



# SADC Green Finance Demand Study

Final Report



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## Glossary

<b>CoSSE</b>	Committee of SADC Stock Exchanges
<b>CRISA</b>	Code for Responsible Investing in South Africa
<b>DBSA</b>	Development Bank of Southern Africa
<b>DFI</b>	Development Finance Institution
<b>ESG</b>	Environmental, Social, and Corporate Governance
<b>EU</b>	European Union
<b>G20</b>	Group of Twenty
<b>GBP</b>	Green Bonds Principles
<b>GDP</b>	Gross Domestic Product
<b>ICMA</b>	International Capital Market Association
<b>IDC</b>	Industrial Development Corporation
<b>IMF</b>	International Monetary Fund
<b>IPP</b>	Independent Power Producer
<b>LNG</b>	Liquid Natural Gas
<b>NAD</b>	Namibian Dollar
<b>NDC</b>	Nationally Determined Contribution
<b>OECD</b>	Organisation for Economic Co-operation and Development
<b>RE</b>	Renewable Energy
<b>REIPPPP</b>	Renewable Energy Independent Power Producer Procurement Programme
<b>SA</b>	South Africa
<b>SADC</b>	Southern African Development Community
<b>SEM</b>	Stock Exchange of Mauritius
<b>SJE</b>	Stock Exchange of Johannesburg
<b>SSA</b>	Sub-Saharan Africa
<b>UN</b>	United Nations
<b>USD</b>	United States Dollar
<b>ZAR</b>	South African rand

# Opening Statements

## FSD Africa

With 30 of the world's 40 most climate vulnerable countries, Africa is very vulnerable to climate change. However, it only attracts 3.0% of global green climate finance. Climate change is projected to push tens of millions more Africans into extreme poverty. The continent therefore needs a concerted and targeted effort to accelerate investment in green projects and other financial interventions that strengthen climate resilience. Particularly in view of the ongoing cost of combating Covid-19, Africa lacks the financial resources needed to tackle the impacts of climate change. Despite contributing in only a very limited way to global warming, African countries are among the most susceptible to the impacts of climate change yet have limited financial and technical resources to adapt to climate change. Africa has plenty of ideas and assets (natural and otherwise) that could be used to substantially increase volumes of green finance. Africa is also a developing continent that is rapidly urbanising. There is significant investment needed in the built environment, for instance infrastructure and housing.

The SADC Green Bond Programme aims to achieve a systemic change in the way African financial markets respond to the challenges posed by climate change. The policies, regulations and frameworks resulting from the programme are expected to catalyse green investment at scale from both international and domestic investors, as well as other financial structures that boost climate resilience. These changes are expected to have long lasting positive impacts beyond FSD Africa's support. This programme is a good example of how capital markets can be leveraged to address the global challenge of climate change. The programme will enable countries in the SADC region to tap into both domestic and international capital markets to finance green projects and assets. It will also support the market eco-system around green bonds and products by supporting potential issuers to come to market and engaging the institutional investment community. In addition, the programme will support green bond/products issuances for demonstration purposes. We are delighted to have partnered with CoSSE on this programme to make SADC a GREENER region consisting of 16 countries.

### Vimal Parmar, CFA

#### Senior Capital Markets Specialist – FSD Africa

#### **About FSD Africa**

*Established in 2012 and supported by UK aid, FSD Africa is a specialist development agency working to build and strengthen financial markets across sub-Saharan Africa. We work to reduce poverty through a 'market systems development' approach, which means we aim to address the structural, underlying causes of poverty by improving how financial market systems function.*

*At FSD Africa, our programming is designed to address systemic challenges within Africa's financial markets, with the aim of sparking large-scale and long-term change. Our interventions are designed from the ground up, to ensure that Africa's financial markets better serve those most in need – today, and long after our programmes end. From our headquarters in Nairobi, our team of over 35 financial sector experts lead ambitious programmes spanning 28 countries across the continent.*

*FSD Africa is part of a family of 9 financial sector deepening, or FSD programmes, operating across sub-Saharan Africa, known as the FSD Network. Together, the network seeks to build diverse and inclusive financial systems across Africa that enhance the financial resilience and sustainable livelihoods for all and enable inclusive growth.*

## Committee of SADC Stock Exchanges

Africa is under pressure to develop its green finance market for two crucial reasons. The first is to significantly and sustainably respond to climate change, as the continent is vulnerable to the severe effects of climate change. Secondly, African private and public sectors lag behind other emerging markets in green (and sustainability) bond issuances. The SADC Green Bond Programme serves to address the aforementioned challenges in general, and in particular, the embryonic status of the green finance market in the SADC region.

Since its official launch in March 2021, the Programme has made commendable headway in implementing its core strategic objective of developing the green bond market in SADC – which is demonstrated by the publishing of this SADC Green Finance Demand Study. Considering that the development of the capital market ecosystem depends on timely empirical information, the importance of this study cannot be overstated. Not only does it bridge the existing knowledge gap regarding green investment opportunities and barriers in the SADC region, but it is also underpinned by one of CoSSE's mandates, which is to encourage the transfer of securities markets' intellectual capital and technical expertise among member Exchanges of CoSSE.

On behalf of CoSSE, we are grateful to the consultants for working diligently to produce a substantial study. We thank FSD Africa for the opportunity to build on the invaluable information provided therein, and we are excited to use the momentum from the progress made thus far to champion the mainstreaming of green finance in the SADC region for sustainable development.

**Thapelo Tsheole**

**CoSSE Chairperson**

### ***About CoSSE***

*CoSSE which was formed in 1997 is a collective and cooperative body of the 14 stock exchanges in the Southern African Development Community (SADC) region. CoSSE is charged with the responsibility to accelerate the development of the SADC capital markets through cooperation and collaboration between SADC stock exchanges and other key SADC institutions and stakeholders. The CoSSE Secretariat which is currently hosted by the Botswana Stock Exchange, has close working relations with the SADC Secretariat, and SADC Structures such as the Committee of Central Bank of Governors (CCBG), Committee of Insurance, Securities and Non-Banking Financial Authorities (CISNA), the Committee of Ministers of Finance and Investment (CoMFI) and the Committee of Senior Treasury Officials (CoSTO).*

## Acknowledgements

The study was conducted by a team from Rebel and Clima Capital Partners for FSD Africa and the Committee of SADC Stock Exchanges (CoSSE). Vimal Parmar of FSD Africa and Thapelo Tsheole and Rhea Masasa of CoSSE managed the study and provided valuable guidance and insights to the team. A large number of members of Stock Exchanges and securities commissions, Financial Sector Regulators, Central Banks, national and local governments, international organisations, multilateral banks, commercial banks, institutional investors, private companies and developers, and sectoral experts provided valuable information, insights and data for the study. The contributions of all – those mentioned in the report and other contributors – were instrumental in shaping the perspectives and recommendations reported here.

## Executive Summary

This is the Market Report on the Green Bond market in the Southern Africa Development Committee (SADC) region prepared for FSD Africa and Committee of SADC Stock Exchanges (CoSSE). The study covers the identification of Green Bond opportunities in the region, the barriers that hinder their uptake, and recommendations to overcome these. The conclusions and recommendations of this study will inform the development of the SADC Green Bond programme.

### SADC Green Bond Programme

The SADC Green Bond Programme is a technical assistance programme that accelerates the take-up of Green Bonds as a tool for SADC member countries to tap into domestic and international capital markets to finance green projects and assets. The programme is implemented in partnership with the Committee of SADC Stock Exchanges (CoSSE) and supports the development of listing guidelines and regulations for Green Bonds, engages the institutional investment community and provides training/capacity building for various stakeholders on climate finance. The programme began in March 2021 and is implemented over a three-year period.

**The need for climate finance in the SADC region far exceeds the available financing, and Green Bonds should be considered as one of the climate finance instruments that can help fill the financing gap.** The cumulative climate change adaptation and mitigation financing over the period 2020 - 2030 in the SADC countries is approximately United States Dollar (USD) 200 billion; and this is well above what the government budget can support. Private capital needs to be mobilized, and policy makers and market participants globally see Green Bonds as a useful financial instrument in this regard. Green Bonds are still a relatively new instrument in the SADC countries, and it is difficult to estimate to what extent they may help fill the financing gap based on the number and volume of issuances to date. However, considering the growth trajectory of Green Bonds in more advanced economies during the past decade, the global movement for greening the financial markets, and the momentum under the Paris Agreement, it would be natural that climate finance in general and Green Bonds in particular will become increasingly an important instrument in the SADC region.

**To accelerate the growth of Green Bonds in the SADC region, it requires a deeper pool of issuers, especially among corporate borrowers.** Green Bond issuers in the SADC countries are largely sovereigns, sub-nationals and banks, and corporate issuers remain rather inactive. This is different from issuer profiles in advanced economies where corporates present the largest issuer group. The inactivity by corporate borrowers may reflect the fact that the number of listed firms, which publish financial statements and other disclosure statements on a regular basis, is limited in many SADC countries. The relatively short tenors of financing available in the local bond markets may also make bond issuance unattractive to issuers vis-à-vis bank loans, especially when financial disclosure requirements for bond issuance are considered.

It should, however, be noted that, in the advanced economies where Green Bonds have become a key financial instrument, the market growth has been driven primarily by the issuers' desire to establish their institutional Environmental, Social and Governance (ESG) credentials and Green Bonds' effectiveness of facilitating such communications between issuers and investors in that regard, not by financial considerations. To accelerate the Green Bond market growth in the SADC region, it calls for a broader pool of like-minded issuers. Deepening of the investor base is also important in all SADC countries except South Africa, but this can be tackled only as a part of the broader efforts to increase domestic savings and capital market development initiatives, which are beyond the scope of this study. **In the near-term future, interventions with focus on the issuer side will be more impactful.**

**This study identified SADC issuer pipeline, in which the highest interest is from corporates, with interest from all issuer types.** This could present a paradigm shift by corporates, or it could be

anecdotal; yet to be confirmed in a few years from now. Promising for the SADC Green Bond market is also that potential issuers are from new countries compared to past issuers. This, together with the high volume (in quantity and quantum) of issuances in 2021, indicate that the SADC Green Bond market is starting to take off.

**Constraints for South Africa and other SADC countries are very different, and need to be approached differently.** South Africa has a relatively deep capital market, with large, diversified and professional institutional investor base. The local bond markets offer longer term debt finance opportunities, also for non-government bonds. Therefore, the focus will be more on addressing issues unique to Green Bonds, in particular incentivising market participants to develop eligible projects for Green Bond finance. It calls for very targeted interventions in South Africa. In contrast, local capital markets in other SADC countries are relatively shallow. Broader capital market constraints set boundary conditions also for Green Bonds, and it calls for more broad-based interventions. Borrowers may need to consider tapping into the international capital markets to meet their financing needs.

**In South Africa, the priority is to developing the pipeline of bankable and eligible projects for Green Bonds.** With the deep investor base at international standards, the market is ripe for Green Bond issuance. However, issuers continue to struggle to develop suitable projects. There are multiple reasons for this. A bank indicated that the uncertainty created by COVID-19 may have interfered with pipeline establishment, since corporates may deprioritise energy efficiency investments due to the adverse economic climate. Regulation can also be a constraint. South Africa has only recently begun to allow smaller Independent Power Producers (IPPs) to generate and feed into the electricity net which has hampered the green energy project pipeline. Also, the lack of reliable data on the cost-benefit analysis of green building has hampered the interest in green buildings. In South Africa, given that the key challenge to be tackled is a clear and single issue, efforts should be concentrated to address it.

**In other SADC countries, it calls for national champions for leading the efforts to develop Green Bond markets.** The challenges are numerous and diverse; and also involve country specificity. Economic and industrial structures of these countries are diverse, and therefore the target sectors for deployment of Green Bonds would differ among them. Local financial markets' awareness of climate finance, and therefore the desire and willingness to explore Green Bonds, also differ considerably among them. While the depth of local capital markets in these countries are generally shallow, they are at different stages of market development. Market participants may have heard of Green Bonds but lack relevant technical expertise and face institutional capacity constraints. To kickstart the market development for Green Bonds, it calls for national champions to set the path, gather stakeholders, and lead them towards common objectives. Capital market regulators and Stock Exchanges will need to play key roles in this regard in these countries.

**Green Bonds should be considered in the context of the country's overall climate finance and capital market development strategies.** This is especially the case in countries with shallow capital markets. To deploy Green Bonds effectively, it calls for a deeper capital market; and on the other side, successful Green Bond issuance can help deepen the local capital market. Trying to stimulate deployment of Green Bonds without addressing the broader capital market deepening would face limitations in these countries. For these countries with limited domestic savings and shallow capital markets, in order to meet the climate finance gaps, they may need to tap into international capital markets, and Green Bonds may be a promising instrument in this regard. In such cases, it calls for a national climate finance strategy, which spells out required investments to meet Nationally Determined Contributions (NDCs), how they will be financed, and how Green Bonds will be deployed in that context. Isolated efforts to stimulate deployment of Green Bonds are less likely to lead to stronger deployment of Green Bonds; or they may simply result in replacing conventional bonds with Green Bonds. While such replacements have their own benefits, such as higher degree of transparency on use of proceeds,

the SADC region countries, like other frontier and emerging markets, also need to consider how Green Bonds can help fill the financing gaps.

**Strategic involvements of international development partners are much needed for more active deployment of Green Bonds in the SADC region.** In many SADC countries, capital market regulators and stock exchanges need to play leadership roles to enhance deployment of Green Bonds. They also need to explore if and how Green Bonds can help address the financing needs, as well as obstacles, which are to a large extent country specific, can be best addressed. Development partners need to be cognisant that no generic set of effective market development remedies are available, and plans need to be designed and implemented in partnership with local partners if they desire to enhance deployment of Green Bonds in these countries. Many capital market regulators and stock exchanges are keen to play the role but lack necessary expertise; and seek for knowledge sharing support. Banks are also keen to embrace Green Bonds if they could develop suitable loan portfolios, and Development Finance Institution (DFIs) could consider financial intermediary loans to help them start developing such portfolios, perhaps with contingency for participating financial institutions to refinance such DFI loans subsequently with Green Bond issuance. For other countries than South Africa, without active involvement of international development partners with financial supports, deployment of Green Bonds is likely to struggle.

