Second-Party Opinion

# QNB Green, Social and Sustainability Bond Framework

## Evaluation Summary

Sustainalytics is of the opinion that the QNB Green, Social and Sustainability Bond Framework is credible and impactful and aligns with the Green Bond Principles 2018, Social Bond Principles 2018, and Sustainability Bond Guidelines 2018. This assessment is based on the following:

**USE OF PROCEEDS** The eligible category for the use of proceeds – (i) green buildings (ii) renewable energy (iii) clean transportation (iv) energy efficiency (v) environmentally sustainable management of living natural resources and land (vi) sustainable water and wastewater management (vii) pollution prevention and control (viii) access to essential services (ix) socio-economic advancement and empowerment and (x) affordable housing – are aligned with those recognized by both the Green Bond Principles and Social Bond Principles. Sustainalytics considers these range of eligible projects to have positive environmental and/or social impacts and to advance the UN Sustainable Development Goals.

**PROJECT EVALUTION / SELECTION** QNB's internal process for evaluating and selecting projects is managed by QNB's Green and Social Bond Committee. The Committee is responsible for evaluating and selecting projects based on the eligibility criteria outlined in the Framework. The Committee will monitor project eligibility on a quarterly basis. This process is aligned with market practice.

**MANAGEMENT OF PROCEEDS** QNB's processes for management of proceeds are managed by the Treasury division using a portfolio approach. QNB will strive to ensure the amount of allocation matches or exceeds to balance of net proceeds from its outstanding green, social and sustainability bonds. If projects are no longer eligible, QNB will strive to replace them as soon as practically feasible. Unallocated proceeds will be held in cash or other short-term liquid instruments at QNB's discretion. This process is aligned with market practice

**REPORTING** QNB intends to report allocation proceeds on its website on an annual basis until full allocation. The allocation report will include the total amount of allocated proceeds, share of financing vs refinancing and any unallocated proceeds. In addition, QNB is committed to reporting on relevant impact metrics. Sustainalytics views QNB's allocation and impact reporting as aligned with market practice.

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**Report Sections**




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# Introduction

Qatar National Bank (Q.P.S.C.) (QNB Group) ("QNB" or the "Bank"), headquartered in Doha, was established in 1964 as the country's first Qatari-owned commercial bank, with an ownership structure split between the Qatar Investment Authority (50%) and the remaining (50%) held by members of the public.

QNB has developed the QNB Green, Social and Sustainability Bond Framework (the "Framework") under which it intends to issue multiple sustainability bonds and use the proceeds to finance and/or refinance, in whole or in part, existing and/or future projects that will contribute to a range of positive environmental and social outcomes. The Framework defines eligibility criteria in ten areas:

1. Green Buildings
2. Renewable Energy
3. Clean Transportation
4. Energy Efficiency
5. Environmentally Sustainable Management of Living Natural Resources and Land
6. Sustainable Water and Wastewater Management
7. Pollution Prevention and Control
8. Access to Essential Services
9. Socio-economic Advancement and Empowerment
10. Affordable Housing

QNB engaged Sustainalytics to review the QNB Green, Social and Sustainability Bond Framework dated January 2020 and provide a second-party opinion on the Framework's environmental and social credentials and its alignment with the Sustainability Bond Guidelines 2018 (SBG).[1] This Framework will be published in a separate document.[2]

As part of this engagement, Sustainalytics held conversations with various members of QNB's management team to understand the sustainability impact of their business processes and planned use of proceeds, as well as management of proceeds and reporting aspects of the QNB Green, Social and Sustainability Bond Framework. Sustainalytics also reviewed relevant public documents and non-public information.

This document contains Sustainalytics' opinion of the QNB Green, Social and Sustainability Bond Framework and should be read in conjunction with that Framework.

[1] The Sustainability Bond Guidelines are administered by the International Capital Market Association and are available at https://www.icmagroup.org/green-social-and-sustainability-bonds/sustainability-bond-guidelines-sbg/
[2] The QNB Green and Social Bond Framework is available on QNB's website at: https://www.qnb.com/sites/qnb/qnbqatar/page/en/enesgreportsanddisclosures.html

# Sustainalytics' Opinion

## Section 1: Sustainalytics' Opinion on the QNB Green, Social and Sustainability Bond Framework Summary

Sustainalytics is of the opinion that the QNB Green, Social and Sustainability Bond Framework is credible and impactful and aligns with the four core components of the Green Bond Principles 2018 (GBP), Social Bond Principles 2018 (SBP) and Sustainability Bond Guidelines 2018 (SBG). Sustainalytics highlights the following elements of the QNB Green, Social and Sustainability Bond Framework:

- Use of Proceeds:
  - QNB's use of proceeds categories are (i) Green Buildings (ii) Renewable Energy (iii) Clean Transportation (iv) Energy Efficiency (v) Environmentally Sustainable Management of Living Natural Resources and Land (vi) Sustainable Water and Wastewater (vii) Pollution Prevention and Control (viii) Access to Essential Services (ix) Socioeconomic Advancement and Empowerment and (x) Affordable Housing, which are considered to be aligned with the GBP, SBP and SBG.
  - Under this Framework, QNB may issue green, social, and sustainable bonds. QNB may use part of the proceeds for project-based lending and part for general purpose loans for pure play businesses that derive 90% of revenues from activities identified in the eligible categories. Sustainalytics notes that the GBP, SBP, and SBG favor project-based lending, and that there is in general less transparency associated with reporting on non-project-based financing, but views positively the relatively high threshold of 90% revenues applied by QNB for pure-plays which is aligned with market practice. Where proceeds are used for general purpose loans, Sustainalytics recommends QNB to track and disclose the portion of bond proceeds allocated to general-purpose loans and to provide detailed impact reporting on the companies or types of business financed.
  - QNB uses third-party certifications such as LEED "Gold", GSAS "4 Star", BREEAM "Very Good", HQE "Very Good", BCA Green Mark "Gold plus", Passive Haus (carbon neutral), EU Energy Performance Certificate (EPC) A and B or other equivalent certifications. Sustainalytics highlights that the levels chosen for LEED, GSAS, BREEAM, HQE and Passive house align with market practice, and encourages QNB to align the certification levels for BCA Green Mark to Platinum, to align with market practice. Furthermore, Sustainalytics encourages QNB to transparently disclose how EPC A and B in the respective markets align with the top 15% of buildings. For Sustainalytics' assessment of these schemes, please see Appendix 1. In addition, non-certified green buildings are defined as new or existing buildings in the top 15% of energy efficient buildings in their respective region, or refurbished buildings with a 30% energy efficiency improvement or a two-step improvement in EU EPC, which is aligned with market practice.
  - Investment in renewable energy includes the financing or refinancing of the equipment, development, manufacturing, construction, operation and maintenance of renewable energy generation sources and related infrastructure. Renewable energy sources include wind (onshore and offshore), solar (photovoltaic solar power, concentrated solar power (CSP) and solar thermal), hydroelectric, bioenergy, geothermal, and tidal.
    - With respect to bioenergy, QNB intends to finance the facilities for electricity generation, heating or both (CHP) that use biomass or biofuel. Sustainalytics positively highlights that QNB commits that feedstock used for the biofuel and biomass is derived from forest (FSC/PEFC certified), biomass certified to the Sustainable Biomass Partnership (SBP), Roundtable on Sustainable Biomass (RSB), agricultural waste, food waste and algae marine (e.g. algae) and that feedstocks do not result in deforestation, compete with food production, is derived from sources of high-biodiversity, or that depletes carbon pools. Sustainalytics notes that QNB does not include a threshold on emissions from non-waste biomass to energy projects in the framework, which is

considered a limitation as the carbon intensity of biomass electricity generation ranges from about 65 to 350gCO2/kWh.[3]
    - With respect to geothermal, Sustainalytics positively highlights that QNB intends to finance projects with an emissions intensity of less than 100gCO2e/kWh.
    - Investment in renewable energy also includes investments in relation to energy transmission infrastructure. QNB confirmed to Sustainalytics that all investment related to transmission systems, such as increasing grid capacity and connections, will increase the share of renewable energy on the grid.
- QNB intends to invest in low-carbon vehicles for public, passenger and freight purposes.[4] This includes cars, buses, ferries, and trains that are fully electric, hybrid electric or hydrogen, and related infrastructure, such as electrified railways and charging stations for electric vehicles. Sustainalytics positively highlight that QNB commits to restrict financing to those vehicles that emit less than 50g $CO_{2e}$/km, which is aligned with market best practice.
- Regarding energy efficiency, QNB intends to finance district heating and cooling systems, smart energy grids, energy meters, management systems and battery storage facilities, and electricity transmission efficiency. Sustainalytics positively notes that smart grid investment is intended to allow for the transmission of small scale / decentralized renewable energy technologies. In addition, QNB confirmed to Sustainalytics that district heating and cooling systems do not include energy generation, but feeds on the local electricity grid. QNB also intends to finance improvements in electricity transmission efficiency through reinforcement of grids and reduction of transmission losses.
- QNB intends to use the proceeds to finance forestry certified by the Forest Stewardship Council (FSC) or Programme for the Endorsement of Forest Certification Schemes (PEFC), agriculture certified to Fair Trade or organic (EU and USDA) as well as hydroponic and vertical farming, and fishery certified to the Marine Stewardship Council (MSC) or Aquaculture Stewardship Council (ASC). Sustainalytics recognizes that these initiatives differ in their standards, application and scale of impact. For Sustainalytics' assessment of these certifications please refer to Appendix 2 and Appendix 3.[5]
    - Sustainalytics notes that vertical farming and hydroponics will be a part of the solution set for food production especially given the expected impacts of climate change. While there is potential for vertical farming and hydroponics to achieve greater resource efficiency, performance can vary greatly based on location and on the specific approach and technologies used. Given this, we are not able to assess the expected impact, and therefore encourage QNB to measure and report on the energy and resource efficiency of projects funded.
    - Sustainalytics positively notes that QNB confirmed that financing of agriculture is limited to plant-based agriculture.
- The proceeds are also intended to finance water and wastewater management activities. These include wastewater treatment and recycling facilities, Sustainable Urban Drainage Systems[6] (SUDS), and freshwater technologies and improvements to freshwater infrastructure that increase water use efficiency.
- QNB also intends to use part of the proceeds to finance the establishment, acquisition, expansion, upgrades and ongoing management of waste and technologies to reduce emissions to air. Sustainalytics notes the following limitations of the category:
    - QNB intends to finance waste management and recycling companies and facilities of all types of waste. QNB confirmed to Sustainalytics that waste management projects in Europe will target diversion from landfill and recycling. For the other markets,[7]sanitary landfill will be applied as a minimum standard for investments.[8] The Green Bond market generally views landfilling to not aligned with market practice.

