), more popularly known as the Earth Summit, the late Maurice Strong, the UNCED Secretary-General, defined one of the “success” markers at the international environmental conference “as a minimum of an extra \$10 billion a year of ‘new money’ from Western countries to finance summit commitments in the Third World” (Pearce, 1992, p. 4).

While mechanisms for additional funding were announced at UNCED, including the launch of a new financing mechanism (e.g., the Global Environment Facility), only about \$2 billion in “additional” funding were allocated, far short of the \$125 billion extra funding (beyond existing development assistance funding levels) that was needed (Davidson, 1992). Although there has always been a gap between what the international community needs and what the international community has available in terms of resources, there is an unsustainable disconnect in the international community’s financial commitment to meet the goals of the Paris Climate Agreement (\$12 trillion over the next 25 years) and sustainable development goals (SDGs) – an estimated gap of \$2.5 trillion in financing in



annual terms between 2015 and 2030 (UN, 2014).

Such gaps between the international community’s needs and resources have brought much attention to the issue of “blended finance” or what InterAction, a Washington DC-based international developing network, describes as “innovative finance for development” (IF4D). According to InterAction, IF4D represents “any mechanisms beyond a traditional grant that mobilizes new capital and/or improves the efficiency or effectiveness of existing capital to tackle social and environmental problems” (Mandaville & Cordoba, 2019, p. 17). Although there are small conceptual differences, blended finance and IFAD are used interchangeably in this paper.

### 3.2. Typology of blended finance mechanisms

In table 1 (below), some of the commonly used blended finance mechanisms are described. In relation to the list of blended finance mechanisms (Mandaville & Cordoba, 2019), three mini case studies focusing on 1) climate change investment & finance; 2) conservation investment fund; and 3) development impact bond will be analysed in terms of how blended finance mechanisms can be operationalised to finance sustainable development and COVID-19 health solutions in the context of Africa.

Table 1: Select list of blended finance mechanisms.

<b>Mechanisms</b>	<b>Description</b>	<b>Examples</b>
<b>Awards and prizes</b>	A type of results-based approach which provides a financial reward for the delivery of a development solution in a competitive selection process.	* The Keeling Curve Prize * Nestle Prize
<b>Concessionary Loans</b>	Loans extended on terms substantially more generous than market loans. The concessionality is achieved either through interest rates below those available on the market or by grace periods, or a combination of these.	* MyC4.com
<b>Crowdfunding</b>	The practice of funding a project or venture by raising monetary contributions from a large number of people and leveraging their networks for greater reach and exposure.	* Kiva * Kickstarter
<b>Debt Swaps/ Buy- Downs</b>	The process normally involves a foreign nongovernmental organisation (NGO) that purchases the debt from the original creditor at a substantial discount using its own foreign currency resources and then resells it to the debtor country government.	* Debt2Health * World Bank’s IDA buy-down
<b>Development/Social Impact Bonds</b>	Impact Bonds provide upfront funding for social programs by private investors, who are remunerated by donors or host-country governments and earn a return if evidence shows that programs achieve pre-agreed outcomes.	* Educate Girls development impact bond

<b>Direct Equity</b>	Generally refers to a situation whereby a company/organisation takes an ownership interest or stake in a socially driven business or social enterprise.	* Mercy Corp's Social Venture Fund
<b>Advance Market Commitments</b>	Donors commit funds to guarantee the price of a product once it has been developed, providing manufacturers with the incentive to invest in product research and development.	* AgResults * Various COVID-19 vaccine development efforts currently underway
<b>Bonds (to fund development projects)</b>	A debt investment in which an investor loans money to an entity (typically corporate or governmental) that borrows the funds for a defined period of time at a variable or fixed interest rate. Bonds can be used by companies, municipalities, states, and sovereign governments to raise money and finance a variety of projects and activities.	* World Bank Green Bonds
<b>Insurance</b>	The insurance transaction involves the insured assuming a guaranteed and known relatively small loss in the form of payment to the insurer in exchange for the insurer's promise to compensate the insured in the event of a covered loss.	* Index-based weather insurance for smallholder farmers
<b>Microfinance Investment Funds</b>	These take on various legal forms but serve the same main purpose of channelling an increasing source of funding to micro-entrepreneurs via Microfinance Institutions (MFIs) established in developing countries.	* Triodos Microfinance Fund * Accion Venture Lab
<b>Performance-Based Contracts</b>	Results-oriented contracts that tie at least a portion of a contractor's payment to the achievement of specific, measurable indicators linked to outputs, quality, or outcomes.	* Health Results Innovation Trust Fund * Global Partnership on Output-Based Aid
<b>Impact investment</b>	Impact Investment Funds are investment vehicles that are structured and funded to target a specific sustainability challenge, often blending investors with different risk and return profiles.	* Acumen Fund

Source: Adapted from InterAction (2019) Innovative finance for development: A snapshot of InterAction members' IF4D activities (p. 13-14).

