

# Second-Party Opinion

## Woori Bank Green, Social and Sustainability Bond Framework

### Evaluation Summary

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



**USE OF PROCEEDS** The eight green and the five social categories for the eligible use of proceeds - (i) Renewable Energy, (ii) Energy Efficiency, (iii) Pollution Prevention and Control, (iv) Environmentally Sustainable Management of Natural Resources and Land Use, (v) Clean Transportation, (vi) Sustainable Water and Wastewater Management, (vii) Climate Change Adaptation, (viii) Green Buildings, (ix) Employment Generation, SME Financing and Microfinance, (x) Social Enterprise Financing, (xi) Affordable Housing, (xii) Access to Essential Services and (xiii) Affordable Basic Infrastructure - are aligned with those recognized by both the Green Bond Principles and Social Bond Principles. Sustainalytics considers that eligible green and social projects will contribute to decrease South Korea's environmental footprint and support job creation. In addition, Sustainalytics views that the eligible projects will advance various UN Sustainable Development Goals.



**PROJECT EVALUATION / SELECTION** Woori Bank's candidate eligible projects are selected by its Green, Social and Sustainability Bond Working Group (GSSBWG) based on the established eligibility criteria. The GSSBWG will oversee the project evaluation and selection process and will have a cross-departmental representation including from Woori Bank's departments in charge of SME financing, credit risk management and investment banking. The process is aligned with market practices.



**MANAGEMENT OF PROCEEDS** Woori Bank will record and track the net use of proceeds through a GSS (green, social and sustainability) Bond Register. The proceeds of transactions will be deposited in the general funding accounts and earmarked for allocation to eligible assets. Pending full allocation, the unallocated proceeds will be invested in cash, cash equivalents and marketable securities. This process is in line with market practices.



**REPORTING** Woori Bank intends to report allocation proceeds on the company's website on an annual basis until full allocation of proceeds. Allocation reporting will include the total amount allocated to eligible projects and the amount of unallocated proceeds. Where possible, the impact report will include relevant impact indicators per each green and social project category. Sustainalytics views Woori Bank's allocation and impact reporting as aligned with market practice.

<b>Evaluation date</b>	February 2019
<b>Issuer Location</b>	Seoul, Korea

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## Introduction

Woori Bank (“the Bank”) is one of the largest commercial banks in South Korea and operates as a wholly-owned subsidiary of Woori Financial Group Inc. Woori Bank was established in 1899 and headquartered in Seoul, Korea through operating 877 branches in Korea and 430 branches in overseas.

Woori Bank has developed the Woori Bank Green, Social and Sustainability Bond Framework (the “Framework”) under which it intends to issue green bonds, social bonds and sustainability bonds (“GSS Bonds”) and use the proceeds to finance or refinance, in whole or in part, existing or new eligible projects and expenditures which provide environmental and social benefits related to:

### Green Eligible Categories

1. Renewable Energy
2. Energy Efficiency
3. Pollution Prevention and Control
4. Environmentally Sustainable Management of Natural Resources and Land Use
5. Clean Transportation
6. Sustainable Water and Wastewater Management
7. Climate Change Adaptation
8. Green Buildings

### Social Eligible Categories

1. Employment Generation, SME Financing and Microfinance
2. Social Enterprise Financing
3. Affordable Housing
4. Access to Essential Services
5. Affordable Basic Infrastructure

The net proceeds or an amount equal to the net proceeds from Woori Bank’s GSS Bonds will be allocated to finance and/or refinance, in whole or in part to projects or lending to Woori Bank’s corporate customers and individual customers.

Woori Bank engaged Sustainalytics to review the Woori Bank Green, Social and Sustainability Framework and provide a second-party opinion on the alignment of the framework with the Green Bond Principles 2018 (“GBP”), the Social Bond Principles 2018 (“SBP”), and the Sustainability Bond Guidelines 2018 (“SBG”), as administered by the International Capital Market Association (the “ICMA”),<sup>1</sup> along with the Green Loan Principles 2018 (the “GLP”), as administered by the Loan Market Association (the “LMA”).<sup>2</sup> This Framework has been published in a separate document.<sup>3</sup>

As part of this engagement, Sustainalytics held conversations with various members of Woori Bank’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 Woori Bank’s sustainability bond. Sustainalytics also reviewed relevant public documents and non-public information.

This document contains Sustainalytics’ opinion of the Woori Bank Green, Social and Sustainability Framework and should be read in conjunction with that Framework.

