

ESG Bond Score

Methodology Paper

1 February 2024

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1 Introduction

There are various reasons and ways for issuer to obtain external input to their green, blue, social or sustainability-linked bond (referred to as ESG bonds in this brochure henceforth).

The WaVeritas ESG Bond Scorecard aims to provide an independent and holistic view on a bond's ESG risk and opportunity profile.

The assessment methodology was developed with reference to the voluntary ICMA best-practice guidelines for external reviews. The WaVeritas ESG Bond Scorecard provides a complementary view on the alignment of the financial product with relevant environmental, social and governance indicators, criteria and thresholds. The methodology references aspects of the frameworks ICMA green, social and sustainability bond principles and guidelines and the voluntary "EU Disclosure Standards for EU Green Bonds - 2023/2631". However, the selected criteria, weighting and assessments contain also other aspects and thus represents an independent unbiased with on selected ESG factors. The Scorecard is clearly distinct from a Credit Rating or Second Party Opinion or Certification.

According to the ICMA best-practice guidelines for external review the WaVeritas ESG Bond Scorecard is defined as "Green, Social, Sustainability and Sustainability-Linked Bond Scoring/Rating".

This brochure intends to provide details regarding the methodology and relevant organization aspects.

2 Organization

2.1 Corporate code of conduct and values

All employees, officers and directors must adhere to the WaVeritas Code of Conduct and the ESG policy. WaVeritas is committed to high ethical standards in all business relationships.

Our core values form the foundation of our ethical corporate culture:

- Teamwork
- Respect
- Fairness
- Openness
- Dedication
- Integrity
- Initiative

2.2 Research code of conduct

Employees must adhere to the Research Code of Conduct which outlines the mandatory requirements and expectations regarding integrity and ethical conduct in our work.

Among other aspects the research standard set forth the following:

- Employees must adhere to recognized international professional conduct standards for the financial industry and research work in general
- Research work is conducted with absolute objectivity and independence as this constitutes the foundation of meaningful research work.
- Employees use the principle of reasonable basis, due diligence and care in all aspects of work.
- Employees will not engage in any research misconduct, in particular plagiarism and misrepresentation.
- Research is conducted with integrity as it reflects on the individual person, the project, the employer and the community as a whole.

2.3 Relevant experiences, qualifications and credentials

The operational team in charge for the green bond assessment combines long-standing relevant experience and background.

<p>Head of ESG</p>	<p>Rafael Waldmeier, MSc HKUST Rafael started his career in the financial industry 18 years ago and worked with various teams in asset management and private banking internationally. Since 2010, he has enjoyed working in the area of sustainable finance, finding new solutions to link social and environmental impact with investment decisions. Before joining WaVeritas he worked with different sustainable finance research teams in RobecoSam, Notenstein Asset Management, Association of Sustainable and Responsible Investments in Asia and Invera Research and Advisory AG. Rafael graduated from the Hong Kong University of Science and Technology with a Master of Science in Environmental Sciences (thesis: robustness of environmental indicators in investment decisions). Bachelor of Science in Business Administration with major in Finance(thesis: sustainable investments in water markets). He obtained the CFA Institute Certificate in ESG investing.</p>
<p>ESG Research Manager</p>	<p>Trinh Nguyen, MSc Trinh has worked as an ESG consultant in Vietnam for eight years. She has experience in various projects, especially in the energy industry. Trinh helped clients in the thermal power, hydropower, waste-to-energy, and renewable energy sectors identify potential impacts and risks associated with their projects and develop actionable mitigation measures to reduce these impacts. She also ensured that the projects complied with national and international environmental and social performance requirements, such as the World Bank Group - IFC Performance Standards. In addition to her consultancy work, Trinh served as an ESG Manager for a leading renewable energy company in Southeast Asia. She worked with different teams and engaged with stakeholders, including investors, authorities, and local communities, to integrate ESG activities into the company's business operations. Trinh also implemented new ESG initiatives and aligned the company's sustainability strategy with international best practices and standards. Trinh holds a Bachelor of Environmental Science from Vietnam and a Master of Urban and Regional Planning from Australia.</p>

2.4 Statement of independence

WaVeritas is committed to meet or exceed its customers' expectations. We put clients' interests before our own and we never let personal interests influence our work and dealings with clients.

The members of WaVeritas governing bodies and its employees, as well as other persons working for WaVeritas are obligated to treat customer information as strictly confidential. We keep information secure and safe and protect client's privacy rights. We are determined to handle all data appropriately and with due care.

