# MOODY'S INVESTORS SERVICE

#### **ASSESSMENT**

20 May 2019



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# Nigeria, Government of

Green Bond Assessment - May 2019 issuance

# **Summary analysis**



# **Summary opinion**

A GB1 (Excellent) Green Bond Assessment (GBA) is assigned to the proposed green notes to be issued by the <u>Government of Nigeria</u> (B2 stable) in May 2019. The GB1 is supported by full allocation of proceeds to eligible green projects that qualify under domestic guidelines and the Green Bond Principles. Key considerations in our assessment include:

- » Full allocation of proceeds to qualifying green project categories, including renewable energy, clean transportation and afforestation
- » Comprehensive organizational structure, including a formal green bond framework, project evaluation criteria, and oversight from internal bodies and external organizations
- » Robust disclosure practices providing detailed information on project descriptions, applied methodologies and intended environmental, economic and social benefits
- » Transparent internal process to manage green bond proceeds at a project level and formal guidelines for the liquidity management of unallocated funds, though the separation of duties between authorizing and accounting functions could be clearer
- » Commitment to ongoing reporting over the life of the bonds, and possibly beyond; timely publication of a biannual impact report for inaugural green bond issued in December 2017

Factor	Factor Weights	Score	Weighted Score
Organization	15%	1	0.15
Use of Proceeds	40%	1	0.40
Disclosure on the Use of Proceeds	10%	2	0.20
Management of Proceeds	15%	2	0.30
Ongoing Reporting and Disclosure	20%	1	0.20
Weighted Score			1.25

The transaction's weighted score, using the green bond scorecard, is 1.25. This, in turn, corresponds to a GB1 grade. We also maintain a GB1 on Nigeria's debut green bond, to which we assigned a GBA in December 2017.

#### **Profile**

Nigeria is the largest economy in Africa, generating GDP of \$397.5 billion, in nominal terms, last year. The country is also the continent's most populous, with an estimated population of over 180 million.

Nigeria has been actively engaged in international climate policy negotiations since it became a party to the United Nations Framework Convention on Climate Change (UNFCCC) in 1994. The country is host to a number of Clean Development Mechanism projects, as well as projects funded by the Adaptation Fund as established by the Kyoto Protocol in 2007. The government's Vision 20:2020 economic growth plan, published in 2009, recognized climate change as a potential driver of "damaging and irrecoverable effects on infrastructure, food production and water supplies, in addition to precipitating natural resource conflict" and a threat to sustainable growth in the coming decades.

#### **Transaction summary**

The Government of Nigeria is planning to issue its second green bond in May 2019. The notes will be direct, unconditional, general and unsecured obligations of the Federal Government and shall rank pari passu with all other outstanding unsecured and unsubordinated obligations of the Federal Government. The notes will be issued in the amount of approximately NGN15 billion (\$41 million), with an expected maturity of seven years. The precise coupon will be determined at the time of closing.

The second issuance is a follow-up to the government's debut green bond offering in December 2017, and is expected to be listed on the Nigerian Stock Exchange (NSE) and FMDQ OTC Securities Exchange (FMDQ). The government's debut green bond was listed on the NSE and FMDQ on July 21, 2018. Both green bond issuances are part of the government's larger green finance agenda to ensure regular funding for projects, aligned with Nigeria's Nationally Determined Contribution (NDC) and Economic Recovery and Growth Plan (ERGP).

Proceeds from the issuance will provide new financing for renewable energy, afforestation, and transportation projects that qualify under the green bond framework developed by the Federal Ministry of Environment (FMEnv) in conjunction with the Federal Ministry of Finance (FMF). To this end, the second issuance will fund 23 individual projects across six federal ministries, including 20 new projects compared with the country's first green bond issuance.