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<sup>1</sup> ICMA’s Sustainability Bond Guidelines 2018 <https://www.icmagroup.org/green-social-and-sustainability-bonds/sustainability-bond-guidelines-sbg/>

<sup>2</sup> LMA’s Green Loan Principles 2018: [https://www.icmagroup.org/assets/documents/Regulatory/Green-Bonds/LMA\\_Green\\_Loan\\_Principles\\_Booklet-220318.pdf](https://www.icmagroup.org/assets/documents/Regulatory/Green-Bonds/LMA_Green_Loan_Principles_Booklet-220318.pdf)

<sup>3</sup> <https://spot.wooribank.com/pot/Dream?withyou=BPPCT0033> or <https://spot.wooribank.com/pot/Dream?withyou=ENENG0746>

## Sustainalytics' Opinion

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

#### Summary

Sustainalytics is of the opinion that the Woori Bank Green, Social and Sustainability Bond Framework is credible and impactful, and aligns with the four core components of the Green Bond Principles 2018 and Social Bond Principles 2018. Sustainalytics highlights the following elements of Woori Bank's Sustainability Bond Framework:

- Use of Proceeds:
  - The eight green and the five social categories for the eligible use of proceeds are aligned with those recognized as impactful by the Green Bond Principles 2018, the Social Bond Principles 2018 and the Sustainability Bond Guidelines 2018.
  - The net proceeds or an amount equal to the net proceeds from Woori Bank's GSS Bonds will be allocated to finance and/or refinance, in whole or in part, projects or lending to Woori Bank's corporate customers and individual customers.
  - Woori Bank is committed to use the net bond proceeds to refinance projects with a maximum look-back period of three years. Sustainalytics positively views Woori Bank's efforts to transparently report on the portion of financing and refinancing projects.
  - Woori Bank's green building eligibility criteria are based on third-party certification standards such as LEED gold or above, BREEAM excellent or above, and national equivalents with minimum standards such as G-SEED 2 based on the Act on Development and Support of Green Buildings. According to Sustainalytics' internal evaluations of the certifications, Sustainalytics considers such certification standards as having a positive impact (see Appendix 1 for additional details on the certification schemes).
  - Woori Bank confirmed it will be financing organic livestock production by providing loans to producers certified under the organic and antibiotic-free certification label furnished by MAFRA<sup>4</sup> (South Korea's Ministry of Agriculture, Food and Rural Affairs). Sustainalytics strongly encourages Woori Bank to strictly finance producers which derive 100% of their revenues from MAFRA certified products and/or ensure that the capital allocations finance strictly products certified under the MAFRA standard. Sustainalytics conducted an assessment of the standard and considers the certification scheme to be credible and robust and to deliver environmental benefits. See Appendix 2 for additional details on the certification scheme.
  - Sustainalytics views positively Woori Bank's defined targeted populations for the social categories of the eligible use of proceeds as recommended by the Social Bond Principles:
    - The alignment of the threshold for low-income, which is determined by the Korean Ministry of Health and Welfare and the Ministry of Education<sup>5</sup>
    - The alignment of the criteria for lending to companies categorized as an SME under the South Korean Enforcement Decree of The Framework Act on Small and Medium Enterprises<sup>6</sup> and social enterprises defined in Article 2 of the Social Enterprise Promotion Act<sup>7</sup>
    - Extensive criteria for job creation, referencing government regulations and programmes.
  - Sustainalytics encourages Woori Bank to always prioritize the use of social bond proceeds to finance activities and projects that are anchored in or refer to a government program or legislation in order to achieve more transparent and impactful investments. Sustainalytics is of the opinion that aligning these criteria with the government's definitions and thresholds for socially impactful

<sup>4</sup> Ministry for Agriculture, Food and Rural Affairs, Eco-friendly products, accessed January 2019: <http://www.naqs.go.kr/eng/contents/contents.do?menuId=MN20568>

<sup>5</sup> Low income individuals are determined by the Korean Ministry of Health and Welfare (MOHW) and Ministry of Education (MOE)'s classification, which is based on household income

<sup>6</sup> SMEs are defined in the Article 2 of the Enforcement Decree of the Framework Act on Small and Medium Enterprises. Full article can be found from this website: <http://law.go.kr/LSW/eng/engMain.do>

<sup>7</sup> Social enterprises are defined in the Article 2 of the Social Enterprise Promotion Act. Full article can be found from this website: <http://law.go.kr/LSW/eng/engMain.do>