Employees must abide by the research code of conduct in which the objectivity and independence of research work is a core aspect. The ESG Bond scoring framework is a defined process and framework and cannot be changed outside the formal process. Assessments and the framework cannot be changed by external parties or changed by employees upon demand from external parties. It is also clearly segregated from any other services we provide.

WaVeritas employees and directors don't offer or accept improper gifts or payments from clients and partners. No employee may offer or grant unauthorised benefits to others in connection with business activities - directly or indirectly - either as monetary payments or other benefits. At the same time, no employee may use his or her official position to solicit, accept, obtain or be promised advantages. This does not include accepting occasional gifts of small value; other gifts must be refused or returned. The acceptance and giving of monetary gifts is generally prohibited.

2.5 Alignment with sustainability initiatives

WaVeritas aims to be an active contributor to industry initiatives and is signatory to the UNPRI.

3 Scoring methodology

2.6 Scope and limitations

According to the ICMA best-practice guidelines for external review the WaVeritas ESG Bond Scorecard is defined as “Green, Social, Sustainability and Sustainability-Linked Bond Scoring/Rating”.

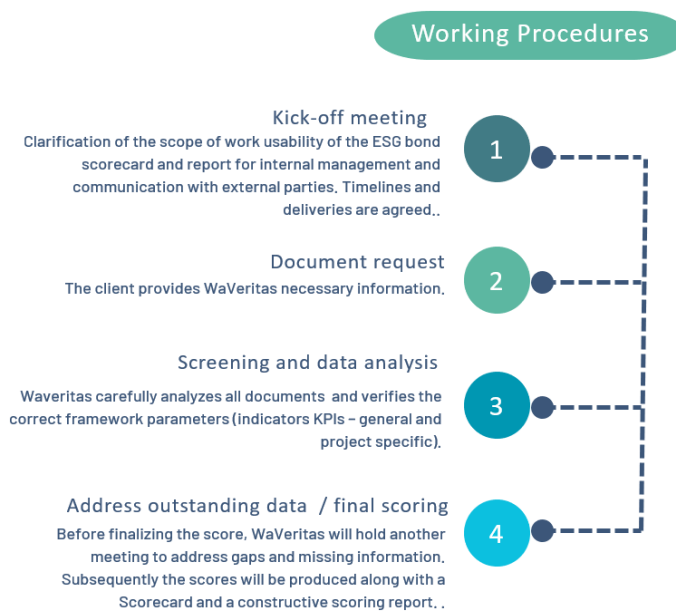
The WaVeritas ESG Bonds Scorecard aims to provide an independent and holistic view on a bond’s ESG risk and opportunity profile.

While the selection of metrics and the assessment framework is heavily influenced by international standards, the WaVeritas Scores and the Scorecard does not intend to approve or confirm alignment with a third-party standard. The scores are as such distinct from a Second Opinion. The scores do also not constitute a classical Credit Rating.

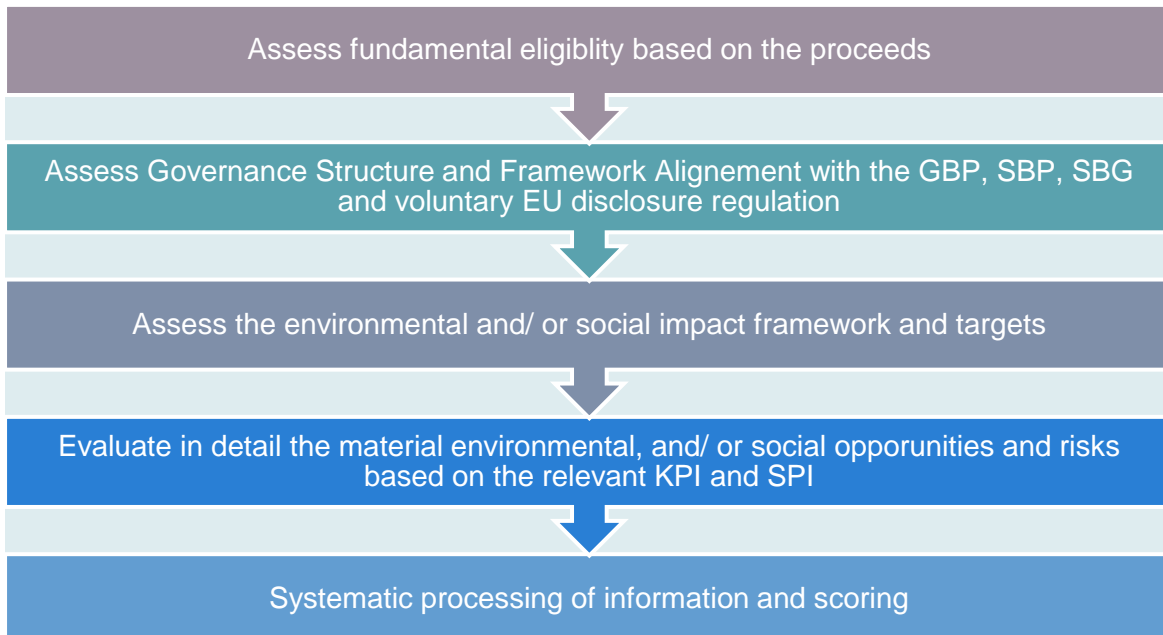
Eventually the score aim to provide an additional complementary and meaningful view on the bonds ESG performance towards relevant selected ESG metrics.