#### Strengths and weaknesses

Strengths	Weaknesses
Comprehensive governance structure, bolstered by a formal green bond	Lack of a complete separation of duties between the institutions
framework and external oversight	responsible for authorizing and accounting of the green bond proceeds
Full allocation of proceeds to eligible green project categories that qualify	No formal external assurance on the green projects to be financed with
under domestic and international taxonomies, such as the Green Bond	proceeds from the second green bond
Principles	proceeds from the second green bond
Robust disclosure practices providing comprehensive information on	
project descriptions, applied methodologies and intended benefits	
Transparent internal process to manage the segregation and tracking of	
proceeds at a project level	
Ongoing reporting expected over the life of the notes, and possibly beyond	

#### Nigeria's Nationally Determined Contribution (NDC)

Nigeria submitted its Intended Nationally Determined Contribution to the Conference of Parties to the United Nations Convention on Climate Change (UNFCCC) in October 2015. Subsequently, the country became a signatory to the Paris Agreement on climate change in September 2016 and ratified the pact in May 2017. Exhibit 1 summarizes the key targets and assumptions of Nigeria's NDC.

Exhibit 1
Selected highlights of Nigeria's NDC

Aspect	Detail
Type of objective	Reduction from Business as Usual (BAU)
Target year	2030
Implementation period	2015-2030
Base data period	2010-2014
Summary of objective	Economic and social development: grow economy 5% per year, improve standard of living, electricity access for all
Unconditional and conditional mitigation objectives	20% unconditional; 45% conditional
	Work towards ending gas flaring by 2030
	<ul> <li>Work towards Off-grid solar PV of 13GW (13,000MW)</li> </ul>
	Efficient gas generators
Key measures	• 2% per year energy efficiency (30% by 2030)
	• Transport shift car to mass transit
	• Improve electricity grid
	Climate smart agriculture and reforestation     0.873 kg CO2e (2015)
Emissions per US\$ (real) GDP	[0.491 kg CO2e (2030)]
	2,950 (2014)
GDP per capita (US\$)	3,964 (2030; real 2015 US\$)
	Current: around 2 tonnes CO2e
Estimated emissions per capita	2030 Conditional: around 2 tonnes CO2e
	2030 BAU: around 3.4 tonnes CO2e
Global warming potentials used	IPCC Fourth Assessment Report
Cost estimate data	National Cost = \$142b; National Benefits = \$304b (World Bank
Cost estimate data	report "Low Carbon Development Opportunities for Nigeria" (2013))

#### Source: United Nations Convention on Climate Change

Under a business-as-usual growth scenario, consistent with economic growth of 5% per year, Nigeria's emissions are expected to grow to around 900 million tonnes per year in 2030, equivalent to around 3.4 tonnes per person. The country has made an unconditional commitment to reduce emissions by around 20% from business-as-usual levels by 2030, consistent with current development trends and government policy priorities.

On the condition that international support – in the form of finance and investment, technology and capacity building – is forthcoming, the combined measures could potentially deliver a 45% emission reduction against the business-as-usual pathway.

The government's green bond program will play an important role in helping the country achieve its NDC objectives. Nigeria's green bond framework directly links eligible project categories for use of proceeds (energy efficiency, resource efficiency, renewable energy, clean technology, and sustainable forest management) with the equivalent NDC targets.

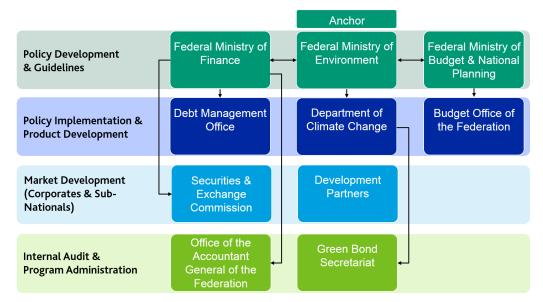
# Organization



The Nigerian government has implemented a complex, but comprehensive, organizational structure to execute its green bond program, reflecting the multiple internal and external stakeholders involved. The government has also undergone a full cycle of issuing a green bond in December 2017, culminating with the publication of its first biannual impact report in a timely manner.

Exhibit 2 provides a snapshot of the institutional arrangements, which will require effective coordination across multiple ministries, departments and agencies (MDAs). The FMEnv is ultimately responsible for evaluating and selecting green projects for consideration, while the FMF will develop the annual borrowing plan for the government with a portion allocated to green bonds. Working with the Debt Management Office (DMO), these functions will largely coordinate the implementation and execution of Nigeria's green bond program.