[3] Climate Bond Initiative, Background Paper 2013: https://www.climatebonds.net/files/files/Climate%20Bonds%20Solar%20Criteria%20Background%20Paper.pdf
[4] With respect to biofuels for transportation, Sustainalytics positively notes that QNB has established a threshold of 50gCO2e/km.
[5] The Framework does not exclude ASC certifications granted with a variance from the standard. Sustainalytics encourages QNB to prioritize use of proceeds with full and complete ASC certifications so as to ensure full alignment with the standard. A list of variance requests and variances previously granted is available on ASC's website: https://asc-portal.force.com/interpret/s/
[6] SUDS are a collection of water management practices that aim to align modern drainage systems with natural water processes.
[7] This framework is applicable to investments in France, Qatar, Switzerland, Indonesia, Iraq, Tunisia, Egypt, Turkey, China, India, Iran (dormant), Kuwait, Lebanon, Mauritania, Myanmar, Oman, Singapore, UK, Vietnam, Yemen, Algeria, Bahrain, Jordan, Libya, Togo, UAE.
[8] Sanitary landfill is defined as landfill that ensures proper containment (i.e. liners) of leachate, ensures methane capture (a rate of 75%), no open dumping, is accompanied by programs to increase recycling and composting.

However, in Sustainalytics opinion, sanitary landfill may be an appropriate solution only in those countries with underdeveloped waste management system and where sanitary landfill can demonstrate a clear improvement to the status quo. In addition, given the breadth of the category, Sustainalytics encourages QNB to transparently disclose on issuance the projects financed and how the projects exceed current practices.
    - QNB intends to finance municipality waste incineration, the capturing of landfill gas and anaerobic digestion. QNB confirmed that the municipality waste incineration plants financed with bonds issued under this framework will have toxic air emission abatement technologies but is unable to confirm the feedstock for anaerobic digestion, which is considered a limitation.
    - QNB intends to finance technologies to reduce air emissions from industrial sources, such as particulate matter and VOC. While Sustainalytics recognizes the potential positive impact of reducing air emissions and positively views QNB's exclusion of projects directly related to fossil fuel processes.
  - Use of proceeds enabling access to essential services, defined as not-for-profit, free or subsidized services, include activities involving the development, expansion or acquisition of buildings, facilities, or equipment relating to: i.) Infrastructure for hospitals, laboratories, clinics, healthcare, childcare and elder care centers, and ii.) Infrastructure for the provision of child, youth or adult education and vocational training services. Sustainalytics recognizes the importance of providing access to affordable healthcare, and opportunities for youth and adult training services.
  - Investment in the social bond category socioeconomic advancement and empowerment includes loans to SMEs, microfinance and entrepreneur clients.[9] Sustainalytics positively highlights that QNB limits financing to specific economically underperforming regions.[10] In addition, QNB defines SME and micro enterprise per region aligned with local standards.
  - Use of proceeds dedicated to affordable housing, include development, maintenance, operation and refurbishment of shelters, halfway homes and community and social housing projects. QNB confirmed that social housing is defined by local standards.
- Project Evaluation and Selection:
  - QNB's project evaluation and selection process will be managed by QNB's Green and Social Bond Committee (the "Committee") which is comprised of members from Treasury, Corporate Institutional Banking, Credit, Risk, Financial Control and Strategy and the Sustainability Team. Additional attendees may be nominated. The Committee is responsible for evaluating and selecting projects based on the eligibility criteria outlined in the Framework as well as with internal policy and national regulations. The Committee will meet quarterly to monitor and review the eligibility of the project portfolio. Sustainalytics views this process as aligned with market practice.
- Management of Proceeds:
  - Allocation of proceeds will be handled by QNB's Treasury team and will be allocated using a portfolio approach. The Committee will monitor the allocation and, if an asset no longer meets the eligibility criteria, it will be removed and replaced as soon as practically feasible. QNB will strive to achieve a level of allocation for the eligible project portfolio that matches or exceeds the total value of its outstanding green and social bonds. Any unallocated proceeds will be held at QNB's discretion in its consolidated balance sheet, in cash or other short-term liquid instruments. Sustainalytics views this process as aligned with market practice.
- Reporting:
  - QNB will report annually on allocation of proceeds and impact reporting, until full allocation. Regarding allocation, the Bank will report on the size of the identified eligible green and social projects portfolio, the total amount of proceeds allocated to the portfolio, the share of financing vs refinancing and the amount of unallocated proceeds. On a best effort basis, QNB will align its impact reporting with the Harmonized Framework for Impact Reporting,[11] for a full list of potential impact indicators, see Appendix 2. Sustainalytics views this reporting process as aligned with market practice.

[9] QNB defines entrepreneur clients analogous to the SME definition.
[10] Underperforming regions defined according to the list of developing countries according to the UN Conference on Trade and Development (UNCTAD).
[11] ICMA, "Harmonized Framework for Impact Reporting", (2019), at: https://www.icmagroup.org/assets/documents/Regulatory/Green-Bonds/June-2019/Handbook-Harmonized-Framework-for-Impact-Reporting-WEB-100619.pdf

**Alignment with Green Bond Principles 2018, Social Bond Principles 2018 and Sustainability Bond Guidelines 2018**

Sustainalytics has determined that QNB's Green, Social and Sustainability Bond Framework aligns to the four core components of the Green Bond Principles 2018 and Social Bond Principles 2018. However, Sustainalytics reiterates that the GBP, SBP, and SBG favor project-based lending, and that there is in general less transparency associated with reporting on non-project-based financing. For detailed information please refer to Appendix 2: Sustainability Bond/ Sustainability Bond Programme External Review Form.

## Section 2: Sustainability Strategy of the Issuer

**Contribution of Framework to QNB's sustainability strategy**

QNB's sustainability strategy focuses on three pillars (i) sustainable finance (ii) sustainable operations and (iii) beyond banking. The projects and activities that will be funded by this Framework will contribute to all three pillars. The Framework broadly aligns with the Qatar National Vision 2030 (QNV2030), the National Development Strategy 2018 – 2022 and the United Nations SDG's.[12]

*Sustainable finance*[12]
The Bank's sustainable finance strategy is aimed at integrating ESG criteria into financing activities and to deliver profit that is combined with purpose and impact. The Bank is focused on supporting customers to manage their environmental and social risks and lend to businesses that contribute to the SDGs. Some of the specific activities that have been identified as material topics within sustainable finance and are relevant to the financing under this Framework include expanding sustainable lending, products and services; supporting SME's and entrepreneurship and improving financial inclusion, accessibility and education. Some of the Bank's achievements from 2018 include lending 19.3 million (USD) for environmentally friendly, low-carbon activities. As of 2018, the bank now offers institutional and individual clients with 21 sustainable products and services – up from 18 in 2017 and 10 in 2016 – to qualify, the product or service must specifically address an environmental or social challenge as defined by internal criteria, including increasing the financial inclusion of underserved groups, supporting businesses that help advance the green economy and assisting customers with disabilities.

As part of the Bank's commitment to financing Microenterprises and SME's, as of 2018, the total lending portfolio extended to these types of business came to 4.3%.[13] While Sustainalytics acknowledges QNB's commitment to transparent reporting on its progress, it is encouraged that the Bank develops quantitative, time-bound targets for its sustainable financing strategy.

*Sustainable operations*[12]
QNB acknowledges both its indirect and direct environmental impacts. The Bank's sustainable operations strategy focuses primarily on its direct environmental impact and has demonstrated a strong commitment towards reducing its operational footprint. Some operational improvements include a 3%+ reduction in total energy consumption (GJ) and approximately 5% reduction in total GHG emissions (tonnes of $CO_2$-e). The Bank also managed to decrease its total paper consumption. However, overall water consumption increased slightly.

The Bank has also launched a variety of environmental initiatives at its operational branches in Qatar, Egypt and Turkey, For example, in Qatar the Bank set a carbon reduction target of 20% by 2022 against a 2017 baseline, in Egypt the Bank has begun installing solar panels in branches, saving approximately 28% of the annual energy consumption in the selected branches and in Turkey the Bank has implemented a number of energy efficiency savings technologies including controlled building energy consumption through automation and implementation of energy efficiency measures in offices and data centers.

*Beyond Banking*[12]
Beyond Banking refers to QNB's Corporate Social Responsibility (CSR) activities and is focused on community investment and socio-economic development. The aim of this pillar is to enable economic and social empowerment, particularly in developing and emerging economics that are underserved by other banks. The Bank works with approximately 80 different nationalities across 31 countries. Activities range from providing financial services to literacy, education and healthcare. Total community investment as a percentage of pre-tax profits was at 2.7% in 2018, compared to 2.6% in 2017.

[12] QNB, "Sustainability Report 2018", (2019), at: https://www.qnb.com/sites/qnb/qnbqatar/document/ar/arSustainabilityReport2018
[13] SME's are defined by local definitions used in each country.