The final rating and score depends on various factors including the weighting and selection of the criteria as well as the availability of information. The methodology uses both qualitative and quantitative information.

2.7 Process overview



2.8 Analytical approach



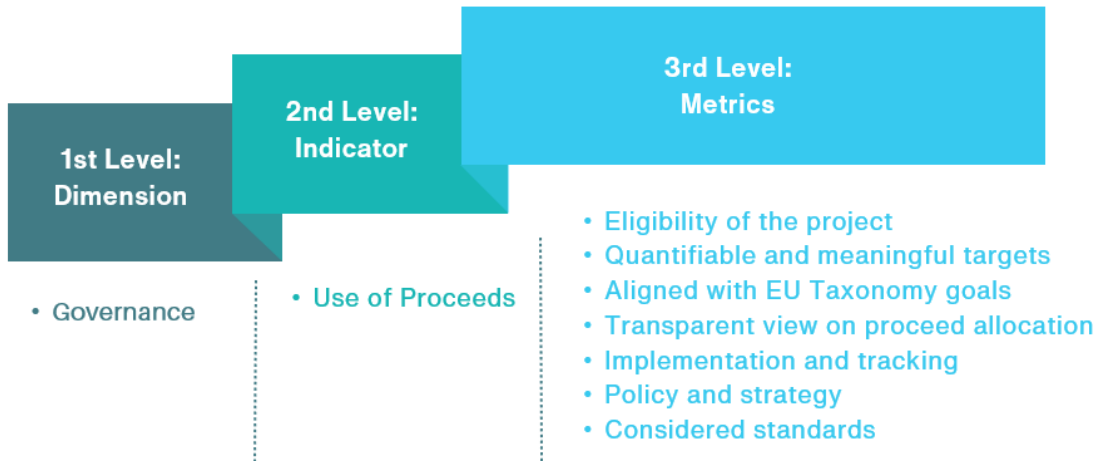
2.9 Framework structure

The scoring frame is built on the three dimensions: environment, social, governance (ESG) each dimension is comprised of a set of core topics and related key performance indicators (KPI) / Key Sustainability Indicators (SPI). Certain core topics are static and generally applicable to all project types. A core topic is built on several KPIs.

