

# Green bonds as a lifeline for Nigeria's degraded environment

*The green bond market has enjoyed strong growth in the last two years, with issuance jumping by over 105 per cent in 2016 alone to a record \$81bn. Nigeria's recent move into the space presents a huge respite for its fast degrading environment, STANLEY OPARA writes*

UPTIL five years ago, Nnanna Ejekwe, a subsistence farmer in Amator-Ifakala area of Mbaitoli Local Government Area of Imo State, South-East Nigeria, always had good yams in his farm throughout the year. He also never lacked food items like cocoyam, melon, processed cassava (otherwise called garri) and beans in his household year-on-year.

But today, Ejekwe, a father of six, laments that over 70 per cent of his earnings is spent on buying the food stuffs he hitherto had in abundance. His farms that are all located close to the Amafor River have suddenly become unproductive owing to massive soil erosion that has continued to ravage the community after the Umuaku Forest (the biggest in Amafor-Ifakala) was hijacked by a timber company, which claimed to have secured a warrant to harvest timber from the forest.

Now, the Umuaku Forest is a shadow of its former self as one can effortlessly count the number of trees still standing.

It is in the bid to check cases like this and secure the future of small farmers like Ejekwe that the idea of the Green Bond became topical, among many other anti-environmental activities that have become very evident in the life of the Nigerian people.

Many Nigerians have been forcefully dragged into the poverty net by deforestation, and the story is not changing either as the many consequences of deforestation have continued to plague the country with many other anti-environmental activities springing up and gaining momentum.

According to the Debt Management Office, bonds are debt securities issued by governments, government agencies and corporate bodies in order to raise capital, while Green Bonds are bonds that are used to raise capital specifically for environmental-friendly projects, i.e. projects that are climate-friendly and leave little or no adverse effect on the environment.

These, it explains, include projects that reduce or cause no pollution of land, water or air; reduce carbon emission and/or conserve natural resources.

The Federal Government, through the Ministry of Environment (FMEEnv), explains that qualifying or eligible green projects include but are not limited to investments in the following: Renewable energy (solar, wind, hydropower); energy efficiency (efficient buildings, energy management); sustainable waste management (pollution prevention and control); sustainable land use (forestry, agriculture and aquaculture); conservation (biodiversity and natural ecosystems); clean transportation (rail, mass transit system, Bust Rapid Transit schemes); and sustainable water management (water treatment plants, water distribution infrastructure, water capture and storage infrastructure).

## Current state of affairs

Against the background that electricity consumers in Nigeria remain grossly under-served with the country having one of the lowest energy-per-capita rates in the world, the renewable energy option is seen as a huge opportunity for the country to close the embarrassing gap. PricewaterhouseCoopers, in its Nigeria Power Sector Report released in July 2016 and entitled: 'Powering Nigeria for the Future', says the country's per capita power consumption was one of the lowest within the African region and globally, as it is only 151kilowatts (kWh) per year.

According to the United Nations Economic Commission for Africa's Chief Sub-regional Officer, Mr. Bakary Dosso, Nigeria is home to enormous energy resources such as petroleum, natural gas, coal, nuclear power and tar sands. Other resources include solar, wind, biomass and hydropower, which he notes are not being tapped at a time the epileptic nature of power supply makes the country not only one of the harshest environments for business, but also very uncompetitive.

In September this year, Nigeria's first building energy efficiency code was officially launched by the Minister for Power, Works and Housing, Babatunde Fashola, after many years of energy wastage. The programme is a partnership with German Development Agency (GIZ), Nigerian Energy Support Programme and the Federal Ministry of Power, Works and Housing.

Fashola had said the move would drive cost and power consumption savings, explaining that the adoption of energy efficiency in building construction would lead to job creation as retrofitting old and non-compliant buildings could create a new crop of jobs that previously were non-existent.

The Minister of the Federal Capital Territory, Muhammad Bello, says the government has started the process of evolving a mechanism that will lead to a workable policy on waste management, stressing that waste generation and management are priority areas for the administration of President Muhammadu Buhari.