Based on the above, Sustainalytics is of the opinion that the wide range of activities that will be financed from this Framework will contribute to the Bank's sustainability strategy and each of the above described pillars. Sustainalytics positively highlights QNB's commitment to robust and transparent reporting and encourages the Bank to establish quantitative, time-bound targets for each of these sustainability pillars. Sustainalytics views QNB as well positioned to issue green and social bonds that will deliver positive environmental and social benefits to the regions that it operates in.

**Well positioned to address common environmental and social risks associated with the projects**

While Sustainalytics recognizes that the eligible projects are recognized as impactful by GBP 2018, SBP 2018 and SBG 2018, Sustainalytics is aware that the projects can have negative environmental and social outcomes. Some major environmental risks associated with the eligible projects can be workers' health and safety, biodiversity loss from large scale construction and infrastructure projects. Sustainalytics considers the following policies and procedures to help QNB mitigate related risks:

- As of 2019, QNB is developing an Environmental and Social Risk (ESR) management system, which will be applied to the company's sustainability portfolio.[12] Moreover, regarding the adverse impacts of large infrastructure and industrial projects on people and environment, QNB has integrated sustainable practices into its lending activities by applying the Equator Principles categorization to project finance transactions[14] and in its Wholesale Credit policy.[15] Sustainalytics considers that the Equator Principles criteria for QNB's loan application can be a robust risk management framework for the assessment, management and mitigation of environmental and social risks.
- QNB intends to finance projects in the following countries France, Qatar, Switzerland, Indonesia, Iraq, Tunisia, Egypt, Turkey, China, India, Iran, Kuwait, Lebanon, Mauritania, Myanmar, Oman, Singapore, UK, Vietnam, Yemen, Algeria, Bahrain, Jordan, Libya, Palestine, Togo and UAE. In its Group Sustainability Policy, QNB states that it supports the United Nations Guiding Principles on Business and Human Rights and that it "expect [its] customers and suppliers to respect human rights, and QNB prohibits the use of child and forced labour in our workforce or throughout our Supply Chain." Sustainalytics positively notes that the Group Sustainability Policy feeds into QNB's project selection and encourages QNB to implement a strong due diligence process on human rights to adequately manage related risks
- QNB commits to regular Know Your Customers (KYC) assessments to monitor the quality of the customers' information domestically and internationally.[15]
- Under the Framework, QNB excludes financing of loans linked to fossil energy generation or transportation, nuclear energy generation, weapons and defense, mining, gambling, tobacco or palm oil. Additionally, QNB prohibits the use of child or forced labor throughout the Bank's supply chain.[15]
- QNB considers employee health and safety as one of the seven major operational risks to manage and control.[16]

Sustainalytics considers that QNB's policies and procedures will help the issuer mitigate environmental and social risks associated with the projects.

## Section 3: Impact of Use of Proceeds

All ten use of proceeds categories are recognized as impactful by GBP. Sustainalytics has focused on ten below where the impact is specifically relevant.

**The importance of green buildings**

Buildings consume a significant account for a significant portion of total global energy consumption. For example, in developed countries, it has been estimated that buildings account for approximately 40% of energy use, contribute 38% of GHG emissions and 20% of solid waste streams.[17] According to the UNEP, the building sector has the potential to make energy savings of 50% or more by 2050 and could save an estimated EUR280 to EUR410 billion in savings on energy spending.[18] Additionally, research suggests that green buildings are also able to provide important social benefits for the health and well-being of people who work in green offices

[14] QNB Group Sustainability Policy, accessed January 2020: https://www.qnb.com/sites/qnb/qnbqatar/document/en/enSustainabilityPolicy
[15] QNB, "Corporate Governance Report 2018", (2019), at: http://www.qnbalahli.com/sites/qnb/qnbqatar/document/en/enCG2018
[16] QNB, "Annual Report 2018", (2019), at: https://www.qnb.com/sites/qnb/qnbqatar/document/en/enAnnualReport2018
[17] USGBC, "Importance of Green Buildings Stressed by Business and Industry at UN Climate Negotiations", (2013), at: https://www.usgbc.org/articles/importance-green-buildings-stressed-business-and-industry-un-climate-negotiations
[18] World Green Building Council, "The benefits of green buildings", at: https://www.worldgbc.org/benefits-green-buildings

or live in green homes. As such, QNB's financing/refinancing of the acquisition, development, construction and refurbishment of buildings that meet well-recognized international green building standards including LEED, BREEAM, HQE, etc. will contribute to positive environmental, social and economic benefits.

**The impact of renewable energy**

Every day, humans consume an estimated 63,300,000 MWh of electricity to power our homes, workplaces and vehicles.[19] Globally, coal still accounts for approximately 38% of the world's electricity mix, followed by 23% from gas, 16% hydro and 10% nuclear. Collectively, solar, biomass, geothermal and wind only contribute 11%.[19] Additionally, the Energy Information Administration has estimated that world energy consumption will increase by nearly 50% between 2018 and 2050.[20] This increase is primarily driven by Asia and emerging economies, which are focused on strong economic growth and the development of a middle class. In order to meet the emissions pathway outlined in the Paris Agreement and the 2° C target, emissions need to fall to 9.7Gt in 2050 – a substantial decrease.[21] In order to achieve this, the share of renewable energy in the power sector would need to increase from 25% in 2015 to 63% in 2050 and an additional USD 120 trillion would need to be invested in the energy system.[21] In addition to the environmental benefits of investments into increasing the capacity of renewable energy, there is a strong economic argument for the transition as well, as it is estimated that – taking the above factors into consideration – it is estimated that an additional 11.6 million direct and indirect jobs in the energy sector could also be created.[21] Based on this, there is a clear and significant need for additional investment into renewable energy capacity and QNB's financing/refinancing the equipment, development, manufacturing, construction, operation and maintenance of renewable energy generation sources including wind, solar, hydro, bioenergy, geothermal, tidal and infrastructure to support renewable energy transmission will further contribute to the global energy transition towards a low-carbon economy.

**The need for clean transportation**

Emissions from the transport sector which include road, rail, air and marine transportation — accounted for over 24% of global CO2 emissions in 2016 and are expected to grow at a faster rate than that from any other sector, posing a major challenge to efforts to reduce emissions in line with the Paris Agreement and other global goals.[22] While there have been significant strides in improving the overall efficiency of vehicles, those efficiency gains have been offset by increased volume of travel. Specifically, in terms of transport modes, 72% of transport emissions came from road vehicles, which accounted for approximately 80% of the rise in emissions from 1970 – 2010. In order to reduce emissions from the transport sector, transition to a zero-emissions transport system will be an important step in the transition to a low-carbon economy. To achieve such a transition, a holistic approach towards improving vehicle efficiency is needed including the further proliferation of clean vehicles and the advancement of infrastructure to support clean vehicles. QNB's investments into low-carbon vehicles for public and passenger freight purposes, including cars, buses, ferries and trains that are either fully electric, plug-in hybrid electric or hydrogen powered coupled with investments into the infrastructure to support these modes of transport, such as electrified railways, charging stations and other related infrastructure will further contribute to global reduction of GHGs from the transport sector and facilitate the transition towards clean transportation.

**The importance of sustainable agriculture**

Over 800 million people globally are living in hunger,[23] hunger being defined as a short-term physical discomfort as a result of chronic food shortage. With an expected additional two billion people on the planet by 2050, this number is likely to rise and ensuring a sustainable food supply will be paramount to providing all people with appropriate nutrition to live healthy and productive lives. Conventional agricultural practices, including tillage and use of chemical inputs (pesticides and fertilizers) have resulted in soil erosion and nutrient loss, resulting in nonarable land that is no longer suitable for the cultivation of crops.[24] Sustainable agriculture aims to achieve a number of objectives to mitigate the degradation of land and ensure the sustained ability to grow crops for current and future populations. Some objective includes producing safe

[19] Visual Capitalist, "The World's Largest and Most Notable Energy Sources", (2019), at: https://www.visualcapitalist.com/worlds-largest-energy-sources/
[20] EIA, "Today in Energy", (2019), at: https://www.eia.gov/todayinenergy/detail.php?id=41433
[21] Gielen, D. et al. (2019), "The role of renewable energy in the global energy transformation", at: https://www.sciencedirect.com/science/article/pii/S2211467X19300082
[22] WRI, "Everything you need to know about the fastest growing source of global emissions: transport", (2019), at: https://www.wri.org/blog/2019/10/everything-you-need-know-about-fastest-growing-source-global-emissions-transport
[23] World Hunger, "2018 World Hunger and Poverty Facts and Statistics", (2018), at: https://www.worldhunger.org/world-hunger-and-poverty-facts-and-statistics/
[24] Challenge Advisory, "The Importance of Sustainable Farmers", (2018), at: https://www.challenge.org/knowledgeitems/the-importance-of-sustainable-farming/

and healthy food, conservation of natural resources, maintaining ecosystem services, and a host of other positive environmental and social benefits.[25]

Some of the innovative technologies being pursued by QNB to facilitate the development of sustainable agriculture include vertical farming and hydroponics. Vertical farming is the practice of growing produce in vertically stacked layers and can be combined with soilless farming techniques, including hydroponics. Some of the benefits of this type of farming includes reduced resource consumption (reduced water, carbon, land, etc.), no use of pesticides or herbicides, increased yields and reduced labor costs.[26] The most significant disadvantage is increased energy consumption, due to the need for climate control.[26]

**The importance of sustainable water and wastewater management**
Globally, it is likely that over 80% of wastewater is released to the environment without adequate treatment.[27] Ensuring good water quality treatment is critically important for both human health and environmental conservation. As populations grow, natural environments become degraded and the need for adequate water treatment infrastructure increases.[28] Additionally, whenever natural environments are developed, roads and parking lots are built, buildings are constructed and surfaces that were once able to absorb water become impervious, altering the natural water cycle, thus increasing the risk of flooding and the concentration of pollutants in runoff.[29] As such, ensuring the treatment of wastewater and improving the efficiency of drainage networks through the implementation of Sustainable Urban Drainage Systems (SUDS) that allow the collection, transport and treatment of rainwater in a sustainable way are essential technologies to prevent adverse environmental impacts and hazards to health.[30]

Given this context, Sustainalytics is of the opinion that QNB's financing of wastewater treatment systems, recycling and SUDS can provide important environmental and social benefits by mitigating flood risk and reducing water pollutant discharge.