Exhibit 2
The Government of Nigeria's green bond institutional framework



Source: Nigerian Federal Ministry of Environment

The Department of Climate Change, which resides within the FMEnv, has established a green bond technical advisory team to support program implementation, which we view as positive. The advisory team is responsible for providing guidance on the financial performance, rates of return, and environmental benefits (e.g. emissions savings) of selected projects, with technical and sector specialists charged with producing feasibility studies and financial and environmental modeling.

The adoption of a green bond framework that articulates the required processes for green bond issuance reinforces the government's robust organization and governance structure. The framework provides details on eligible project categories, the project evaluation and selection process, how proceeds will be managed, and how the government intends to report on projects on an ongoing basis. The framework, which was updated and expanded in conjunction with the government's second green bond issuance, is aligned with the country's green bond guidelines, which are adapted from the Green Bond Principles (GBP) and documented in the bond prospectus and investor presentation.

The authorities have documented the project evaluation and selection procedures, which include scored criteria for green credentials (consistent with the GBP), readiness, robustness and financial viability. An interministerial committee for climate change – made up of seven distinct ministries – are responsible for project identification. Projects aligned with identified eligible green sectors are screened and selected based on the following criteria:

- » Investment horizon
- » Alignment with the disclosed development plan at the time
- » Provision of evidence of impact on the economy (e.g. economic rate of return, jobs created, etc.)
- » Calculation of associated greenhouse gas emissions reduction
- » Availability of information to facilitate reporting
- » Other ESG/external factors related to the agencies/organizations

To support its green bond initiative, the government has also set up a Green Bond Private Public Sector Advisory Group comprised of external development partners, independent regulators, capital market operators and relevant MDAs. The development partners include the World Bank, International Finance Corporation, African Development Bank and UN Environment Program (UNEP). The scope of the advisory group is broad based – including monitoring, compliance, technical and capacity-building responsibilities – and provides a significant measure of support for the governance and oversight of the green bond program. As an example, the authorities enlisted the support of the World Bank and UNEP in the monitoring, reporting and verification framework installed for its afforestation program.

Factor 1: Organization (15%)	Yes	No
Environmental governance and organization structure appears to be effective	•	
Policies and procedures enable rigorous review and decision making processes	•	
Qualified and experienced personnel and/or reliance on qualified third parties	•	
Explicit and comprehensive criteria for investment selection, including measurable impact results	•	
External evaluations for decision making in line with project characteristics	•	
Factor Score	1	

#### Use of proceeds



Proceeds from the government's second green bond issuance will be exclusively used to finance existing and new projects with clear environmental benefits that qualify under the government's green bond framework and that are linked to targets outlined in the country's NDC commitments (see highlight box above). The projects are also aligned with the taxonomy of eligible green projects embedded in the Green Bond Principles.

Under Nigeria's green bond framework, green bond proceeds must be allocated to the following broad eligible projects categories: energy efficiency, resource efficiency, renewable energy, clean technology and sustainable forest management. The government has linked each of these five broad categories to an equivalent NDC target and provided detailed descriptions of the various project types to be financed under each broad category (see Exhibit 3).

Exhibit 3
Nigeria's green bond proceeds to finance projects across five broad eligible categories

Theme	Mitigation or Adaptation	Equivalent NDC Target	Project Type
Energy Efficiency	Mitigation	2% per year energy efficiency (30% by 2030); Efficient gas generators	services which result in more efficient use of
Resource Efficiency	Mitigation	Work towards ending gas flaring by 2030; Improve electricity grid	, , , , , , , , , , , , , , , , , , , ,
Renewable Energy	Mitigation	Work towards off-grid solar PV of 13GW	Investments in equipment, systems and services which enable renewable energy
Clean Technology	Mitigation	Transport shift - car to bus, car to rail transportation	9 .
Sustainable Forest Management	Adaptation	Climate smart agriculture and reforestation	Investments in initiatives that benefit sustainable agriculture, fishery, aquaculture, forestry and climate smart farm inputs such as biological crop protection or drip-irrigation

Source: Government of Nigeria green bond framework

Projects to be financed with green bonds are additionally classified into three broad categories which allow for identifying the government agencies involved in the funding, as well as the funding mechanism. These three categories include: renewable energy, afforestation and transportation.

