
**Guidance on environmental criteria
for projects, assets and activities to
support the development of green
finance**

*Recommandations relatives aux critères environnementaux pour les
projets, les actifs et les activités visant à soutenir le développement de
la finance verte*

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ISO copyright office
CP 401 • Ch. de Blandonnet 8
CH-1214 Vernier, Geneva
Phone: +41 22 749 01 11
Email: copyright@iso.org
Website: www.iso.org

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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular, the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see www.iso.org/patents).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation of the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT), see www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/TC 207, *Environmental management*, Subcommittee SC 4, *Environmental performance evaluation*, in collaboration with Technical Committee ISO/TC 322, *Sustainable finance*.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

Introduction

This document provides guidance on identifying and assessing environmental aspects and impacts, and performance criteria for projects, assets and activities.

The intent is to support the development of green finance by assisting borrowers and financiers to take into account the environmental aspect and impacts or environmental performance of the project, asset or activity for which funds are sought. The guidance is applicable to individual, corporate or public entities providing or seeking green finance, regardless of size. A framework to determine relevant environmental criteria supported by credible information is presented. The objective of applying these criteria is to avoid, minimize, reduce and mitigate adverse environmental impacts and risks, as well as to identify opportunities to optimize environmental performance.

Key concepts involved in identifying and assessing relevant environmental criteria, including significance, context and materiality as well as “do no significant harm”, are examined and examples presented. The relationship between what is determined to be environmentally significant and materiality is also explained. Concerns related to greenwashing that affect green financing decisions are addressed. Relevant information is identified to assist borrowers and financiers to align with the principles presented and to facilitate access to green finance.

This guidance is designed to be flexible. Intended users can determine the application that best suits their internal and external context. This may include, but is not limited to, their policies, processes, systems, operating environments, economic constraints, interested party needs and relevant regulatory requirements. Organizations are also provided insight on sources of information that can be applied to manage their environmental aspects to reduce their environmental impacts, manage environmental risks and optimize operational performance overall. The objective is to improve green financing, facilitate transparency and align the organization's activities with national and international environmental goals and agreements.

The environment operates as a system that includes people, and the interaction that they have with the environment and their interrelationship as citizens, communities, corporations and countries. Increasingly, there is an understanding of a critical need to address the impact on the environment that results as an outcome of human activity. There is also a parallel need to understand the effect that changes to the environment are having on humans, whether it is related to specific social concerns or broader societal issues, with immediate to long-term consequences. Green financing offers the opportunity to ensure that all three pillars critical for a sustainable future are addressed.

[Annexes A](#) to [D](#) provide additional knowledge, and covers the relationship of key concepts, other International Standards, initiatives that can help with green finance, and improving the opportunity for small and medium-sized enterprises (SMEs).

Guidance on environmental criteria for projects, assets and activities to support the development of green finance

1 Scope

This document establishes a framework and outlines a process to identify criteria for environmental impacts and performance to take into account when considering projects, assets and activities seeking finance.

This document also gives guidance on assessing the risks and opportunities that can arise in applying environmental criteria to projects, assets and activities.

It is applicable to parties seeking finance, providing finance or other interested parties.

2 Normative references

There are no normative references in this document.

3 Terms, definitions and abbreviated terms

3.1 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

ISO and IEC maintain terminology databases for use in standardization at the following addresses:

- ISO Online browsing platform: available at <https://www.iso.org/obp>
- IEC Electropedia: available at <https://www.electropedia.org/>

3.1.1

organization

person or group of people that has its own functions with responsibilities, authorities and relationships to achieve its objectives

Note 1 to entry: The concept of organization includes, but is not limited to sole-trader, company, corporation, firm, enterprise, authority, partnership, charity or institution, or part or combination thereof, whether incorporated or not, public or private.

[SOURCE: ISO 14001:2015, 3.1.4]

3.1.2

interested party

stakeholder

person or *organization* (3.1.1) that can affect, be affected by, or perceive itself to be affected by a decision or activity

EXAMPLE Customers, communities, suppliers, regulators, non-governmental organizations, investors and employees.

Note 1 to entry: To “perceive itself to be affected” means the perception has been made known to the organization.

[SOURCE: ISO 14001:2015, 3.1.6, modified — “stakeholder” added as the admitted term.]

**3.1.3
environment**

surroundings in which an *organization* (3.1.1) operates, including air, water, land, natural resources, flora, fauna, humans and their interrelationships

Note 1 to entry: Surroundings can extend from within an organization to the local, regional and global system.

Note 2 to entry: Surroundings can be described in terms of biodiversity, ecosystems, climate or other characteristics.

[SOURCE: ISO 14001:2015, 3.2.1]

**3.1.4
environmental aspect**

element of an *organization's* (3.1.1) activities or products or services that interacts or can interact with the *environment* (3.1.3)

Note 1 to entry: An environmental aspect can cause (an) *environmental impact(s)* (3.1.5). A significant environmental aspect is one that has or can have one or more significant environmental impact(s).