### **Recommendations for FSD Africa and SADC Green Bond Programme**

**Strengthen regulators' and stock exchanges' expertise on climate finance, as well as Green Bonds, so they can play leadership roles.** They have dual roles: implementing appropriate regulations, as well as to support market development. In the SADC region, on Green Bonds, the emphasis on the market development roles. Development partners can provide critical supports in this regard, by financing technical assistance programs which serve as platform for development of the country's climate finance strategy and deployment of Green Bonds. **It calls for support from international development partners.**

**Establish national champions for designing and implementing market development measures for enhanced deployment of Green Bonds.** Policy and regulatory interventions differ among SADC countries, reflecting diversity of the economies in the region, as well as the depth of local capital markets. Broadly speaking, Green Bonds should be considered as an integral part of each country's climate finance strategy as well as the capital market development agenda. Regional collaborations can facilitate peer-learning for not only product expertise but also on ideas for fostering enable environments, designing and implementing concrete policy measures, hands-on experience of leading stakeholders. There is no "one-size fits all" prescriptions for all SADC countries to improve deployment of Green Bonds. Specific plans need to be developed in each country, reflecting the reality on the ground. Strong leadership by institutions with public mandates, such as capital market regulators and stock exchanges, and good coordination with relevant public and private-sector parties, including Environment Ministry and other relevant government entities, as well as key private-sector market participants, will be critical.

**Incentivise banks to develop portfolios of eligible and bankable projects for Green Bonds.** Countries, in their dialogues with Development Finance Institutions, can explore if line of credit operations could be designed and implemented to help local banks to develop such loan portfolios. Such financial intermediary loans by DFIs could also be disbursed in tranches, whereas disbursements of subsequent tranches are conditioned on refinancing a part of the loan portfolio by Green Bond issuance. Technical Assistance can be helpful to create pipeline along with help for legal fees and transaction advisors.

**Explore and support Green Bond issuance with strong demonstration effects.** In many SADC countries, the shortest path in this regard may be sovereign Green Bond issuance. However, given the

limited public fiscal resources, most of the necessary climate investment needs must be carried out by the private sector, Green Bonds by private-sector entities would have more impact. This study explored potential Green Bond issuers in the SADC regions. Given the confidential nature of such discussions, this will be communicated separately.

# 1. Introduction

This is a Market Report on the Green Bond market in the Southern Africa Development Committee (SADC) region prepared for FSD Africa. The study covers the identification of Green Bond opportunities in the region, the barriers that hinder their uptake, and recommendations to overcome these. The conclusions and recommendations of this study will inform the development of the SADC Green Bond programme.

## 1.1 SADC Green Bond Programme

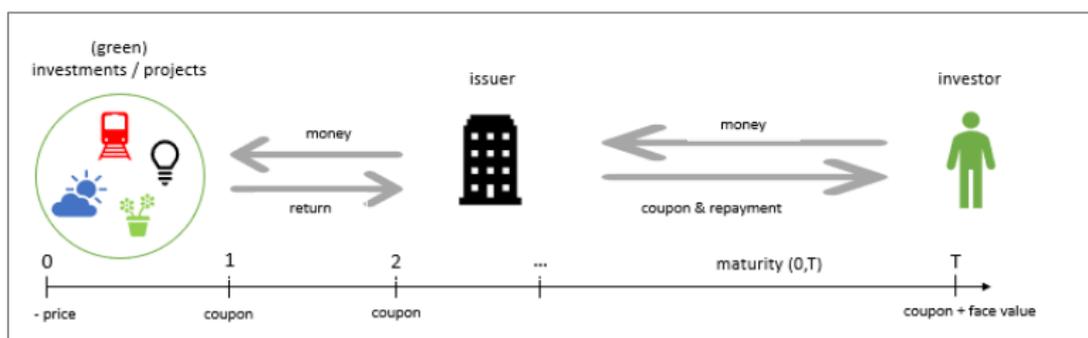
The SADC Green Bond programme is a technical assistance programme that accelerates the take-up of Green Bonds as a tool for SADC member countries to tap into domestic and international capital markets to finance green projects and assets. The programme is implemented in partnership with the Committee of SADC Stock Exchanges (CoSSE) and supports the development of listing guidelines and regulations for Green Bonds, engages the institutional investment community and provides training/capacity building for various stakeholders on climate finance. The programme began in April 2021 and is implemented over a three-year period.

## 1.2 What are Green Bonds?

A Green Bond is a bond (a debt instrument), which can be issued by entities such as corporates (banks and other companies), governments and quasi-governments (councils, municipalities) to finance or refinance projects. The issuer of the bond (the borrower) owes the bond holder/investor (the creditor) a debt and depending on the terms they agreed, is obliged to pay back the amount lent within a certain period of time (tenor) and with a certain interest (coupon). Unlike a loan, the bond is a transferable instrument that can be traded on a secondary market if publicly issued.

Green Bonds (see **Figure 1**) are regular bonds with a distinguishing feature, namely that the proceeds<sup>1</sup> are allocated exclusively for projects with environmental benefits (understood to be intrinsically coupled with social co-benefits). Structurally, Green Bonds are the same as regular bonds, offering comparable risk/reward profiles and following the same issuance procedures but, the proceeds are restricted to eligible projects which aim to address for a wide variety of climate and other environmental projects.

**Figure 1: A Green Bond**



Source: International Capital Market Association (ICMA)

### 1.2.1 Types of Green Bonds and eligible projects

There are a variety of Green Bonds (See **Table 3**), but the most common type is “use of proceed” Green Bonds. The volume of other types of Green Bonds, such as project bonds for limited recourse financing,

<sup>1</sup> Bond proceeds are the proceeds from the sale of bonds issued by an entity.

remain small when compared with “use of proceed” bonds globally. Today, when the term Green Bonds are generically used, it typically means “use of proceed” Green Bonds.

**Table 1: Typology of Green Bonds**

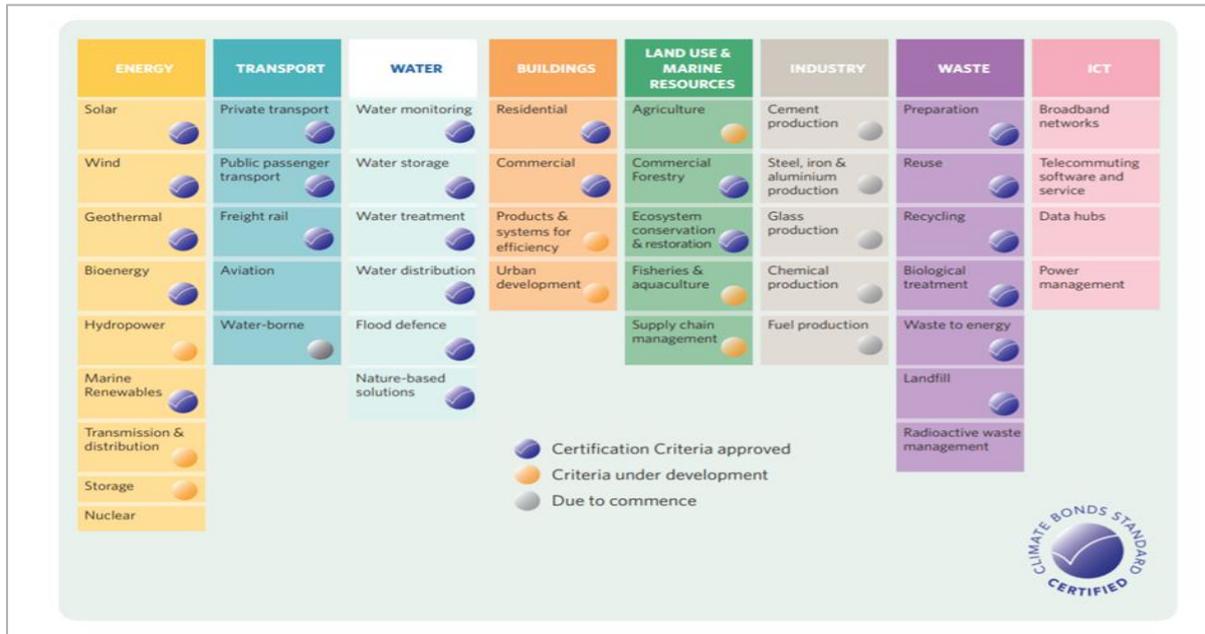
	<b>Restriction on Use of Proceeds</b>	<b>Recourse / Pledge / Credit Enhancement</b>	<b>Examples / Typical Issuers</b>
<b>Green Use of Proceeds Bonds</b>	Proceeds may be used only for eligible projects which meet defined criteria	Full recourse to the issuer Same credit quality as senior debts of the same issuer	<ul style="list-style-type: none"> <li>• MDBs</li> <li>• Sovereigns</li> <li>• Banks</li> <li>• Large corporations</li> </ul>
<b>Green Revenue Bonds</b>	Proceeds may be used only for specific projects with expected green impact	Typically, creditors have recourse only to revenue flows of the specific project	<ul style="list-style-type: none"> <li>• Municipalities in countries with established revenue bond markets (e.g., United States)</li> </ul>
<b>Green Project Bonds</b>	Proceeds may be used only for specific projects with expected green impact	Typically, creditors have limited recourse only to the SPV, assets and revenues which are ringfenced for the project	<ul style="list-style-type: none"> <li>• Mega solar projects</li> <li>• Wind power projects</li> </ul>
<b>Green Asset Backed Securities (ABS)</b>	Proceeds may be used only to finance a pool of loans which are provided for eligible green purposes	Typically, creditors have recourse only to the SPV and assets held by the SPV	<ul style="list-style-type: none"> <li>• Securitization of leases of residential solar PV panels</li> <li>• Securitization of mortgages of green buildings</li> </ul>

**Source:** Author, constructed and modified based on a Climate Bond Initiative presentation

The growth of the Green Bond market has attracted a diversified and more mainstream investor base. The institutional investor community with large portfolios (pension fund managers, assets managers) including those with sustainability related mandates are increasingly seeking green and low carbon investment opportunities. As the impact of climate change risks are recognised and better understood, asset owners are increasingly looking for low-carbon opportunities to shift investments out of potentially stranded assets in order to minimise their exposure. Investor demand for Green Bonds has also increased in Africa. However, despite the numerous opportunities to scale, issuance of green debt has been slow to date.<sup>2</sup>

In terms of projects which may be financed by Green Bonds, while there are some differences among the existing standards, a consensus has been formed among them with few exceptions. **Figure 2** below provides the Climate Bonds Taxonomy for eligible projects by the Climate Bonds Initiative, a non-profit organization which promotes Green Bonds.

<sup>2</sup> FSD Africa. Africa Green Bond Toolkit [https://www.fsdafrica.org/wp-content/uploads/2020/08/Africa\\_GBToolKit\\_Eng\\_FINAL.pdf](https://www.fsdafrica.org/wp-content/uploads/2020/08/Africa_GBToolKit_Eng_FINAL.pdf)

**Figure 2: Climate bonds taxonomy for eligible projects**

Source: FSD Africa. Africa Green Bond Toolkit

In terms of climate change projects which Green Bonds have been supporting to date, it is important to note that Green Bonds supported mostly mitigation projects. Their application to adaptation projects has been rather limited. Figures differ among the sources, but it is estimated that the proceeds of corporate Green Bonds have been directed primarily towards mitigation projects.<sup>3</sup> Work is being done on Green Bonds for Climate Resilience by multiple stakeholders including a guide for potential issuers, to enable more issuances in the domain.<sup>4</sup> The mechanism which links bond issuance proceeds with concrete expenditures may be more readily implemented in investment projects, and this may contribute to this bias. There have been increased attempts to deploy Green Bonds to support adaptation projects, but it remains to be seen if more adaptation projects can be supported by Green Bonds.

### 1.2.2 Benefits of Green Bonds to issuers and investors

The Green Bond market has grown at a fast pace globally during the past decade as an increasing number of issuers as well as investors started to recognize benefits in Green Bonds. These benefits are broad ranging, with some relating more to long-term strategies than to immediate financial advantages.

**Investor diversification and stronger and more stable investor demand** – As an increasing number of investors develop their preferences for financial instruments which meet their Environmental, Social and Governance (ESG) criteria, Green Bonds, especially use-of proceed Green Bonds which essentially carry identical financial terms as conventional bonds, should appeal to a broader set of investors than conventional bonds. This should allow Green Bonds to achieve broader investor diversification. Issuers would benefit from more steady capital market access, and investors from more stable secondary market conditions due to a broader set of investors who can absorb these bonds.

**Improved marketability to end-investors** – An increasing number of retail and institutional investors seek to integrate ESG mandates into their investment activities. Green Bonds allow asset managers as

<sup>3</sup> Source: Climate Bonds Initiative: <https://www.climatebonds.net/adaptation-and-resilience>

<sup>4</sup> Source: Climate Bond Initiative:

[https://www.climatebonds.net/files/files/Summary%20of%20FAQs\\_Green%20Bonds%20for%20Climate%20Resilience.pdf](https://www.climatebonds.net/files/files/Summary%20of%20FAQs_Green%20Bonds%20for%20Climate%20Resilience.pdf)

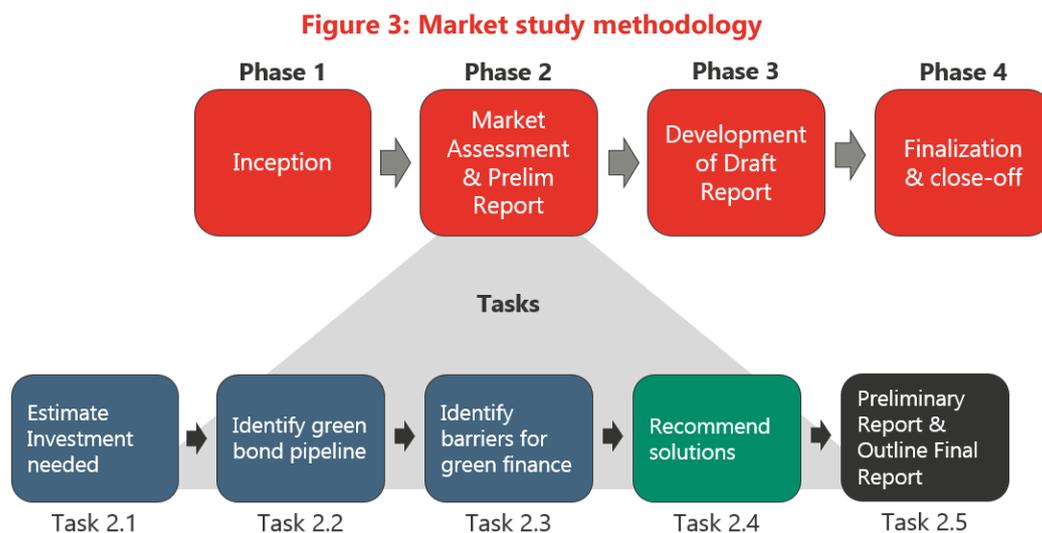
well as end-investors to integrate their climate change considerations in their investments in a simple manner, often at little incremental cost to them. As most Green Bond issuers provide periodic reporting of their projects which are financed by the proceeds of Green Bond issuance, investors may also monitor the situation, providing them a sense of involvement.