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- activities will help to ensure that the social uses of proceeds are credible with respect to targeting vulnerable populations.
- Sustainalytics recognizes that the GBP, SBP and SBG prefer project-based lending and financing, and that there is, in general, less transparency with non-project-based lending. While the Framework includes project-based lending, it also considers the inclusion of non-project-based lending activities and expenditures to businesses. Sustainalytics considers lending to assets related to the eligible categories as socially impactful in Korea's local context. For further information refer to Section 3: Impact of Use of Proceeds.
  - Given the broad application of the Framework, Sustainalytics recommends disclosing upon issuance of each bonds the specific focus intended to be funded through bond proceeds, and the relevant eligibility criteria.
- **Project Evaluation and Selection:**
    - Aligned with market practices, Woori Bank's project evaluation and selection process consist of two stages. Firstly, the project identification process for potential eligible assets will be executed by Woori Bank's business units based on established eligibility criteria. Secondly, Woori Bank's dedicated Green, Social and Sustainability Bond Working Group ("GSSBWG") will review and approve the potential eligible assets by assessing their environmental and social impacts. The GSSBWG will consist of members with cross departmental representation such as departments in charge of Corporate Social Responsibility, Project Finance, Investment Banking, Retail Banking Products & Marketing, Small & Medium Corporate Banking Products & Marketing, Corporate Banking Products & Marketing, Institutional Banking Products & Marketing, Housing Fund, Global Business Promotion and Credit Risk Management. This process is aligned with market practices.
  - **Management of Proceeds:**
    - Woori Bank will establish a GSS Bond Register (the "Register") to record the allocations and track the use of ongoing bond proceeds. The proceeds of transactions will be deposited in the general funding accounts and earmarked for allocation to eligible assets.
    - Pending the full allocation of proceeds, net proceeds will be held as a Woori Bank's general liquidity management policies basis. The unallocated proceeds will be invested in cash, cash equivalents, investment grade securities or other marketable securities and short-term instruments or other capital management activities.
    - Sustainalytics considers Woori Bank's management of proceeds process is aligned with the market practices and other peer companies.
  - **Reporting:**
    - Woori Banks is committed to report the use of proceeds in company's website on an annual basis. The company's allocation report will comprise relevant transaction data such as a confirmation that the use of net proceeds of each bond complies with the Woori Bank's Green, Social and Sustainability Framework, the total amount allocated to Eligible Use of Proceeds and breakdown per eligible category along with the balance amount of unallocated net proceeds.
    - Impact reporting will include, where feasible, green indicators such as renewable energy generated (in kWh), tonnes of greenhouse gas avoided, and energy savings (kWh/year), as well as social indicators such as amount of credit provided to start-ups, venture companies, job creation companies, amount of credit provided to SMEs, number of SMEs financed, number of jobs created, amount of credit provided to social enterprises, number of social enterprises financed and loan provided to public housing. Sustainalytics considers that the scope and granularity of Woori's allocation and impact reporting are aligned with market practices and encourages the company to always strive to report on all environmental and social impact metrics and provide timely and constantly updated relevant information.

### Alignment with Sustainability Bond Guidelines 2018

Sustainalytics recognizes that the Woori Bank's Green, Social and Sustainability Framework is not exclusively project-based and that proceeds may be allocated to finance general-purpose lending to organizations. Sustainalytics also recognizes that (i) the GBP, SBP and SBG prefer project-based lending, and that (ii) in general, there is lesser transparency associated with reporting on non-project-based financing. However, as in

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the Framework, Woori Bank has defined Social Eligible Categories which all Social Use of Proceeds will strictly adhere to.

Woori Bank is fully committed to transparency as per its Framework, and has also made a commitment, to the extent possible, to disclose the net proceeds, or an amount equal to the net proceeds, of the Woori Bank green, social and sustainability bond which are allocated through their corporate lending and investment activities. Sustainalytics also recognizes that Woori Bank is subject to confidentiality constraints when reporting on the Woori Bank green, social and sustainability bond. Considering this constraint, Woori Bank's commitment, and the nature of the relevant eligible projects/businesses, Sustainalytics is of the opinion that the Woori Bank's green, social and sustainability bond is transparent to the extent possible.

## Section 2: Sustainability Strategy of the Issuer

### Contribution of Framework to Woori Bank's sustainability strategy

Sustainalytics has a positive view of Woori Bank's Green, Social and Sustainability Bond Framework and its alignment with Woori Bank's intention to develop a low footprint and socially impactful environment. Although Woori Bank has not set quantifiable targets for environmental and social sustainability, it has demonstrated its commitment to provide social impact and mitigate climate change in its business model through the following efforts:

- Woori Bank committed to contribute to the reduction of GHG emissions by acting as a renewable energy leader in South Korea's financial sector through engaging in several renewable energy development projects such as generation of solar power plants, waste fuel, off-shore wind and biomass power.
- Woori Bank provides wide range of low interest loans to support low-income citizens and underprivileged students through emergency livelihood funds to provide financial independence for underbanked, financially challenged and socially vulnerable individuals.
- 'Woori Smile Microcredit' is established as a foundation by Woori Bank and Woori Financial Group to support low-to-middle class people through wide range of lending products for several targeted activities such as startup leasing, operating capital, facility improvement and support of youth and college students.<sup>8</sup>

Based on the Woori Bank's sustainability activities and intentions, Sustainalytics considers Woori Bank to be well positioned to issue green, social and sustainability bonds and that they will help the company to enhance its sustainability preparedness and performance.

