

NEXUS CONVERSATIONS: FINANCING CLIMATE RESILIENCE

A look at developments in climate finance, the renewables and agricultural sector to see how environmentally sustainable energy generation is tied to groundwater's contribution to food security.

BERTHA DLAMINI: AGRICULTURE, SOLAR IRRIGATION AND GREEN INVESTMENT



Bertha Dlamini is founding President of the African Women in Energy and Power (AWEaP) and founding chairperson of Gen X Theatre Africa, an initiative geared at accelerating youth participation in Africa's Power and Energy sector.

She is an advisory board member at Power Gen Africa and plays the role of strategic advisor to the Association for Municipal Electricity Utilities – Women in Electricity

FOUR REASONS WHY SOLAR HAS SUDDENLY BECOME ATTRACTIVE

The agriculture sector plays a pivotal role for Southern Africa's economic growth and stability. A significant percentage of the region's population still relies on agriculture, not only for food but also for economic activity. When the sector is successful it contributes towards economic growth, which is necessary for food security and the reduction of poverty in the region.

The sector is also an important foundation for local, regional and international trade. In the past years we have seen that poor performance in the sector resulted in overall poor economic performance, which in turn affected the entire region. This means that agriculture, with the right support, can catapult the economic performance of the region, especially when there is equitable participation for women and youth.

Every sector is now exploring ways to adopt and effectively use clean energy solutions. The agricultural sector is poised to benefit from this windfall of different forms of renewable energy, which they can produce, use and even sell excess capacity to the local communities and companies.

In developing and emerging countries, as is the case for most of Southern Africa and the rest of the continent, access to the electricity grid is not always possible due to a lack of infrastructure. This puts farmers in a precarious position as they cannot fully rely on traditional grid-tied electricity solutions. In these instances, independent and alternative energy systems are among some of the solution for the sector if it is to secure clean power sources.

Solar irrigation has become one of the preferred energy supply methods and farmers are starting to invest in this as a sustainable solution. Access to finance, however, remains a challenge for different players in the energy and power sector on the continent. This is especially true for women and youth in the market.

- Financing and cost for solar solutions continued to drop, this is true for Solar Powered Irrigation Systems (SPIS) too. This has made solar a competitive and viable energy source for farmers
- Rural electrification is progressing at a very slow pace and alternative sources of energy for agriculture and other sectors have suddenly become very attractive
- The volatility of fuel prices pushes farmers to seek alternative energy sources
- SPIS have the potential to increase agricultural productivity since they can improve access to water.

Investors are certainly keen to support clean solutions, especially those aligned with UN Sustainable Development Goal 17. SDG 17 focuses on creating global partnerships to mobilise financial resources, capacity building, research and technology cooperation.

Solutions such as SPIS provide investors an excellent opportunity to invest in assets that positively affect the environment. However, this is a nascent market for both the agriculture sector and the farmers in it.

For now investors are still exploring the best ways to support SPIS. And farmers and the agriculture sector at large need to provide credible information on the solution to enable investors to perform risk assessments for investment. For African Women in Energy and Power (AWEaP), we see this as an opportunity to explore opportunities for women and youth participation in the broader value chain.

There is a lot they can contribute either as manufacturers, installers or in the maintenance and services space that includes designing tailored finance solutions. Other important areas of involvement are the protection of infrastructure from theft and vandalism.

WOMEN POWER: FINANCING CLIMATE RESILIENCE

The African Women in Energy and Power (AWEaP) initiative accelerates African women entrepreneurs' participation in the Power and Energy sector. Armed with a vision to eradicate energy poverty on the African continent, they lead the conversation in investment in climate action, renewables and prospects for SADC's agricultural sector.

The network has a unique perspective into investment and the Water-Energy-Food Nexus, offering a bird's eye-view on how environmentally sustainable development can be resourced. For the renewables sector in SADC, there is no time like the present to reflect on financing climate action.



Nelisiwe Magubane is chairperson of Matleng Energy Solutions, a black woman-owned company in South Africa that provides solutions to a wide range of challenges in the energy sector. With more than 25 years experience, Magubane is now among the most influential figures in the Southern African power sector. As a company, Matleng's core services are Renewable Energy, Energy Efficiency and Demand Side Management, (EEDSM), Electrification, Reticulation, Distribution and Transmission.

According to Nelisiwe Magubane, the chairperson of South African-based Matleng Energy Solutions, SADC's market for renewable resources has experienced unprecedented growth. She says the prospects for the region have never been better. "The fact that we as SADC are more affected by climate change-related incidents has helped ensure that the renewable energy sector is totally embraced," Magubane explains.

She says it is no surprise that commercial banks and other private green bond issuers have joined the party. "It is expected that there will be significant growth in this market." Magubane says while investors in the renewables market

are also looking for high yields, liquidity and low variance, they must place openness and accountability higher up in their priority list. "It goes without saying that the reputations of the green bond issuer or green bond verifications are impeccable," she explains.

One reason that this is necessary is to reduce information asymmetries in the market. The high watermark placed on accountability is also to avoid suspicion of 'greenwashing' a practice that occurs when companies make misleading claims about the environmental benefits of their projects or technology.

GREEN BONDS EXPLAINED

Climate change puts excessive strain on the resilience of communities, and this makes the search for innovative instruments to finance climate action more necessary now than ever. To date, green bonds have attracted the most interest.