Note 2 to entry: Significant environmental aspects are determined by the organization applying one or more criteria.

[SOURCE: ISO 14001:2015, 3.2.2]

**3.1.5
environmental impact**

change to the *environment* (3.1.3), whether adverse or beneficial, wholly or partially resulting from an *organization's* (3.1.1) *environmental aspects* (3.1.4)

[SOURCE: ISO 14001:2015, 3.2.4]

**3.1.6
environmental impact assessment
EIA**

tool used to identify the *environmental impacts* (3.1.5) of a project, asset and activity prior to decision-making

Note 1 to entry: The tool can be used to assess a project, asset and activity during its various stages, including when it is finished.

Note 2 to entry: An *organization's* (3.1.1) activities or products or services can be a project, asset and activity to be considered for a request for financing.

[SOURCE: ISO 35103:2017, 3.6.4, modified — Abbreviated term added. “asset and activity” added to the definition. Notes to entry added.]

**3.1.7
environmental performance**

performance related to the management of *environmental aspects* (3.1.4)

Note 1 to entry: For an environmental management system, results can be measured against the *organization's* (3.1.1) environmental policy, *environmental objectives* (3.1.8) or other criteria, using *indicators* (3.1.9).

[SOURCE: ISO 14001:2015, 3.4.11]

**3.1.8
environmental objective**

objective set by the *organization* (3.1.1) consistent with its environmental policy

[SOURCE: ISO 14001:2015, 3.2.6]

3.1.9**indicator**

quantitative, qualitative or binary variable that can be measured or described, representing the status of operations, management, conditions or impacts

[SOURCE: ISO 14031:2021, 3.4.1]

3.1.10**risks and opportunities**

potential adverse effects (threats) and potential beneficial effects (opportunities)

[SOURCE: ISO 14001:2015, 3.2.11]

3.1.11**compliance obligations**

legal requirements and other requirements

legal requirements that an *organization* (3.1.1) has to comply with and other requirements that an organization has to or chooses to comply with

Note 1 to entry: Compliance obligations can arise from mandatory requirements, such as applicable laws and regulations, or voluntary commitments, such as organizational and industry standards, contractual relationships, codes of practice and agreements with community groups or non-governmental organizations.

[SOURCE: ISO 14001:2015, 3.2.9, modified — Note 1 to entry deleted. Note 2 to entry renumbered.]

3.1.12**materiality**

information essential for decision-making, which can be applied to identify issues that reflect an *organization's* (3.1.1) environmental and social impacts, as well as information that supports *interested party* (3.1.2) and strategic decision-making

3.1.13**baseline**

reference basis for comparison against which the status or *environmental performance* (3.1.7) of the project, asset and activity is monitored or measured

[SOURCE: ISO 27917:2017, 3.3.2, modified — “the status or environmental performance of the project, asset and activity” replaced “project status or performance”.]

3.1.14**baseline scenario**

hypothetical reference case that best represents the conditions most likely to occur in the absence of a proposed project, asset and activity

[SOURCE: ISO 14064-2:2019, 3.2.6, modified — “project, asset and activity” replaced “GHG project”.]

3.1.15**greenwashing**

false or misleading information, either intentionally or inadvertently, regarding the environmental or sustainability attributes of a product, asset and activity, which can have consequences on the assessment of financial and non-financial *materiality* (3.1.12)

3.1.16**green finance**

financial instrument, product or service that support projects, assets and activities that result in lower adverse *environmental impacts* (3.1.5), reduced environmental risks or enable opportunities to improve environmental and environment-related social performance

Note 1 to entry: A non-exhaustive list of examples of public, private, public-private or civil society agents can include: angel investors, venture capitalists, private equities businesses, banks, governments, international organizations, non-governmental organizations (NGOs), asset management companies, pension funds, sovereign wealth funds and foundations/endowments.

3.1.17

life cycle thinking

consideration of all relevant *environmental aspects* (3.1.4) (of a product, asset and activity) and associated *environmental impacts* (3.1.5) during the entire life cycle

Note 1 to entry: A life cycle perspective is synonymous and refers to the consecutive and interlinked stages of a product, asset or activity from inception to end of life, including a circular approach, and is intended to prevent shifting an environmental burden or creating an environmental externality.

Note 2 to entry: This does not necessarily mean that a detailed life cycle assessment should be undertaken.

[SOURCE: ISO Guide 64:2008, 2.6, modified — Abbreviated term deleted. “asset and activity) and associated environmental impacts” added to and “(product)” deleted from the definition. Notes 1 and 2 to entry added.]