**The importance of waste management, pollution prevention and control**
Globally, waste generation rates are rising. As populations and consumerism grow, so does the amount of waste produced and the need for effective waste management systems. In 2016, the world's cities generated approximately two billion tons of solid waste, amounting to an average of 74kg of waste per person per day. This figure is expected to increase by 70% by 2050 to 3.4 billion tons. In low-income countries, an estimated 90% of waste is disposed in unregulated dumps or openly burned, which creates serious human health hazards and environmental consequences. Poorly managed waste leads to increases in disease while contributing to climate change through release of GHG's, such as methane, as well as other hazardous air pollution when burned. Waste management remains a challenge for many countries and cities and can account for 20-50% of municipal budgets. As such, there is clear need for improved waste management that are efficient, sustainable and socially supported.

The Greater Cairo Metropolitan Area ("GCMA") is Egypt's largest urban and industrial agglomeration. Given the rapid demographic urban growth, air pollution within the GCMA has been a growing source of concern among Egyptian authorities.[31] Pollution sources include transport, energy, waste burning and industry.[32] The latter being a major source of air pollution, since the GCMA comprised around 36,000 industrial establishments.[31, 33] Consequently, particulate matters ("PM") such as $PM_{2.5}$, and nitrogen dioxide ($NO_2$) represent critical health risks. Evidences indicate a correlation between $PM_{2.5}$ exposure and cardiovascular, respiratory, and lung cancer mortality.[34] In Cairo, it is estimated that 11% of the non-accidental mortality in the

[25] European Commission, "Sustainable agriculture for the future we want", (2012), at: https://ec.europa.eu/agriculture/sites/agriculture/files/events/2012/rio-side-event/brochure_en.pdf
[26] IVL Swedish Environmental Research Institute, "Reviewing the energy environmental performance of vertical farming systems in urban", (2018), at: https://www.ivl.se/download/18.2aa2697816097278807e72d/1522310465773/C298.pdf
[27] UNESCO, "World Water Assessment Programme", (2017), at: http://www.unesco.org/new/en/natural-sciences/environment/water/wwap/wwdr/
[28] UN Water, "Water Quality and Wastewater", (2017), at: https://www.unwater.org/water-facts/quality-and-wastewater/
[29] Hidrologia Sostenible, "Sustainable Urban Drainage Systems", at: http://hidrologiasostenible.com/sustainable-urban-drainage-systems-suds/
[30] Poleto, C. & Tassi, R. (2012), "Sustainable Urban Drainage Systems", at: https://www.researchgate.net/publication/221927247_Sustainable_Urban_Drainage_Systems
[31] Middle East Institute, "Improvement of Air Quality in Egypt: The Role of Natural Gas", (2011), at: https://www.mei.edu/publications/improvement-air-quality-egypt-role-natural-gas
[32] World Bank Group, "ARAB REPUBLIC OF EGYPT – Second Pollution Abatement Project", (2017), at: http://documents.worldbank.org/curated/en/972321468021568180/pdf/730740ESW0P09700Final0April02202013.pdf
[33] Wheida, A., et al., (2018), "Tackling the mortality from long-term exposure to outdoor air pollution in megacities: Lessons from the Greater Cairo case study", Environmental Research, at: https://www.sciencedirect.com/science/article/abs/pii/S0013935117312203
[34] WHO, "Health risks of air pollution in Europe - HRAPIE project", (2013), at: http://www.euro.who.int/__data/assets/pdf_file/0006/238956/Health_risks_air_pollution_HRAPIE_project.pdf

population older than 30-year-old can be attributed to $PM_{2.5}$. Regarding $NO_2$, average concentration in Cairo is estimated to be 34 µg/m$^3$, which exceeds the 10 µg/m$^3$ limit recommended of the HRAPIE,[34] and is estimated to cause between 7850 and 10470 yearly deaths.

As such, financing of technologies to reduce air pollutants such as PM could improve the overall air quality of the GCMA and mitigate air pollution's adverse effects on human health. In the past, QNB has been involved in the Second Egyptian Pollution Abatement Programme,[32] providing line-of-credit alongside other financial institutions[35] on pollution abatement in the Alexandria and GCMA, targeting specifically the industrial sector pollution and due to fill a financing gap for pollution abatement investments estimated at EUR 280M.[36]

**The need for improved access to essential services, including healthcare and education**
While healthcare access and quality improved globally from 2000 – 2016, some countries experience slow progress or stalled over this period, indicating that some countries' health systems are not evolving at the same rate as population health needs, particularly as non-communicable diseases, such as cardiovascular disease, diabetes and cancers become more common.[37] This emphasizes the global need to continue improving both access and quality of healthcare, otherwise health systems could be at risk for widening gaps between the health services they provide and the disease burden in their population. In order to strengthen and deliver effective healthcare systems for the next generations, there needs to be a focus on improving healthcare access and quality across health service areas for the world's underserved populations.[37] A fundamental part of improving access to quality healthcare is the development of healthcare infrastructure, including infrastructure for hospitals, clinics, childcare and elderly care. As such, by investing into the financing or refinancing of facilities and equipment that enhance access to public, not for profit, free or subsidized healthcare services, QNB is playing an important role in the improvement of healthcare access.

While access to education has seen significant progress in recent decades, lack of access to education is one of the biggest drivers for transmitting poverty from generation to generation as education reduces poverty, boosts economic growth and increases income. It also increases healthy living and reduces social health risks.[38] In order to enable access to education, it is important to ensure adequate infrastructure, such as buildings, classrooms, and equipment As such, Sustainalytics is of the opinion that QNB's financing into education and vocation infrastructure can provide important social benefits by increasing availability of education.

**The need for providing affordable housing**
Affordable housing is a world-wide challenge for cities both in developing and developed countries.[39] More than half of world's population (4.2 billion people) live in cities as of 2018, which is expected to increase to two-thirds of all humanity (6.5 billion people) by 2050.[40] As urban populations have increased at unprecedented rates since 1996, a number of cities are facing shortage in housing supply.[41] Around 980 million urban households suffered shortage in decent housing in 2010 and another 600 million will suffer housing shortfalls between 2010 and 2030.[41] Determinants of housing unaffordability differ per city, but are generally caused by, "housing costs rising faster than incomes, the supply of houses not keeping up with demand, scarcity of land, and demographic changes such as population growth, ageing and shifts in household composition".[42]

The Habitat III (United Nations Conference on Housing and Sustainable Urban Development) adopted in the New Urban Agenda[43] in 2016 requiring "national, subnational and local housing policies to support the progressive realization of the right to adequate housing for all by 2030", [42] indicating the need for affordable

[35] Financial partners include the World Bank, the French Development Agency, the European Investment Bank and the Japan Bank for International Cooperation.
[36] AFD, "Industrial Pollution Abatement", at: https://www.afd.fr/en/carte-des-projets/industrial-pollution-abatement
[37] Science Daily, "Global healthcare access and quality improved from 2000 – 2016", (2018), at: https://www.sciencedaily.com/releases/2018/05/180523091109.htm
[38] Global Partnership for Education, "Education", at: https://www.globalpartnership.org/education
[39] McKinsey Global Institute, A blueprint for addressing the global affordable housing challenge, (2014), at: https://www.mckinsey.com/~/media/McKinsey/Featured%20Insights/Urbanization/Tackling%20the%20worlds%20affordable%20housing%20challenge/MGI_Affordable_housing_Full%20Report_October%202014.ashx
[40] UNDP, Goal 11: Sustainable cities and communities, (2019), at: https://www.undp.org/content/undp/en/home/sustainable-development-goals/goal-11-sustainable-cities-and-communities.html
[41] UN-Habitat, World Cities Report 2016, at: https://unhabitat.org/sites/default/files/download-manager-files/WCR-2016-WEB.pdf
[42] World Economic Forum, Making Affordable Housing a Reality in Cities, (2019), at: http://www3.weforum.org/docs/WEF_Making_Affordable_Housing_A_Reality_In_Cities_report.pdf
[43] The New Urban Agenda was unanimously adopted at the United Nations Conference on Housing and Sustainable Urban Development (Habitat III) in Quito, Ecuador on 20 October 2016. Further detail at: UN-Habitat, New Urban Agenda, at: http://habitat3.org/the-new-urban-agenda

housing. Given this context, Sustainalytics is of the opinion that the financing or refinancing of the development, construction, refurbishment, operation and maintenance of affordable or social housing, contributes to meet the global need for affordable housing.