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

While the eligible categories are recognized as impactful by relevant market standards (GBP, SBP, and SBG), Sustainalytics also recognizes that the eligible categories can lead to potential negative social and environmental outcomes such as workers' health and safety, environmental impacts related to large-scale renewable energy infrastructure, pollution control in construction and development of project, biodiversity and land use change.

Sustainalytics believes that Woori Bank can mitigate such risks through following systems and processes: (i) Woori Bank's Risk Management department which covers credit, operational, market and liquidity risks and supports both Risk Management Committee and Risk Management Council for decision making and risk impact analysis<sup>9</sup> (ii) Woori Bank's Code of Business Ethics which is a foundation of Woori Bank's business values, such as contribution to social development, prevention of interventions in politics and environmental awareness through observing and integrating the environmental protection laws.<sup>10</sup> Sustainalytics views these systems and processes positively for Woori Bank's risk management efforts and encourages Woori Bank to formalize its environmental and social risk management policies in the guidance of quantitative assessments to enhance transparency and robustness.

Based on these systems and processes, Sustainalytics is of the opinion that Woori Bank is well positioned to mitigate environmental and social risks associated with its projects financing and lending activities.

<sup>8</sup> Woori Bank Annual Report 2017, pg. 59

<sup>9</sup> Woori Bank Annual Report 2017, pg. 69

<sup>10</sup> Woori Bank corporate website, Business Principles and Philosophy, accessed January 2019, <https://spot.wooribank.com/pot/Dream?withyou=ENENG0027>

### Section 3: Impact of Use of Proceeds

All eight green and five social use of proceeds categories in the Framework (see page 2) are recognized as impactful by the GBP, SBP and SBG. Sustainalytics has focused on three below where the impact is specifically relevant in local context.

#### Importance of job generation in Korea

In July 2017, South Korea's State Affairs Planning Advisory Committee submitted a "Five- year Plan for the Administration of State Affairs" which consists of a national vision, policy goals and strategies, 100 policy tasks and consolidated innovative tasks of the current administration. Amongst the 100 policy tasks, the top two consolidated innovative tasks selected to be carried out as top priorities were: "The job-creating economy" and "Nurturing innovative startups".<sup>11</sup> In October 2017, the South Korean government introduced a five-year roadmap on job creation that emphasizes creating jobs in the public and private sectors, while improving the overall quality of jobs.

In the private sector, the roadmap seeks to induce more employment by providing support to "innovative startups" as well as stimulating the social economy. This is becoming an important issue since South Korea is seeing rapid increase in the number of one-man, self-employed startups that do little to create more jobs.<sup>12</sup> Furthermore, data from Statistics Korea in July 2018 indicated that the economy added a mere 5,000 jobs in July over a year earlier, the smallest annual gain since 2010 when 10,000 jobs were lost in the depths of the global financial crisis. To tackle this situation, the roadmap seeks to provide various incentives to build and expand "innovative startups" conducive to job creation.<sup>13</sup>

Sustainalytics is of the opinion that Woori Bank's job creation criteria is robust as it (i) defines job creation based a number of government definitions such as the Ministry of Employment and Labor, the Special Tax Treatment Control Act, Ministry of SMEs and Startups, amongst others, and (ii) is aligned with the government's priorities to stimulate job growth.

#### Importance of supporting SMEs in Korea

The South Korean government provides a high level of support for SMEs,<sup>14</sup> as they represent a way of securing economic growth, while also promoting job creation, innovation and social integration. Furthermore, SMEs have increasingly relied more on bank loans for funding their businesses, increasing from 73.5% in 2005 to 83.8% in 2013, which highlights the relevance of banks for SMEs.<sup>15</sup> However, in 2013, even though SMEs made up 99.9% of the South Korean enterprises and accounted for 86.8% of total employment in South Korea, only 0.01% of small companies grew into medium-sized enterprises over the period 2011-2014.<sup>16</sup> Limited access to funding remains a major obstacle in the growth path of small companies.

Woori Bank's social financing under its Framework will help to address this challenge by increasing access to finance for SMEs that have fewer than ten employees.