3.2 Abbreviated terms

BAT	best available technology
EIA	environmental impact assessment
ESG	environmental, social and governance
GHG	greenhouse gas
GRI	Global Reporting Initiative
LCA	life cycle assessment
SASB	Sustainability Accounting Standards Board
SME	small and medium-sized enterprise
TCFD	Task Force on Climate-related Financial Disclosures
UN SDGs	United Nations Sustainable Development Goals

4 Principles

4.1 General

These principles explain the context in which to address environmental benefits, including environmental aspects and impacts associated with projects, assets and activities for the development of robust, credible and reliable green finance opportunities.

4.2 Accuracy

Accuracy should be aimed for by carefully evaluating sources and data quality and using appropriate methods. Bias should be avoided and uncertainty minimized.

4.3 Completeness

All relevant and important information for the intended use should be included, in such a way that no additional information will substantially change the results of the assessment to the knowledge of those undertaking the assessment.

NOTE In this principle, “important information” refers to an environmental aspect or impact that is on its own or in combination with other issues, environmentally significant and material to the viability of the project, asset or activity.

4.4 Consistency

Assumptions, methods and data should be applied in the same way throughout the assessment process to arrive at conclusions in accordance with the purpose and scope of the assessment.

4.5 Credibility

All steps of the assessment should be conducted in a transparent and fair manner, and the information provided to interested parties should be truthful, accurate, substantive and not misleading.

4.6 Relevance

Identified environmental aspects and impacts, data sources, assumptions, boundaries (temporal and spatial) and methods should be appropriate to the needs and meet the known requirements of the intended users. This should take into account life cycle thinking, wherein the borrower and the financier should have a common, shared understanding of the entire life cycle of the project, asset and activity to ensure that environmental impacts are not unintentionally shifted elsewhere, imposing an environmental, social or financial burden.

4.7 Transparency

Care should be taken to ensure that objective evidence provided, whether in reports or other documented formats, is available, comprehensive and clearly stated.

4.8 Sustainability

Incorporating an appreciation for the universal call to balance environmental, social and economic outcomes should underpin any request for financing. This includes consideration of the context of the request as well as concepts such as “do no significant harm”, the protection of biodiversity, resilience of ecosystems, decarbonization of human activities and a commitment to a low carbon economy.

5 Purpose

The purpose of this document is to support the exchange of information and communication between borrowers and financiers on the relevant environmental aspects and impacts, and the related risks and opportunities of projects, assets and activities in the context of seeking or providing finance.

Knowledge about and understanding the environmental aspects and impacts is important as they pose known or possible socio-economic consequences. These are of increasing interest to owners and managers seeking finance on one side and financiers (such as investors, lenders or insurers) on the other side.

The value for the borrower of understanding the socio-economic consequences of environmental aspects and their related impacts lies in their ability to present their projects, assets and activities in a transparent, objective and relevant detailed manner to potential financiers. Taxonomies are an approach to categorize or clarify the risk and opportunity to support green finance. There are at present hundreds of options that can assist borrowers and financiers to determine whether an economic activity contributes substantially to at least one environmental objective. This can assist interested parties in choosing environmental performance indicators relevant to the project, asset or activity, such as life cycle thinking criteria, carbon footprint options, etc.

NOTE 1 A carbon footprint is defined as the net amount of greenhouse gas (GHG) emissions and GHG removals, expressed in CO₂ equivalents (see ISO 16759). More insight on GHGs is provided in ISO 14067:2018.

This evidence can provide the financier with confidence that the potential borrower understands the risks and opportunities, which addresses at its core, the credit worthiness and ability of the borrower to service a loan. Presenting objective evidence to the financier can provide a better understanding of

the environmental benefits and the measures taken by the borrower, which can result in lower interest rates or other favourable terms and conditions.

The value for the financier of understanding the socio-economic consequence of environmental aspects and impacts is to have the information necessary to evaluate a potential borrower's projects, assets and activities in an efficient and rigorous way. Applying this knowledge will support decision-making on both sides of the transaction and serve to enhance communication and build trust for the business relationship. This is not only favourable for the development of robust, credible and reliable green financial markets, it also supports the ability of the financier to document the non-financial effects of providing finance.

NOTE 2 The growing need to provide objective evidence of environmental risks and opportunities, including positive and negative environmental impacts and related effects thereof when financing, is an expectation in the context of meeting international agreements and guidance frameworks such as the Equator Principles^[36], the Paris Agreement^[34], the Task Force on Climate-related Financial Disclosures (TCFD)^[42] and the United Nations Sustainable Development Goals (UN SDGs)^[35]. See [Annex C](#) for additional information.

