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**HOW TO CITE:**

Ngwenya N, Simatele MD. The emergence of green bonds as an integral component of climate finance in South Africa. *S Afr J Sci.* 2020;116(1/2), Art. #6522, 3 pages. <https://doi.org/10.17159/sajs.2020/6522>

**ARTICLE INCLUDES:**

- Peer review
- Supplementary material

**KEYWORDS:**

climate mitigation, climate investment, climate finance mechanism

**PUBLISHED:**

29 January 2020

# The emergence of green bonds as an integral component of climate finance in South Africa

One of the greatest challenges facing the global community is climate change.<sup>1</sup> Over many years, global leaders have embarked on various platforms in a concerted effort to combat climate change.<sup>2</sup> One of the key platforms has been the annual Conference of the Parties (COP) – a regular meeting in which climate negotiations and high-level political discussions have taken place.<sup>2</sup> In 2015, the 21st COP was the most important because 195 countries agreed to ensure that rising global temperatures do not exceed the safe zone of 1.5 °C, as it is forecasted that temperatures will continue beyond this value between 2030 and 2050 if no action is taken to combat climate change.<sup>3</sup> The parties further agreed that climate investments for countries are critical to make enormous transformational changes to reduce their greenhouse gases by scaling up climate adaptation and mitigation strategies.<sup>3</sup>

Developing countries are at a crossroad because they are the most vulnerable to the impacts of climate change and they are highly dependent on climate finance from developed countries in order to finance climate adaptation and mitigation projects.<sup>4</sup> The Climate Funds Update is one of the largest databases on multilateral climate finance initiatives and the Green Climate Fund set up by the United Nations Framework Convention on Climate Change (UNFCCC) in 2010 has now become the largest climate fund for developing regions such as sub-Saharan Africa, Asia and the Middle East.<sup>4,5</sup> However, there have been challenges facing many developing countries that have tried to access this finance. These challenges arise because developing countries have difficulties in the design and co-ordination of projects due to a lack of effective institutions and expertise.<sup>5</sup> This also creates challenges in the planning and coordination of projects.<sup>5</sup>

Furthermore, a 2018 report by the World Bank on climate finance, estimated that more than USD200 million per annum will be required for each developing country to have proper strategies and capacity-building frameworks to build resilience against climate change.<sup>6</sup> It is therefore important that, in order to meet their commitments to the Paris Agreement, developing countries explore other finance opportunities for climate mitigation or adaptation strategies, of which green bonds are one.<sup>6</sup>

The emergence of green bonds has been explosive over the years as an innovative manner in which to mobilise private capital towards investing in ‘green’ projects.<sup>7</sup> Green bonds have been considered an integral component of climate finance because they appeal to investors who can reap financial benefits whilst also playing a role in investing in environmental and climate-related projects.<sup>7</sup> Green bonds have also appealed to the public sector, where governments and municipalities have begun to issue green bonds to meet their climate-change commitments by implementing their adaptation and mitigation strategies.<sup>7</sup> To date, South Africa is one of only a few African countries that have been active in the green bond sphere.<sup>8</sup> Both the public and private sectors have issued green bonds – the proceeds of which have gone into renewable energy such as wind and solar projects, energy-efficient buildings as well as low-carbon infrastructure, e.g. low-emission vehicles and electric buses.<sup>8</sup>

In view of the above, green bonds are analysed here as being an integral component of climate finance in South Africa, with both the public and private sectors involved.

## Green bonds: A new source of climate finance

Green bonds have emerged as one of the most innovative and promising climate finance mechanisms internationally.<sup>8</sup> The green bond market has had exponential growth of 92% over little more than a decade with a few green bonds purchased from its establishment in 2007 to more than USD200 billion worth of green bonds purchased in 2018.<sup>8</sup> Owing to increasing awareness of the benefits of green investments, the first green bonds to be issued were by international development institutions such as the World Bank, the International Finance Corporation, and the European Investment Bank.<sup>8</sup> Since then several commercial banks, municipalities, governments as well as large investment companies have issued green bonds to support and enable the transition towards a low-carbon society.<sup>8,9</sup> This is because green bonds fund projects that contribute to reducing carbon emissions such as renewable energy, sustainable agriculture like eco-farming, as well as climate-resilient infrastructure.<sup>9</sup>

Green bonds have been defined in various ways. Banga has argued that there is ‘no universal definition of green bonds, although a growing consensus has emerged on what they are intended to do’<sup>10(p.18)</sup>. Here we use the World Bank’s definition of a green bond: ‘a debt security that is issued to raise capital specifically to support climate-related environmental projects’<sup>11(p.23)</sup>. The unique feature of green bonds is that, for the first time in capital markets, there is an actual bond in which proceeds are invested in projects that will bring environmental benefits.<sup>11</sup> The Climate Bonds Initiative is a non-governmental organisation located in London that assists governments and investors internationally to issue green bonds and assists in certifying eligible green projects.<sup>9</sup> The Climate Bonds Initiative has a selected taxonomy of the range of projects supported by green bonds.<sup>9</sup> This is very diverse and can cover renewable energy, low-carbon transport, green buildings and infrastructure, as well as improved water efficiency.<sup>12</sup> However, it is unlikely that this taxonomy is exhaustive and inclusive because it is anticipated that, as the green bond space grows, more eligible green projects will be included.<sup>13</sup>