**Potentially lower financing costs** – In the recent years, Green Bonds are placed with investors at a slightly lower yields when compared with conventional bonds. In such cases, issuers may benefit from lower funding costs. Such premia placed on Green Bonds are often called “greenium” in the market today. In select cases, Green Bonds are placed at yields of 10-15 basis points (0.10 – 0.15%) under those for comparable conventional bonds. It should be noted, however, that such premia are often just a few basis points, may be supported by active buy-back programs (e.g., Germany), and fluctuate depending on market conditions at any given time. Financing cost advantage, if any, are very transaction and context specific, and it would not be possible to make any reliable estimate ex-ante for any transaction. For the majority of Green Bond issuers to date, this has not been the primary motivation for them to issue Green Bonds.

**Enhanced communication between issuers and investors** – By connecting issuers who are engaged in climate change issues with investors who are interested in supporting them, Green Bonds are highly effective instruments for issuers to reach out to investors. Drawn by this benefit, issuers have been covering any additional costs specific to Green Bonds. Combined with strategic communication tools, including periodic reporting on the progress of projects financed with issuance proceeds, Green Bonds can be a highly strategic, impactful and cost-efficient investor communication tool. **Table 8** in **Appendix 3** further outlines potential benefits for issuers and investors, which were identified in a previous FSD Africa study on Green Bonds.

### 1.3 Market Study Methodology

The Market Study is conducted in five phases, as shown in **Figure 3** below. The study is conducted by means of a document review and supplemented by stakeholder consultations with relevant players in the region.



## 1.4 Structure of the Report

Following this introduction, the Market Report comprises the following sections:

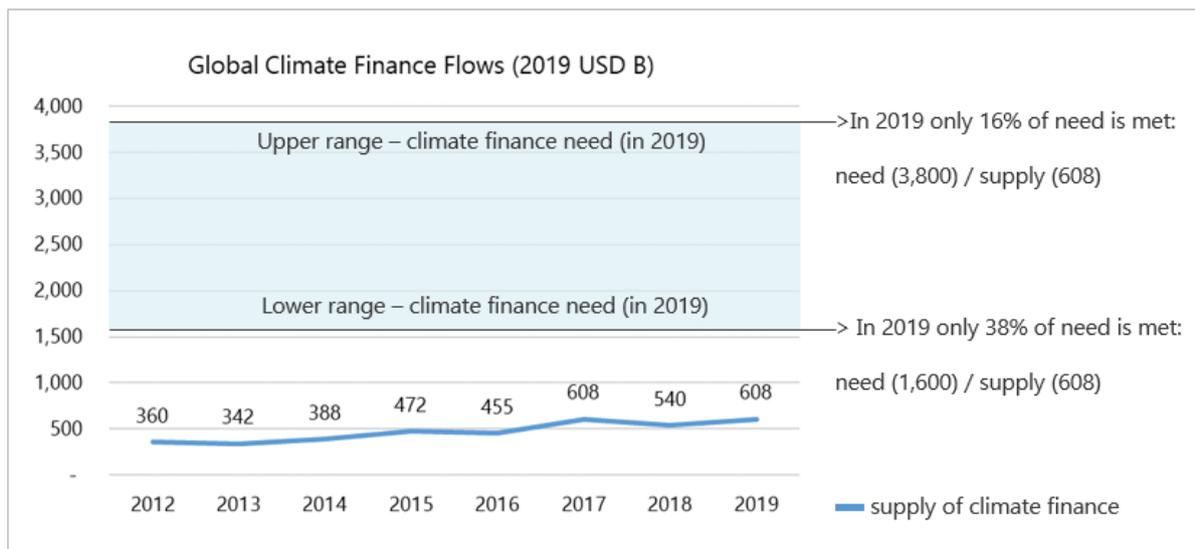
- Section 2: **Green Bond Demand in SADC** - in this section the climate finance/bond demand in the SADC region is described. It also gives an overview of the Green Bond issuer market and the potential demand for Green Bonds.
- Section 3: **Framework Conditions for Green Bonds in SADC** – in this section the status of the SADC capital and bond markets is described with an overview of the regulation and policy context of the Green Bond market. The section also provides the barriers and constraints that hamper the uptake of Green Bonds and examine how to overcome this.
- Section 4: **Conclusions** - in this section the main conclusions of this market research are given. It also provides recommendations for FSD Africa and the SADC Green Bond programme.
- Various **Appendices** to the Report include further information inter alia on data sources, persons interviewed.

## 2. Green Bond Demand in SADC

### 2.1 Overall Climate Finance Demand and Financing Gap

As the urgency on the climate crisis has increased, the amount of funding for mitigation and adaptation has also grown substantially. **Figure 4** below shows an increase of global climate finance flows from United States Dollar (USD) 360 bn in 2012 to USD 608 bn in 2019, an increase of 70% over the period.

**Figure 4: Global climate finance flows**



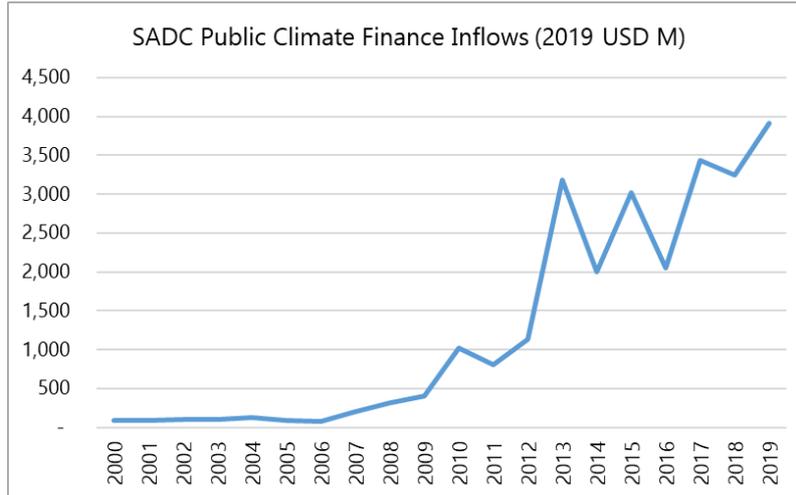
Source: Climate Policy Initiative

The supply of climate finance is however dwarfed by the need. The global quantum of climate finance needed for 2019 is estimated at between USD 1,600 billion and USD 3,800 billion, or a supply shortfall between 62% and 84%.

In the SADC region the availability of climate finance is also growing. **Figure 5** below illustrates public climate finance inflows from international sources (e.g. Development Finance Institutions (DFIs), climate funds, etc.)<sup>5</sup> into the region over the period 2000 to 2019. From 2009 to 2019 this inflow increased with 884%.

<sup>5</sup> Guarantees are excluded because they are categorised as non-flow operations.

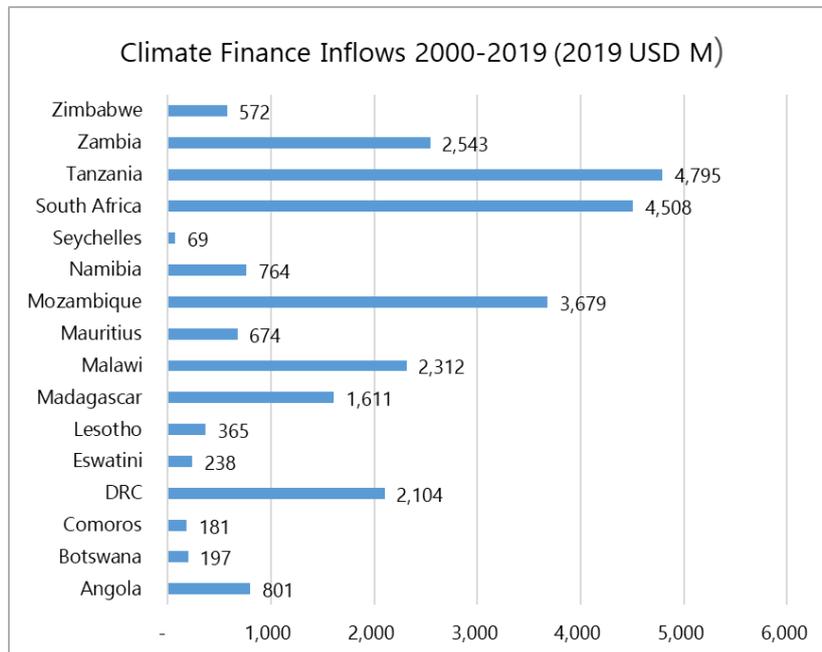
**Figure 5: SADC public climate finance inflows (2000-2019)**



Source: Organisation for Economic Co-operation and Development (OECD) data

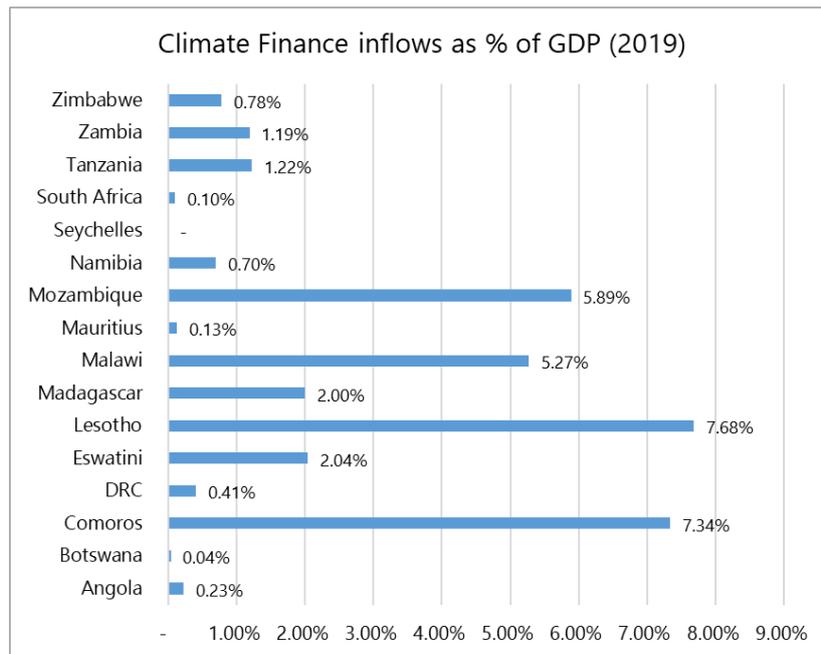
The climate finance flows depicted in **Figure 5** however do not show all of the SADC climate finance flows, as they exclude international public grants, domestically sourced public climate finance and private climate finance (both international and domestic). As **Figure 6** illustrates, these nominal inflows are very unbalanced between SADC countries. **Figure 7** shows that when looking at the 2019 inflows as a percentage of Gross Domestic Product (GDP), Mozambique, Lesotho and Comoros receive relatively the highest climate finance support.

**Figure 6: SADC climate finance inflows (2000-2019)**



Source: OECD data

**Figure 7: Climate finance inflows as % of GDP (for 2019)**



Source: OECD data

According to a recent UNFCC estimate,<sup>6</sup> the cumulative climate change adaptation and mitigation financing needs over the period 2020 - 2030 in the SADC countries is estimated at approximately USD 200 billion.

Although a full picture of the supply of climate finance in SADC is lacking, it is clear from the data presented above that supply is not at par with demand. Green Bonds can therefore be an important vehicle to increase the funding available for adaptation and mitigation projects in the SADC region.

## 2.2 Potential Investor Demand for Green Bonds in SADC

Domestic bond markets are small in the SADC countries except for South Africa (see **Table 2** below). A key constraint which limits accelerated deepening of the domestic capital markets in many of these countries is the shallow investor base. To a large extent, it also reflects the low level of domestic savings, as well as their relatively low-income levels. Macroeconomic fragility, and consequently elevated risk perceptions on interest rates, foreign exchange as well as credit risks, also limit the market depth of long-term debts in many of SADC countries.

These broader macro issues, which affect the overall capital markets in the SADC countries, will also affect what Green Bonds may be able to achieve in the domestic markets. Deployment of Green Bonds may help enhance investor interests, as higher governance and reporting requirements from issuers is attractive for investors, including those among foreign investors who may otherwise not consider local market investments. Green Bonds would not address structural issues which constrain the overall domestic bond market development. Like for conventional bonds, mobilizing a large volume of funds, securing adequate maturity for repayments, and achieve acceptably low interest rates are likely to remain challenging also for Green Bonds. Having said that, Green Bonds should be able to achieve at least what conventional bonds can, and perhaps marginally expand the limits.

In contrast to the rest of SADC, South Africa has a developed local bond market, where a sizable volume of long-term debts can be raised in a market-based manner. The institutional investors, which include foreign-owned entities, will be increasingly integrating ESG mandates in their investment policies in line with the global trend. In South Africa, the market dynamics and demands should develop in a similar

<sup>6</sup> [https://unfccc.int/sites/default/files/resource/Session2-KamleshanPillay\\_ClimateFinanceNeeds-D11760n.pdf](https://unfccc.int/sites/default/files/resource/Session2-KamleshanPillay_ClimateFinanceNeeds-D11760n.pdf)

manner as those in more advanced markets, such as the United States or Europe. We can expect a symbiotic market growth between the ESG investments and Green Bonds, where further supply of Green Bonds help raise market awareness in ESG investments and increase investor demand for Green Bonds.