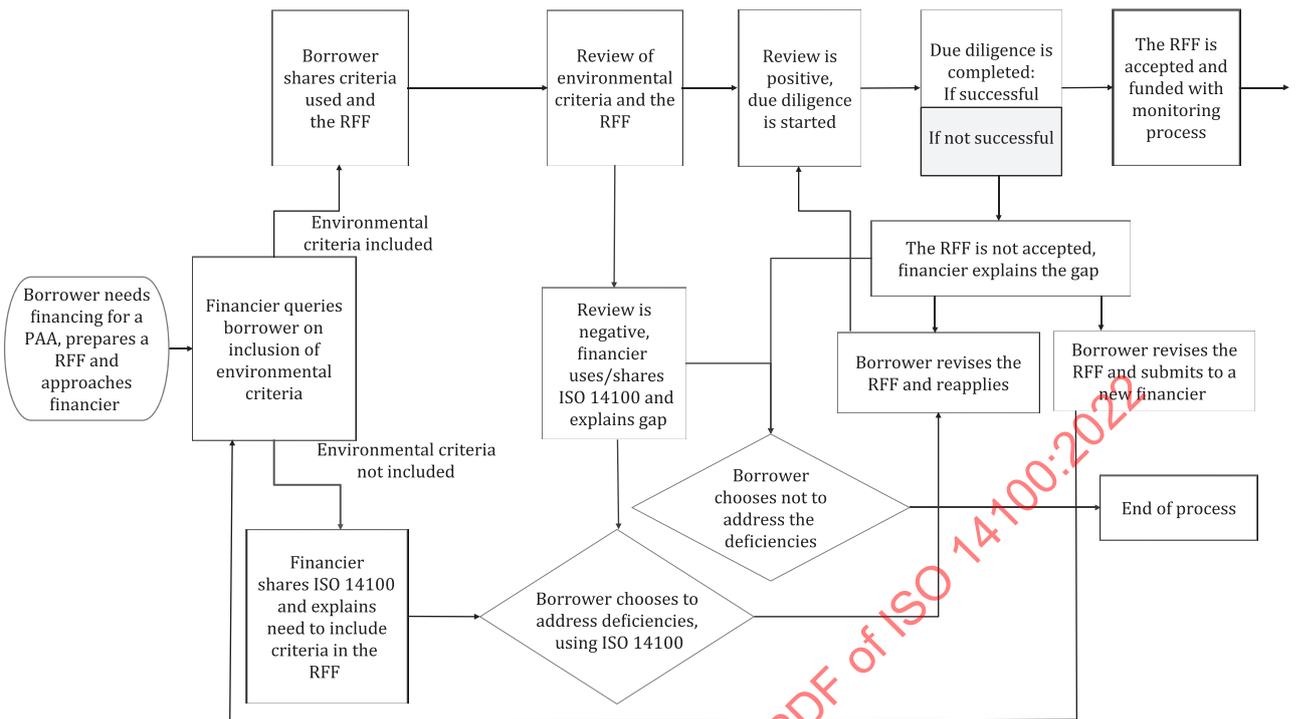
The information expectations of the financier and the borrower should take into account a number of factors in order to inspire the cooperation of both parties. The risk and opportunity related to projects, assets and activities should be assessed on significance, context and their relationship to materiality and should include life cycle thinking (or a life cycle perspective). Small businesses do not always have access to detailed data such as information in a detailed life cycle assessment (LCA). One option for them can be to research generic or publicly available data, which can be in the form of an environment product declaration (EPD) or an LCA. Where this is not available, the information requested should balance the benefits and costs, using options that are reasonable and practical. The information requested and provided should use the simplest approach when small business is involved.

NOTE 3 As small businesses tend to have limited resources, borrowers and financiers can find that open-source data or publicly available data can provide sufficient information for assessments.

As a financier will be concerned with more than just one request for green financing, there is a need for a consistent process for evaluation and due diligence. The financier needs information that enables the assessment of the relative risk of one request against the others they receive. Hence there is a need to address the level of detail that allows this comparison with some degree of formality and confidence. Both sides should find a balance that allows economic activity in a sound environmental manner. Refer to [Annex D](#) for insight on opportunities for the financier and the small business borrower to collaborate on green finance. If applicable, the borrower and the financier should consider the GHG emissions, including consideration of the measurement, monitoring, analysis and evaluation to enhance the environmental performance over the life cycle of the proposed project, asset and activity.

There are different requirements and cultural norms in the financial infrastructure and systems around the world. Additionally, there are emerging financing mechanisms such as those enabled by distributed ledger technology, including blockchain, and other more fluid and more open systems enabling the flow of capital. The guidance that follows may be used in part or in whole to foster the development of green finance in a universal and ubiquitous manner in more traditional financial systems as well as for newer mechanisms that are striving to improve and automate the delivery and use of financial services.

[Figure 1](#) outlines a generic process for a request for financing to support the development of green finance as well as various stages that are expected in addressing the information exchange between the borrower and the financier.