According to him, it is high time everybody graduated from the "collect and dump" approach and incorporate meaningful strategies into the nation's waste management stream for the development of the country.

Bello states that effective utilisation of resources from waste will empower the people by tapping into the valuable aspects of waste management. "I have this belief, that waste is no waste at all, but ways through which other useful resources can create wealth," he adds.

The Chief Executive Officer, Mezzagers Environmental Services, Mr. Abidemi Sanusi, notes that only 40 per cent of generated waste is collected in Nigeria, adding that to collect about 90 to 95 per cent of waste, there is the need for a national waste policy.

According to him, an effective waste policy will provide the guidelines for everybody and make people know what is expected of them in terms of their generated waste.

Sanusi says waste generation and management has become such an important issue in building sustainable and liveable cities in the globe, and as such, must not be ignored.

He explains, "Efficient waste management impacts on public health, the economy and social well-being of the people. Municipal wastes, which are wastes collected and treated by or for municipalities, cover wastes from households, similar wastes from commerce and trade premises, office buildings, institutions and small businesses.

"Based on the World Bank estimate of waste generation by countries and regions of the world, Nigeria's total generated waste is estimated to be 25 million tonnes annually, out of which urban waste generation per day is 40,959 tonnes per day."

Urban waste generation, Sanusi says, is estimated to grow by about 147 per cent (101,307 tonnes per day) in the year 2025; of which the per-capital waste generation is also expected to grow from 0.56kg/capital/day to 0.8kg/capital/day.

According to Waste Atlas, presently, only about 60 per cent of Nigeria's waste is being collected, while the country still has 100 per cent of unsound disposal with recycling rate hovering around zero per cent.

The marked decline in forest cover in just a space of about 40 years is enough evidence and proof to stress that Nigeria can become a 'forestless' nation.

The Mezzagers Environmental Services boss warns that without substantial infrastructure, investment, process management and policies, the effects of continuous growth of municipal waste can be overwhelming and pose great danger to the Nigerian populace.

The World Bank has also thrown its weight behind Nigeria's current environmental challenges. Its Practice Manager for Africa and Environment Resources, Benoit Bosquet, says that sustainable land and water management are adaptation mechanism of climate actions that can be used to address the devastating impact of climate change.

Experts have traced climate change to some environmental changes around the world and the desertification and drying up of Lake Chad.

The north-eastern region of Nigeria, which has been the hotbed of Boko Haram insurgency, shares border towns that host the shrinking Lake Chad with other countries in the sub-region.

The current state of the lake is believed to have made unemployed youths vulnerable to the insurgency, which has led to thousands of deaths and displacement of millions of people across the region, creating one of the largest humanitarian disasters in the world.

Bosquet says the use of adaptation as climatic action is simply "the economic adjustment to ecological problems as it occurs by building necessary infrastructure and systems that can address climate change as well as prevent its impact." He, therefore, urges Nigeria to utilise sustainable land and water management to address desertification across the country.

"Nigeria needs to build resilience now for the harsher climate of the future. If this is not addressed in time, climate change can worsen Nigeria's vulnerability to weather swings and limit its ability to achieve and sustain the objectives of the Vision 20:2020," he adds.

Bosquet calls for efficient resource management, stressing that some of climate change impacts like flood and erosion, among others, are stirred by human factors.

According to UNICEF, over 46 million people are estimated to be practising open defecation in Nigeria, which it says has had a negative effect on the populace, especially children in the areas of health and



**A solar array.** Source: govttech.com

preservation in the country.

"Our efforts in communities and protected areas over the years brought over 700,000 hectares of forestland and more than six species of endangered animals (elephants, chimpanzees, pangolins, mandrills and vultures, among others) under our direct management in Nigeria," Karunzu reveals, adding that the NCF aims to restore the nation's forest cover to at least 25 per cent within the next three decades.

He reiterates the NCF's commitment to supporting afforestation and reforestation projects across Nigeria.

The Chairman, National Executive Committee of the NCF, Chief Ede Dafinone, says, "It is common knowledge that Nigeria can barely boast of a seven per cent forest cover despite its historical affluence of about 40 per cent forest cover in the years preceding the oil boom."