Specifically, 23 projects will be financed, in full or in part, by proceeds from the government's second green bond issuance. Three of these projects – including Energize Education Project (EEP), Renewable Energy Micro Utilities (REMU), and Afforestation Program – continue investments made with proceeds from the government's first green bond issuance. In addition to these three projects, 20 additional projects are being added in conjunction with the launch of the second green bond.

The government has additionally mapped these 23 projects to six federal ministries, disclosing the aggregate amount to be invested by ministry and the expected reduction in  $CO_2$  emissions resulting from the projects (see Exhibit 4). In addition to these details, the government has also disclosed the anticipated range of economic rate of return by ministry. Please see the Appendix for a full list of the 23 projects to be financed by the second green bond.

Exhibit 4
The Nigeria Green Bond Series II projects represent work from six separate government ministries

Ministry	NDC Themes	Investment Amount (NGN millions)	Reduction in CO2 Emissions (tCO2)
Federal Ministry of Power, Works & Housing	Mitigation	8,264	9,311
Federal Ministry of Water Resources	Mitigation and Adaptation	2,818	515
Federal Capital Territory Authority	Mitigation	1,597	25,676
Federal Ministry of Environment	Adaptation	1,221	1,403
Federal Ministry of Agriculture & Rural Development	Adaptation	600	1,680
Federal Ministry of Transport	Mitigation	500	3,303
Total		15,000	41,888

Source: Government of Nigeria

Factor 2: Use of Proceeds	Yes	No
>95% - 100% of proceeds allocated to eligible project categories that are determined based on the issuer's adopted policies and the categories established under the Green Bond Principles that will be further informed by one or more robust and widely recognized green bond frameworks or taxonomies that qualify eligible projects, including any applicable regulatory guidelines.	•	
Factor Score	1	

# Disclosure on the use of proceeds











Nigeria's green bond disclosure practices are overall robust, providing a strong level of detail on project descriptions, applied methodologies and intended benefits. The government has provided good detail for each of the projects that will be financed with the green bond proceeds, including amounts to be spent on each project; assessments of the environmental, financial and economic impacts; and an evaluation of safeguards and social implications.

As seen in Exhibit 5, the government has provided a series of anticipated economic and environmental reporting metrics in its green bond framework for each of the three broad eligible themes: renewable energy, afforestation and clean transportation. The evidence of robust and timely post-issuance reporting associated with the government's initial green bond issuance supports the claim that these metrics will be used for future impact reporting.

Exhibit 5
Government of Nigeria provides economic and environmental reporting metrics for each eligible green category

Eligible Theme	<b>Economic Reporting Metrics</b>	Environmental Reporting Metrics
	Jobs created	
Renewable Energy	<ul> <li>Taxes generated</li> </ul>	<ul> <li>Total megawatt/gigawatt capacity of energy produced (MW/GW)</li> </ul>
nellewable Ellergy	<ul> <li>Savings incurred</li> </ul>	<ul> <li>Total GHG emissions avoided through the project (tCO2eq)</li> </ul>
	<ul> <li>Locations of facilities</li> </ul>	
	<ul> <li>Jobs created</li> </ul>	Areas of forest (square meters/acres/hectares) planted/preserved
Afforestation	<ul> <li>Taxes generated</li> </ul>	Biodiversity information: trees and species of plants planted
Andresiation	<ul> <li>Savings incurred</li> </ul>	Total GHG emissions avoided through the projects (tCO2eq)
	<ul> <li>Locations of facilities</li> </ul>	Total GHG emissions avoided through the projects (toozeq)
	<ul> <li>Jobs created</li> </ul>	a Location and number of train cobing deployed
Class Transportation	<ul> <li>Taxes generated</li> </ul>	Location and number of train cabins deployed     Number of passangers transforred from ears to buse
Clean Transportation	<ul> <li>Savings incurred</li> </ul>	<ul> <li>Number of passengers transferred from cars to buses</li> <li>Total GHG emissions avoided through the projects (tCO2eq)</li> </ul>
	<ul> <li>Locations of facilities</li> </ul>	• Total GHG emissions avoided through the projects (tcO2eq)

Source: Government of Nigeria green bond framework

The government clearly documents the methodologies used to calculate the targeted environmental results of all projects. These methodologies are generally based on independent approaches with demonstrable calculations. For example, emission reduction projections are calculated either based on the "IFC Greenhouse Gas Reduction Accounting Guidance For Climate-Related Projects" or the "Gold Standard Suppressed Demand Methodology: Micro-scale Electrification and Energization." <sup>3</sup>

Unlike with the government's first issuance, the second green bond is not receiving certification under the Climate Bonds Initiative's Climate Bonds Standard, a modest relative weakness.