Key

- PAA products, assets and activities
 RFF request for financing

Figure 1 — Generic process for a request for financing to support the development of green finance

6 Criteria for determining the environmental aspects and impacts of projects, assets and activities

6.1 General

Understanding context is an important concept when determining those environmental aspects and environmental impacts that need to be taken into account when assessing projects, assets and activities. Context includes objective evidence and assumptions that include internal and external issues such as:

- environmental conditions related to climate, air quality, water quality, land use, existing contamination, natural resource availability and biodiversity, that can either affect the organization's purpose or be affected by its environmental aspects, including consideration of those in its supply chain;
- the external cultural, social, political, legal, regulatory, financial, technological, economic, natural and competitive circumstances, whether international, national, regional or local;
- the internal characteristics of the organization, such as its activities, products and services, strategic direction, culture and capabilities (i.e. people, knowledge, processes, systems).

NOTE The SDGs^[35] and other initiatives provide examples of external drivers (see [Annex C](#)).

These issues can affect the determination of what is environmentally significant and what becomes material.

6.2 Determination of the environmental aspects and impacts of projects, assets and activities

6.2.1 General

International Standards (e.g. the ISO 14000 family of standards) provide guidance on environmental indicators and technical methods to evaluate the relevant environmental aspects, impacts and performance, and enable the comprehensive understanding by the interested parties.

The borrower should identify the beneficial and adverse impacts associated with environmental aspects that can be of concern or interest in the proposed project, asset and activity. The financier should confirm that the identified environmental benefits are real and achievable, and adverse aspects are duly managed. All significant aspects should be addressed. The environmental benefits will be affected in varying degrees by:

- the purpose, size and type of projects, assets and activities, their components or their associated facilities;
- unforeseen, unplanned or unintended consequences caused by projects, assets and activities;
- direct or indirect impacts on the environment, including impacts on biodiversity or ecosystem services;
- exposure to environmental risks of the proposed projects, assets and activities.

Projects, assets and activities can be affected by phenomena such as extreme weather or natural disaster events (conditions), or consumption of natural resources or emissions to air, water and soil.

To determine the environmental aspects of projects, assets and activities and how they can impact the environment, it can be crucial to engage with interested parties.

NOTE ISO 14063:2020 provides guidance on two-way communications with interested parties.

6.2.2 Criteria to take into account

The simplest explanation of the purpose of green finance is that it supports any financial transaction, be it for a product or a service, that has been created to ensure a better environmental outcome. This means for a project, asset or activity for which green finance is sought:

- the adverse (negative) impacts on the environment have been reduced;
- the beneficial (positive) impacts on the environment have been improved;
- the environmental performance has been enhanced.

Both the borrower and the financier need to have a common understanding of the issues to be taken into account and how the criteria are interrelated that enable green finance to occur.

Both need to have a robust understanding of the synergy that addresses:

- the interactions between environmental aspects and impacts;
- their environmental significance;
- the context in which these occur;
- the cumulative effect these have on materiality.

Unless all these are addressed from a systems perspective, assertions that a financial product or service is green risks being exposed as greenwashing. Whether these criteria and their interrelationships are misunderstood or ignored, the consequences will affect both parties. It is possible that the repercussions not only adversely affect the borrower's request for financing, but they can also have

an adverse effect on the assessment and due diligence process and undermine the reputation of the financier. The consequences can affect other interested parties as well.

Conversely, a deep understanding of these interrelationships and their interactions can enable opportunity that is beneficial to both the borrower and the financier. Benefits can also accrue to interested parties and the jurisdiction in which the project, asset or activity will be located.

[Annex A](#) provides an invaluable explanation of the relationship between environmental aspects, environmental impacts, environmental performance, the importance of understanding significance and the effect of context in arriving at a decision of what is material for a project, asset or activity. Due diligence and materiality are described. Whether the user is new to the criteria involved in green finance or has more advanced knowledge, this insight is essential to a successful green finance agreement.

6.3 Determination of relevant criteria

The criteria for assessing actual or potential environmental impacts and environmental performance of projects, assets and activities should be determined by environmental criteria, which is explained in [Annex A](#), and then in consideration of their risks and opportunities. The criteria used and the determination followed should be relevant whether it is for debt or equity financing or in the context of any green finance opportunity.

A request for financing should address what is environmentally significant and material. It should identify the environmental objectives to which the projects, assets and activities contribute as well as any potential adverse impacts or effects, and apply safeguards as measures to preclude loss or injury, or environmental impacts. This evaluation should consider life cycle thinking that a robust, credible and reliable environmental management system enables that takes into account, where applicable:

- the sourcing of raw materials;
- processing and manufacturing operations to produce the product and co-products;
- any relevant transportation;
- the use of the product or service;
- the end-of-life fate of the waste materials or final product, whether this is recovery, reuse, remanufacture, recycling or disposal;
- the relevant GHG emissions based on life cycle thinking including direct and indirect emissions.

When the scope of a project, asset or activity is substantial, such as in the case for infrastructure projects, a formal environmental impact assessment (EIA) can be required. By contrast, requests for financing for very small projects, such as those proposed by small business, typically fall under thresholds that trigger EIA requirements. In these situations, organizations seeking financing should determine what their environmental impacts are, and which ones are significant and material. Documenting this information also helps to enhance the understanding of socio-economic effects of environmental risks and opportunities for both the borrower and the financier, and should include GHG emissions or the carbon footprint.