### 3.2.1. Mini Case Study: Climate Change Investment & Finance

Climate change finance can be categorised into two major types: adaptation or mitigation. Adaptation describes “actions that countries will need to take to respond to the impacts of climate change that are already happening (...) (as well as future actions) (...) that can reduce our vulnerability to climate change impacts (e.g., investing in flood prevention practices)” (UNFCCC, 2018a). Mitigation refers to actions that directly decrease “the amount of emissions released into the atmosphere” and indirectly reduce “the current concentration of greenhouse gas emissions by enhancing sinks (e.g. increasing the area of forests)” (UNFCCC, 2018b).

While both of these climate change finance types are important, there is an important difference in terms of flows, geography, and impacts of climate change mitigation versus

adaptation finance. In 2016, 93% of the total climate finance flows of US\$ 383 billion went to fund climate change mitigation activities, with 74% of the mitigation investments going to renewable energy generation projects. By comparison, only 7% of the US\$ 383 billion in 2016 climate finance flows went to adaptation activities (Oliver, et al., 2018).

According to the UN Environment Adaptation Gap Report (2016), the costs of adapting to climate change in developing countries could rise to US\$ 280-500 billion per year by 2050, a figure that is four to five times greater than previous estimates in 2010. Due in part to the worsening effects of climate change in the developing world, the cost of adapting to climate change may range between US\$ 140 and US\$ 300 billion per year in 2030, and between US\$ 280 and US\$ 500 billion per year in 2050.

Looking at the implications for African adoption and scaling, Baarsch, et al. (2020) conclude that the majority of African countries have already experienced average annual losses induced by climate variability of between -15-10% in GDP per capita growth over the 1986-2015 period, while there is growing consensus that Africa's economic priorities will not be achieved without greater investments in deepening climate change and sustainability actions (FSD Africa, 2020).

While there are many current and emerging African regional green finance platforms and initiatives led by Financial Sector Deepening (FSD) Africa<sup>5</sup>, African Development Bank<sup>6</sup>, and other development finance institutions, there is a major shortage of Africa-focused climate change blended finance instruments, as well as a particularly large gap in terms of Africa-focused climate change blended finance instruments (e.g. insurance and risk management) that address adaptation issues in economically insecure rural communities in African countries. Even within the context of the climate-vulnerable developing world, African countries remain the most vulnerable to the impacts of climate change as well as most in need of financial support to strengthen the local resilience to climate change (Soanes, et al., 2017).

### 3.2.2. Mini Case Study: Conservation Impact Investment Fund

Over the past decade, scientists have concluded that an unprecedented extinction and loss of biodiversity is underway, and there are real dangers that the planet will lose critical ecosystems and their services such as pollination, and pest and disease control (IPBES, 2019). Ceballos, et al. (2015) conclude that the extinction rate among terrestrial vertebrate species is significantly higher than prior estimates, and that scientists know of 543 species lost in the last 100 years, a tally that is estimated to normally take 10,000 years to occur without human intervention. Consequently, many scientists and policy makers are arguing for a different type of approach to global conservation: "transformative conservation", which can be defined as "conserving biodiversity while justly transitioning to net negative emissions economies and securing the sustainable and regenerative use of natural resources" (Fougères, et al., 2020, p. 2).

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<sup>5</sup> FSD Network Green Finance Strategy Development, <https://www.fsdafrica.org/jobs-opportunities/fsd-network-green-finance-strategy-development>

<sup>6</sup> African Development Bank Green Climate Fund, <https://www.afdb.org/en/topics-and-sectors/initiatives-partnerships/green-climate-fund>

To help fund this new concept of transformative conservation, there are current and emerging models of conservation and blended finance mechanisms, including forest resilience bonds (pay-for-performance mechanism for private investors to invest in forest restoration and increase water outputs in drought-prone areas) and land degradation investment funds (financial mechanisms that invest in profit-generating sustainable land management and land restoration projects).