**Alignment with/contribution to SDGs**
The Sustainable Development Goals (SDGs) were set in September 2015 and form an agenda for achieving sustainable development by the year 2030. This sustainability bond advances the following SDG goals and targets:

| Use of Proceeds Category | SDG | SDG target |
|---|---|---|
| Sustainable Water and Wastewater Management | 6. Clean Water & Sanitation | 6.2 By 2030, achieve access to adequate and equitable sanitation and hygiene for all and end open defecation, paying special attention to the needs of women and girls and those in vulnerable situations<br><br>6.3 By 2030, improve water quality by reducing pollution, eliminating dumping and minimizing release of hazardous chemicals and materials, halving the proportion of untreated wastewater and substantially increasing recycling and safe reuse globally |
| Renewable Energy<br><br>Energy Efficiency | 7. Affordable & Clean Energy | 7.2 By 2030, increase substantially the share of renewable energy in the global energy mix<br><br>7.3 By 2030, double the global rate of improvement in energy efficiency |
| Clean Transportation<br><br>Green Buildings | 11. Sustainable Cities & Communities | 11.2 By 2030, provide access to safe, affordable, accessible and sustainable transport systems for all, improving road safety, notably by expanding public transport, with special attention to the needs of those in vulnerable situations, women, children, persons with disabilities and older persons<br><br>11.6 By 2030, reduce the adverse per capita environmental impact of cities, including by paying special attention to air quality and municipal and other waste management |
| Pollution Prevention and Control | 12. Responsible Consumption & Production | 12.4 By 2020, achieve the environmentally sound management of chemicals and all wastes throughout their life cycle, in accordance with agreed international frameworks, and significantly reduce their release to air, water and soil in order to minimize their adverse impacts on human health and the environment<br><br>12.5 By 2030, substantially reduce waste generation through prevention, reduction, recycling and reuse |
| Environmentally Sustainable Management of Living Natural Resources and Land | 15. Life on Land | 15.2 By 2020, promote the implementation of sustainable management of all types of forests, halt deforestation, restore degraded forests and substantially increase afforestation and reforestation globally |
| | 14. Life Below Water | 14.4 By 2020, effectively regulate harvesting and end overfishing, illegal, unreported and unregulated fishing and destructive fishing |

| | | |
|---|---|---|
| | | practices and implement science-based management plans, in order to restore fish stocks in the shortest time feasible, at least to levels that can produce maximum sustainable yield as determined by their biological characteristics |
| Access to Essential Services | 3. Good Health & Well-Being | 3.8 Achieve universal health coverage, including financial risk protection, access to quality essential health-care services and access to safe, effective, quality and affordable essential medicines and vaccines for all |
| | 4. Quality Education | 4.1 By 2030, ensure that all girls and boys complete free, equitable and quality primary and secondary education leading to relevant and effective learning outcomes<br><br>4.4 By 2030, substantially increase the number of youth and adults who have relevant skills, including technical and vocational skills, for employment, decent jobs and entrepreneurship |
| Socio-economic Advancement and Empowerment | 10. Reduced Inequalities | 10.1 By 2030, progressively achieve and sustain income growth of the bottom 40 per cent of the population at a rate higher than the national average |
| Affordable Housing | 11. Sustainable Cities & Communities | 11.1 By 2030, ensure access for all to adequate, safe and affordable housing and basic services and upgrade slums |

## Conclusion

QNB has developed the QNB Green, Social and Sustainability Bond Framework, under which QNB intend to issue bonds to finance and refinance projects related to (i) green buildings (ii) renewable energy (iii) clean transportation (iv) energy efficiency (v) environmentally sustainable management of living natural resources and land (vi) sustainable water and wastewater management (vii) pollution prevention and control (viii) access to essential services (ix) socio-economic advancement and empowerment and (x) affordable housing.

Sustainalytics has reviewed the framework and considers QNB's processes for project selection and evaluation, management of proceeds and reporting to be aligned with market practice. In addition, Sustainalytics considers the eligible categories, except of the aforementioned limitations, to be credible and impactful.

Based on the above, Sustainalytics considers QNB to be well-positioned to issue green bonds, and that the QNB Green, Social and Sustainability Bond Framework robust and in alignment with the GBP 2018, SBP 2018 and SBG 2018.

# Appendices

## Appendix 1: Green Building Certification Standards

| | LEED | GSAS | BREEM |
|---|---|---|---|
| **Background** | Leadership in Energy and Environmental Design (LEED) is a US Certification System for residential and commercial buildings used worldwide. LEED was developed by the non-profit U.S. Green Building Council (USGBC) and covers the design, construction, maintenance and operation of buildings. | Global Sustainability Assessment System (GSAS) is the first performance-based system in the Middle East and North Africa (MENA) region, developed for assessing and rating the buildings and infrastructures for their sustainability impacts.<br><br>GSAS Design & Build certification evaluates the sustainability of newly constructed or majorly renovated buildings, districts and infrastructures. | BREEAM (Building Research Establishment Environmental Assessment Method) was first published by the Building Research Establishment (BRE) in 1990.<br>Based in the UK.<br>Used for new, refurbished and extension of existing buildings. |
| **Certification levels** | Certified<br>Silver<br>Gold<br>Platinum | 1 star<br>2 stars<br>3 stars<br>4 stars<br>5 stars<br>6 stars | Pass<br>Good<br>Very Good<br>Excellent<br>Outstanding |
| **Areas of Assessment: Environmental Project Management** | Integrative process, which requires, from the beginning of the design process, the identification and creation of synergies between the various project stakeholders regarding the construction choices and the technical systems. | An integrated lifecycle approach for the assessment of the built environment including the design, construction and operational phases. | Management (Man) addresses various aspects: project management, deployment, minimal environmental disturbance worksite and stakeholder engagement. |
| **Areas of Assessment: Environmental Performance of the Building** | Energy and atmosphere<br>Sustainable Sites<br>Location and Transportation<br>Materials and resources<br>Water efficiency<br>Indoor environmental quality<br>Innovation in Design<br>Regional Priority | • Urban Connectivity<br>• Site<br>• Energy<br>• Water<br>• Materials<br>• Indoor Environment<br>• Cultural and Economic Value<br>Management and Operations | Energy<br>Land Use and Ecology<br>Pollution<br>Transport<br>Materials<br>Water<br>Waste<br>Health and Wellbeing<br>Innovation |
| **Requirements** | Prerequisites (independent of level of certification) + Credits with associated points<br><br>These points are then added together to obtain the LEED level of certification<br><br>There are several different rating systems within LEED. Each rating system is designed to apply to a specific sector (e.g. New | Prerequisites<br>Appointing an authorized GSAS Service Providers that acquire:<br>GSAS Service Provider License – Design & Build +<br>GSAS-CGP License +<br>GSAS Energy Assessment Certificate<br><br>GSAS-D&B certification process consists of two stages: | Prerequisites depending on the levels of certification + Credits with associated points<br><br>This number of points is then weighted by item[44] and gives a BREEAM level of certification, which is based on the overall score obtained (expressed as a percentage). Majority of BREEAM issues are flexible, meaning that the client can choose |

[44] BREEAM weighting: Management 12%, Health and wellbeing 15%, Energy 19%, Transport 8%, Water 6%, Materials 12.5%, Waste 7.5%, Land Use and ecology 10%, Pollution 10% and Innovation 10%. One point scored in the Energy item is therefore worth twice as much in the overall score as one point scored in the Pollution item

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| | Construction, Major Renovation, Core and Shell Development, Schools-/Retail-/Healthcare New Construction and Major Renovations, Existing Buildings: Operation and Maintenance). | Stage 1 requires obtaining the Provisional Design & Build Certificate in the form of Letter of Conformance (LOC) following the design phase; Stage 2 requires the Conformance to Design Audit (CDA) during the construction phase. Then, the projects will be qualified to obtain the final GSAS Design & Build certification. | which to comply with to build their BREEAM performance score.<br><br>BREAAM has two stages/ audit reports: a 'BREEAM Design Stage' and a 'Post Construction Stage', with different assessment criteria. |
| **Performance display** |  |  |  |
| **Accreditation** | LEED AP BD+C<br>LEED AP O+M | GSAS Trust | BREEAM International Assessor<br>BREEAM AP BREEAM In Use Assessor |
| **Qualitative considerations** | Widely recognised internationally, and strong assurance of overall quality. | GSAS considers the context of the Middle East and North Africa (MENA) region. It is mandatory for most of Government projects in Qatar to be GSAS certified. | Used in more than 70 countries: Good adaptation to the local normative context. Predominant environmental focus. BREEAM certification is less strict (less minimum thresholds) than HQE and LEED certifications. |

| | **HQE** | **Singapore BCA Green Mark** |
|---|---|---|
| **Background** | The Haute Qualité Environnementale or HQE (High Quality Environmental standard) is a standard for green building in France, based on the principles of sustainable development first set out at the 1992 Earth Summit. The standard was launched in 2005 and is controlled by HQE and certificate is issued by Cerway/ Certivea/ Cerqual. | The BCA Green Mark Scheme provides real estate certifications in Singapore to promote sustainability in the built environment (during project conceptualisation and design, as well as during construction.)[45] |
| **Certification levels** | Pass<br>Good<br>Very good<br>Excellent<br>Exceptional | Certified<br>Gold<br>Gold Plus<br>Platinum |
| **Areas of Assessment: Environmental Project Management** | Global management system | |
| **Areas of Assessment: Environmental Performance of the Building** | • Energy<br>• Environment (Site, Components, Worksite, Water, Waste, Maintenance)<br>• Comfort (Hydrothermal, Acoustic, Visual, Olfactory)<br>• Health (Spaces quality, Air Quality, Water Quality)<br>Principles of Equivalence | • Climate Responsive Design<br>• Building Energy Performance<br>• Resource Stewardship<br>• Smart and Healthy Buildings<br>Advanced Green Efforts |

[45] https://www.bca.gov.sg/greenmark/green_mark_buildings.html

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|---|---|---|
| **Requirements** | Prerequisites (independent of level of certification) + Points-based performance level: Performing and High Performing<br><br>The Prerequisite level is obtained when all the minimum requirements for a target are met, while the Performing and High Performing levels are obtained based on a percentage of points given per target, allowing for flexibility.<br><br>Based on the total number of stars obtained per area, an overall HQE level is then given.<br><br>Environmental certificates are assigned at all stages of the building life cycle, and on-site audits are required. | Prerequisites for each performance area (to demonstrate minimum criteria met) + numerical scores achieved in accordance with the criteria in each performance area. Performance Areas have different weights. [46]<br><br>Depending on the level of building performance and numerical score achieved in performance area, building's level of certification is determined.<br><br>Assessment of compliance with Green Mark criteria is done by the Singapore Building and Construction Authority (BCA). |
| **Performance display** |  |  |
| **Accreditation** | HQE Construction Certification Referent<br>HQE Operations Certification Advisor | The BCA Green Mark Scheme provides real estate certifications in Singapore to promote sustainability in the built environment (during project conceptualisation and design, as well as during construction.)[47] |
| **Qualitative considerations** | HQE certification has the most targets concerning individuals. The "Comfort" and "Health" related themes are the most developed in this scheme. The HQE scheme recognises European and international standards (in particular the ISO and ASHRAE standards). | Certified<br>Gold<br>Gold Plus<br>Platinum |