An EIA is a tool that can be described as follows:

- It may be used to describe any type of assessment of environmental risks in a given context. The level of detail should be aligned to the scope of the project, asset or activity and take into account the environmental significance, as it will affect the materiality assessment of the request for financing.
- It is used for any mandatory assessment of environmental risks to describe the potential or existing impacts.

EXAMPLE Regulations often exist for private–public sector projects such as infrastructure initiatives, manufacturing sites or defined parts of a large project.

There is no single method or universally consistent terminology that is required to help clarify environmental risks, although it is important to be clear about the method used in the preparation of the request for financing. An existing formal EIA can serve as useful documentation to accompany any request to support the due diligence required as part of the economic risk evaluation.

The criteria may include:

- eligibility criteria, such as a taxonomy that characterizes the environmental benefits of project, assets or activities;
- performance criteria, such as minimum energy performance standards for appliances;
- measurement of GHG emissions based on the life cycle thinking including direct and indirect emissions;
- relevant standards, regulations, guidelines and best available technology (BAT) lists for each country/region;
- reference to criteria used for existing and comparable projects, assets and activities providing an explanation of the rationale for inclusion, which can also provide a useful and efficient link to existing reports or data, when applicable.

6.4 Environmental aspects and impacts in the request for financing

The request for financing should include:

- a description of the project, asset or activity, including identified environmental aspects and related impacts, including GHG emissions and other environmental impacts, such as air, water, noise or waste, etc.
- compliance obligations, such as regulation, regional, national or international agreements;
- globally applied standards such as International Standards or other green-finance-related protocols, such as labels, national or regional taxonomy, principles, guidelines and conformity assessment options;
- other relevant information concerning present and future conditions, such as technical, economic, environmental, geographic, site-specific and temporal assumptions or projections;
- the criteria used to determine the significance and materiality of the project, asset or activity as well as the financial data to support the borrower's assertion of its environmental benefits.

Borrowers should support their request for financing with as much evidence as possible and reasonable. Financiers should adjust their expectations to reflect the value of the funds sought.

EXAMPLE A very small business seeking a loan to buy equipment to increase energy efficiency is likely going to be limited to information provided by the manufacturer. In contrast, a public-private sector infrastructure project is more likely to be accompanied by reports prepared by the consortia involved as well as feedback from interested parties including governments, citizens and area businesses that will be affected by the project, asset or activity.

Depending on the scope and value of the funding request, additional documented information may include:

- potential GHG emissions based on the life cycle thinking including direct and indirect emissions;
- letters of support or concern from interested parties;
- information from the manufacturer or service provider explaining the environmental benefits and, when possible, supported by a third party or independent reviewer;
- location-based data, such as a map to show the geographic coordinates, a process drawing or a flowchart;

- pertinent regulations or other compliance obligations.

Letters of support can enable the financier to appreciate the potential of the funds to favour profitability or prosperity. If there are concerns or adversaries to the request for financing, an explanation of how these will be addressed should be included, as they can affect the viability of the project, asset and activity.

7 Assessment of environmental aspects and impacts of projects, assets and activities

7.1 General

7.1.1 Purpose of the assessment

Green financing is an issue that is affected not just by the position of the borrower, but also by the financier. Assessment of the environmental criteria should be a mutual opportunity for disclosure. This will build trust, which underpins the credibility of the financial community.

The purpose of the assessment of environmental benefits for projects, assets and activities, which are under consideration by a potential financier, is to enable the determination of which criteria are relevant, environmentally significant and material.

NOTE Examples of environmental benefits include features such as renewable or alternative energy options, water-saving technology or plans to increase resilience for biodiversity at the site or a community.

The assessment may include quantitative and/or qualitative assessments using descriptions of environmental aspects and impacts and their significance and materiality in addition to the standard financial information.

The scope of the assessment should include:

- the conditions and status of the project, asset or activity, such as its purpose, boundary, technologies used or to be acquired, and context;
- operational indicators;
- the proposed financing scheme and/or financing instrument, e.g. general line of credit, project finance loan, loan with or without collateral;
- the presence of government grants or loans;
- consideration of applicable taxonomies;
- relevant standards, regulations, guidelines and BAT lists for each country/region;
- the environmental aspects and associated environmental impacts, and GHG emissions including direct and indirect emissions;
- comparison with environmental performance with respect to other similar projects, assets and activities or baselines, when available;
- the environmental risks and opportunities related to the socio-economic consequences of the financing in question, if possible for both the borrower and the financier;
- monetized and non-monetized as well as internalized or externalized effects;
- the presence of covenants or environmental covenants;
- specific initiatives, such as targets that are associated with the SDGs^[35] when relevant.