A good recent example of a conservation investment fund model is the IUCN (International Union for Conservation of Nature and Natural Resources) Nature+ Accelerator Fund, a conservation impact fund launched in November 2020 that seeks to provide conservation and social benefits while delivering financial returns for investors. With US\$ 8 million in financing from the Global Environment Facility, the Nature+ Accelerator Fund<sup>7</sup> is aiming to eventually grow to a US\$ 200 investment portfolio with early-stage investments in marine conservation and coastal resilience, sustainable marine agriculture, and ecosystem conservation and restoration.

While the launch of the Nature+ Accelerator Fund and other conservation investment funds is good news, at least in the short term, very little of this conservation and biodiversity financial capital is likely to be invested in a country in Africa or some other developing country regions. Although the social and environmental benefits are likely to be equal, if not higher, than projects based in North America and Europe, the investment returns in typical African conservation and biodiversity projects are not likely to be high enough to offset the investment risks.

There is already a significant annual global conservation and biodiversity financing gap (estimated to be US\$ 711 billion by the Paulson Institute; even though the current financial flows into global biodiversity conservation in 2019 (estimated to be between US\$ 124 and US\$ 143 billion is a near-tripling of the financial flows in 2012 (Paulson Institute, 2020). The international community would need to design and develop 50 to 100 times the number of Nature+ Accelerator Funds every year over the next ten years to effectively meet the annual US\$ 598 billion to US\$ 824 billion global conservation and biodiversity investment capital gap.

### 3.2.3. Mini Case Study: Development Impact Bond

To more effectively address the socio-economic problems confronted by marginalised tribal women in India, ChildFund India, a Bangalore, India-based nongovernmental organisation, designed, developed, and launched the WHEEL (Women Holistic Enhancement and Empowerment Livelihood) development impact bond<sup>8</sup> to provide financial and organisational support to 1,000 women and their families in the Indian states of Maharashtra and Madhya Pradesh.

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<sup>7</sup> Additional information about the IUCN Nature+ Accelerator Fund can be found here: <https://www.iucn.org/theme/nature-based-solutions/initiatives/nature-accelerator-fund>

<sup>8</sup> I served as an innovative finance adviser for ChildFund International & India on the design of this development impact bond project in 2018-2019.

The WHEEL impact Bond is designed to help the most marginalised tribal women in these two Indian states to become self-reliant and empowered by training them to become poultry farmers and micro-entrepreneurs. The WHEEL development impact bond is designed to enable 1,000 female poultry micro-entrepreneurs to attain an average annual income of INR 30,000 (or US\$ 406 as of November 24, 2020) and to create an impetus towards achieving sustainable development goal number 5 (achieve gender equality and empower all women and girls) (ChildFund India, 2020).

The need to help and support female economic empowerment in India represents one of the most critical sustainable development priorities since the country has one of the lowest female labour force participation rates in the world, with social norms and the lack of education/vocational skills continuing to constrain women from accessing livelihood opportunities. As a result, women in India, particularly in rural communities and those living in tribal communities, lack the necessary agency and voice to positively influence their own and their families' livelihoods (ChildFund India, 2020)

COVID-19 has also put a spotlight on migrant workers' precarious working conditions when a sudden pandemic lockdown in March 2020 left many workers jobless and forced workers and their families to walk hundreds of kilometres to their native villages. Migrant labourers in India have traditionally been vulnerable to unfair labour practices, which represents a critical socio-economic and systematic poverty concern in India since an estimated 450 million internal migrant workers make up 92% of the country's workforce (Roy, 2020).

Similar to what is often described as a social impact bond in the U.K., U.S., and Australia, the WHEEL financial instrument is a development impact bond (see appendices, figure 1 and 2) that uses an outcome-based financing model in which an investor (e.g. government agency, private investors, foundation) agrees to provide the necessary investment capital for a specific social/market intervention and the outcome funder (e.g. government agency, private investor) agrees to repay the investor only if agreed-upon outcomes are achieved (Brookings, 2020b). Unlike grants and other forms of traditional development assistance, the development impact bond is designed, in theory, to incentivise the process to better link financial transfer to a specific impact or outcome.

Under the best of circumstances, designing and implementing a development impact bond project like WHEEL represents a very difficult project management process since the payment is tied to a specific impact or an outcome to be achieved at some future point. There is some preliminary evidence that development impact bonds and other forms of blended finance instruments can have a positive impact on poverty reduction and sustainable livelihood issues in the developing world context (Development Initiatives, 2019). However, it is difficult to say anything about the overall impacts of developing impact bonds on sectors outside of education due to the limited number of impact evaluations and peer-review research carried out on their long-term outcomes.