## Appendix 2: Certification Schemes for Forestry

| | **Forest Stewardship Council (FSC)[48]** | **Programme for the Endorsement of Forest Certification (PEFC)[49]** |
|---|---|---|
| **Background** | The Forest Stewardship (FSC) is a non-profit organization established in 1993 that aims to promote sustainable forest management practice by evaluating forest management planning and practices independently against FSC's standards. | Founded in 1999, the Programme for the Endorsement of Forest Certification (PEFC) is a non-profit organization that promotes sustainable forest management through independent third-party certification, this includes assessments, endorsements and recognition of national forest certification systems. PEFC was created in response to the specific requirements of small- and family forest owners as an international umbrella organization. |

[46] https://www.bca.gov.sg/GreenMark/others/Green_Mark_NRB_2015_Criteria.pdf
[47] https://www.bca.gov.sg/greenmark/green_mark_buildings.html
[48] Forest Stewardship Council, FSC Principles and Criteria for Forest Stewardship: https://ca.fsc.org/preview.principles-criteria-v5.a-1112.pdf
[49] PEFC, Standards and Implementation: https://www.pefc.org/standards-implementation

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| **Basic Principles** | • Compliance with laws and FSC principles<br>• Tenure and use rights and responsibilities<br>• Indigenous peoples' rights<br>• Community relations and workers' rights<br>• Benefits from the forests<br>• Environmental impact<br>• Management plans<br>• Monitoring and assessment<br>• Special sites – high conservation value forests (HCVF)<br>• Plantations | • Maintenance and appropriate enhancement of forest resources and their contribution to the global carbon cycle<br>• Maintenance and enhancement of forest ecosystem health and vitality<br>• Maintenance and encouragement of productive functions of forests (wood and no-wood)<br>• Maintenance, conservation and appropriate enhancement of biological diversity in forest ecosystems<br>• Maintenance and appropriate enhancement of protective functions in forest management (notably soil and water)<br>• Maintenance of socioeconomic functions and conditions<br>• Compliance with legal requirements |
| **Types of standards/benchmarks** | • Forest Management certification (for single/multiple applicant(s) – industrial or private forest owners, forest license holders, community forests, and government-managed forests)<br>• Small and Low Intensity Management Forests (SLIMFs) program (for small forests and forests that are managed at low intensity would be eligible)<br>• Chain of Custody (CoC) certification (for supply chain companies' planning, practices and products – all operations that want to produce or make claims related to FSC-certified products must possess this certificate)<br>• Controlled Wood verification (for assurance that 100% virgin fiber mixed with FSC-certified and recycled fiber originates from a verified and approved source) | • Sustainable Forest Management benchmark – international requirements for sustainable forest management. National forest management standards must meet these requirements in order to obtain PEFC endorsement<br>• Group Forest Management Certification – outlines the requirements for national forest certification systems who have group forest management certification<br>• Standard Setting – covers the processes that must be adhered to during the development, review and revision of national forest management standards<br>• Chain of Custody – outlines the conditions for obtaining CoC certification for forest-based products<br>• PEFC logo Usage Rules – outlines the requirements entities must abide by when using the PEFC logo<br>• Endorsement of National Systems – outlines the process that national systems must go through to achieve PEFC endorsement |
| **Governance** | The General Assembly is comprised of all FSC members and constitutes the highest decision-making body. Members can apply to join one of three chambers – environmental, social, or economic – that are further divided into northern and southern sub-chambers. Each chamber maintains 33.3% of the weight in votes, and votes are weighted so that the North and South hold an equal portion of authority in each chamber, to ensure influence is shared equitably between interest groups and countries with different levels of economic development. | PEFC's governance structure is formed by the General Assembly (GA) which is the highest authority and decision-making body. It is made up of all PEFC members, including national and international stakeholders. In general, PEFC's governance structure is more representative of industry and government stakeholders than of social or environmental groups. Members vote on key decisions including endorsements, international standards, new members, statutes and budgets. All national members have between one and seven votes, depending on membership fees, while international stakeholder members have one vote each. |
| **Scope** | FSC is a global, multi-stakeholder owned system. All FSC standards and policies are set by a consultative process. There is an FSC Global standard and for certain countries FSC National standards. Economic, social, and environmental interests have equal weight in the standard setting process. FSC follows the ISEAL Code of Good Practice for Setting Social and Environmental Standards. | Multi-stakeholder participation is required in the governance of national schemes as well as in the standard-setting process. Standards and normative documents are reviewed periodically at intervals that do not exceed five years. The PEFC Standard Setting standard is based on ISO/IEC Code for good practice for standardization (Guide 59)[50] and the ISEAL Code of Good Practice for Setting Social and Environmental Standards. |

[50] ISO, ISO/IEC Guide 59:2019: https://www.iso.org/standard/23390.html

| | | |
|---|---|---|
| **Chain-of-Custody** | • The Chain-of-Custody (CoC) standard is evaluated by a third-party body that is accredited by FSC and compliant with international standards<br>• CoC standard includes procedures for tracking wood origin<br>• CoC standard includes specifications for the physical separation of certified and non-certified wood, and for the percentage of mixed content (certified and non-certified) of products<br>• CoC certificates state the geographical location of the producer and the standards against which the process was evaluated. Certificates also state the starting and finishing point of the CoC | • Quality or environmental management systems (ISO 9001:2008 or ISO 14001:2004 respectively) may be used to implement the minimum requirements for chain-of-custody management systems required by PEFC<br>• Only accredited certification bodies can undertake certification<br>• CoC requirements include specifications for physical separation of wood and percentage-based methods for products with mixed content.<br>• The CoC standard includes specifications for tracking and collecting and maintaining documentation about the origin of the materials<br>• The CoC standard includes specifications for the physical separation of certified and non-certified wood<br>• The CoC standard includes specifications about procedures for dealing with complains related to participant's chain of custody |
| **Non-certified wood sources** | FSC's Controlled Wood Standard establishes requirements to participants to establish supply-chain control systems, and documentation to avoid sourcing materials from controversial sources, including:<br>a. Illegally harvested wood, including wood that is harvested without legal authorization, from protected areas, without payment of appropriate taxes and fees, using fraudulent papers and mechanisms, in violation of CITES requirements, and others,<br>b. Wood harvested in violation of traditional and civil rights,<br>c. Wood harvested in forests where high conservation values are threatened by management activities,<br>d. Wood harvested in forests being converted from forests and other wooded ecosystems to plantations or non-forest uses,<br>e. Wood from management units in which genetically modified trees are planted. | The PEFC's Due Diligence System requires participants to establish systems to minimize the risk of sourcing raw materials from:<br>a. forest management activities that do not comply with local, national or international laws related to:<br>- operations and harvesting, including land use conversion,<br>- management of areas with designated high environmental and cultural values,<br>- protected and endangered species, including CITES species,<br>- health and labor issues,<br>- indigenous peoples' property, tenure and use rights,<br>- payment of royalties and taxes.<br>b. genetically modified organisms,<br>c. forest conversion, including conversion of primary forests to forest plantations. |
| **Accreditation/ verification** | FSC-accredited Certification Bodies (CB) conduct an initial assessment, upon successful completion companies are granted a 5-year certificate. Companies must undergo an annual audit and a reassessment audit every 5 years. Certification Bodies undergo annual audits from Accreditation Services International (ASI) to ensure conformance with ISO standard requirements. | Accreditation is carried out by an accreditation body (AB). In the same way that a certification body checks that a company meets the PEFC standard, the accreditation body checks that a certification body meets specific PEFC and ISO requirements. Through the accreditation process, PEFC has assurance that certification bodies are independent and impartial, that they follow PEFC certification procedures.<br><br>PEFC does not have their own accreditation body. Like with the majority of ISO based certifications, PEFC relies on national ABs under the umbrella of the International Accreditation Forum (IAF). National ABs need to be a member of the IAF, which means they must follow IAF's rules and regulations. |

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| **Qualitative considerations** | Sustainalytics views both FSC and PEFC as being robust, credible standards that are based on comprehensive principles and criteria that are aligned with ISO. Both schemes have received praise for their contribution to sustainable forest management practices[51] and both have also faced criticism from civil society actors.[52,53] In certain instances, these standards go above and beyond national regulation and are capable of providing a high level of assurance that sustainable forest management practices are in place. However, in other cases, the standards are similar or equal to national legislation and provide little additional assurance. Ultimately, the level of assurance that can be provided by either scheme is contingent upon several factors including the certification bodies conducting audits, national regulations and local context. |