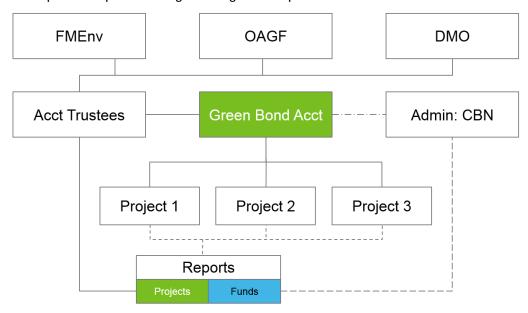
Factor 3: Disclosure on the Use of Proceeds	Yes	No
Description of green projects, including portfolio level descriptions, actual and/or intended	•	
Adequacy of funding and/or strategies to complete projects	•	
Quantitative and/or qualitative descriptions for targeted environmental results	•	
Methods and criteria, both qualitative and quantitative, for calculating performance against targeted environmental results	•	
Issuer relies on external assurances: Second Party reviews, audits and/or third party certifications		•
Factor Score	2	

# Management of proceeds



The government has adopted a clear internal process and formal set of administrative policies designed to manage the segregation and tracking of green bond proceeds (see Exhibit 6). This administrative process will be overseen by the FMEnv, DMO and the Office of the Accountant-General of the Federation (OAGF).

Exhibit 6
Internal process adopted for management of green bond proceeds



Source: Nigerian Federal Ministry of Environment

Under these compliance requirements, proceeds will be managed through the government's "REMITA" platform whereby proceeds will be initially credited into a centralized green bonds proceeds account held at the Central Bank of Nigeria. Upon confirmation of the approved amounts, which will include details of the implementing MDAs and project codes, the funds will be transferred to individual sub-accounts for payment purposes. As green bond proceeds are disbursed, corresponding amounts will be adjusted from the sub-accounts on a regular basis.

In order to reconcile planned investments with actual allocations, the implementing MDAs will be responsible for preparing quarterly implementation reports for review. A consolidated report, including statements from both the centralized account and sub-accounts, will be submitted to the DMO and OAGF thereafter.

In the event of a misapplication or diversion of proceeds, any additional utilization of funds will be prohibited until the issue is resolved. And at the end of the fiscal year, any unutilized funds will be rolled over to the next year on the condition that the project is still ongoing.

Any unallocated proceeds will be held in accordance with the government's normal liquidity management policy, which comprises investments in cash, short-term deposits and other short-term liquidity instruments.

An area of slight weakness is the lack of an unequivocally independent internal audit of the centralized and sub-accounts. We note that the tracking of bond proceeds will be audited by the OAGF. However, the OAGF is also one of three institutions that will oversee the management and disbursement of proceeds, including opening sub-accounts for each project and transferring funds. This suggests that there is not a complete separation of duties between the institutions responsible for authorizing and accounting for the green bond proceeds.

Factor 4: Management of Proceeds	Yes	No
Bond proceeds are segregated and separately tracked on an accounting basis or via a method by which proceeds are earmarked	•	
Application of proceeds is tracked by environmental category and project type	•	
Robust process for reconciling planned investments against actual allocations	•	
Clear eligibility rules for investment of cash balances	•	
Audit by external organization or independent internal audit unit		•
Factor Score	2	

# Ongoing reporting and disclosure



As with its first green bond issuance, the government will publish quarterly implementation reports submitted internally, and also commit to biannual public reporting to commence initially within one year of the issuance and subsequently until full allocation of the proceeds. Furthermore, the government has signaled its intention to provide ongoing disclosure over the life of the bond, and potentially afterwards given that green project metrics will be used to track the annual performance of Nigeria's NDC targets, which run until 2030.