Moreover, as in many developing countries, the global pandemic has had a devastating impact on India's economy and the socio-economic development impact on the country's self-employed, casual labourers, and working poor. India's economy declined 24% from

April to June 2020, the worst decline among the world's largest economies (Agarwal & Bellman, 2020), while 140 million people have lost jobs, pushing the unemployment rate up to 26% from 8% before the crisis (Kazmin & Singh, 2020). Unless these pandemic socio-economic circumstances change, it is doubtful that there will be a receptive market for a development impact bond experiment in Africa or anywhere in the developing world.

#### **4. Improving the understanding of the role blended finance plays in Africa's post-pandemic transformational future**

To fully understand what role blended finance and other sustainable development finance mechanisms are likely to have in Africa's post-pandemic transformational future, we need to better understand three issues and questions: 1) the nexus of finance, innovation, and sustainable development in a non-WEIRD context; 2) what constitutes systematic and transformative (versus transient and incremental) innovation, and 3) the context for scalable triple nexus financing solutions.

##### **4.1. Understanding the nexus of finance, innovation, and sustainable development in a non-WEIRD context**

Ravi Gurumurthy, chief executive officer of Nesta, a London-based foundation that focuses on innovation issues, asked a question in a blog post that is often asked, but one that is rarely explored with any depth: what makes a good innovation? According to Gurumurthy, we need to be able to demonstrate that a certain solution adds true value to what already exists within a given field. Second, we need to ask if the solution has been reviewed through a proven, rigorous evaluation process. Third, we need to know if the solution has a credible route to large-scale adoption? Finally, and most importantly, we need to know if the solution focuses on outcomes that will substantially benefit society and address the real needs of people (Gurumurthy, 2020).

It is Gurumurthy's fourth observation about improving the understanding of innovation that benefits society and people within non-WEIRD societies that represent the truly most pertinent point in the context of this paper. Many social, environmental, and cross-sector innovation models are well known (e.g. microfinance, clean cookstoves). However, what is less known is how finance and investment instruments can be catalysed to replicate and scale these models in a wide range of non-WEIRD societal contexts. We understand the important role that investment and finance have played in accelerating SDG innovation and market development in the U.S., Canada, Denmark, and other OECD countries. We just need to have a better understanding of how investment and finance can replicate and scale SDG innovation and market development in Nigeria, Liberia, Gambia, and other African countries.

##### **4.2. Understanding what constitutes systematic and transformative innovation**

Understanding the process of innovation has been a core concern among economists and management scholars (arguably) for centuries, but there are still many aspects of the innovation process academics still do not fully understand. Traditional academic framing of

“cutting edge” innovation research tends to de-emphasise what Love and Kammen (2015) describes as “mundane science”, which they define as the study of policies that have the “greatest impact on the environment of everyday life” (Kammen & Love, 1997 p. 10). Traffic congestions, for instance, might not be solved by “chasing the newest shiny smart-city technology” (Saxe, 2019, p. A31) like autonomous vehicles.

Another understanding gap centres on what Rebecca Henderson describes as the challenge of “systematic” innovation. As suggested by Henderson (In Press), deploying renewable energy at scale, for instance, requires expertise on specific renewable energy like solar power. Doing this also requires additional knowledge of the power distribution grid itself, “a task that is both highly technical (...) and simultaneously deeply political” since it requires rethinking the nature of regulation”.

Case in point: the “innovative” components of the Nature+ Accelerator Fund and other conservation investment funds are likely to lead to the accelerated financing of and investments in ecological conservation efforts in Africa. However, in viewing the Nature+ Accelerator Fund example on a system level, it is important to reflect on how many new and additional Nature+ Accelerator Fund-type instruments need to be designed and launched every year over the next ten years to meet the US\$ 598 billion to US\$ 824 billion annual gap in anticipated global conservation and biodiversity investment capital requirements.

#### 4.3. Understanding the context for scalable triple nexus financing solutions

According to Jessica Alexander (2020), the total spending in the global humanitarian sector has increased more than twelve-folds to US\$ 24 billion between 2010 and 2019. Despite this sharp increase in funding, the humanitarian sector still does not yet have a good sense of “the impact that they had on people, and what change they brought really meaningfully to people's lives” even as outputs (“how many tents we delivered, how much water we provided, how many trainings we've offered”) are carefully documented (Alexander, 2020). Simply calling for more investments in economic and social development is unlikely to change the current situation in which short-term crisis responses continue to be prioritised over long-term investments in humanitarian operational infrastructure (Moreira da Silva & Rosand, 2019).