## Appendix 3: Sustainalytics' Assessment of the Fishery and Agriculture certification

| | Marine Stewardship Council [54] | Aquaculture Stewardship Council [55] | EU Organic[56] | FAIRTRADE | USDA Organic |
|---|---|---|---|---|---|
| **Background** | Marine Stewardship Council (MSC) is a non-profit organization founded in 1996, that issues eco-label certifications for fisheries which are sustainable and well-managed. | The Aquaculture Stewardship Council (ASC) is an independent, international NGO that manages the ASC certification and labelling program for responsible aquaculture. | The EU Organic Farming is a European wide label organized under the European Commission's Council Regulation (EC) no 834/2007. The regulation covers the organic production and labelling of organic products including live or unprocessed agricultural projects, processed agricultural products for use of food, feed, and vegetative propagating material and seeds for cultivation. | The FAIRTRADE Mark is a global certification system that seeks to address power imbalances in trading relationships. Organizations certified to Fairtrade standards must meet general, trade, product and business development requirements. | The USDA Organic label is a US certification system overseen, administered and enforced by the National Organic Program of the United States Department of Agriculture. The US Organic label is regulated by the US Organic Foods Production Act of 1990 and involves input from the National Organic Standards Board (a Federal Advisory Committee made up of 15 members of the public) and the public. |
| **Clear positive impact** | Promoting sustainable fisheries practices. | Promoting sustainable aquaculture practices. | Promotion of a sustainable management system that respects nature's systems, contributes to biological diversity, uses energy responsibly, respects high animal welfare standards. | Promoting sustainable practices for agricultural products, consumer goods and gold. | Promoting sustainable farming practices that improve water quality, conserve energy, increase biodiversity and contribute to soil health. |
| **Minimum standards** | A minimum score must be met across each of the performance indicators. | Quantiative and qualitative thresholds which are designed to be measurable, | The EU Organic Farming system prohibits the use of GMOs (minimum 95% GMO free), the use of | Fairtrade has a set of core requirements that must be met and development requirements that are | The USDA Organic seal sets strict production and labeling requirements: |

[51] FESPA, FSC, PEFC and ISO 38200: https://www.fespa.com/en/news-media/blog/fsc-pefc-and-iso-38200
[52] Yale Environment 360, Greenwashed Timber: How Sustainable Forest Certification Has Failed: https://e360.yale.edu/features/greenwashed-timber-how-sustainable-forest-certification-has-failed
[53] EIA, PEFC: A Fig Leaf for Stolen Timber: https://eia-global.org/blog-posts/PEFC-fig-leaf-for-stolen-timber
[54] https://www.msc.org/standards-and-certification/fisheries-standard
[55] https://www.asc-aqua.org/what-we-do/our-standards/farm-standards/
[56] https://ec.europa.eu/info/food-farming-fisheries/farming/organic-farming

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| | As a condition to certification, low-scoring indicators must be accompanied by action plans for improvement. | metric- and performance-based.<br><br>Certification may be granted with a "variance" to certain requirements of the standard. This variance is designed to allow the standard to adapt to local conditions, but has been criticized for weakening the standard and overriding the consultations involved in the standard-setting process. | ionizing radiation and sets core requirements for plant production, production rules for seaweed, livestock production rules, production rules for aquaculture animals. | intended to foster continuous improvement and which certified producers must make progress on. | • produced without genetic engineering, ionizing radiation or sewage sludge<br>• produced using allowed substances based on a comprehensive list of authorized synthetic and non-synthetic substances<br>overseen by a USDA NOP authorized agent |
| **Scope of certification or programme** | The MSC standard consists of a fisheries standard and a chain of custody standard.<br><br>The Fishery Standard assesse three core principles: sustainable fish stocks, minimising environmental impact, and effective fisheries management; collectively these account for the major environmental and social impacts.<br><br>The Chain of Custody standard addresses certified spirchsing, product identification, seperation, traceability and records, and good management. | ASC encompasses nine farm standards, covering 15 fish species as well as the harvest of seaweed. These farm standars lay out minimum requirements regarding both environmental and social performance.<br><br>Additionally, a Chain of Custody Standard is mandatory for all supply chain actors in order to ensure traceablity. | The EU Organic Farming system addresses key risks such as substance use (e.g. pesticides, soluble fertilizers, soil conditioners or plant protection products), the maintenance and enhancement of soil life, natural soil fertility, soil stability and biodiversity, preventing and combating soil damage (compaction, erosion). | Fairtrade addresses key risks through its requirements, including child labour, forced labour and pesticide use. | The USDA Organic system addresses key risks such as substance use through the regulation of synthetic and non-synthetic substances to preserve soil quality and in line with federal guidelines on animal raising practices, pest and weed control and the use of additives. |

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| **Verification of standards and risk mitigation** | Third-party conformity assessment bodies (CABs), certified by Accreditation Service International (ASI) carry out assessments in line with the MSC standard and ISO 17065.<br><br>Certification is valid for up to five years. | Third-party conformity assessment bodies (CABs), certified by Accreditation Service International (ASI) carry out assessments in line with the ASC standard and ISO 17065.<br><br>Major non-compliances must be remedied within three months. | Certified entities undergo audits to ensure compliance with criteria and continuous improvement at least once a year, or more often based on a risk assessment. | Certified entities undergo audits to ensure compliance with criteria and continuous improvement. | The USDA seal has a twofold enforcement mechanism, one by Organic Certifiers and one by the USDA Agricultural Marketing Services. The two bodies undergo audits to ensure compliance with criteria and continuous improvement at least once a year or unannounced. |
| **Third party expertise and multi-stakeholder process** | Aligned with the UN Code of Conduct for Reponsible Fishing, and further informed by the Global Sustainable Seafood Initiative (GSSI), World Trade Organization (WTO), and International Social and Environmental Accreditation and Labelling (ISEAL) | Developed in line with United Nation's Food and Agriculture Organization) UN FAO) and International Labour Organization (ILO) principles.<br><br>Managed in accordance with the International Social and Environmental Accreditation and Labelling (ISEAL) Codes of Good Practice. | The EU Organic Farming is a government-based standard resulting from public consultations and third-party deliberations in line with the European Commission's typical legislative approach. | Standard setting is aligned with the ISEAL Standard Setting Code. | The USDA Organic seal is organized by the National Organic Program which develops the rules and regulations for the production, handling, labeling and enforcement of all USDA organic products. This process receives input from the national Organic Standards Board (a Federal Advisory Committee made of 15 members of the public) and the general public. |
| **Performance display** | | | | | |
| **Qualitative considerations** | The MSC label is the most widely recognized sustainable fisheries label worldwide, and is generally accepted to have positive impacts on marine environments.<br><br>Proponents of the label cite the transparent science-based process for | Widely recognized, and modeled on the successful MSC certification.<br><br>Some criticism has been focused on the ability to certify with a "variance", in which certain aspects of the standard can be interpreted or waived during the audit procedure. | Every Member State must designate one or more private and/or public control authorities in charge for the organic production and labelling of organic products in the EU Member States. | FLO-CERT GmbH. FLO-CERT is the largest certifier for Fairtrade, responsible for the certification of all producers and most traders. | 80 certifying agents are USDA accredited and authorized to certify operations under the USDA organic standards. 48 of the 80 certifying authorities are US based and 32 are in foreign countries. Most certifying agents are directly accredited by the USDA National Organic Program, with an additional 21 members being officially authorized |

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| | approval and its successful engagement with industry groups. Criticism from various observers include lack of focus on preventing by-catch, protecting marine mammals and endangered species, follow-up on conditions, crew safety, and live tracking of supply chains. | While a reputable certification overall, the standard does not fully mitigate all the risks associated with aquaculture. | | | through recognition agreements between US and other governments. |

## Appendix 4: Sustainability Bond / Sustainability Bond Programme - External Review Form

## Section 1. Basic Information

| | |
|---|---|
| **Issuer name:** | Qatar National Bank |
| **Sustainability Bond ISIN or Issuer Sustainability Bond Framework Name, if applicable*: [specify as appropriate]*** | QNB Green, Social and Sustainability Bond Framework |
| **Review provider's name:** | Sustainalytics |
| **Completion date of this form:** | February 19, 2020 |
| **Publication date of review publication: *[where appropriate, specify if it is an update and add reference to earlier relevant review]*** | |

## Section 2. Review overview

**SCOPE OF REVIEW**

The following may be used or adapted, where appropriate, to summarize the scope of the review.

The review assessed the following elements and confirmed their alignment with the GBPs and SBPs:

| | | | |
|---|---|---|---|
| ☒ | Use of Proceeds | ☒ | Process for Project Evaluation and Selection |
| ☒ | Management of Proceeds | ☒ | Reporting |

**ROLE(S) OF REVIEW PROVIDER**

☒ Consultancy (incl. 2nd opinion)
☐ Certification
☐ Verification
☐ Rating
☐ Other *(please specify)*:

Note: In case of multiple reviews / different providers, please provide separate forms for each review.

**EXECUTIVE SUMMARY OF REVIEW and/or LINK TO FULL REVIEW *(if applicable)***

Please refer to Evaluation Summary above.

## Section 3. Detailed review

Reviewers are encouraged to provide the information below to the extent possible and use the comment section to explain the scope of their review.

**1. USE OF PROCEEDS**

Overall comment on section *(if applicable)*:

QNB has developed the QNB Green, Social and Sustainability Bond Framework, under which QNB and Egypt, Indonesia, Switzerland, Tunisia and Turkey intend to issue bonds to finance and refinance projects in France, Qatar, Switzerland, Indonesia, Iraq, Tunisia, Egypt, Turkey, China, India, Iran (dormant), Kuwait, Lebanon, Mauritania, Myanmar, Oman, Singapore, UK, Vietnam, Yemen, Algeria, Bahrain, Jordan, Libya, , Togo and UAE related to (i) green buildings (ii) renewable energy (iii) clean transportation (iv) energy efficiency (v) environmentally sustainable management of living natural resources and land (vi) sustainable water and wastewater management (vii) pollution prevention and control (viii) access to essential services (ix) socio-economic advancement and empowerment and (x) affordable housing.