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The 2017 Multiple Indicator Cluster Survey released by the National Bureau of Statistics shows that many Nigerians are exposed to life-threatening environment due to poor sanitation and drinking water.

The report shows that 42.1 per cent of households in Kano State, North-West Nigeria, do not use improved sources of drinking water and only 0.7 per cent of households using unimproved drinking water use an appropriate water treatment method.

The situation is no better in Lagos, South-West Nigeria, as only 8.9 per cent of household members in Lagos have an improved drinking water source located on premises, free of contamination and available when needed.

This, therefore, is an indication that Nigeria has a long way to go if it hopes to meet the Goal Eight of the United Nations Sustainable Development Goals, which targets to "ensure availability and sustainable management of water and sanitation for all."

In its Nigeria Water, Sanitation and Hygiene sector in report for 2017, the United Nations Children's Fund says Nigeria ranks among the top five countries globally for having large numbers of people without access to safe water, improved sanitation and practising open defecation.

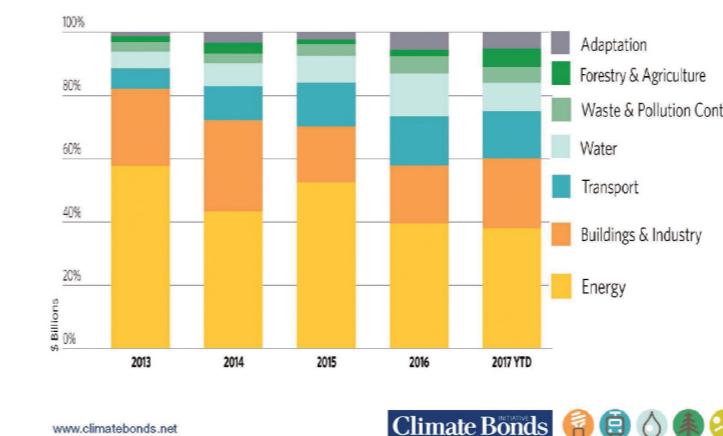
"Among countries with similar population and similar Gross Domestic Product per capita, Nigeria fares poorly on the sanitation front. Poor access to water, sanitation and hygiene is directly linked to incidences of diarrhoea and this is clearly reflected in Nigeria being among the five countries contributing to half of global under-five deaths," the report states.

The Director-General, Nigerian Conservation Foundation, Adeniyi Karunwi, says all hands must be on deck to ensure both fauna and flora

# Nigeria's degraded environment

market rates.

## Green bonds: Use of proceeds is diversifying



education, and has contributed to the country's failure to meet the Millennium Development Goals' target.

The sanitation situation prompted the National Council of Water Resources in 2014 to prioritise the development of a roadmap towards eliminating open defecation in the country in line with the UN global campaign for ending the practice.

The initiative tagged: 'Making Nigeria Open Defecation Free by 2025: A National Roadmap', was developed by the Federal Ministry of Water Resources with invaluable support from UNICEF and other key sector layers across the country. In 2016, the National Council of Water Resources endorsed the roadmap as a means to eliminate open defecation in Nigeria.

Similarly, one issue that has been of major concern to the country is the alarming level of gas flaring from crude oil production sites. According to the Coordinator of the Nigerian Gas Flare Commercialisation Programme in the Ministry of Petroleum Resources, Mr. Justice Derefa, there are at least 178 sites where gas is flared, as opposed to 140 listed in the past.

The verification exercise, he explains, was conducted in conjunction with the World Bank, United States Agency for International Development and the Canadian government.

The verification, however, is still ongoing, as only 60 per cent of the expected data had been received as of December 5, 2017; while the rest are being awaited.

The flared gases, Derefa, laments, are equivalent to huge sums of money that could have been used to generate wealth, create employment and generate electricity for Nigerians.

The Managing Director, Belema Oil Producing Limited (a major indigenous player in the nation's oil and gas industry), Mr. Boma Brown, says gas flaring has deprived the country of huge revenue, polluted oil producing areas and depleted the ozone layer.