#### Importance of affordable housing programs in Korea

Housing policy in Korea has historically been characterized by government intervention to support the construction of housing units by providing land to developers, financing initiatives, various regulations, and direct actions by state-owned corporations.<sup>17</sup> These measures were designed to ameliorate widespread housing shortages and deficiencies in quality, and were largely successful in meeting these goals.<sup>18</sup> However, housing affordability remains an ongoing issue, in particular in major cities, which have seen substantial population growth. Socioeconomic and systemic factors, such as demographic shifts and the decline of the

<sup>11</sup> Policy Roadmap of the Moon Jae-in Administration, July 2017:

<http://www.korea.net/koreanet/fileDown?fileUrl=/upload/content/file/1500533508268.pdf>

<sup>12</sup> The Diplomat, Can South Korea Jumpstart Job Creation?, November 2017: <https://thediplomat.com/2017/11/can-south-korea-jumpstart-job-creation/>

<sup>13</sup> *Ibid.*

<sup>14</sup> Economic Survey of Korea 2018; <http://www.oecd.org/eco/economic-survey-korea.htm>

<sup>15</sup> OECD Economic Surveys Korea; <https://www.oecd.org/eco/surveys/Korea-2016-OECD-economic-survey-overview.pdf>

<sup>16</sup> Korea Policy Brief; [https://www.oecd.org/industry/korea-promoting-innovative-entrepreneurship\\_EN.pdf](https://www.oecd.org/industry/korea-promoting-innovative-entrepreneurship_EN.pdf)

<sup>17</sup> Asian Pathways, Housing policy in the Republic of Korea, August 2017: <https://www.asiaphways-adbi.org/2017/08/housing-policy-in-the-republic-of-korea/>

<sup>18</sup> ADBI Institute, Housing Policy in the Republic of Korea, April 2016: <https://www.adb.org/sites/default/files/publication/183281/adbi-wp570.pdf>

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traditional Jeonse rent system, have exacerbated the situation. In the city of Seoul, despite a 2.3 time increase in housing stock between 1990 and 2015, purchase prices and rent levels continue to increase, impacting affordability, particularly for tenants.<sup>19</sup> To address this issue, government policy has moved towards more targeted programs for low-income earners, young people, and other vulnerable groups.<sup>20</sup>

Sustainalytics is of the opinion that the affordable housing use of proceeds category will create positive social impact by increasing lending to affordable housing for low- and medium-income families, young people, and other disadvantaged populations in Korea. Woori Bank's affordable housing use of proceeds category is important in the context of affordability challenges in Korea and aligns with the Social Bond Principles. Sustainalytics views affordable housing lending as an impactful use of proceeds category, especially considering the eligibility criteria for beneficiaries is aligned with the governments definitions to ensure benefits are provided to those in need.

### 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
Renewable energy	7. Affordable and clean energy	7.2 By 2030, increase substantially the share of renewable energy in the global energy mix
Energy efficiency	7. Affordable and clean energy	7.3 By 2030, double the global rate of improvement in energy efficiency
Pollution prevention and control	11. Sustainable cities and communities	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
Environmentally sustainable management of natural resources and land use	12. Responsible consumption and production 15. Life on Land	12.2 By 2030, achieve the sustainable management and efficient use of natural resources 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
Clean transportation	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.
Sustainable water and wastewater management	6. Clean water and sanitation	6.1 By 2030, achieve universal and equitable access to safe and affordable drinking water for all
Climate change adaptation	13. Climate action	13.3 Improve education, awareness-raising and human and institutional capacity on climate change mitigation, adaptation, impact reduction and early warning
Green buildings	11. Sustainable cities/communities	11.B By 2020, substantially increase the number of cities and human settlements adopting and implementing integrated policies and plans towards inclusion, resource efficiency, mitigation and adaptation to climate change, resilience to disasters.
Access to essential services	8. Decent work and economic growth	8.10 Strengthen the capacity of domestic financial institutions to encourage and expand access to banking, insurance and financial services for all

<sup>19</sup> The Seoul Institute, accessed January 2019: <http://global.si.re.kr/content/affordable-rented-housing-strategies-seoul>

<sup>20</sup> Retalk Asia, Seoul's revitalization of youth housing, October 2017: <https://www.retalkasia.com/news/2017/10/30/seoul%E2%80%99s-revitalisation-youth-housing/1509329098>

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<b>Affordable housing</b>	11. Sustainable Cities and Communities	11.1 By 2030, ensure access for all to adequate, safe and affordable housing and basic services and upgrade slums
<b>Employment generation</b>	8. Decent work and economic growth	8.5 By 2030, achieve full and productive employment and decent work for all women and men, including for young people and persons with disabilities, and equal pay for work of equal value
<b>SME financing and microfinance</b>	8. Decent work and economic growth	8.3 Promote development-oriented policies that support productive activities, decent job creation, entrepreneurship, creativity and innovation, and encourage the formalization and growth of micro-, small- and medium-sized enterprises, including through access to financial services
<b>Socioeconomic advancement and empowerment</b>	10. Reduced inequality	10.2 By 2030, empower and promote the social, economic and political inclusion of all, irrespective of age, sex, disability, race, ethnicity, origin, religion or economic or other status