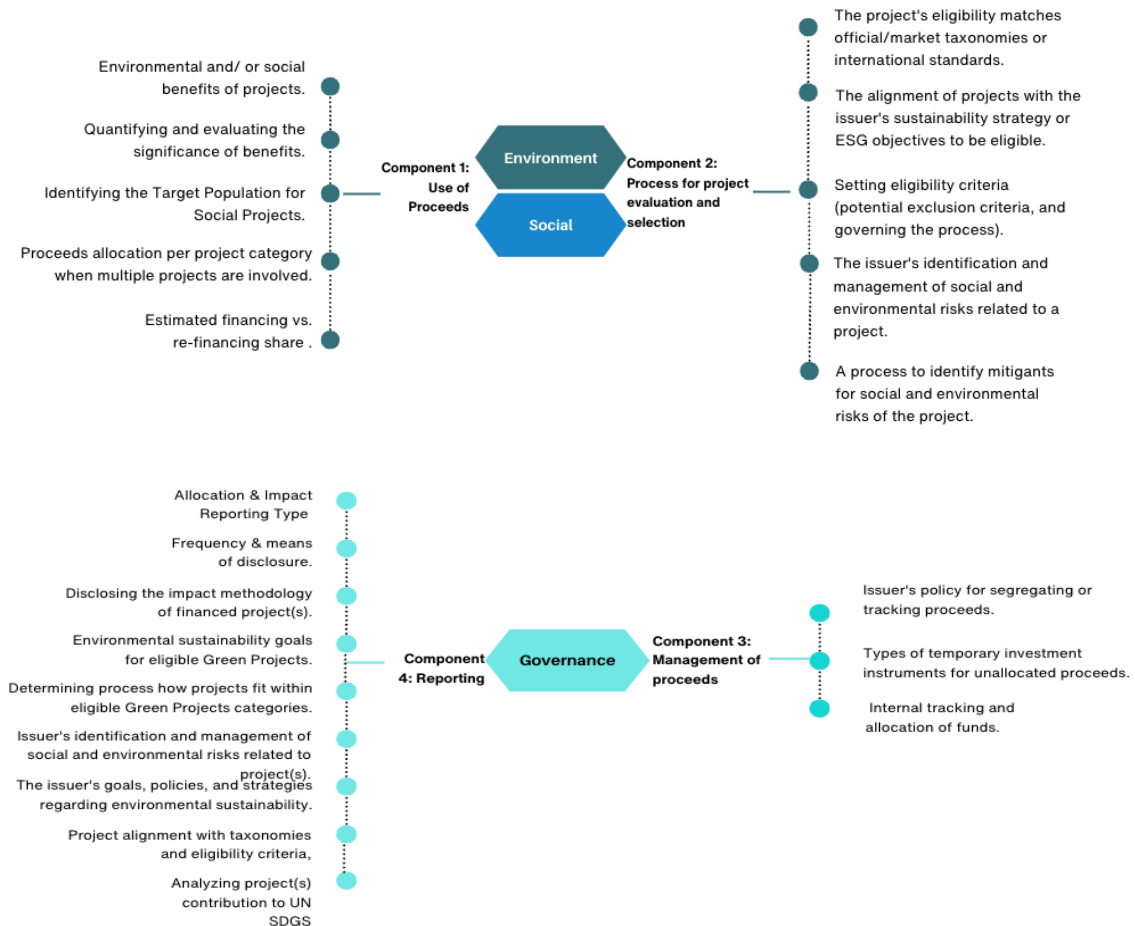
1st Level: Dimension	2nd Level: Core topics	3rd Level: Performance metrics
<ul style="list-style-type: none"> • Environmental • Social • Governance 	Core components of the ICMA principles, EU guidelines and selected other project-specific criteria	Quantitative or qualitative metrics that measure performance or alignment with the goals of a core topic

3.4.1 Illustrative example

The following picture demonstrates an example of an indicator and related metrics within the governance dimension



3.4.2 ICMA core principles integration



2.10 Data sources

- Bond issuer's policy and strategy
- Bond prospectus and final terms
- Investor presentations
- Financial tracking documents
- Bond's organisational structure
- Issuer and related party information
- Project information (description, objectives, target groups, timeline, project financial structure, budget, project team)
- Impact reports and studies of comprehensive environmental and social impact assessment, management, and mitigation plans.
- Homepages
- Marketing materials
- and all other provided materials

2.11 Periodic review

The core calculation elements of the methodology have stayed the same since the start of the product. However, the content of our methodological framework has evolved according to important and relevant changes in regulatory requirements, investors' expectations regarding new challenges or emerging topics and in particular in potential changes in the reference framework.

Particular weight is given to the review of the Key Performance Indicators (KPI) / Sustainability Performance Indicator (SPI) which are topic/project specific.

The materiality assessment aims to review the weights of the dimensions, indicators and metric levels on a periodic basis. The structure is also checked again before any establishment of a new score.

4 Score interpretation

- 5** Governance structure is well setup. The impact framework covers all relevant aspects. KPI performance is good and all related information is disclosed.

- 4** Governance structure is well setup. The impact framework covers relevant aspects and policies are in place. KPI performance is not entirely disclosed, or certain aspects are improvable.

- 3** The governance structure is well setup, and the framework covers relevant aspects. However, essential impact metrics are not yet monitored or disclosed in detail yet. This implies that more data is needed to assess the impact profile on a granular level.

- 2** The governance and framework structure is not complete what indicates that there are not adequate measures in place to manage material ESG risks and opportunities.

- 1** Substantial elements of the governance structure or impact framework are missing, indicating heightened ESG risk.