## Sovereign Green Bond

On December 18, 2017, Nigeria became the first country on the African continent to issue a security that raises funds for environmental projects after the launch of its Sovereign Green Bond. The Federal Government offered N10.69bn (\$30m) worth of green bonds, which closed on December 20, with Chapel Hill Denham acting as the financial adviser for the issuance.

The offer will be listed on the Nigeria Stock Exchange and the FMDQ Securities Exchange in January 2018, and is the first tranche of a N150bn Green Bond programme.

The country plans to use the bond to finance projects in its 2018 budget, including renewable energy microutilities and forestation programmes, the Director-General, Debt Management Office, Patience Oniha, explains.

A roadshow for prospective investors was done in the country's capital, Abuja, and the commercial hub of Lagos on two separate days.

According to Oniha, the pricing of the Green Bond will reflect secondary

## The Paris Agreement and the NDCs

In 2015, 196 parties came together under the Paris

Agreement to transform their development trajectories so that they could set the world on a course toward sustainable development, aiming at limiting global warming to 1.5 to two degrees centigrade above pre-industrial levels. Through the Paris Agreement, parties also agreed to a long-term goal for adaptation, to increase the ability to adapt to the adverse impacts of climate change and foster climate resilience and low greenhouse gas emissions development, in a manner that does not threaten food production. Additionally, they agreed to work towards making finance flows consistent with a pathway towards low greenhouse gas emissions and climate-resilient development.

The Nationally Determined Contributions (NDCs) are at the heart of the Paris Agreement and the achievement of these long-term goals.

The NDCs embody efforts by each country to reduce national emissions and adapt to the impacts of climate change. The Paris Agreement (Article 4, paragraph 2) requires each party to prepare, communicate and maintain successive NDCs that it intends to achieve. Parties shall pursue domestic mitigation measures, with the aim of achieving the objectives of such contributions.

## Green Bond issuance driven by strategic marketing

The Federal Government, through the Federal Ministry of Environment, has issued the Green Bond Guidelines (GBGs) to guide the process of issuance, which is targeted at the Nigerian market.

The Director, Department of Climate Change, Federal Ministry of Environment, Peter Tarfa, says Green Bond purchasers are typically institutional investors, often with either an Environment, Social and Governance mandate or responsible investment focus. He adds that other buyers can include investment and fund managers, corporate investors, high net worth individuals and retail investors.

The GBGs, according to him, provide the FMEEnv a means of transparency and recommend that an issuer's management of proceeds be supplemented by the use of an auditor, or other third party, to verify the internal tracking method and allocation of funds from the Green Bond proceeds.

In the case of reporting, the environment expert says issuers should make and keep readily available up-to-date information on the use of the proceeds to be renewed annually until full allocation, and as necessary thereafter in the event of new developments. This, she explains, should include a list of the projects to which Green Bond proceeds have been allocated, as well as a brief description of the projects and the amounts allocated, and their expected impact.

## World Bank's warning to Nigeria

The World Bank has projected that, despite not being a major producer of greenhouse gases, Nigeria and some other African countries are vulnerable to climate change and this could increase the global poverty headcount by more than 100 million people by 2030, with large countries such as Nigeria risking major threats such as food insecurity. It projects that climate change in Nigeria will lead to a reduction of major food production such as millet by 20 per cent by 2050, thereby leading to food insecurity with resultant conflicts such as the ongoing herdsman/farmers' crises.

## More experts lend their voices

The Executive Director, International Energy Agency, Faith Birol, says, "Cities today are home to about half the global population, but represent almost two-thirds of global energy demand and 70 per cent of carbon emissions from the energy sector. So, they (cities) must play a leading role if the Paris Agreement commitments are to be achieved."

An investment banker at Chapel Hill Denham Advisory Limited, Muhammed Daura, states that the scope of the firm's advisory assignment is to ensure that the Federal Government integrates periodic issuance of Green Bonds into its borrowing plan; ensure that it has adequate capacity to monitor the use of issuance proceeds; and develop projects consistent with the Green Bond Guidelines.

He says the model ensures that the FMEEnv, in its implementation of the Green Bond Guidelines, maintains a transparent and consistent process in the entire Green Bond value chain.

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