### Conclusion

Woori Bank has developed the Woori Bank Green, Social and Sustainability Framework under which it intends to issue green, social and sustainability bonds and use the proceeds to finance or refinance a broad range of projects and loans related to (i) Renewable Energy, (ii) Energy Efficiency, (iii) Pollution Prevention and Control, (iv) Environmentally Sustainable Management of Natural Resources and Land Use, (v) Clean Transportation, (vi) Sustainable Water and Wastewater Management, (vii) Climate Change Adaptation, (viii) Green Buildings, (ix) Employment Generation, SME Financing and Microfinance, (x) Social Enterprise Financing, (xi) Affordable Housing, (xii) Access to Essential Services (including healthcare, education and financing and financial services), (xiii) and Affordable Basic Infrastructure. Sustainalytics considers that the framework is aligned with Woori Bank's sustainability performance and track record and that the eligible projects will deliver positive environmental and social outcomes.

Overall, Sustainalytics is of the opinion that Woori Bank is well positioned to issue green, social or sustainability bonds and that the Woori Bank Green, Social and Sustainability Bond Framework is credible, transparent and in alignment with the four components of the Green Bond Principles 2018, the Social Bond Principles 2018 and the Sustainability Bond Guidelines 2018.

## Appendices

### Appendix 1: Overview and Comparison of Green Buildings Certification Schemes

	BREEAM	LEED	G-SEED	MAFRA Organic and Antibiotic-Free
<b>Background</b>	BREEAM (Building Research Establishment Environmental Assessment Method) was first published by the Building Research Establishment (BRE) in 1990. Based in the UK. Used for new, refurbished and extension of existing buildings.	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.	G-SEED (Green Standard for Energy and Environmental Design) is a green building certification used in Korea. First implemented in 2002, and later expanded in 2016, G-SEED is administered by the Korean Government under the authority of the Green Building Act (2006).	MAFRA organic and antibiotic-free labels are agri-food certifications for eco-friendly products implemented by Ministry of Agriculture, Food and Rural Affairs of South Korea. Used two types of products which are (i) agricultural and forestry products, (ii) livestock products
<b>Certification levels</b>	Outstanding Excellent Very Good Good Pass	Platinum Gold Silver Certified Certified	Green 4 Green 3 Green 2 Green 1	Organic Non-Pesticide Antibiotic Free
<b>Areas of Assessment: Environmental Project Management</b>	Management (Man) addresses various aspects: project management, deployment, minimal environmental disturbance worksite and stakeholder engagement.	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.	Not applicable	Evaluations process addresses various aspects: general requirements, processing ingredients, processing methods, pest and pathogenic bacterium management, cleaning and disinfectant, packaging, shipping of ingredients and products, records and access guarantee
<b>Areas of Assessment: Environmental Performance of the Building</b>	Energy Land Use and Ecology Pollution Transport Materials Water Waste Health and Wellbeing Innovation	Energy and atmosphere Sustainable Sites Location and Transportation Materials and resources Water efficiency Indoor environmental quality Innovation in Design Regional Priority	Land Use & Transportation Energy & Environmental Pollution Materials & Resources Water Management Maintenance Ecology Indoor Environment Innovative Design	Not Applicable

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<p><b>Requirements</b></p>	<p>Prerequisites depending on the levels of certification + Credits with associated points</p> <p>This number of points is then weighted by item<sup>21</sup> 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 which to comply with to build their BREEAM performance score.</p> <p>BREEAM has two stages/ audit reports: a 'BREEAM Design Stage' and a 'Post Construction Stage', with different assessment criteria.</p>	<p>Prerequisites (independent of level of certification) + Credits with associated points</p> <p>These points are then added together to obtain the LEED level of certification</p> <p>There are several different rating systems within LEED. Each rating system is designed to apply to a specific sector (e.g. New Construction, Major Renovation, Core and Shell Development, Schools-/Retail-/Healthcare New Construction and Major Renovations, Existing Buildings: Operation and Maintenance).</p>	<p>Prerequisites (independent of level of certification) + Credits with associated points</p> <p>Individual credits are achieved in a number of categories, category scores are then weighted to achieve an overall grade.</p>	<p>Requirements include either not using or minimizing the use of synthetic pesticides, chemical fertilizers, antibiotics, bactericides and other chemical materials, and through the recycling of the byproducts of farming, animal husbandry, and forestry, the farming ecosystem and the environment is maintained and preserved when producing livestock products.</p>
<p><b>Performance display</b></p>			<p>Not applicable</p>	
<p><b>Accreditation</b></p>	<p>BREEAM International Assessor BREEAM AP BREEAM In Use Assessor</p>	<p>LEED AP BD+C LEED AP O+M</p>	<p>Certification Bodies, appointed by the Ministry of Environment (MOE) and the Ministry of Land, Infrastructure and Transportation (MLIT) review and certifies projects.</p>	<p>Ministry of Agriculture, Food and Rural Affairs of South Korea</p>