5 Eligible projects according to ICMA

Green Projects

Category	Description
Renewable energy	including production, transmission, appliances and products);
Energy efficiency	new and refurbished buildings, energy storage, district heating, smart grids, appliances and products);
Pollution prevention and control	including reduction of air emissions, greenhouse gas control, soil remediation, waste prevention, waste reduction, waste recycling and energy/ emission-efficient waste-to-energy
Environmentally sustainable management of living natural resources and land use	including environmentally sustainable agriculture; environmentally sustainable animal husbandry; climate smart farm inputs such as biological crop protection or drip-irrigation; environmentally sustainable fishery and aquaculture; environmentally sustainable forestry, including afforestation or reforestation, and preservation or restoration of natural landscapes
Terrestrial and aquatic biodiversity conservation	including the protection of coastal, marine and watershed environments
Clean transportation	electric, hybrid, public, rail, non-motorised, multi-modal transportation, infrastructure for clean energy vehicles and reduction of harmful emissions
Sustainable water and wastewater management	sustainable infrastructure for clean and/or drinking water, wastewater treatment, sustainable urban drainage systems and river training and other forms of flooding mitigation
Climate change adaptation	including efforts to make infrastructure more resilient to impacts of climate change, as well as information support systems, such as climate observation and early warning systems
Circular economy adapted products, production technologies and processes and/or certified eco-efficient products;	such as the design and introduction of reusable, recyclable and refurbished materials, components and products; circular tools and services
Green buildings	that meet regional, national or internationally recognized standards or certifications for environmental performance.

Social Project

Category	Description
Affordable basic infrastructure	e.g. clean drinking water, sewers, sanitation, transport, energy
Access to essential services	e.g. health, education and vocational training, healthcare, financing, and financial services
Affordable housing	e.g. low-and-middle-income housing. low-cost housing. market-rate housing. public-sector housing
Employment generation and programmes	It is designed to prevent and/or alleviate unemployment stemming from socioeconomic crises, climate transition projects and/or other considerations for a “just transition” (such provision and/or promotion could include SME financing and microfinance)
Food security and sustainable food systems	e.g. physical, social, and economic access to safe, nutritious, and sufficient food that meets dietary needs and requirements; resilient agricultural practices; reduction of food loss and waste; and improved productivity of small-scale producers
Socioeconomic advancement and empowerment	e.g. equitable access to and control over assets, services, resources, and opportunities; equitable participation and integration into the market and society, including reduction of income inequality
Note	
Examples of target populations (but are not limited to)	<ol style="list-style-type: none"> 1. Living below the poverty line 2. Excluded and/or marginalized populations and/or communities 3. People with disabilities 4. Migrants and/or displaced persons 5. Undereducated 6. Underserved, owing to a lack of quality access to essential goods and services. 7. Unemployed and/or workers affected by climate transition. 8. Women and/or sexual and gender minorities 9. Ageing populations and vulnerable youth 10. Other vulnerable groups, including because of natural disasters, climate change, and/or climate transition projects that cause or exacerbate socioeconomic inequity

6 Sources and references

ICMA (2024) The Principles, Guidelines and Handbooks, retrieved 31 January 2024, <https://www.icmagroup.org/sustainable-finance/the-principles-guidelines-and-handbooks/>

ICMA (2024): Guidelines for external reviewers, retrieved 31 January 2024, <https://www.icmagroup.org/sustainable-finance/external-reviews/>

European Union (2023): REGULATION (EU) 2023/2631 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 22 November 2023 on European Green Bonds and optional disclosures for bonds marketed as environmentally sustainable and for sustainability-linked bonds; retrieved 31 January 2024, https://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=OJ:L_202302631&qid=1704894678679
<https://www.icmagroup.org/sustainable-finance/the-principles-guidelines-and-handbooks/green-bond-principles-gbp/>

7 Definitions

Term	Description
Principles	The Principles are a collection of voluntary frameworks, including The Green Bond Principles (GBP), together with the Social Bond Principles (SBP), the Sustainability Bond Guidelines (SBG) and the Sustainability-Linked Bond Principles (SLBP)
Green Bonds	Is a type of bond instrument where the proceeds or an equivalent amount will be exclusively applied to finance or re-finance, in part or in full, new and/or existing eligible Green Projects.
The Green Bond Principles (GBP)	A project bond for a single or multiple Green Project(s) for which the investor has direct exposure to the risk of the project(s) with or without potential recourse to the issuer, and that is aligned with the GBP.
Green Projects	These projects contribute to environmental objectives such as: climate change mitigation, climate change adaptation, natural resource conservation, biodiversity conservation, and pollution prevention and control.
Social Bond	Social Bonds are any type of bond instrument where the proceeds, or an equivalent amount, will be exclusively applied to finance or re-finance in part or in full new and/or existing eligible Social Projects
Social Projects	These projects provide clear social benefits, address, or mitigate a specific social issue and/or seek to achieve positive social outcomes. Some examples of social projects are affordable basic infrastructure, access to essential services, affordable housing, employment generation; food security and sustainable food system; socio-economic advancement and empowerment

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About us

WaVeritas provides ESG research services to asset managers, family offices and businesses.

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