To address this policy gap in the humanitarian sector and to foster a more integrated international response from governments, civil society, and the private sector, Tanner, et al. (2016) argues that a new approach is needed to enhance the business case for investments in building resilience by unlocking development potential by stimulating economic activity and reducing disaster-related investment risks. Moreover, there is an increasing call for a new model of a humanitarian-development-peace nexus or the “triple nexus”, which envisions stronger collaboration among actors from the fields of development cooperation, humanitarian action, and peacebuilding (Zamore, 2019).

Whereas the “triple nexus” problem may be well established, the challenge of how best to finance and accelerate funding to address the triple nexus problem continues to be an international development dilemma. Fortunately, there is growing evidence that

development impact bonds (e.g., the WHEEL bond) and other forms of blended finance instruments might have a positive impact (Development Initiatives, 2019) on a wide range of “triple nexus”-related sustainable livelihood issues in the developing world. In the case of the African community health sector, development impact bonds might be used to scale the efforts and accelerate the impact of a social venture like the Last Mile Health<sup>9</sup> and initiatives like the African Collaborative for Health Financing Solutions<sup>10</sup>.

## **5. Conclusion: Africa’s post-pandemic sustainable development finance and investment narrative**

If the Kafue National Park in Zambia represents a good starting point to understand how Africa and the issues of COVID-19 and sustainable development intersect in the year 2021, COVAX, which is an abbreviation of COVID-19 Vaccines Global Access, might be one of the best examples to understand how Africa and the issues of COVID-19, sustainable development, and blended finance are linked in 2021 and beyond. COVAX, which was established as an institutional partnership between the World Health Organization (WHO), the Coalition for Epidemic Preparedness Innovation (CEPI), and the Global Alliance for Vaccines and Immunization (GAVI), seeks to accelerate the development and manufacture of COVID-19 vaccines and to provide “fair and equitable” access for every country in the world<sup>11</sup>.

Of course, the critical question might be: who and how do we define “fair and equitable” access? COVID-19 vaccines purchasing agreements outside of the COVAX framework show that a number of high-income countries (most notably, the U.S., Canada, and the European Union) have already purchased billions of doses and are in a position to vaccinate their entire populations by the summer of 2021. By contrast, even vulnerable health care professionals in poorer countries in Africa are likely to remain unvaccinated until 2023 or 2024. Ethiopia, Africa’s second-largest country, is counting on COVAX for enough vaccines to cover 20% of its population and does not have the resources to secure additional doses (Hodges, 2020).

It should be noted, however, that COVAX uses a blended finance instrument called Advanced Market Commitment (see table 1 above) to accelerate the development and distribution to 92 low and middle-income countries<sup>12</sup> around the world, encompassing virtually all countries in the African continent. As of March 30, 2021, COVAX shipped 32.9 million vaccine doses to 70 mostly low and middle-income countries and is on track to deliver 2 billion doses on or by the end of 2021. Most of those shipments were donations to lower-income countries. At the same time, the 32.9 million vaccine doses delivered to low and middle-income countries represent just 6% of the 564 million doses that have been administered worldwide. Moreover, 86% of the shots that have been administered

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<sup>9</sup> <https://lastmilehealth.org>

<sup>10</sup> <https://acs.r4d.org>

<sup>11</sup> A brief background on COVAX can be found here <https://www.who.int/initiatives/act-accelerator/covax>

<sup>12</sup> The complete list of the 92 low income and middle countries can be found here via this link:

<https://www.gavi.org/news/media-room/92-low-middle-income-economies-eligible-access-covid-19-vaccines-gavi-covax-amc>



worldwide have taken place in high- and upper-middle-income countries. Only 0.1% of the doses have been administered in low-income countries (Collins and Holder, 2021).

By the time COVAX was able to deliver its initial batch of COVID-19 vaccines to the first group of countries in Africa (Ghana and Côte d'Ivoire) in the first week of March 2021, the U.S. and other high-income countries used the Advanced Market Commitment instrument to secure COVID-19 vaccine supplies for their respective citizens. As highlighted in the three mini case studies, if properly designed and implemented, there is strong evidence that blended finance instruments can help accelerate the financial resources towards SDG priorities in the developing world as well as scale COVID-19 vaccine distribution to low and middle-income African countries. What blended finance cannot do is to magically undo centuries of unjust and unequal business practices of a global finance and investment system whose default setting reinforces the OECD countries' economic advantages over African countries' health and sustainable development needs.

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## Appendices

Figure 1.