**Use of proceeds categories as per GBP:**

☒ Renewable energy
☒ Energy efficiency
☒ Pollution prevention and control
☐ Environmentally sustainable management of living natural resources and land use
☐ Terrestrial and aquatic biodiversity conservation
☒ Clean transportation
☒ Sustainable water and wastewater management
☐ Climate change adaptation
☐ Eco-efficient and/or circular economy adapted products, production technologies and processes
☒ Green buildings
☐ Unknown at issuance but currently expected to conform with GBP categories, or other eligible areas not yet stated in GBPs
☐ Other *(please specify)*:

If applicable please specify the environmental taxonomy, if other than GBPs:

**Use of proceeds categories as per SBP:**

| | |
|---|---|
| ☐ Affordable basic infrastructure | ☒ Access to essential services |
| ☒ Affordable housing | ☐ Employment generation (through SME financing and microfinance) |
| ☐ Food security | ☒ Socioeconomic advancement and empowerment |
| ☐ Unknown at issuance but currently expected to conform with SBP categories, or other eligible areas not yet stated in SBPs | ☐ Other (please specify): |

If applicable please specify the social taxonomy, if other than SBPs:

**2. PROCESS FOR PROJECT EVALUATION AND SELECTION**

Overall comment on section (if applicable):

QNB's project evaluation and selection process will be managed by QNB's Green and Social Bond Committee (the "Committee") which is comprised of members from Treasury, Corporate Institutional Banking, Credit, Risk, Financial Control and Strategy and the Sustainability Team. Additional attendees may be nominated. The Committee is responsible for evaluating and selecting projects based on the eligibility criteria outlined in the Framework as well as with internal policy and national regulations. The Committee will meet quarterly to monitor and review the eligibility of the project portfolio. Sustainalytics views this process as aligned with market practice.

**Evaluation and selection**

| | |
|---|---|
| ☒ Credentials on the issuer's social and green objectives | ☒ Documented process to determine that projects fit within defined categories |
| ☒ Defined and transparent criteria for projects eligible for Sustainability Bond proceeds | ☐ Documented process to identify and manage potential ESG risks associated with the project |
| ☒ Summary criteria for project evaluation and selection publicly available | ☐ Other *(please specify):* |

**Information on Responsibilities and Accountability**

| | |
|---|---|
| ☒ Evaluation / Selection criteria subject to external advice or verification | ☒ In-house assessment |
| ☐ Other (please specify): | |

**3. MANAGEMENT OF PROCEEDS**

Overall comment on section *(if applicable)*:

Allocation of proceeds will be handled by QNB's Treasury team and will be allocated using a portfolio approach. The Committee will monitor the allocation and, if an asset no longer meets the eligibility criteria, it will be removed and replaced as soon as practically feasible. QNB will strive to achieve a level of allocation for the eligible project portfolio that matches or exceeds the total value of its outstanding green and social bonds. Any unallocated proceeds will be held at QNB's discretion in its consolidated balance sheet, in cash or other short-term liquid instruments. Sustainalytics views this process as aligned with market practice.

**Tracking of proceeds:**

☒ Sustainability Bond proceeds segregated or tracked by the issuer in an appropriate manner

☒ Disclosure of intended types of temporary investment instruments for unallocated proceeds

☐ Other *(please specify)*:

**Additional disclosure:**

☐ Allocations to future investments only

☐ Allocations to both existing and future investments

☐ Allocation to individual disbursements

☒ Allocation to a portfolio of disbursements

☒ Disclosure of portfolio balance of unallocated proceeds

☐ Other *(please specify)*:

**4. REPORTING**

Overall comment on section (if applicable):

QNB will report annually on allocation of proceeds and impact reporting, until full allocation. Regarding allocation, the Bank will report on the size of the identified eligible green and social projects portfolio, the total amount of proceeds allocated to the portfolio, the share of financing vs refinancing and the amount of unallocated proceeds. On a best effort basis, QNB will align its impact reporting with the Harmonized Framework for Impact Reporting, for a full list of potential impact indicators, see Appendix 2. Sustainalytics views this reporting process as aligned with market practice.

**Use of proceeds reporting:**

☐ Project-by-project

☒ On a project portfolio basis

☐ Linkage to individual bond(s)

☐ Other *(please specify):*

***Information reported:***

☒ Allocated amounts

☐ Sustainability Bond financed share of total investment

☐ Other *(please specify):*

***Frequency:***

☒ Annual ☐ Semi-annual

☐ Other (please specify):

**Impact reporting:**

☐ Project-by-project ☒ On a project portfolio basis

☐ Linkage to individual bond(s) ☐ Other (please specify):

**Frequency:**

☒ Annual ☐ Semi-annual

☐ Other (please specify):

**Information reported (expected or ex-post):**

☒ GHG Emissions / Savings ☒ Energy Savings

☐ Decrease in water use ☒ Number of beneficiaries

☐ Target populations ☐
- Other ESG indicators (please specify):
- Environment certification or EPC (as applicable)
- Total installed capacity in MWh
- Low carbon public transportation
- Number of vehicles (units per year)
- Number of units installed (e.g. number of charging points, electric track if applicable)
- Distance of transmission (Km)
- Energy transmitted (MWh per year)
- Forests and forestry
- Forest area (hectares)
- Forestry certification scheme (if applicable)
- Net carbon sequestration (tonnes per year) (if available)
- Agriculture
- Agriculture land area (hectares)
- Organic farming certification scheme
- Type of crop and its proportion (if available)
- Fishery
- Certification scheme
- Type of fish (if available)
- Quantity of treated wastewater and/or supplied freshwater (cubic meters per year)
- Qualitative improvements in freshwater supply and/or wastewater treatment
- Quantity of waste recycled (tonnes per year)
- Volume of waste diverted from landfill
- Total volume of waste processed

(tonnes per year)
- Reduction in harmful emissions (as applicable)
- Number of enrolled students
- Number of training program graduates successfully employed
- Amount of loans granted to SMEs, microenterprise, entrepreneurs
- Amount of loans granted to SMEs, microenterprise, entrepreneurs run by women
- Number of jobs created or retained in the selected region
- Number of jobs created or retained by the target group

**Means of Disclosure**

☐ Information published in financial report
☒ Information published in sustainability report
☐ Information published in ad hoc documents
☐ Other (please specify):
☐ Reporting reviewed (if yes, please specify which parts of the reporting are subject to external review):

Where appropriate, please specify name and date of publication in the useful links section.

**USEFUL LINKS** (e.g. to review provider methodology or credentials, to issuer's documentation, etc.)

https://www.qnb.com/sites/qnb/qnbqatar/page/en/ensustainabilitymanagementatqnb.html

**SPECIFY OTHER EXTERNAL REVIEWS AVAILABLE, IF APPROPRIATE**

**Type(s) of Review provided:**

☐ Consultancy (incl. 2nd opinion)
☐ Certification
☐ Verification / Audit
☐ Rating
☐ Other *(please specify):*

**Review provider(s):** **Date of publication:**

**ABOUT ROLE(S) OF REVIEW PROVIDERS AS DEFINED BY THE GBP AND THE SBP**

i. Second Party Opinion: An institution with sustainability expertise that is independent from the issuer may provide a Second Party Opinion. The institution should be independent from the issuer's adviser for its Sustainability Bond framework, or appropriate procedures such as information barriers will have been implemented within the institution to ensure the independence of the Second Party Opinion. It normally entails an assessment of the alignment with the Principles. In particular, it can include an assessment of the issuer's overarching objectives, strategy, policy, and/or processes relating to sustainability and an evaluation of the environmental and social features of the type of Projects intended for the Use of Proceeds.

ii. Verification: An issuer can obtain independent verification against a designated set of criteria, typically pertaining to business processes and/or sustainability criteria. Verification may focus on alignment with

internal or external standards or claims made by the issuer. Also, evaluation of the environmentally or socially sustainable features of underlying assets may be termed verification and may reference external criteria. Assurance or attestation regarding an issuer's internal tracking method for use of proceeds, allocation of funds from Sustainability Bond proceeds, statement of environmental or social impact or alignment of reporting with the Principles may also be termed verification.

iii. Certification: An issuer can have its Sustainability Bond or associated Sustainability Bond framework, or Use of Proceeds certified against a recognized external sustainability standard or label. A standard or label defines specific criteria, and alignment with such criteria is normally tested by qualified, accredited third parties, which may verify consistency with the certification criteria.

iv. Green, Social and Sustainability Bond Scoring/Rating: An issuer can have its Sustainability Bond, associated Sustainability Bond framework or a key feature such as Use of Proceeds evaluated or assessed by qualified third parties, such as specialized research providers or rating agencies, according to an established scoring/rating methodology. The output may include a focus on environmental and/or social performance data, process relative to the Principles, or another benchmark, such as a 2-degree climate change scenario. Such scoring/rating is distinct from credit ratings, which may nonetheless reflect material sustainability risks.

# Disclaimer

## Sustainalytics

Sustainalytics is a leading independent ESG and corporate governance research, ratings and analytics firm that supports investors around the world with the development and implementation of responsible investment strategies. With 13 offices globally, the firm partners with institutional investors who integrate ESG information and assessments into their investment processes. Spanning 30 countries, the world's leading issuers, from multinational corporations to financial institutions to governments, turn to Sustainalytics for second-party opinions on green and sustainable bond frameworks. Sustainalytics has been certified by the Climate Bonds Standard Board as a verifier organization and supports various stakeholders in the development and verification of their frameworks. In 2015, Global Capital awarded Sustainalytics "Best SRI or Green Bond Research or Ratings Firm" and in 2018 and 2019, named Sustainalytics the "Most Impressive Second Party Opinion Provider. The firm was recognized as the "Largest External Reviewer" by the Climate Bonds Initiative as well as Environmental Finance in 2018, and in 2019 was named the "Largest Approved Verifier for Certified Climate Bonds" by the Climate Bonds Initiative. In addition, Sustainalytics received a Special Mention Sustainable Finance Award in 2018 from The Research Institute for Environmental Finance Japan and the Minister of the Environment Award in the Japan Green Contributor category of the Japan Green Bond Awards in 2019.

For more information, visit www.sustainalytics.com

Or contact us info@sustainalytics.com