<sup>21</sup> 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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<b>Qualitative considerations</b>	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.	Widely recognised internationally, and strong assurance of overall quality.	Widely used in Korea and aligned with government standards. Strong overall qualifications. Little international recognition.	Widely used in South Korea and established by the government. Strong assurance of overall quality.
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**Appendix 2: Overview of the MAFRA Eco-Friendly Livestock Label**

	<b>MAFRA Organic and Antibiotic-Free</b>
<b>Background</b>	MAFRA organic and antibiotic-free labels are agri-food certifications for eco-friendly products implemented by Ministry of Agriculture, Food and Rural Affairs of South Korea. Used two types of products which are (i) agricultural and forestry products, (ii) livestock products
<b>Certification levels</b>	Organic Non-Pesticide Antibiotic Free
<b>Areas of Assessment: Environmental Project Management</b>	Evaluations process addresses various aspects: general requirements, processing ingredients, processing methods, pest and pathogenic bacterium management, cleaning and disinfectant, packaging, shipping of ingredients and products, records and access guarantee
<b>Areas of Assessment: Environmental Performance of the Building</b>	Not Applicable

Woori Bank Green, Social and Sustainability Bond Framework

<b>Requirements</b>	Requirements include either not using or minimizing the use of synthetic pesticides, chemical fertilizers, antibiotics, bactericides and other chemical materials, and through the recycling of the byproducts of farming, animal husbandry, and forestry, the farming ecosystem and the environment is maintained and preserved when producing livestock products.
<b>Performance display</b>	
<b>Accreditation</b>	Ministry of Agriculture, Food and Rural Affairs of South Korea
<b>Qualitative considerations</b>	Widely used in South Korea and established by the government. Strong assurance of overall quality.

**Appendix 3: Sustainability Bond / Sustainability Bond Programme - External Review Form**

**Section 1. Basic Information**

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**Issuer name:** Woori Bank

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**Sustainability Bond ISIN or Issuer Sustainability Bond Framework Name, if applicable:** Woori Bank Green, Social and Sustainability Bond Framework  
*[specify as appropriate]*

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**Review provider's name:** Sustainalytics

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**Completion date of this form:** February 2019

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**Publication date of review publication:** *[where appropriate, specify if it is an update and add reference to earlier relevant review]*

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**Section 2. Review overview**

**SCOPE OF REVIEW**

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

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

## Woori Bank Green, Social and Sustainability Bond Framework

- |  |  |
|--|--|
| <input checked="" type="checkbox"/> Use of Proceeds        | <input checked="" type="checkbox"/> Process for Project Evaluation and Selection |
| <input checked="" type="checkbox"/> Management of Proceeds | <input checked="" type="checkbox"/> Reporting                                    |

### ROLE(S) OF REVIEW PROVIDER

- |   |  |
|---|--|
| <input checked="" type="checkbox"/> Consultancy (incl. 2 <sup>nd</sup> opinion) | <input type="checkbox"/> Certification |
| <input type="checkbox"/> Verification   | <input type="checkbox"/> Rating        |
| <input type="checkbox"/> Other ( <i>please specify</i> ):                       |  |

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*):

The eight green and the five social categories for the eligible use of proceeds are aligned with those recognized by both the Green Bond Principles and Social Bond Principles. Sustainalytics considers that eligible green and social projects will contribute to decrease South Korea's environmental footprint and support job creating activities and SME expansion. In addition, Sustainalytics views that the eligible projects will advance various UN Sustainable Development Goals.