**Table 2: Overview of SADC bond market**

		Angola	Botswana	Comoros	DRC	Eswatini	Lesotho	Madagascar	Malawi
<b>Bond Market Size</b>	<b>Outstanding Volume of Bonds (US\$ million eq., 2014)</b>	5,212	746	N/A	N/A	101	48	N/A	N/A
	Of which outstanding volume of government bonds (US\$ million eq., 2014)	5,212	746	N/A	N/A	101	48	N/A	N/A
	Of which outstanding volume of corporate bonds (US\$ million eq.)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Of which outstanding volume of other bonds (US\$ million eq.)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	<b>Annual Issuance Volume of LC Bonds (US\$ million eq., 2014)</b>	2,449	108	N/A	N/A	28	6	N/A	N/A
	Of which issuance of government bonds (US\$ million eq., 2014)	2,449	72	N/A	N/A	28	6	N/A	N/A
	Of which issuance of corporate bonds (US\$ million eq., 2014)	N/A	36	N/A	N/A	N/A	N/A	N/A	N/A
	Of which issuance of other bonds (US\$ million eq.)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<b>Investor Base</b>	<b>Assets under Management of Institutional Investors (US\$ million eq.)</b>	N/A	9,404	N/A	N/A	1,972	N/A	490	1,189
	Of which insurance (US\$ million eq., 2015)	N/A	2,101	N/A	N/A	223	N/A	242	588
	Of which pensions (US\$ million eq., 2015)	N/A	7,303	N/A	N/A	1,749	N/A	248	601
	Of which other institutional investors, such as mutual funds (US\$ million eq.)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<b>Potential Non-Government Issuers</b>	<b>Number of Listed Companies (2021)</b>	-	31	N/A	N/A	8	N/A	N/A	16
<b>Bond Market Maturity Profile</b>	Maximum bond maturity (years, 2014)	3 - 5 Years	7 - 10 Years	N/A	N/A	7 - 10 Years	7 - 10 Years	< 1 Year	< 1 Year
	Government bonds < 1-year maturity (%)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Total bonds < 3 years maturity (% ,2014)	93	65	N/A	N/A	94	94	100	100
	Total bonds > 3 years maturity (% ,2014)	7	35	N/A	N/A	7	6	-	-
		Mauritius	Mozambique	Namibia	Seychelles	South Africa	Tanzania	Zambia	Zimbabwe
<b>Bond Market Size</b>	<b>Outstanding Volume of Bonds (US\$ million eq., 2014)</b>	4,001	604	1,151	N/A	136,552	2,017	625	N/A
	Of which outstanding volume of government bonds (US\$ million eq., 2014)	4,001	604	1,151	N/A	136,552	2,017	625	N/A
	Of which outstanding volume of corporate bonds (US\$ million eq.)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Of which outstanding volume of other bonds (US\$ million eq.)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	<b>Annual Issuance Volume of LC Bonds (US\$ million eq., 2014)</b>	1,205	174	288	N/A	13,983	551	512	N/A
	Of which issuance of government bonds (US\$ million eq., 2014)	1,093	174	288	N/A	13,983	551	512	N/A
	Of which issuance of corporate bonds (US\$ million eq., 2014)	112	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Of which issuance of other bonds (US\$ million eq.)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<b>Investor Base</b>	<b>Assets under Management of Institutional Investors (US\$ million eq.)</b>	5,633	589	14,385	N/A	211,384	5,285	1,090	3,046
	Of which insurance (US\$ million eq., 2015)	3,235	518	3,947	N/A	211,384	358	295	1,720
	Of which pensions (US\$ million eq., 2015)	2,398	71	10,438	N/A	N/A	4,927	795	1,326
	Of which other institutional investors, such as mutual funds (US\$ million eq.)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<b>Potential Non-Government Issuers</b>	<b>Number of Listed Companies (2021)</b>	201	10	50	50	331	28	22	56
<b>Bond Market Maturity Profile</b>	Maximum bond maturity (years, 2014)	10 - 15 Years	3 - 5 Years	> 15 Years	< 1 Year	> 15 Years	10 - 15 Years	10 - 15 Years	N/A
	Government bonds < 1-year maturity (%)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Total bonds < 3 years maturity (% ,2014)	74	99	81	100	74	84	85	N/A
	Total bonds > 3 years maturity (% ,2014)	26	1	19	-	26	16	15	-

**Source:** Produced by author based on African Development Bank and International Monetary Fund (IMF) data

Accessing the international capital markets will also be a key alternative for Green Bond issuance, especially for financing in countries with shallow domestic bond markets. The international capital market access to frontier market borrowers has broadened significantly during the past decade, and today even single B-rated sovereigns enjoy market access, including relatively small low-income

countries and those from Sub-Saharan Africa. Green Bonds which are issued in the international bond markets, similar to other international bonds, are typically governed by English or US laws; and follow the International Capital Market Association (ICMA) Green Bonds Principles (GBP). In that sense, the current lack of a domestic regulatory framework should not present much obstacles, although the soon to be published SADC Green Bond guidelines are a positive development. Rather, obstacles and issues which need to be addressed would exist at the institutional level at potential issuers; such as if they are with suitable credit quality to access the international capital markets, if they have adequate institutional capacities to implement necessary internal arrangements for assessing, monitoring, and reporting climate change aspects of projects for Green Bonds, and if they take a strategic view to take on additional operational tasks and costs which are specifically associated with Green Bond issuance.

The extent to which Green Bonds would produce the required yields to place them with investors, depends on the types of investors the Green Bonds are placed to, as well as the availability of concessional finance support such as credit guarantees to these bonds. For example, Seychelles successfully issued the “blue bond” in 2018, achieving highly attractive financial terms, well below what would be feasible by a conventional bond issuance. The blue bond was placed with thematic investors who were willing to accept “below market” yields, and it also benefited from partial credit guarantees at below market and concessional terms. The bond issuance involved a bespoke financial structure, and the issuance volume was small. If financing objectives include mobilization of large volume of funds, it may prove difficult to identify investors and donors who can support such transactions at below-market returns, and issuers would need to be prepared to accept market terms in line with those for conventional bond issuance.

### 2.2.1 Potential Investors in Green Bonds in SADC

The SADC investor base is limited except for South Africa. It will therefore be crucial to access international capital markets as an alternative to local markets, especially for countries with shallow domestic bond markets. The potential investors can therefore be grouped in non-SADC investors and investors from the SADC region.

Non-SADC investors have played an important role in buying SADC Green Bonds. The IFC, for example, bought all of Standard Bank’s USD 200 million Green Bond issuance in 2020. While the companies Calvert Impact Capital, Nuveen, and U.S. Headquartered Prudential Financial, Inc. bought the entire Republic of the Seychelles’ USD 15 million Blue Bond issuance in 2018. Other important potential investors are pension funds, mutual funds or insurance companies, but also other DFIs than the IFC.

SADC investors are mainly government linked entities such as public pension funds or government investment funds, and for now limited to South Africa. The South African Government Employees’ Pension Fund, for example, bought USD 115 million worth of the 2012 Industrial Development Corporations’ USD 650 million Green Bond, while the same amount was bought by the Government’s Public Investment Corporation.

These types of funds are important investors in Green Bonds globally, with many in developed countries increasingly looking for green investment opportunities. In the SADC region, pension funds especially in Botswana, Namibia, eSwatini and Tanzania could become important investors. Uptake is however limited by a lack of environmental policy support, and other barriers to investment include a lack of appropriate investment vehicles and market liquidity, scale issues, regulatory disincentives and lack of knowledge, track record and expertise among funds about these investments and their associated risks.

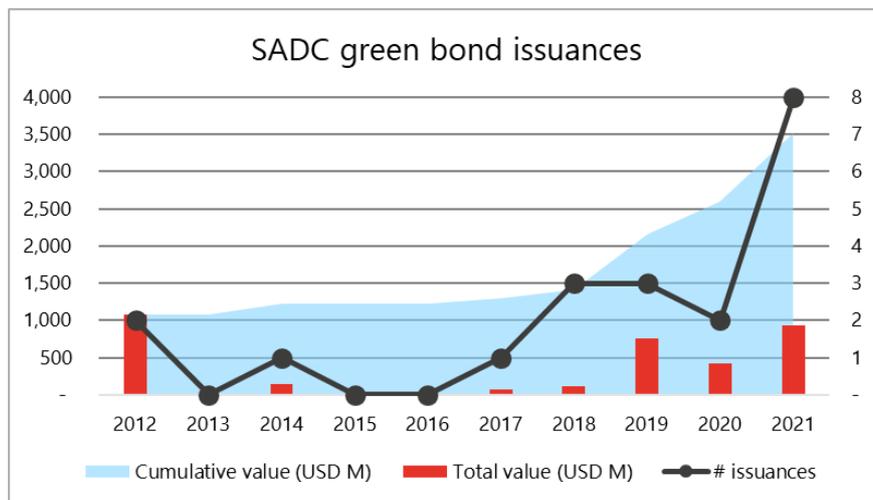
Other potential investors include corporates such as Old Mutual in South Africa, or retail clients. The latter bought all of the Nedbank’s USD 490 million Green Bond issuance in 2012. This was an “asset-linked” bond which targeted retail clients from both the low and high end of the market by allowing

investments from as little as ZAR 1000 (USD 122). Investors could choose to invest for terms between 18 months and five years, with the 60-month rate earning 6.85%.

### 2.3 Overview of the Green Bond Issuers in SADC today

While globally the market for Green Bonds has grown exponentially, and by at least 15% in 2021 (as at Oct 2021), the African market contributes only 0.4% to this global market base (as at Oct 2021).<sup>7</sup> There have been in total 20 Green Bond issuances amounting to USD 3,559 million in the SADC region following the first issuance in 2012 (see **Figure 8**). After a strong start, issuances have been weak until the last three years where the amount and size of the issuances has picked up again. 2021 has been a promising year with 8 issuances of in total USD 970 million, which could indicate that the SADC Green Bond market is starting to mature.

**Figure 8: SADC Green Bond issuances**



Source: Climate Bond Initiative

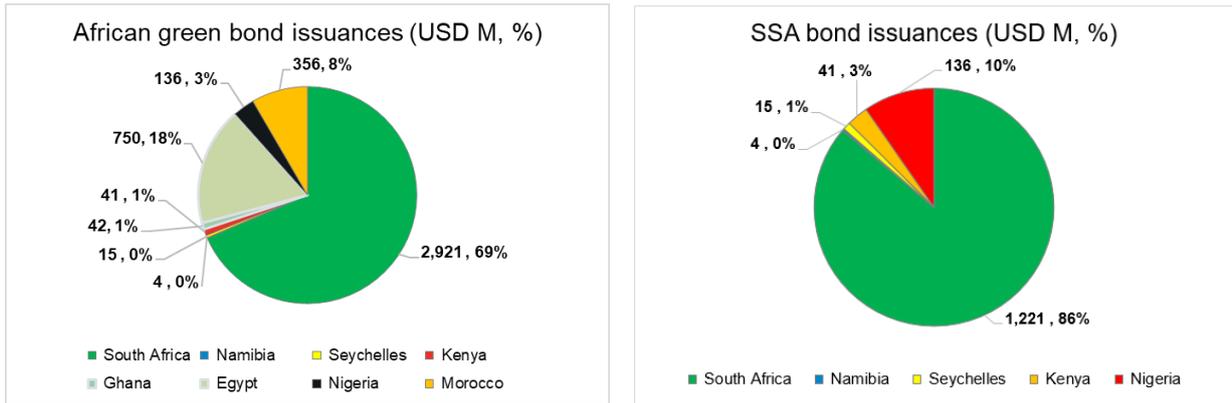
As **Table 3** shows, of the 20 issuances, 13 have been done in the last three years (USD 2,146 million, 60% of total), and 16 have been issued in South Africa (USD 2,921 million, 90% of total), illustrating the highly dominant role of the country within the region.

In Africa, SADC has had a leading role in the development of the Green Bond market. The first emerging market Green Bond was issued by South Africa's state-owned Industrial Development Corporation (IDC) for a USD 595 million Green Bond to finance clean energy projects. Additionally, in 2018 The Republic of Seychelles issued the first sovereign Blue Bond (USD 15 million) and the South African bank Nedbank is in the top five commercial issuers of emerging market Green Bonds.

More specifically, South Africa is the biggest player in the Green Bond market in Africa at large. The total value of Green Bond issuances by South Africa dwarves that of other African and Sub-Saharan Africa SSA markets, as shown in **Figure 9** below.

<sup>7</sup> <https://www.fnbcib.com/news/green-bonds-issuance-in-africa>

**Figure 9: Green Bond issuances in Africa (until 2020)**



Source: Authors' research

The subsequent subchapters will examine the SADC Green Bond issuances per issuer typology.

Table 3: SADC Green Bond issuances

Issuer	Issuing currency	USD (M)	Issuer typology	Country	Year	Use of proceeds	Listed on	Pricing	Maturity (years)
Investec	South African rand (ZAR)	63	Bank	South Africa (SA)	2021	Green building, Energy	No info	10 bps from its initial 190 bps above 3-month JIBAR	3
Nedbank	ZAR	63	Bank	SA	2021	Green building	Stock Exchange of Johannesburg (JSE)	No info	No info
Standard Bank Group	ZAR	91	Bank	SA	2021	Energy	No info	No info	No info
ACME Solar Holdings	USD	334	Corporate	Mauritius	2021	Energy	No info	No info	No info
Nedbank	ZAR	9	Bank	SA	2021	Energy	No info	No info	No info
Bank of Windhoek	Namibian Dollar (NAD)	19	Bank	Namibia	2021	Green, Social	Private placement	No Greenium	No info
Development Bank of Southern Africa (DBSA)	ZAR	241	DFI	SA	2021	Water, Energy, Green buildings, Transport	Private placement	No info	No info
ABSA	ZAR	150	Bank	SA	2021	Energy	Loan	No info	No info
Standard Bank Group	USD	200	Bank	SA	2020	Water, Energy, Green buildings	London Stock Exchange	No info	10
FirstRand Bank	USD	225	Bank	SA	2020	Energy, Water	No info	No info	No info
Nedbank	ZAR	116	Bank	SA	2019	Energy	JSE	No info	7
Nedbank	ZAR	68	Bank	SA	2019	Energy	JSE	No info	No info
Redstone Solar	ZAR	567	Corporate	SA	2019	Energy	Loan	No info	17
Bank of Windhoek	NAD	5	Bank	Namibia	2018	Energy, Transportation	Private placement	No info	5
Republic of Seychelles	USD	15	Sovereign	Seychelles	2018	Conservation	Private placement	JIBOR + 1.5% (25 bp lower than expected due to "Greenium")	No info
Growthpoint	ZAR	93	Corporate	SA	2018	Green buildings, Infra	JSE	139 bps, 169 bps, and 200 bps above 3-month JIBAR	5, 7, 10
City of Cape Town	ZAR	76	Sovereign	SA	2017	Conservation, Urban, Infra	JSE	133 bps	10
City of Johannesburg	ZAR	139	Sovereign	SA	2014	Energy, Transportation	JSE	185bps above 2023 government bond	10
Nedbank	ZAR	490	Bank	SA	2012	Energy	Private placement	No info	No info
Industrial Development Corporation	ZAR	595	Sovereign	SA	2012	Energy	Private placement	No info	14
<b>TOTAL</b>		<b>3,559</b>							

Source: Climate Bond Initiative, supplemented by authors' research

### 2.3.1 Banks

Banks by the nature of their business are more accustomed to asset-liability-management, including financing long-term assets with shorter-term liabilities. Therefore, banks may be more readily able to take advantage of capital market funding opportunities even if available maturities are short, which is often the case in the local bond markets in the SADC countries.