Ameliorating climate change is now considered a huge investment opportunity and investor appetite for green bonds has grown rapidly.<sup>14</sup> In the developed region of the world, the growth of green bonds is visible, with Europe and the USA leading the way.<sup>10</sup> This growth has been supported by governments and various investors to whom climate awareness and climatically responsible investments has become a priority in terms of international agreements.<sup>8</sup> By contrast, in developing regions, the green bond market has been relatively small, and there is certainly potential for growth.<sup>8</sup> In emerging markets, including countries in Asia, Africa and Latin America, the issuing of green bonds is increasing steadily.<sup>14</sup>

## Climate finance systems and green bond opportunities in South Africa

The 2018 Intergovernmental Panel on Climate Change Special Report that came out of COP24 in Katowice, Poland, has projected that an increase in global temperatures will be detrimental for the sub-Saharan region.<sup>15</sup> In particular, South Africa is considered to be one of the hotspots of climate change<sup>16</sup>, with increasing drought periods and resulting water shortages<sup>17</sup>. Climate change has affected broader South African society and the economy.<sup>18</sup> Figures are instructive: the prolonged drought from 2014 to 2017 resulted in a decrease in GDP because of the impact on agricultural production.<sup>19</sup> Moreover, and this remains to be seen in the policy arena, the consequences of climate change have accelerated the need to enforce national policies and consider strategies to build social, environmental and economic resilience. Climate adaptation and mitigation strategies are reflected in various policies and strategies, such as the Draft National Climate Change Adaptation Strategy (2019)<sup>20</sup> as well as the National Climate Change Response White Paper (2011)<sup>21</sup>.

As part of the Nationally Determined Contributions, which are long-term climate plans to reduce emissions developed by each country at the Paris Agreement, South Africa has established various climate finance systems since 2011 for climate adaptation and mitigation projects.<sup>22</sup> These include climate finances from development agencies like the World Bank, the International Finance Corporation and the African Development Bank.<sup>22</sup> These climate funds have supported a range of renewable energy projects as well as climate-resilience projects such as developing community early warning systems for floods and droughts as well as climate-resilient agriculture such as multi-cropping and rainwater harvesting for crops.<sup>22</sup> It is only since 2014 that green bonds were implemented as a climate finance system in the country by municipalities and companies in the private sector.<sup>23</sup> The difference between these climate funds and green bonds is that the latter has a specific range of projects that would potentially be funded by investors from different sectors and allow investors an opportunity to benefit from these projects.

Furthermore, the Green Climate Fund (GCF) – which is a climate finance fund established under the UNFCCC designed to help developing countries reduce their greenhouse gas emissions – has been the largest source of climate finance.<sup>24</sup> This fund was set up in 2010 in which more than USD10 billion of climate finance has been committed for more than a 100 projects.<sup>24</sup> These projects include climate adaptation and mitigation projects from a local, national, regional and international level.<sup>24</sup> In partnership with the Development Bank of South Africa's (DBSA) Climate Finance Facility, the GCF has raised funding of over USD5 billion for adaptation and mitigation projects across the country including the GCF-DBSA Embedded Generation Investment Programme to support the implementation of renewable energy projects.<sup>24</sup> Other local projects include building capacity for the South African National Biodiversity Institute through the Ecological Infrastructure for Water Security Project.<sup>25</sup> This project is currently being piloted by the uMngeni Catchment in KwaZulu-Natal where local communities will be involved as a way to create employment and address current environmental issues.<sup>25</sup>

Despite some successes, there is increasing concern that these climate finances are not enough. The Department of Environmental Affairs<sup>24</sup> noted that over the years international climate finances have declined and developing countries have had to shift to using their own financial resources, thereby easing their reliance on outside aid. A further hurdle is the absence of political will and the unwillingness to implement policies and strategies that have discouraged outside investment.<sup>25</sup> In South Africa too, there is a lack of transparency and accountability as to how the money has been spent that has become of concern to the international community.<sup>24,25</sup>

Far too little attention in South Africa has been paid to other mechanisms within the country, including green bonds. These may well become integral to finance climate change projects and there are already numerous success stories. For example, the first South African green bonds were issued by the City of Johannesburg in 2014 (worth ZAR1.46 billion) and the City of Cape Town in 2017 (worth ZAR1 billion).<sup>23</sup> Green bonds have also given the two cities an opportunity to be up to date with the current world strategy on the implementation of green financing and green projects in cities.<sup>23,26</sup>

Green bonds differ from other climate finances such as those in the international arena in that they not only attract the private sector but also encourage environmental awareness. The Johannesburg Stock Exchange has set up a green bond segment which has been well received and companies such as Growthpoint Properties have issued green bonds for energy-efficient buildings.<sup>27,28</sup> Moreover, Nedbank is just one example of a commercial bank in South Africa that has issued green bonds for renewable energy investments.<sup>28</sup>

## The green bond trajectory in South Africa

Climate finance mechanisms in South Africa need to be adapted to include new emerging mechanisms and this process seems to be occurring. Enabling transformative changes towards a low-carbon country will effectively require large financial resources. Green bonds have proven to be an effective climate finance mechanism globally, and their adoption within existing national financial structures looks promising, even for developing countries like South Africa. If provided with the opportunity to expand – given strong and effective institutions, multiple stakeholders involved as well as proper planning and coordination – green bonds may become an integral component of climate finance for South Africa and fund a range of environmental and climate-related projects.

## Acknowledgements

We acknowledge the National Research Foundation (South Africa) for financial assistance, the South African Centre for Carbon Capture and Storage, and the Editor-in-Chief, Professor Jane Carruthers, for editorial assistance.

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