7.1.2 Greenwashing

Greenwashing is an increasingly relevant and important issue that affects the financing of green projects, assets and activities. Greenwashing was first coined as a term to address the misrepresentation, overstating of positive impacts, understating of negative impacts or making false claims about a company's products or services. These same challenges are affecting financial products, which can include:

- false, vague, misleading, overly optimistic or unverifiable claims, such as unsubstantiated or unverified data;
- the validity of green performance credentials;
- the capacity to manage sustainability-related risks;
- sustainability-related expertise or capacities;
- the degree of beneficial (positive) impact(s) of business activities or financial activities;
- the degree of adverse (negative) impact(s) of business activities or financial activities.

Investments linked to environmental, social and governance (ESG) are on the rise. It is important to understand what is offered as a green or sustainable investment. Some can offer valid environmental efforts to address opportunities such as the reduction or sequestration of GHG emissions, a reduction in the discharge of water, or careful management of a nature reserve. Other ESG investments only address the effect that nature is having on the asset. Without a clear understanding of the difference, this can lead to the perception of greenwashing, and undermine trust between the borrower and the financier, or interested parties.

In order to avoid greenwashing, the parties involved should strive to represent their projects, assets and activities as accurately as possible, aspiring to conform to sectoral best practices and credible targets based on knowledge, expertise and best available science. The presence of a robust, credible and reliable environmental management system, aligned to ISO 14001, can provide the objective evidence needed.

7.2 Process

7.2.1 General

There are two assessment processes, one for the borrower and one for the financier. Refer to [Figure 1](#) for the generic process for a request for financing.

The borrower's assessment is conducted during the process of preparing the request for financing to the financier. It should include the environmental aspects and impacts and determine those that are environmentally significant and material.

The financier's assessment is conducted on the request for financing and may include an initial review, and, if satisfactory, continues when conducting due diligence on the project, asset and activity to be financed. If the request for financing fails to meet the financier's criteria, it is returned to the borrower. The borrower can either provide the additional information needed, withdraw the request or find a different financier to approach.

The process of assessment for either the borrower or the financier should include planning, information collection, application of criteria and engagement with interested parties, as well as periodic review, and reporting, if applicable.

The financier's request for data should be based on transparency. The financier should give the borrower the established environmental criteria and the relevant standards.

In support of the principles given in [Clause 4](#), information to enhance trust in communication should be made available by both the financier and the borrower.

The financier should make available their concerns regarding environmental aspects and impacts that will facilitate the inclusion of information needed to be submitted by the borrower. This can include a link to the financier's own environmental performance reporting. Further, this should include their appetite to fund green projects, assets and activities. In addition, it is useful to provide customer reviews of the financier's history of green finance, which can occur under rules of privacy and confidentiality.

The borrower should ensure that the financier understands their commitment to improving the quality of the environment and their pledge to achieve the environmental performance that the request for financing will enable.

7.2.2 Planning

7.2.2.1 Borrower

The borrower should perform the following steps sequentially or iteratively.

The borrower should define the scope of the assessment to take into account the significance of environmental aspects and impacts, their context and relationship to materiality. This should demonstrate life cycle thinking or a life cycle perspective applied to the value chain, which may include a formal LCA in requests for large undertakings.

The borrower should identify sources of information, including data on environmental aspects and impacts, and should include them in the description of the scope. Refer to [Figure 1](#).

There should be a determination of the assessment process to understand whether this can be managed internally or needs external support.

7.2.2.2 Financier

The financier should perform the following steps sequentially or iteratively.

The financier's plan should include what criteria needs to be involved in an initial review, considering the scale and type of the project, asset or activity submitted. If the request for financing passes the initial review, the financier can proceed with the due diligence process. Refer to [Figure 1](#).

7.2.3 Information collection

The sources and types of information essential for the assessment of the project, asset or activity should be identified. The following information to be included applies to both the borrowers and the financiers.

Sources of information and data can include:

- existing environmental management system data from operations as well as similar projects, assets and activities realized earlier within or outside the borrower's context;
- environmental, engineering or economic feasibility studies, which have been carried out/performed in preparation of the proposed projects, assets and activities;
- technical and economic information of the project, asset and activities, including adopted technologies, products, services and the expected level of activity;
- environmental statistics, databases and reports, such as life cycle thinking or an LCA and GHG report;
- compliance obligations that are relevant, including policy(ies), regulation(s) and standard(s);
- environmental conditions, such as high tide, temperature, humidity and a pollen release, precipitation and wind speed;
- environmental risks and opportunities;

- societal needs and interested party expectations;
- availability and design of green financing instruments.

7.2.4 Interested party engagement

The need to engage interested parties is based on a number of variables. It is unlikely, and of questionable value, if interested party engagement is needed when the financing sought is for a modest amount to purchase equipment to improve energy efficiency in a small business. Interested party input should be included for larger requests for a project, asset or activity, such as an infrastructure project, which can affect citizenry or pose a significant impact or material risk or opportunity for the financier. The plan for a interested party engagement should be clearly described including who, what, when, why and how the engagement will be undertaken for the life of the project, asset and activity.