Also, banks can often more readily implement the necessary filtering, monitoring and reporting arrangements for Green Bonds, by overlaying those on the existing portfolio management systems and procedures when compared with other types of businesses. Banks are often more scrutinized publicly and sensitive to global regulatory trends; and they may be more inclined to view Green Bonds as a strategic instrument to position themselves in the context of rising ESG consciousness in the global economy.

Considering the above points, banks have been, and continue to be, a prime candidate group for Green Bond issuance in the SADC countries. This is illustrated by the Green Bond issuances by banks as shown in **Table 4** below. This represents USD 1,499 million, or ~42% of the total value of Green Bond issuances in SADC.

**Table 4: SADC Green Bond issuances by banks**

Issuer	Issuing currency	USD (M)	Issuer typology	Country	Year	Use of proceeds
Investec	ZAR	63	Bank	SA	2021	Green building, Energy
Nedbank	ZAR	63	Bank	SA	2021	Green building
Standard Bank Group	ZAR	91	Bank	SA	2021	Energy
Nedbank	ZAR	9	Bank	SA	2021	Energy
Bank of Windhoek	NAD	19	Bank	Namibia	2021	Green, Social
ABSA	ZAR	150	Bank	SA	2021	Energy
Standard Bank Group	USD	200	Bank	SA	2020	Water, Energy, Green buildings
FirstRand Bank	USD	225	Bank	SA	2020	Energy, Water
Nedbank	ZAR	117	Bank	SA	2019	Energy
Nedbank	ZAR	68	Bank	SA	2019	Energy
Bank of Windhoek	NAD	4	Bank	Namibia	2018	Energy, Transportation
Nedbank	ZAR	490	Bank	SA	2012	Energy
<b>TOTAL</b>		<b>1,499</b>				

Source: Climate Bond Initiative, supplemented by authors' research

It is noteworthy that Bank of Windhoek was the first bank to issue a fully certified Green Bond in the SADC region<sup>8</sup>, even before the South African banks. Bank of Windhoek recognized the global trend of placing increasing importance for financial markets to integrate climate change considerations and took a strategic step to issue a Green Bond. Many banks perceive issuing Green Bonds as a strategic market positioning given the global trend, and this can explain in part the growth of Green Bonds markets globally and in SADC.

Another consideration to note is that banks may opt for more broadly defined Sustainability Bonds, which aim to address not only climate change but also other social issues, such as public health and

<sup>8</sup> Nedbank issued retail Green Bonds in 2012, but they lacked third party verification of the asset-linking (i.e. ensuring the proceeds are earmarked for clean energy projects).

education. At many banks, developing steady lending pipelines solely with climate change projects may prove challenging, and by combining them with a broader set of ESG projects, they may be able to reach economy of scale to justify such bond issuance. Multiple banks have confirmed this trend.

### 2.3.2 Corporates

A large part of climate change investments is carried out by the corporate sector. In that context, Green Bonds should be a relevant financing option for corporate borrowers. However, as with any security issuance, Green Bond issuance would involve considerable information disclosure requirements; plus, additional ones for addressing climate change considerations. Businesses often are concerned about information disclosure, especially if they believe the advantage of improved capital market access thanks to such disclosure would not be significant. In countries with shallow financial markets, this is often the case, and the number of listed companies are often very modest and is limited to very large corporates. This also limits the pool of potential Green Bond issuers.

Green Bonds can offer issuers with “branding” opportunities to enhance their corporate image. In that context, Green Bonds may tilt the balance of costs and benefits of meeting disclosure requirements for capital market access more in favour of meeting the requirements, including those for Green Bonds. Regarding the extent to which Green Bonds can help tilt the balance, it depends on broader societal demands on businesses to integrate ESG considerations in the future. As the global regulatory standard on corporate disclosure requirements increasingly integrate ESG information, the regulatory trend may also expand to developing countries, including the SADC countries. This may also accelerate the paradigm shift.

Considering the above points, while there is a scope for more active corporate Green Bond issuance, this has been limited in terms of quantity compared to the other types of issuers. To date, there have been only three Green Bond issuances by corporates in the SADC region, as shown in **Table 5** below.

**Table 5: SADC Green Bond issuances by corporates**

Issuer	Issuing currency	USD (M)	Issuer	Country	Year	Use of proceeds
ACME Solar Holdings	USD	334	Corporate	Mauritius	2021	Energy
Redstone Solar	ZAR	567	Corporate	SA	2019	Energy
Growthpoint	ZAR	97	Corporate	South Africa	2018	Real estate
<b>TOTAL</b>		<b>994</b>				

**Source:** Climate Bond Initiative, supplemented by authors’ research

The ACME Solar Holdings and Redstone Solar bonds were major issuances to finance the Solar projects in Mauritius and South Africa respectively. The proceeds from the Growthpoint bond was used to green their building portfolio. Together these bonds had a total value of USD 994 million, or ~28% of the total value of Green Bond issuances in SADC.

### 2.3.3 Sovereigns

Sovereigns will be a prominent issuer group of Green Bonds in the SADC region. In many emerging and frontier market countries, government securities dominate the local bond markets; and adding green dimensions on bonds is not likely to alter the picture significantly. In some cases, government securities are crowding out potential corporate bond issues.

Sovereigns can also access international capital markets more readily than other types of borrowers, given their large financial size and generally the most favourable credit rating within a country. This will also be the case for Green Bond issuance in the international capital markets. Many governments, including the SADC countries, have steady public expenditures in environmental and other ESG-relevant

projects to warrant Green Bond issues. Governments are often more exposed to public scrutiny on ESG issues than any other types of borrowers; and in this regard, sovereign would be a key issuer group who should be interested and ready for issuing Green Bonds. Those with outstanding international bonds, such as South Africa, Namibia, Angola, Mozambique and Zambia, could explore if a portion of their outstanding international bonds may be refinanced with Green Bonds as part of their broader debt management strategies. The pricing and availability of green assets are however key for these issuances to transpire.

A key question for sovereigns is if they should focus more on the domestic market or the international bond market for their Green Bond issues. Sovereign Green Bond issuance in the domestic market could provide stimulus for market development by setting standards which other issuers can follow. By shifting more towards tapping the international bond markets for their Green Bond issuance, there may be more scope for sovereigns to take advantage of the already existing ESG investor demands as well as keep more space for other borrowers in the domestic markets. In countries with relatively large domestic markets, the benefits for stimulating Green Bond issuance activities could be considerable, for those with relatively small domestic markets, the benefits for tapping the international markets would probably outweigh the costs.

Subnational borrowers may also continue to be key issuers of Green Bonds, especially in the South African domestic market. Sub-national entities, reflecting their core businesses, often have suitable project pipelines for Green Bond issuance. However, in many SADC countries, they are more likely to play rather limited roles. Establishing the appropriate legal and regulatory frameworks for sub-national bond issuance, such as fiscal autonomy, financial transparency and insolvency resolution framework for subnational entities are likely to remain challenging. Also, sub-national entities often have very limited capacity to assume or off-set foreign exchange risks, and many of them, except those with export revenues, are not natural candidates for international bond issuance. Therefore, apart from sub-nationals in South Africa where a deep local currency bond market exists, and those with export revenues, subnational entities may play rather limited roles in developing Green Bond markets in the SADC countries.

The following bond issuances have taken place by government entities, as illustrated in **Table 6** below. This amounts to USD 1,066 million, or ~30% of the total value of Green Bond issuances in SADC.

**Table 6: SADC Green Bond issuances by sovereigns**

Issuer	Issuing currency	USD (M)	Issuer	Country	Year	Use of proceeds
DBSA	ZAR	241	Sovereign	SA	2021	Water, Energy, Green buildings, Transport
Republic of Seychelles	USD	15	Sovereign	Seychelles	2018	Conservation
City of Cape Town	ZAR	76	Sovereign	South Africa	2017	Conservation, Urban, Infra
City of Johannesburg	ZAR	139	Sovereign	South Africa	2014	Energy, Transport
Industrial Development Corporation	ZAR	595	Government-backed	South Africa	2012	Energy
<b>TOTAL</b>		<b>1,066</b>				

Source: Climate Bond Initiative, supplemented by authors' research

### 2.3.4 Potential Green Bond issuers in the SADC region

Stakeholder consultations have been conducted to identify new Green Bond issuers in the SADC region. Due to the confidential nature of some of the information, a separate non-public memorandum has been developed which gives more detail on these potential issuers (reported elsewhere).

The findings show that there is interest from all issuer types and that potential issuers are from new countries compared to past issuers:

- **Banks:** Prior Green Bond issuances by banks have been limited to South Africa and Namibia. In our consultations, banks from Botswana, Zambia and South Africa have shown interest in issuing a Green Bond, thus potentially broadening the geographic and landscape of distribution of SADC Green Bond issuances.
- **Corporates:** The biggest group of potential issuers are corporates, despite the weak performance in terms of the amount of Green Bond issues to date. These are mostly companies that want to use the Green Bond proceeds for renewable energy or real estate projects, which is in alignment with prior corporate issuances in SADC. These companies are found in South Africa, Botswana, Zambia and South Africa.
- **Sovereigns:** The Government of Namibia has indicated their interest in issuing a Green Bond,<sup>9</sup> and so does a government-backed entity from South Africa. So far only South African sovereigns and the Government of the Seychelles have issued a Green Bond and a Blue Bond.

## 3. Enabling Conditions for Green Bonds in SADC

### 3.1 Regulatory and Policy Context

Central Banks and regulators in the region have been active in developing Green Bond markets. There has been strengthening of the legal and regulatory framework through national Green Bond programmes in South Africa, along with other Sub-Saharan countries, such as Nigeria and Kenya. These have introduced national green-bond guidelines and governance, including independent certification and monitoring of proceeds, issuing benchmark sovereign Green Bonds, and developing securitisation vehicles. The development of the national green-bond guidelines has been helpful in creating momentum, and as long as by setting national guideline, the focus is on defining national taxonomies and not diverting from the Green Bond Framework and Principles as defined by ICMA, they remain positive.

There have also been efforts to facilitate international collaborations. The Network for Greening the Financial System is a network of the world's Central Banks that considers the effects of climate change on financial stability and regulation. The South African Reserve Bank is the only member of the Network from the SADC region, additionally the stock exchanges in Botswana and South Africa have annual sustainability reports. These countries also have written guidance on ESG reporting as well as (together with Tanzania) providing ESG training to investors. Namibia, Nigeria, South Africa and Zimbabwe require ESG reporting as a listing rule. Sixteen countries are members of the Sustainable Stock Exchange, a United Nations (UN) Partnership Programme hosted by the UN Conference on Trade and Development, UN Global Compact, the UN Environment Programme Finance Initiative and the Principles for

<sup>9</sup> <https://www.bloomberg.com/news/videos/2021-09-23/namibia-plans-to-issue-green-bonds-finance-minister-ktwk4m50>

Responsible Investment, which aims to provide a global platform that allows stock exchanges to explore how to promote sustainable investments.

Integrating ESG considerations in investment activities and financial markets has not become a key policy agenda in SADC countries except in South Africa. In South Africa, in line with the international regulatory trend of integrating ESG considerations in investment activities, the Code for Responsible Investing in South Africa (CRISA) was issued by the Institute of Directors in South Africa in 2011 and Regulation 28 of Pension Fund Act was amended. Indeed, South Africa has been ahead of many other countries, including those with advanced economies. In other SADC countries, there have been little impetus to integrate ESG considerations among institutional investors, and their regulatory frameworks on institutional investors do not cover such aspects, such as ESG disclosure standards, even though some have embarked on efforts to produce guidelines for Sustainable and/or Green Bonds as financial products.

Overall, the regulatory measures to stimulate deployment of Green Bonds in the SADC countries seem to have focused more on the instrument, rather than institutions which may deploy the instrument. For example, the Stock Exchange of Mauritius (SEM) has taken the initiative to create awareness about Green Bonds and to help with the local Green Bonds market development. Together with the Central Bank, the Financial Services Commission, representatives of the UN and the Ministry of Financial Services and Good Governance, the SEM has worked on publishing a Guide for the issue and listing of Sustainable Bonds in Mauritius. Similarly, in 2017 the Stock Exchange of Johannesburg (JSE) launched the Green Bond Segment, which is ring-fenced for low carbon initiatives to enable investment in securities that contribute to sustainable development and a low carbon economy. Furthermore, in 2020, the JSE introduced the Sustainability Segment, a first for Africa. This segment enables companies to raise debt for green, social and sustainable initiatives on a trusted, global market place.

There have been efforts to establish national taxonomies reflecting the economic and political reality of SADC countries. The South African Green Finance Taxonomy is one of such efforts. The globally accepted Green Bond taxonomy of eligible projects have been designed in the context of developed country economies, and several emerging market countries have been established or considering establishing a local taxonomy and standards for Green and/or Sustainable Bonds. However, as it was the case for China on use of coal, other SADC countries which consider establishing national standards need to keep in mind that diverging significantly from the established global standards could risk inviting sceptical and critical comments from advocacy groups and discrediting the national framework. While local guidance is essential to translate global goals into locally relevant and applicable benchmarks, they need to be interoperable globally to ensure that the flow of green finance across borders, and support and provide guidance around the pathway for key sectors and activities to transition in line with the Paris Agreement.