While the NDC targets will be reported on an aggregate basis, reporting on the green bonds will be provided at a project level. The government has also indicated that the annual reports will be segregated by the relevant green bond and, as such, subsequent issuances will be covered in separate annual reports.

Reporting, which will be made publicly available on the Federal Ministry of Environment's website (www.environment.gov.ng), will provide details on the amount of allocated and unallocated funds at the time of publication, along with the economic, environmental and social (where relevant) impacts attributed to each green project. The government expects that ongoing reporting and disclosure will meet the requirements of the Nigerian Stock Exchange and the FMDQ OTC Securities Exchange.

Independent of the government's ongoing reporting commitment, the Central Bank of Nigeria will also provide periodic reports on the green bonds proceeds account and the use of proceeds.

For Nigeria's first green bond issuance in December 2017, the government has already published its first biannual report, a strong indication of the timeliness of its ongoing reporting. This report was very detailed and included information on the amount of green bond proceeds spent, the projects and eligible project categories financed by the proceeds, a summary breakdown of investors participating in the transaction and the estimated environmental impacts associated with the financed projects.

Factor 5: Ongoing Reporting and Disclosure	Yes	No
Reporting and disclosure post issuance provides/to be provided detailed and timely status updates on projects	•	
Ongoing annual reporting is expected over the life of the bond	•	
Disclosures provide granular detail on the nature of the investments and their expected environmental impacts	•	
Reporting provides/to be provided a quantitative and/or qualitative assessment of the environmental impacts actually realized to-date	•	
Reporting includes/to include quantitative and/or qualitative explanation of how the realized environmental impacts compare to projections at the time the bonds were sold	•	
Factor Score	1	

SOVEREIGN AND SUPRANATIONAL MOODY'S INVESTORS SERVICE

# Appendix: Projects to be financed by Nigeria's second green bond

Sector	Ministry	Project Description	New or Existing Project	Investment Amount (NGN millions)	Expected Emissions Impact (tCO2eq)
Power	Federal Ministry of Power, Works & Housing	10MW Katsina Wind Farm	Existing	487	6,613
Power	Federal Ministry of Power, Works & Housing	Construction of Off-Grid Renewable Energy (Solar) Micro-Utility (REMU)	Existing	130	116
Power	Federal Ministry of Power, Works & Housing	Solar Mini-Grids for Selected Federal Government Buildings Starting with Federal Secretariat	Existing	580	867
Power	Federal Ministry of Power, Works & Housing	Rural Electrification Access Program in Federal Universities	Existing	7,067	1,715
	Federal Ministry of Power, Works & Housing	Subtotal		8,264	9,311
Environment	Federal Ministry of Environment	Afforestation/reforestation programme in nine states and Federal Capital Territory (Gombe, Kaduna, Nasarawa, Oyo, Ekiti, Ondo, Edo, Anambra, Enugu and FCT)	New	214	239
Environment	Federal Ministry of Environment	Establishment of Acacia Senegal Plantation in the frontline states to arrest land degradation and mitigate the effects of drought and climate change	Existing	76	88
Environment	Federal Ministry of Environment	Establishment of woodlots in the arid zone	Existing	103	118
Environment	Federal Ministry of Environment	Ecological restoration of degraded areas	Existing	39	46
Environment	Federal Ministry of Environment	Restoration of degraded areas in old Oyo National Park	Existing	30	34
Environment	Federal Ministry of Environment	Ecological restoration of degraded areas of Chad Basin National Park	Existing	16	17
Environment	Federal Ministry of Environment	Ecological restoration of degraded areas in Gashaka Gumti National Park	Existing	35	38
Environment	Federal Ministry of Environment	Ecological restoration of degraded areas in Cross River National Park	Existing	31	34
Environment	Federal Ministry of Environment	Ecological restoration of areas of Kainji Lake National Park	Existing	32	38
Environment	Federal Ministry of Environment	Ecological restoration of degraded areas in Okomu National Park	Existing	24	25
Environment	Federal Ministry of Environment	National Afforestation Programme	New	509	613
Environment	Federal Ministry of Environment	Dry lands restoration through massive afforestation	Existing	110	113
	Federal Ministry of Environment	Subtotal		1,221	1,403
Agriculture	Federal Ministry of Agriculture & Rural Development	Establishment of pilot demonstration on Agro-Forestry Farmers' Managed Regeneration (FMNR) and Conservation Agriculture (CSA) practices for improved food security and livelihoods.	Existing	600	1,680
	Federal Ministry of Agriculture & Rural Development	Subtotal		600	1,680
Transport	Federal Ministry of Transport	Solar powered tricycle	Existing	500	3,303
	Federal Ministry of Transport	Subtotal		500	3,303
Transport	Federal Capital Territory Authority	Abuja Rail Mass Transit Project Lot 1 & 3	Existing	1,597	25,676
	Federal Capital Territory Authority	Subtotal		1,597	25,676
Water	Federal Ministry of Water Resources	Supply and installation of pressurized/centre pivot irrigation systems nationwide	Ongoing	405	30
Water	Federal Ministry of Water Resources	Tada-Shonga Irrigation Project	Ongoing	1,571	42
Water	Federal Ministry of Water Resources	Construction of Middle Ogun Irrigation Project	Ongoing	400	335
Water	Federal Ministry of Water Resources	Rehabilitation of Adani Irrigation Project	Existing	442	108
	Federal Ministry of Water Resources	Subtotal		2,818	515
		Grand Total		15,000	41,888