Green bonds are a form of debt security that investors use because they are more predictable, less risky and less volatile than investing in stock markets. According to the World Bank, green bonds differ from other traditional investments in that they are specifically issued to raise capital for climate and environmental projects.

After the European Investment Bank issued the first ever green bond in 2007, other major multilateral development banks have followed suit. The World Bank, African Development Bank (AfDB), the International Finance Corporation all currently fund major climate action projects in sub-Saharan Africa. Private banks, cities, utilities and corporates have also moved into the space.

THE GREEN BOND PROCESS

Issuers of green bonds usually follow a four-step process. The first step is to define a criteria for the kind of green projects they want to support. These are usually projects that support climate resilience and low carbon development. Projects that fit the criteria are then put through a rigorous selection process which involves inputs from a wide range of experts, including environmental specialists.

The third step involves disclosing how the investment will be allocated and how proceeds from the bond will be disbursed to eligible projects. The last part of the process is monitoring the implementation of the green projects and keeping an eye on key environmental sustainability indicators.

DESNEI LEAF-CAMP: THE GREEN BOND MARKET IN SADC



Desnei Leaf-Camp: Head of Acquisitions, Investments & Financial Advisory at ENGIE Southern Africa. Desnei Leaf-Camp is also the director at African Women in Energy and Power. In her 16 years in the sector she has worked with Independent Power Producers and financial institutions to raise over \$1.4 billion in financing for renewable energy projects in Sub-Saharan Africa. She has also raised an additional \$170 million for non-energy related projects.

Investors in green bonds are looking for the same thing that investors in ordinary bonds seek; a good return on their investment. However, with green bonds they also get the benefit of investing in projects that are socially and environmentally responsible.

The vast majority of green bonds are issued to finance renewable energy and climate resilient projects. The strong pipeline of renewable energy projects across the continent should provide the critical mass needed to underpin a vibrant African green bond market.

While green bonds issuances in the Global North has been rising steadily over the past decade, the development of a green bond market in Africa has been surprisingly slow. Africa is extremely vulnerable to climate change, while capital to finance climate mitigation is scarce.

Only three countries in Africa have successfully issued green bonds: namely South Africa, Namibia and Nigeria. The first municipal green bond, worth R1.5bn, was issued by the City of Johannesburg in 2014. The City of Cape Town followed suit three years later when in 2017 it issued its first green bond valued at R1bn and oversubscribed four times. The City's green bond has been certified by the Climate Bonds Initiative, while international ratings agency Moody's also awarded the bond an excellent rating of GB1. The first

corporate green bond in South Africa was launched in March 2018 by Growthpoint Properties. Issued on the Johannesburg Stock Exchange, the \$94 million green bond will be used to fund green buildings and green initiatives. In April of the following year, Nedbank became the first commercial bank in the country to issue green bonds of more than R5bn, which were all oversubscribed. The proceeds will be used to finance renewable energy projects developed under the Renewable IPP Procurement Programme.

Namibia is only the second country in the region to have issued a green bond. In December 2018 Bank Windhoek, a wholly Namibian-owned commercial bank, announced the successful issuance of Namibia's first green bond. This positioned Bank Windhoek as the first commercial bank to issue a green bond, not just domestically but across the Southern African region.

In December 2017, Nigeria became the first country in Africa to issue a sovereign bond. A second issuance in the form of a Series II Green Bond of up to \$42 million could be issued towards the end of 2019. Nigeria also became the first country in Africa to issue a Climate Bond Certified corporate green bond. Kenya is also planning to issue green bonds in the coming months and is currently finalising listing requirements.

ARVANA SINGH: SOUTH AFRICA'S FIRST PRIVATE BANK-ISSUED GREEN BOND



Arvana Singh is Principal at Nedbank Corporate and Investment Bank. She is an experienced investment banker with a demonstrated history of working in the financial services industry.

In April 2019 Nedbank became the first bank in South Africa to list a Renewable Energy Bond on the green segment of the Johannesburg Stock Exchange. She takes us through the listing what investors in green bonds are looking for.

The green bond market in SADC, particularly relating to the energy sector, is in the early stages of development and a growing area of interest. Nedbank, who is a lead financier of renewable energy projects in South Africa, launched its first 'use of proceeds' renewable energy bond in April 2019.

The funds raised through the green bond auction, which was over 3 times subscribed, are being utilised by Nedbank to finance new solar and wind projects. As investor mandates come on stream to support green and impact based initiatives throughout SADC this could spur further issuance in the future. This is encouraged further by climate action initiatives like the WWF Nedbank Green Trust that has invested more than R47m in 23 water stewardship and conservation programmes.

There are a few obstacles that would need to be addressed before accessing the market, which include reporting and data collection. Once embedded correctly, however, this can prove beneficial to the issuer.

WHAT GREEN INVESTORS ARE LOOKING FOR IN PRIVATE BANKS

The impact metrics associated with green bonds are valuable to impact-based investors who are looking to commit funds in instruments that would enable them to earn a commercial return, while simultaneously having a positive impact on the environment.

The avoided carbon dioxide emissions associated with financing projects which assist in shifting the energy mix to renewable energy is in line with an Environmental Social and Governance (ESG) sensitive investment philosophy. This is becoming increasingly prevalent in investor mandates. The infrastructure component of renewable energy plants is also appealing to investors who have mandates to invest in infrastructure-based assets.