Another important consideration is the broader capital market development agenda, although this may not be strictly within the scope of this study. However, interviews and surveys conducted for this study consistently indicated, especially in South Africa, that the lack of suitable project is perhaps the single most significant constraint for Green Bond issuance, and regulations and policies surrounding the sectors which may benefit from Green Bond financing should also be examined. For example, for the energy sector, it calls for strong and consistent policy support across planning, finance, procurement and energy.

The South African Renewable Energy Independent Power Producer Procurement Programme (REIPPPP), which is a competitive tender process that was designed to facilitate private sector investment into grid-connected renewable energy (RE) generation, was a good starting point for the growth of the renewables sector in South Africa. The shortcoming of renewable energy policy in South Africa have been well-articulated, in particular that the Integrated Resource Plan needs to go beyond 2030 and that there should be no artificial constraints on Renewable Energy (RE) growth. Local content

requirements have been key in helping develop and maintain a local manufacturing base but this has been hampered by delays and uncertainty with the REIPPPP – greater certainty will help to boost both RE supply as well as employment in the sector. More such policy measures are needed in sectors which may benefit from Green Bond financing, to stimulate private investments to eligible projects for Green Bonds.

### **3.2 Barriers and Constraints to the Issuance of Green Bonds**

To a large extent, the broader capital market constraints, which apply more broadly to the local bond markets in general, also limit deployment of Green Bonds. Similarly, broader constraints on private investments in projects which may be financed by Green Bonds, also affect the growth of Green Bond market. Given that this study focuses on Green Bonds and examines possible market development interventions beyond those for more generic bond market development or private investment promotion, it discusses only possible interventions specifically targeted to Green Bonds.

#### ***Lack of bankable projects which could be financed with Green Bonds***

The single most significant constraint in South Africa is lack of bankable projects which could be financed with Green Bonds; and this is also a constraint in other SADC countries. It is more evident in South Africa simply because other constraints are more benign and therefore this constraint stands out. In other SADC countries, with other significant constraints such as small volume and short tenors of financing, it seems that market participants have not really pay due attention to the challenge of developing bankable projects in the context of developing Green Bond markets. Globally, in most emerging markets, which offer other high-yielding investment opportunities, investors often find difficult to find and develop project in the climate change projects which provide competitive risk-return profiles.

In many SADC countries, domestic investor demand is concentrated in governments and a few large banks with strong name recognition. These banks are often hesitant to invest in climate change projects with long investment horizon and high perceived risks. International investors perceive high risks in the SADC countries, and they concentrate on government and Central Bank bills and bonds, which can provide a large stock of securities with homogeneous credit quality and secondary market liquidity. Consequently, there is a significant mismatch between climate change financing needs and the investor preferences in financing terms.

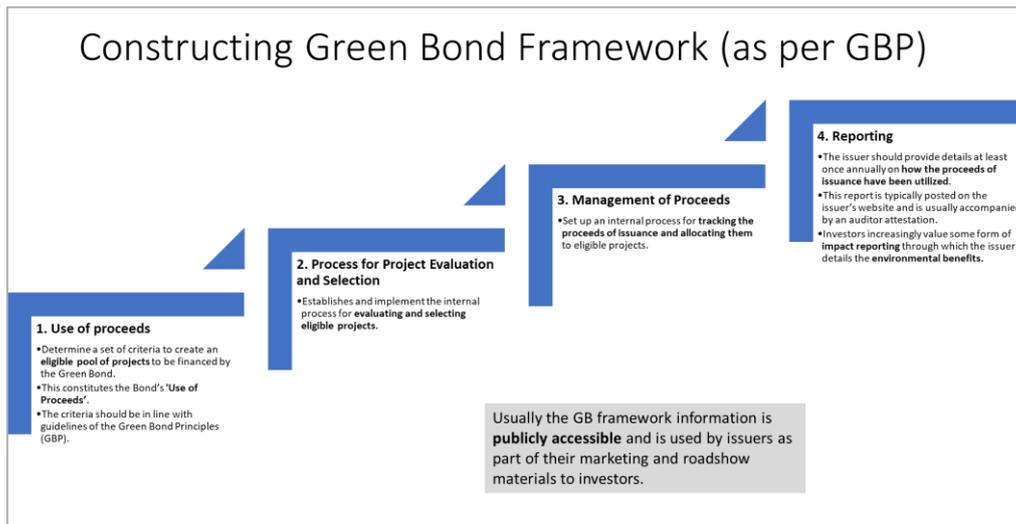
#### **Box 1**

African economies remain heavily concentrated in agriculture, which is an area of considerable climate risk because it is predominantly rainfed. That means that finance being mobilised needs to have a significant proportion of it directed into the agricultural sector to build irrigation, provide climate friendly inputs (such as drought resistant crops) and reverse environmental degradation including soil erosion and deforestation. However, investors find challenging to structure bankable projects with adequate financial returns in these areas, not only in the SADC region but globally. Similarly, there is under-financing of infrastructure in African capital markets.<sup>1</sup> Sustainable infrastructure projects, which include improved water management systems, green urban transport and construction works to reduce susceptibility to extreme weather events and rising sea levels, should offer attractive investment opportunities, but so far Green Bonds have played rather limited roles globally, which they are now playing a key role in other climate change investment areas, such as renewable energy. Probably some forms of government or donor supports will be needed for Green Bonds to be deployed in these key development areas.

#### ***Institutional Capacity at Potential Issuers***

To issue Green Bonds, in addition to the usual internal and external preparatory tasks and processes for conventional bond issuance, issuers need to perform additional internal and external tasks and processes to obtain the green label. Each Green Bond issuer needs to determine a set of criteria for the pool of projects which may be financed by Green Bonds, establish and implement the internal process for evaluating and selecting the projects, set up an internal process for tracking the use of bond issuance proceeds, and determine the scope of internal and external reporting (see **Figure 10**). Most potential issuers in the SADC region are not familiar with such processes and do not have a clear idea what they would entail in terms of institutional arrangements. Having said that, with adequate capacity building support, this constraint can be relatively readily addressed.

**Figure 10: Constructing Green Bond Framework**

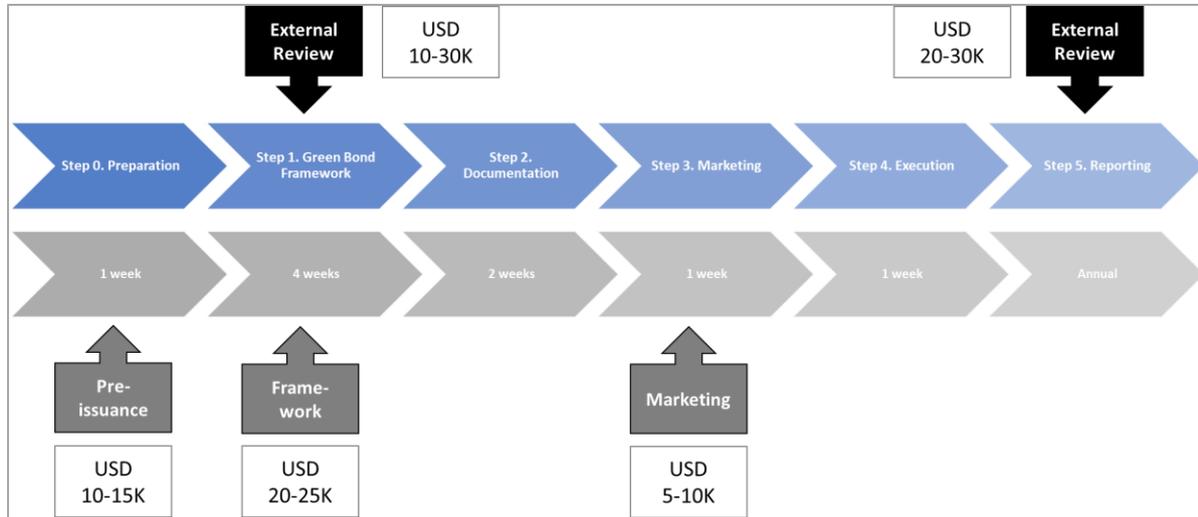


### ***Limited demonstration of financial benefits***

Financing cost advantage for Green Bonds may be small, non-existent or even negative. There have been a few Green Bond issues which achieved more favourable financing terms than those for comparable conventional bonds, but generally their terms are largely the same as those for conventional bonds, despite more required tasks and additional internal and external costs, such as the fee payable to the independent certification agent. In any case, it is difficult to predict ex ante if and to what extent a Green Bond issuance could achieve "greenium". Looking at non-financial benefits, such as positive halo effects on the ESG credentials of the issuer, it is difficult to make any objective or quantitative projections, and assessments are typically ex post, qualitative and perhaps also rather subjective. This lack of clear demonstration of costs and benefits may hinder the development of the market in the SADC region, where financial resources are scarce and potential borrowers must meet challenging financial conditions. It is interesting to note that Bank of Windhoek, the first Green Bond issuer in the SADC region, did not see any financial advantage to Green Bond issue in 2018 but it was determined to embark in Green Bond as a strategic step to position BW in a future key market that its management felt it cannot ignore. In the current context, potential issuers need to have similar long-term strategic vision and take a leap of faith. Rigorous and robust empirical evidence is needed to convince more stakeholders to scale-up take-up.

### ***Perceptions of higher transaction costs***

Issuers have regularly mentioned the higher transaction costs of Green Bonds as a barrier, combined with the extra information requirements and the longer timelines this can reduce uptake. **Figure 11** shows the Green Bond issuance process, timeline and cost.

**Figure 11: Green Bond issuance process, timeline and cost**

The process consists of several preparation and execution steps and usually takes 8-10 weeks depending on the level of issuer's readiness. Issuers have however, indicated that it can take up to 18 months. The associated transaction cost is viewed by interviewees more reasonable in case of a relatively medium to large size issuance, while it is rather high in relative terms if the issuance size is small. The transaction cost relative to the median size of an issuance at USD 105 million seems in line with cost by other international issuers. It tends to be perceived expensive if the issue size is small

### ***Small size of issuance***

The size limitation come from the difficulty of sourcing bankable and eligible projects for Green Bonds as well as the amount of bonds which the local capital market can absorb at any given time. The small size affects the appeal of the Green Bond as a financial instrument, especially for international investors. To attract a larger pool of international investors, issuance of a certain size would be preferable to create adequate secondary market liquidity. However, many "green" projects in Africa do not reach the threshold, which for example is USD 500 million for sovereign bonds, and they remain a niche product with bespoke structures, as in the case of Seychelles' Blue Bond. Also, given that the additional efforts and costs, which are required for Green Bonds issuance beyond those for conventional bonds, are typically the same regardless of the amount of the bond issuance. The costs must be amortized over smaller amount of funds, and it pushes up the all-in financing costs in terms of percentage, as expressed in interest rates for such borrowings.

### ***Rigid taxonomies***

The taxonomies for Green Bonds are based on European/US situations and are not always suited to local conditions. For example, transitioning households from cooking on coal fires to Liquid Natural Gas (LNG) would be a big improvement for many African countries, but this is not allowed in the taxonomies. A similar example is sustainable transport. More fuel-efficient vehicles would constitute a win in (Southern) Africa, but taxonomies are advocating a move to full electric which is not feasible due to the lack of appropriate infrastructure.

Green taxonomy in South Africa is in its final draft stage. It benefits from foundations of European Union (EU) taxonomy but made more applicable to the South African context, as EU taxonomy excludes LNG and nuclear energy. It is expected that the South African taxonomy to have more emphasis on transition, reflecting the reality of its emerging country economy. Other SADC countries, at earlier stage of economic development, may need further adjustments. However, as cautioned in this study, diverging significantly from the established “international” standards will invite unwanted attentions and criticisms, negatively affecting the perception of the issuers as well as the country.

### ***Technical expertise at regulatory agencies and stock exchanges***

Capital market regulators and stock exchanges often play key roles in capital market development initiatives, not only by facilitating enabling market environment in their core businesses but also facilitating knowledge sharing and collaborations among market participants, and “herding” them towards common market development goals. In information gathering process of this study, many regulators and stock exchanges expressed their willingness to assume market development leader roles, but they also expressed their concerns that they lack necessary technical knowledge. Green Bonds involves many new subjects to them, such as framework for disclosure and transparency practices of climate change issues. They also expressed their concerns that without adequate subject matter knowledge, it is difficult to determine appropriate supporting regulation to help the market take off and thrive.

### ***Incentive structure***

Under the current market environment, incentives for Green Bonds are mainly to enhance the ESG credentials and broader corporate image through Green Bonds. In emerging and frontier markets, however, these considerations may be perceived by borrowers as well as investors as doubtful if and when they translate into the financial bottom line. This is also the case for the SADC region.

In absence of clear indication of financing cost advantage, as well as visible higher upfront and recurrent monitoring and reporting costs, prior studies often argued that governments should consider offering financial support, either by providing favourable tax treatment or subsidizing such costs. Indeed, a few countries, such as Singapore, offer to subsidize the costs, such as costs for obtaining independent opinion, which are unique to Green Bond issuance, as a part of its financial centre development strategies. A few countries also explored if tax incentives, such as preferential treatment on coupon income and capital gain, may be used; but rejected such ideas. The study also does not believe that tax incentives on Green Bonds would be sensible. If any scarce fiscal resources would be applied to stimulate climate investments, applying them to specific investments would allow more precise targeting.

## **3.3 Scope for Improving Market Environment and Stimulating Green Bond Issuance**

Green Bonds should be considered as an integral part of broader climate finance strategies as well as capital market development agenda. This study focuses specifically on Green Bonds, and broader capital and bond market development issues are outside of the scope of this study. It should be nevertheless reiterated that Green Bonds may serve as a catalyst for the broader bond market development while the broader bond market constraints set boundary conditions also for Green Bonds. Therefore, it will be only sensible to integrate Green Bonds as an integral part of each country’s capital market development strategies and efforts. Also, it should be stressed that developing a strong pipeline of bankable and eligible projects is a key challenge, and this is probably the single most significant issue in the case of South Africa, where local capital markets are adequately developed. Therefore, efforts to improve

deployment of Green Bonds should also be seen more broadly in the context of the region's and country's overall climate finance strategy.