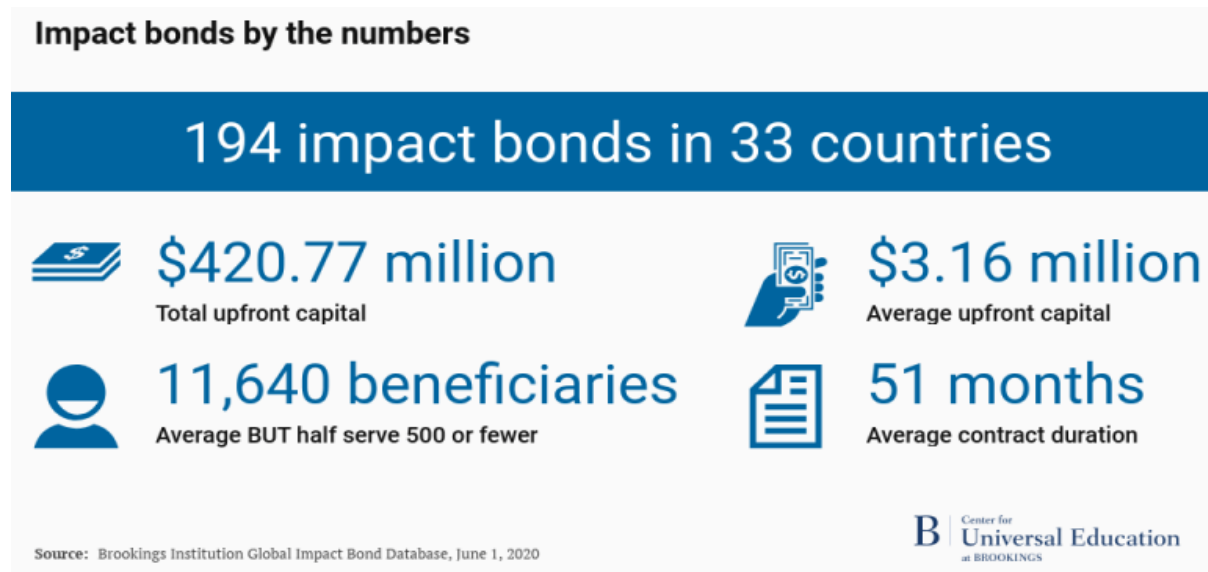
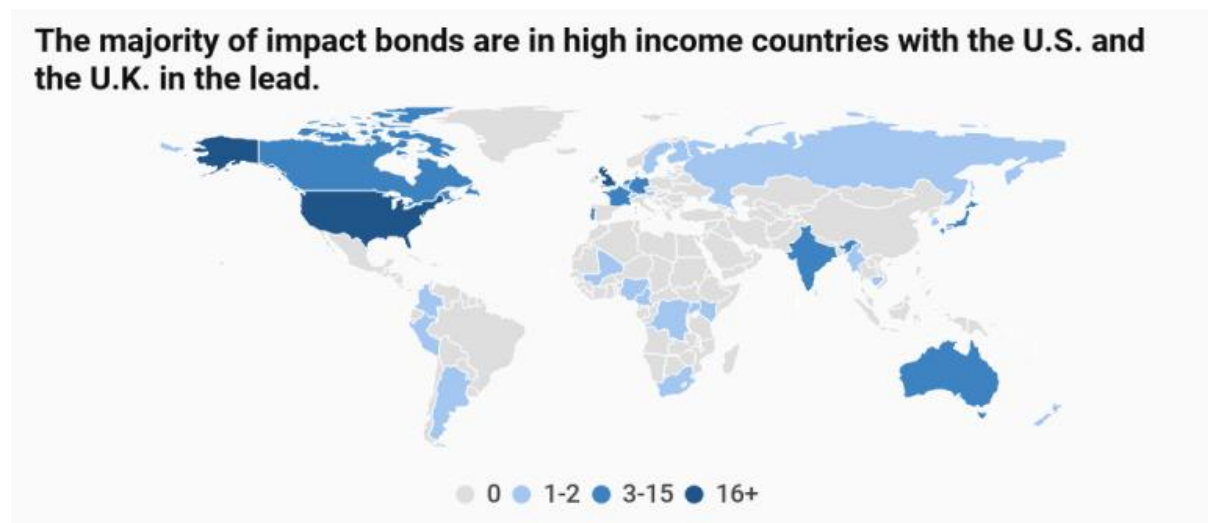


Figure 2.



Source: Brookings Institution (June 2020).



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