# Moody's Green Bond Assessment (GBA)

Moody's GBA represents a forward-looking, transaction-oriented opinion on the relative effectiveness of the issuer's approach to managing, administering, allocating proceeds to and reporting on environmental projects financed with green bond proceeds. GBAs are expressed using a five-point relative scale, ranging from GB1 (Excellent) to GB5 (Poor). A GBA does not constitute a credit rating.

# Moody's related publications

#### Methodology:

» Green Bonds Assessment (GBA), 30 March 2016

#### Issuer research:

- » Government of Nigeria B2 stable: Annual credit analysis, 11 December 2018
- » Government of Nigeria B2 stable: Regular update, 20 November 2018
- » Nigeria, Government of: Green Bond Assessment Series 1 Green Notes, 13 December 2017

#### Sector research:

- » Cross-Sector Green Bonds: Corporate issuers drive strong global green bond volume in Q1 2019, 9 May 2019
- » Request for Feedback: Proposed framework to assess carbon risks for high-risk corporate sectors, 7 May 2019
- » ESG Focus: April 2019, 9 April 2019
- » <u>Cross-Sector Kenya: Kenyan green bond guidelines pave way for increased green financing, a credit positive for banks, 25 February 2019</u>
- » Green Bonds Global: Global green bond issuance to hit \$200 billion in 2019, 31 January 2019
- » Green Bonds Global: Environmental impact and reporting vary by jurisdiction and asset class, 4 December 2018
- » Structured finance Global: Green finance sprouts across structured finance sectors, 13 November 2018
- » Green bonds Global: Repeat issuers drive volume as green bond market matures, 12 November 2018
- » Green Bonds Global: Adoption of UN Sustainable Development Goals to drive demand, 12 November 2018
- » Green Bonds Sovereign: Sovereign green bond market on course for critical mass, but challenges remain, 9 July 2018
- » Green Bonds Global: Global municipal green bond issuance will continue to rise, 19 March 2018
- » Cross-sector Global: FAQ: The green bond market and Moody's Green Bonds Assessment, 29 November 2017
- » Green Bond Assessments Global: Issuers exhibit strong organizational frameworks but differ on disclosure, 19 September 2017

To access any of these reports, click on the entry above. Note that these references are current as of the date of publication of this report and that more recent reports may be available. All research may not be available to all clients.

#### **Endnotes**

- See <a href="http://unfccc.int/paris\_agreement/items/9444.php">http://unfccc.int/paris\_agreement/items/9444.php</a>.
- 2 See IFC Greenhouse Gas Reduction Accounting Guidance For Climate-Related Projects, International Finance Corporation, May 2017.
- 3 See The Gold Standard Suppressed Demand Methodology: Micro-scale Electrification and Energization, May 2013.

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