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

- |   |   |
|---|---|
| <input checked="" type="checkbox"/> Renewable energy                            | <input checked="" type="checkbox"/> Energy efficiency   |
| <input checked="" type="checkbox"/> Pollution prevention and control            | <input checked="" type="checkbox"/> Environmentally sustainable management of living natural resources and land use |
| <input type="checkbox"/> Terrestrial and aquatic biodiversity conservation      | <input checked="" type="checkbox"/> Clean transportation  |
| <input checked="" type="checkbox"/> Sustainable water and wastewater management | <input checked="" type="checkbox"/> Climate change adaptation   |

## Woori Bank Green, Social and Sustainability Bond Framework

- |  |   |
|--|---|
| <input type="checkbox"/> Eco-efficient and/or circular economy adapted products, production technologies and processes                             | <input checked="" type="checkbox"/> Green buildings       |
| <input type="checkbox"/> Unknown at issuance but currently expected to conform with GBP categories, or other eligible areas not yet stated in GBPs | <input type="checkbox"/> Other ( <i>please specify</i> ): |

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

### Use of proceeds categories as per SBP:

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

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

## 2. PROCESS FOR PROJECT EVALUATION AND SELECTION

Overall comment on section (if applicable):

Woori Bank's candidate eligible projects are proposed by business units based on established eligibility criteria, then dedicated Green, Social and Sustainability Bond Working Group ("GSSBWG") will oversee the project evaluation and selection process. The GSSBWG will consist of members from cross departments such as departments in charge of Corporate Social Responsibility, Project Finance, Investment Banking, Retail Banking Products & Marketing, Small & Medium Corporate Banking Products & Marketing, Corporate Banking Products & Marketing, Institutional Banking Products & Marketing, Housing Fund, Global Business Promotion and Credit Risk Management Department. The process is aligned with market practices.

### Evaluation and selection

- |   |  |
|---|--|
| <input checked="" type="checkbox"/> Credentials on the issuer's social and green objectives                                 | <input checked="" type="checkbox"/> Documented process to determine that projects fit within defined categories    |
| <input checked="" type="checkbox"/> Defined and transparent criteria for projects eligible for Sustainability Bond proceeds | <input type="checkbox"/> Documented process to identify and manage potential ESG risks associated with the project |
| <input type="checkbox"/> Summary criteria for project evaluation and selection publicly available                           | <input type="checkbox"/> Other ( <i>please specify</i> ):  |

### Information on Responsibilities and Accountability

## Woori Bank Green, Social and Sustainability Bond Framework

- 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)*:

Woori Bank will record and track the net use of proceeds through a GSS Bond Register. The proceeds of transactions will be deposited in the general funding accounts and earmarked for allocation to eligible assets. Pending full allocation, the unallocated proceeds will be invested in cash, cash equivalents and marketable securities. This process is in line with market practices.

#### 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)*:

Woori Bank intends to report allocation proceeds in company's website on an annual basis until full allocation of proceeds. Allocation reporting will include the total amount allocated to eligible projects and the balance amount of unallocated proceeds and. Where possible, the impact report will include relevant impact indicators per each green and social project category. Sustainalytics views Woori Bank's allocation and impact reporting 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:***

# Woori Bank Green, Social and Sustainability Bond Framework

- 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):

**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://spot.wooribank.com/pot/Dream?withyou=BPPCT0033>  
<https://spot.wooribank.com/pot/Dream?withyou=ENENG0746>  
 Woori Bank corporate website: <https://spot.wooribank.com/pot/Dream?withyou=en&LCL=EN>

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

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

- Consultancy (incl. 2<sup>nd</sup> 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. **Consultant Review:** An issuer can seek advice from consultants and/or institutions with recognized expertise in environmental and social sustainability or other aspects of the issuance of a Sustainability Bond, such as the establishment/review of an issuer's Sustainability Bond framework. "Second Party Opinions" may fall into this category.
- ii. **Verification:** An issuer can have its Sustainability Bond, associated Sustainability Bond framework, or underlying assets independently verified by qualified parties, such as auditors. In contrast to certification, verification may focus on alignment with internal standards or claims made by the issuer. Evaluation of the environmentally and socially sustainable features of underlying assets may be termed verification and may reference external criteria.
- iii. **Certification:** An issuer can have its Sustainability Bond or associated Sustainability Bond framework, or Use of Proceeds certified against an external green and social assessment standard. An assessment standard defines criteria, and alignment with such criteria is tested by qualified third parties / certifiers.
- iv. **Rating:** An issuer can have its Sustainability Bond or associated Sustainability Bond framework rated by qualified third parties, such as specialized research providers or rating agencies. Sustainability Bond ratings are separate from an issuer's ESG rating as they typically apply to individual securities or Sustainability Bond frameworks / programmes.

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Sustainalytics is a leading independent ESG and corporate governance research, ratings and analytics firm that support 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. Global Capital named Sustainalytics the "Most Impressive Second Party Opinion Provider in 2017". In 2018, the firm was recognized as the "Largest External Reviewer" by the Climate Bonds Initiative as well as Environmental Finance. In addition, Sustainalytics received a Special Mention Sustainable Finance Award in 2018 from The Research Institute for Environmental Finance Japan for its contribution to the growth of the Japanese Green Bond Market.

For more information, visit [www.sustainalytics.com](http://www.sustainalytics.com)

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