Zooming in specific aspects which uniquely affects deployments of Green Bonds, this study highlights (i) knowledge and institutional capacity of potential issuers, (ii) regulators and stock exchanges' ability to create enabling environments and lead the Green Bond market development efforts, (iii) regulations, especially on institutional investors, and (iv) broader public awareness on climate finance, especially among the financial sector participants. On other aspects, the study sees both pros and cons of establishing local Green Bond criteria, or establishing local independent verification agents. Perhaps contrary to some prior studies, it cautions regarding direct financial incentives, especially tax incentives on Green Bond investments.

### ***Knowledge and Institutional Capacity of Potential Bond Issuers***

Differentiated approach may be necessary for supporting sovereigns, corporates and banks.

- For sovereigns, the first step would be to gain clear understanding of key benefits and costs for Green Bonds, such as positive impact on national image, potentially better capital market access terms, clear understanding of additional internal tasks (which ranges from setting framework for evaluation and selection of projects, project and portfolio monitoring, reporting, etc.), required additional information disclosure, and incremental costs over comparable conventional bonds. There is a widely shared perception that the incremental costs are prohibitively high, but for sovereigns, especially for international bond issues which are typically over USD 100 million, such costs can be easily absorbed and the capital market access advantage, also in terms of lower yields, can compensate them. The processes may seem complex, but by approaching them step-by-step, challenges should not be unsurmountable. Indeed, cross-country peer learning, involving countries which have already done it, such as in Seychelles, should facilitate hands-on learning.
- For corporates, the steps are similar to those for sovereigns, but it would be more challenging. First, their issuance sizes as witnessed outside SADC are typically smaller, and they may not be able to bear foreign exchange risks and rely more on domestic bond market. For them, incremental costs for Green Bonds may weigh heavier. Therefore, in countries other than South Africa, it may be more effective if the primary focus at this stage is set on large corporates, which can assume foreign exchange risks, may tap the international capital markets. Another challenge may be how capacity building efforts can be implemented. It would be difficult to implement peer learning as firms typically operate in a competitive environment, and they may lack access to donor funds. In this regard, it calls for neutral national advocates, such as capital market regulators and stock exchanges, to organize learnings involving them.
- For banks, the key issue is developing a strong pipeline of projects which can be refinanced by Green Bonds. Banks are generally better informed than other types of bond issuers about Green Bonds, equipped to handle necessary processes, and can probably more readily deploy them if they make financial sense. In this context, loans from DFIs at favorable terms may be considered, to incentivize banks to be more proactive in providing loans to eligible projects. In this way, Green Bonds can be also deployed to support more financing to investments by a broader range of firms beyond just a few large corporations.

### ***Regulators and stock exchanges' capacity to create enabling environments and lead the Green Bond market development efforts***

Regulators and stock exchanges are the stakeholders who are best positioned to lead efforts to stimulate deployment of Green Bonds. For such efforts, it calls for a neutral party to facilitate knowledge sharing, and guide market participants towards desired outcomes. In larger and more developed markets, private parties may see business opportunities and take initiatives to assume such roles, however in smaller and less developed markets, regulators and stock exchanges would need to assume more proactive roles. For that, they need to have adequate technical knowledge on the instrument as well as surrounding issues, such as framework and processes for Green Bond issuance.

In the SADC region, perhaps this could be implemented through peer-learning among regulators and/or stock exchanges, targeted capacity building to specific institution at the national level, or combination of both. Reflecting that the diversity of climate challenges among SADC countries and therefore different target sectors for Green Bond finance, as well as capital markets at different development stages, targeted capacity building to specific institutions may be more effective to explore and develop concrete action plans, and capacity building efforts by international development partners can serve as supporting platform for such efforts. Cross-country peer learning will be an effective tool to learn from hands-on experience of addressing specific issues towards Green Bond issuance.

Providing adequate financing to them to implement such efforts may be also necessary. Many aspects for expertise relevant for Green Bonds are beyond the scope of traditional capital market expertise, and it may also require additional staffing at these institutions. In larger markets, additional fee income from security registration, listing fees, etc. may help cover such incremental costs, but that would not be the case for the most SADC countries.

#### ***Regulations on institutional investors and banks***

For Green Bonds to be an attractive financing tool, it needs to offer also attractive financing terms to borrowers. For that, a strong investor demand is a key prerequisite. Historically, regulations on institutional investors and banks' financial assets have been used to direct funds to desired public purposes, such as setting minimum thresholds for their holdings on government securities, to ensure stable government finance. Similarly, capital requirement ratios, central bank repo eligibility, etc. have also been used for such purposes in countries across the globe. To help channel more resources to climate finance, there may be scope for such policy measures to stimulate deployment of Green Bonds. However, such policy and regulatory measures need to be carefully calibrated, to avoid unexpected and undesired consequences. For example, it is often tempting to direct financial resources of pension funds to desired public purposes, but such measures need to be implemented in a way that they do not risk harming financial soundness of pension funds. This is one policy area which deserves further discussions, also in the SADC context.

In more developed markets, where a variety of "green" products are in demand from and offered to investors, the regulatory focus is more on appropriate disclosure to prevent misinforming investors if and how these products help achieve the publicized objectives. South Africa, as one of Group of Twenty (G20) countries and with internationally present financial intuitions, will need to keep pace with the global regulatory trend. However, for other SADC countries, it may be better carried about in the context of the broader market development strategy rather than of narrowly focusing on this issue, in the current state with little investor demand and absence of climate finance products in the local capital markets.

#### ***Broader awareness on climate finance, especially among the financial sector participants***

For sustainably accelerating climate finance, it calls for a shared sense of urgency among market participants to change the financial markets as a whole to direct more financing to address climate change challenges. In the advanced markets, they also see business opportunities to create and profit

from new investments, and climate finance is a key agenda, and Green Bonds are an integral piece of the agenda. In the SADC markets, except in South Africa, while market participants broadly understand this global trend, it does not translate into concrete business plans at this stage for many of them.

To give stimulus in this regard, some countries embarked on sovereign Green Bond issuance. Indeed, some European countries have initially issued Green Bonds under that same logic. For example, a South African green sovereign would send a strong signal to the capital markets that South Africa is preparing to meet the goals of the Paris Agreement. Public sector investment can also encourage green investment from the private sector, e.g. a sovereign Green Bond could include expenditures to pay for green EV charging infrastructure, car manufacturers will be encouraged to use the Green Bond market to finance the costs associated with the transition to zero emission vehicles. Sub-sovereign Green Bonds have already been issued by the City of Cape Town and Johannesburg. Sovereign and sub-sovereign bonds can catalyse local markets by encouraging essential elements such as the necessary infrastructure, dedicated Green Bond funds, and visibility. But this is only one piece of the puzzle. Institutional support from public bodies such as the reserve bank, or institutional pension funds allocating investments to green or socially responsible strategies can also set a crucial example and encourage additional Green Bond issuance.

## 4. Conclusions and Recommendations

### 4.1 Conclusions

**The need for climate finance in the SADC region far exceeds the available financing, and Green Bonds should be considered as a tool to help fill the financing gap.** The cumulative climate change adaptation and mitigation financing over the period 2020 - 2030 in the SADC countries is estimated at approximately USD 200 billion; and this is well above what the government budget can support. Private capital needs to be mobilized, and policy makers and market participants globally see Green Bonds as a useful financial instrument in this regard. Green Bonds are still a relatively new instrument in the SADC countries, and it is difficult to estimate to what extent they may help fill the financing gap from the basis of the transactions volume to date. However, considering the growth trajectory of Green Bonds in more advanced economies during the past decade, the global movement for greening the financial markets, and the momentum under the Paris Agreement, it would be natural that climate finance will become increasingly an important agenda also in the SADC region; and use of Green Bonds, which is one of already tested tools in that context in the global markets.

**To accelerate the growth of Green Bonds in the SADC region, it calls for a deeper pool of issuers, especially corporate borrowers.** Green Bond issuers in the SADC countries so far are largely sovereigns, sub-nationals and banks, and corporate issuers remain rather inactive. This is different from issuer profiles in advanced economies where corporate issuers are the largest issuer group. The inactivity by corporate borrowers may reflect the fact that the number of listed firms, which publish financial statements and other disclosure statements on a regular basis, are limited in many SADC countries. The relatively short tenors of financing available in the local bond markets may also make bond issuance unattractive to issuers vis-à-vis bank loans, especially when financial disclosure requirements for bond issuance are considered. It should, however, be noted that, in the advanced economies where Green Bonds have become a key financial instrument, the market growth has been driven primarily by the issuers' desire to establish their institutional ESG credentials and Green Bonds' effectiveness of

facilitating such communications between issuers and investors in that regard, not by financial considerations. To accelerate the Green Bond market growth in the SADC region, it calls for a broader pool of like-minded issuers. Deepening of the investor base is also important in all SADC countries except South Africa, but this can be tackled only as a part of the broader efforts to increase domestic savings and capital market development initiatives, which are beyond the scope of this study. **In the near-term future, interventions with focus on the issuer side will be more impactful.**

**This study identified a modest SADC issuer pipeline, in which the highest interest is from corporates, and with interest from all issuer types.** Promising for the SADC Green Bond market is also that potential issuers are from new countries compared to past issuers. This, together with the high volume (in quantity and quantum) of issuances in 2021, indicate that the SADC Green Bond market is starting to take off.

**Constraints for South Africa and other SADC countries are very different, and need to be approached differently.** South Africa has a relatively deep capital market, with large, diversified and professional institutional investor base. The local bond markets offer longer term debt finance opportunities, also for non-government bonds. Therefore, the focus will be more on addressing issues unique to Green Bonds, in particular incentivising market participants to develop eligible projects for Green Bond finance. It calls for very targeted interventions in South Africa. In contrast, local capital markets in other SADC countries are relatively shallow. Broader capital market constraints set boundary conditions also for Green Bonds, and it calls for more broad-based interventions. Borrowers may need to consider tapping the international capital markets to meet its financing needs. This would, of course, limit the pool of potential issuers.

**In South Africa, the priority is to develop a pipeline of bankable and eligible projects for Green Bonds.** With the deep investor base at international standards, the market is ripe for Green Bond issuance. However, issuers continue to struggle to develop suitable projects. There are multiple reasons for this. A bank indicated that the uncertainty created by COVID-19 may have interfered with pipeline establishment, since corporates may deprioritise energy efficiency investments due to the adverse economic climate. Regulation can also be a constraint. South Africa has only recently begun to allow smaller IPPs to generate and feed into the electricity net which has hampered the green energy project pipeline. Another reason is the lack of reliable data on the costs and benefits of green building which has hampered the interest in green buildings. In South Africa, given that the key challenge to be tackled is a clear and single issue, efforts should be concentrated to address it.

**In other SADC countries, it calls for national champions for leading the efforts to develop Green Bond markets.** The challenges are numerous and diverse; and also involve country specificity. Economic and industrial structures of these countries are diverse, and therefore the target sectors for deployment of Green Bonds would differ among them. Local financial markets' awareness of climate finance, and therefore the desire and willingness to explore Green Bonds, also differ considerably among them. While the depth of local capital markets in these countries is generally shallow, they are at different stages of market development. Market participants may have heard of Green Bonds but lack relevant technical expertise and face institutional capacity constraints. To kickstart the market development for Green Bonds, it calls for national champions to set the path, gather stakeholders, and lead them towards common objectives. Capital market regulators and Stock Exchanges will need to play key roles in this regard in these countries.

**Green Bonds should be considered in the context of the country's overall climate finance and capital market development strategies.** This is especially the case in countries with shallow capital

markets. To deploy Green Bonds effectively, it calls for a deeper capital market; and on the other side, successful Green Bond issuance can help deepen the local capital market. Trying to stimulate deployment of Green Bonds without addressing the broader capital market deepening would face limitations in these countries. For these countries with limited domestic savings and shallow capital markets, in order to meet the climate finance gaps, they may need to tap into international capital markets, and Green Bonds may be a promising instrument in this regard. In such cases, it calls for a national climate finance strategy, which spells out required investments to meet NDCs, how they will be financed, and how Green Bonds will be deployed in that context. Isolated efforts to stimulate deployment of Green Bonds are less likely to lead to stronger deployment of Green Bonds; or they may simply result in replacing conventional bonds with Green Bonds. While such replacements have their own benefits, such as higher degree of transparency on use of proceeds, the SADC region countries, like other frontier and emerging markets, need also to consider how Green Bonds can help fill the financing gaps. Finally, Green Bonds are a capital raising mechanism and cannot be expected to alone result in the development of national climate response markets. They are complementary to the wider regulatory, subsidization, fiscal and other measures needed to transition markets.

**Strategic involvements of international development partners are clearly needed for more active deployment of Green Bonds in the SADC region.** In many SADC countries, capital market regulators and stock exchanges need to play leadership roles to enhance deployment of Green Bonds. They also need to explore if and how Green Bonds can help address the financing needs, as well as obstacles, which are to a large extent country specific, can be best addressed. Development partners need to be cognisant that no generic set of effective market development remedies are available, and plans need to be designed and implemented in partnership with local partners if they desire to enhance deployment of Green Bonds in these countries. Many capital market regulators and stock exchanges are keen to play the role but lack necessary expertise; and seek for knowledge sharing support. Banks are also keen to embrace Green Bonds if they could develop suitable loan portfolios, and DFIs could consider financial intermediary loans to help them start developing such portfolios, perhaps with contingency for participating financial institutions to refinance such DFI loans subsequently with Green Bond issuance. For other countries than South Africa, without active involvement of international development partners with financial supports, deployment of Green Bonds is likely to struggle.

#### 4.2 Recommendations

**Strengthen regulators' and stock exchanges' expertise on climate finance, as well as Green Bonds, so they can play leadership roles.** They have dual roles: implementing appropriate regulations, as well as to support market development. In the SADC region, on Green Bonds, the emphasis on the market development roles. Development partners can provide critical supports in this regard, by financing technical assistance programs which serve as platform for development of the country's climate finance strategy and deployment of Green Bonds. **It calls for support from international development partners.**

**Establish national champions for designing and implementing market development measures for enhanced deployment of Green Bonds.** Policy and regulatory interventions differ among SADC countries, reflecting diversity of the economies in the region, as well as the depth of local capital markets. Broadly speaking, Green Bonds should be considered as an integral part of each country's climate finance strategy as well as the capital market development agenda. Regional collaborations can facilitate peer-learning for not only product expertise but also on ideas for fostering enable environments, designing and implementing concrete policy measures, hands-on experience of leading stakeholders. There is no "one-size fits all" prescriptions for all SADC countries to improve deployment

of Green Bonds. Specific plans need to be developed in each country, reflecting the reality on the ground. Strong leadership by institutions with public mandates, such as capital market regulators and stock exchanges, and good coordination with relevant public and private-sector parties, including Environment Ministry and other relevant government entities, as well as key private-sector market participants, will be critical.

**Incentivize especially banks to develop portfolios of eligible and bankable projects for Green Bonds.** Countries, in their dialogues with Development Finance Institutions, can explore if line of credit operations could be designed and implemented to help local banks to develop such loan portfolios. Such financial intermediary loans by DFIs could also be disbursed in tranches, whereas disbursements of subsequent tranches are conditioned on refinancing a part of the loan portfolio by Green Bond issuance. Technical Assistance can be helpful to create pipeline along with help for legal fees and transaction advisors.

**Explore and support Green Bond issuance with strong demonstration effects.** In many SADC countries, the shortest path in this regard may be sovereign Green Bond issuance. However, given the limited public fiscal resources, the most of necessary climate investment needs must be carried out by the private sector, Green Bonds by private-sector entities would have more impact. This study explored potential Green Bond issuers in the SADC regions. Given the confidential nature of such discussions, this will be communicated separately.

**Press for the wider instruments to support climate market development in SADC countries.** – e.g., regulatory requirements, subsidization, intrinsic motivation, project identification, and so on.

#### 4.3 Recommended Short-Term Actions

In context of the wider Green Bond programme of FSD Africa, to trigger further development of Green Bonds in the SADC market, a number of specific short-term actions by stakeholders are recommended.

**Table 7 Recommended short-term stakeholder actions**

Stakeholder	Actions
Regulators and Securities Commissions	<ul style="list-style-type: none"> <li>Strengthen own expertise on climate finance, as well as Green Bonds, to be able to play a leadership role</li> <li>Establish national champions for designing and implementing market development measures for enhanced deployment of Green Bonds</li> <li>For FSD Africa, undertake a capacity gap assessment of regulators and securities commissions in the SADC countries and respond to capacity gaps via targeted technical assistance and training workshops structured around thematic modules</li> </ul>
Stock Exchanges	<ul style="list-style-type: none"> <li>Establish joint working groups between stock exchanges and regulators to coordinate action plans in promoting climate finance instruments and green bonds</li> <li>For FSD Africa, develop training for stock exchanges on green bonds, sustainable bonds and related, with a</li> </ul>

	<p>program including a few modules and conducted over a series of workshops. Stock exchanges can play a catalyst role and bring market stakeholders from all constituencies</p>
Issuers and Investors	<ul style="list-style-type: none"> <li>• Banks should explore further developing portfolios of eligible and bankable projects for Green Bonds, inter alia through business origination efforts targeting clients, corporates and public bodies to explain the benefits of green bonds</li> <li>• For FSD Africa, develop a series of national events to promote and raise awareness of climate finance instruments in general and green bonds in particular, targeting inter alia banks and corporates</li> <li>• For FSD Africa, conceive a technical assistance programme targeting banks with multiple products: (i) provide technical training to banks on climate finance and green bonds, (ii) undertake a capacity gap assessment of banks to assess their readiness to issue a green bond, and provide an action plan to fill the gaps, until banks become ready, and (iii) assist banks in originating a pipeline of qualified projects for green bonds</li> </ul>

## Appendix 1: List of consulted documents

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2. Climate Bonds Initiative, 2019. First Green Bond from Kenya: Acorn USD40m - Climate Bonds Certified, financing green buildings. <https://www.climatebonds.net/2019/10/first-green-bond-kenya-acorn-usd40m-climate-bonds-certified-financing-green-buildings>
3. Climate Bonds Initiative. Green Bonds in South Africa. [https://www.climatebonds.net/files/reports/cbio\\_sa\\_energytrans\\_03d.pdf](https://www.climatebonds.net/files/reports/cbio_sa_energytrans_03d.pdf)
4. SAIIA. Bridging the Divide: Integrating SADC's capital markets: [https://media.africaportal.org/documents/Occasional\\_Paper\\_295\\_Bridging\\_the\\_Divide\\_Integrating\\_SADCs\\_capital\\_markets\\_1.pdf](https://media.africaportal.org/documents/Occasional_Paper_295_Bridging_the_Divide_Integrating_SADCs_capital_markets_1.pdf)
5. FSD Africa. 2016. Feasibility Study for Development of a Green Bonds Market in Ghana <https://www.brookings.edu/blog/africa-in-focus/2021/03/26/africas-green-bond-market-trails-behind-other-regions/>
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9. SEI, 2021. Scoping the Green Bond landscape in Africa: <https://cdn.sei.org/wp-content/uploads/2021/02/210205a-killen-marbuah-green-bonds-db-2101d-final.pdf>
10. Leonie Routil, UNFCCC secretariat, Southern African Development Community (SADC) Climate Finance Flows: [https://unfccc.int/sites/default/files/resource/Session1-LeonieRoutil\\_ClimateFinanceFlows.pdf](https://unfccc.int/sites/default/files/resource/Session1-LeonieRoutil_ClimateFinanceFlows.pdf)
11. Keith Jefferis, 2009. SADC – COMESA Bond Market Mapping Study: [https://pdf.usaid.gov/pdf\\_docs/pnadu387.pdf](https://pdf.usaid.gov/pdf_docs/pnadu387.pdf)
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14. Onke Ngcuka, 2021. SADC climate financing too limited to boost renewables in the region: <https://www.dailymaverick.co.za/article/2021-07-18-sadc-climate-financing-too-limited-to-boost-renewables-in-the-region/>
15. Capital Market Development in Sub-Saharan Africa - The ODI research series for financial development in Africa
16. Green bonds in sub-Saharan Africa - The ODI research series for financial development in Africa

## Appendix 2: List of consulted stakeholders

No	Organization	Contact Person	Designation	Date
1	BSE (Botswana)	Questionnaire	Questionnaire	25-08-2021
2	MSE (Malawi)	Questionnaire	Questionnaire	25-08-2021
3	SEM (Mauritius)	Questionnaire	Questionnaire	25-08-2021
4	BVM (Mozambique)	Questionnaire	Questionnaire	25-08-2021
5	NSX (Namibia)	Questionnaire	Questionnaire	25-08-2021
6	JSE (South Africa)	Questionnaire	Questionnaire	25-08-2021
7	DSE (Tanzania)	Questionnaire	Questionnaire	25-08-2021
8	LuSe (Zambia)	Questionnaire	Questionnaire	25-08-2021
9	FINSEC (Zimbabwe)	Questionnaire	Questionnaire	25-08-2021
10	ZSE (Zimbabwe)	Questionnaire	Questionnaire	25-08-2021
11	BODIVA (Angola)	Questionnaire	Questionnaire	25-08-2021
	Capital Market Commission (Angola)	Questionnaire Wardah Beeharry	Questionnaire	20-12-2021
12	MSM (Lesotho)	Questionnaire	Questionnaire	25-08-2021
13	MERJ (Seychelles)	Questionnaire	Questionnaire	25-08-2021
14	ESE (Eswatini)	Questionnaire	Questionnaire	25-08-2021
15	Committee of SADC Stock Exchanges (CoSSE)	Thapelo Tsheole	CoSSE Chairperson	21-07-2021
16	Proparco/AFD	Nadia Kruger Levy	Investment Officer	14-09-2021
17	IFC	Louise Gardiner	Sustainable Banking	15-10-2021
18	DBSA	Muhammed Sayed	Specialist, Climate Finance Unit	22-11-2021
19	UNDP/BIOFIN Zambia	Bruno N Mweemba	Green Finance Expert	01-10-2021
20	ABSA	Shiran Moodley	Sustainable Finance	30-11-2021
21	Rand Merchant Bank	Danielle Frank Beth Rivett-Carnac	Transactor Sustainable Finance and ESG Advisory Sustainable Finance and ESG Advisory	14-09-2021
22	Investec	Tanya Dos Santos	Group Sustainability	17-09-2021
23	Nedbank	Arvana Singh	Head: Sustainable Finance Solutions	23-11-2021
24	Standard Bank	Rochelle Chetty	Environmental director	21-10-2021
25	Bank of Windhoek	Mr. Joachim Komeheke Mr. Diederik Kruger Mr. Ruan Besthier	Research analyst, Head of Risk Management, In charge of Green Bonds and Sustainable Bonds	13-09-2021
26	Growthpoint Properties	Dirkje Bouma Natalie van der Bijl	Group Treasurer Integrated Reporting & Sustainability Officer	03-12-2021
27	DBSA	Muhammed Sayed Craig Bezuidenhout Saphira Patel	Specialist, Climate Finance Unit Principal - Funding Desk (DBSA) Acting Head: Environmental and Social Sustainability	08-12-2021
28	Cicero	Bernhard Schießl	Second Opinions and Data Strategy	26-10-2021
29	ASISA South Africa	Sunette Mulder	Senior Policy Advisor - Investments & Systemic Risk	06-10-2021

30	Climate Bonds Initiative	Krista Tukiainen	Head of Research and Reporting	09-12-2021
31	Banking Association of South Africa	Yaseen Lockhat Pierre venter	Senior Specialist: Sustainable Finance General Manager	06-12-2021
32	National Business Initiative (South Africa)	Tara Caetano Reitumetse Molotsoane Geeta Morar	Project Manager: Climate Change, Water and Energy Programme Manager: Climate and Energy at National Business Initiative Project Manager	22-11-2021
33	Independent Consultant	Cecilia Murai	Project Manager SADC Green Bond Programme	Multiple
34	FSD Africa	Vimal Parmar	Kenya Green Bond Program Manager	21-07-2021
35	FSD Africa	Matteo Bigoni	Senior Climate Finance Specialist	21-09-2021
36	Independent Consultant	Kamlesh Pillay	Climate and Adaptation Finance Specialist South Africa	21-10-2021
37	UNFCCC	Leonie Routil Grant Kirkman	Climate Finance Consultant Team Lead (Climate Finance)	Multiple
38	Zambia Securities and Exchange Commission	Mutumboi Mundia	Director, Market Supervision and Development	10-11-2021

## Appendix 3: Green Bonds benefits to issuers and investors

The table below outlines the benefits of Green Bonds to issuers and investors.

**Table 8: Benefits to issuers and investors**

<b>Issuers</b>	
<b>Investor diversification across regions</b>	Environmentally green/low carbon integrity of the bond enables issuers to raise capital from a much broader base of investors
<b>Strong oversubscription</b>	Demand for Green Bonds generally outstrips supply and investors acquiring Green Bonds often hold them to maturity. As a result, Green Bonds are generally 'sticky' in the secondary market as investors are not inclined to sell their Green Bonds
<b>Lower cost of capital</b>	Green Bonds enable issuers to raise large amount on the capital markets; Refinancing through Green Bonds and obtaining lower-cost debt is particularly attractive for low carbon infrastructure assets as they have a particularly low operating post-construction compared to the construction phase
<b>Tighter yields</b>	Given the demand for Green Bonds, 'strong pricing' has been achieved by recent Green Bond issuance. Some corporate issuers claimed to have achieved a lower cost of capital especially for bonds denominated in Euros and Dollars
<b>Stickier pool of investors</b>	Typically, Green Bond investors invest for the long term, which is a major benefit for infrastructure projects seeking longer term investments
<b>Reputational benefits</b>	Requirements for enhanced transparency disclosure associated with a Green Bond issuance will appeal to investors. Green credentials, also issuer reputation overall, and can be part of a wider sustainability strategy
<b>Investors</b>	
<b>Enhanced risk management and improved long term financial returns</b>	ESG track record is recognised as a proxy for overall more efficient companies. Investing in sustainability meets and often exceeds the performance of comparable traditional investments. Furthermore, the transparency and disclosure requirements on Use of Proceeds and performance of the projects are an additional risk management tool
<b>Addressing climate risk</b>	Green Bonds can help mitigate climate change-related risks in the portfolio due to changing policies such as carbon taxation which could lead to stranded assets. Instead a Green Bond invests in climate friendly assets, such as green buildings, renewable energy, that overtime bear a lower credit risk
<b>Alignment of CSR (or core business when pure play) with funding scheme</b>	Some investors make the case that the intrinsic risk and return for most Green Bonds was usually the same as any conventional bond with the same rating and hence the benefits were for "purpose-based investing" only
<b>Green Bonds give investors a chance to direct capital to climate change solutions</b>	Where as at the moment there is little opportunity ("lack of deal-flow") such as the USD 22 trillion of investors who are members of the Global Investor Coalition on Climate Change
<b>For pension funds</b>	Investment in Green Bonds matches long term liabilities and will also help build a sustainable society for pensioners to retire into
<b>Alignment with National Development Agenda</b>	The Institutional Investor Stewardship Code as well as International recognition as an innovator in green finance

Source: FSD Africa. Africa Green Bond Toolkit.

## About Rebel

### No change without a Rebel

Rebels work on the issues that affect all our futures, from sustainability, transportation and urban development to healthcare and the social sector. We make an impact, not only as consultants but also as investors. After all, anyone who believes in their own advice should be prepared to invest in it. We are committed to bringing change, initiating and realizing our own projects. We provide quality strategic advice & development, business policy & evaluation, partnership consulting & contracts, financial advice & modelling, and investments & fund management.

### Thinking beyond existing structures

The Rebel adventure began in 2002 with ten chairs around a large round table. Sitting around that table, we decided to continue our careers in consultancy by starting our own company – we were the first Rebels. It was to be a company without a hierarchy, without bosses, without limits. A place where everyone could realize their full potential. We bring everything we have inside to the table. Intrinsic motivation, the urge to bring change, expertise and one constant focus: to make a real impact with our projects around the world. We now work with more than 180 Rebels from our offices in Rotterdam, Amsterdam, Antwerp, Düsseldorf, London, Washington D.C., Nairobi, Johannesburg, Mumbai, Manila and Jakarta.

The drive and determination of that first step in 2002 informs how we work with and on behalf of our partners to this day. Trust is everything. In everything we do – and we do a lot! – our objective is to have a positive impact on the world. At the interface between the public and the private, because combining social values with a keen business sense is close to the heart of all Rebels. That might seem like an ambitious goal, perhaps, but we have always relished a challenge. We invite everyone to join in, to become part of the change. Let's think beyond existing structures. As governments, as companies and as individuals.

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