NOTE ISO 14063, AA1000 Stakeholder Engagement Standard (AA1000SES)^[29] and the OECD Guidelines for Multinational Enterprises^[30] are some of the sources of insight providing guidance on the process and content of interested party engagement approaches.

7.2.5 Assessment of environmental aspects, impacts and environmental performance

7.2.5.1 Assessment of environmental impacts

The following guidance applies to both the borrower and the financier, recognizing that the assessment methods can differ.

The environmental impacts of proposed projects, assets and activities, and their significance, should be described, and when appropriate documented. This should include a description of the environmental aspect(s) and associated environmental impacts related to the activity, product, service or process when submitting a request for financing. Significant environmental impacts that are material can affect the financier's decision when determining the viability of the request for financing. They can affect the risk of the project, asset or activity, and the reputation or credibility of the borrower and the financier.

There is no single method for determining or assessing significant environmental aspects (see [Annex A](#)). They can be quantified by direct measurements, calculations or estimations that can be verified (using historic data) or validated (using scenario analysis).

Determining significance first serves as an important baseline for a project, asset or activity that is being considered, as this will affect the financier's determination of materiality fundamentally.

It is recognized that financial risks are increasing due to acute causes such as natural disasters or extreme weather events associated with climate risk. Other financial risks are due to chronic overuse of available natural capital, such as water, biodiversity and the devaluation of ecosystem services in general. Along with these financial risks, environmental regulations and low-carbon energy market developments are creating stranded asset risks that can negatively affect both market valuation and the fundamental resilience of business models. Financing such products, assets and activities therefore entails much higher risks and can cause systemic risks through devaluation.

Examples of negative effects on asset values are given below.

NOTE Examples were prepared based on scientific reports or publicly available information.

EXAMPLE 1 California's largest utility, Pacific Gas and Electric (PG&E) faced more than USD 30 billion in fire-related liability costs between 2014 and 2018, forcing it into bankruptcy. In its 2019 SEC report filing, PG&E^[31] (or "the Utility") stated, among others, that: "If the Utility's facilities, such as its electric distribution and transmission lines, are determined to be the substantial cause of one or more fires, [...], the Utility could be liable for property damage, business interruption, interest and attorneys' fees without having been found negligent. In addition to claims for property damage, business interruption, interest and attorneys' fees, the Utility could be liable for fire suppression costs, evacuation costs, medical expenses, personal injury damages, punitive damages and other damages under other theories of liability, including if the Utility were found to have been negligent."

EXAMPLE 2 In March 2018, the ratings agency Moody's warned^[32] that the water crisis in Cape Town, South Africa, would drive the city's long-term capital and operating needs sharply upwards and would likely negatively affect all of the city's economic sectors. Reuters reported^[32] that the drought also threatened to cut Western Cape Province's agricultural output by 20 % in 2018 and slow South Africa's overall economic rebound. Cape Town generated nearly 10 % of the country's gross domestic product in 2016, however, the financial and economic effects of the drought will be felt at the municipal, provincial and national levels for multiple years.

EXAMPLE 3 The floods in 2011 in Thailand were especially severe, causing estimated economic losses of USD 30 billion and insured losses of USD 12 billion. Insufficient management of the main dams in Thailand led to flooding and the release of yet more water. This further exacerbated the flooding, which caused extensive damage to homes, sites of historical interest and industrial estates run by large multinational companies. The impact on these and other manufacturing companies created a global supply chain shortage, especially affecting automotive and IT industries worldwide.

EXAMPLE 4 The German electric utility RWE was forced in 2018 to halt a locally approved expansion of its lignite excavation activities into the neighbouring Hambach forest. A court found that by granting approval to RWE's expansion plans, the local council had ignored important environmental characteristics that would render the forest an "area of high environmental relevance" under the EU Habitats and Birds Directives.^[33] Furthermore, RWE had breached the revised EU's EIA Directive, by failing to provide sufficient avenues for local interested party engagement. With the German government now having mandated a gradual coal power shutdown until 2038, investors have started to price in the risks of RWE's continued legal liabilities as well as the stranded asset risks arising out of Germany's domestic decarbonization policies and the EU's Green Deal, its Green Finance strategy and its commitment to achieving the Paris climate mitigation goals. Refer to research papers that are available as open source or from public reports for more details of these discussions.

7.2.5.2 Assessment of environmental performance

The proposal from a potential borrower seeking green finance for a project, asset or activity should address the potential for significant environmental performance improvement, measurably reduce the associated significant and adverse impacts, or provide evidence that it offers environmental benefits that make it unique or distinctive, commensurate with the opportunity.

The objective evidence that indicates or proves that the project, asset and activity will enable or improve environmental performance can be determined through comparison between existing projects, assets and activities or a baseline scenario. If the request for financing is for new technology, the assessment can benefit from a report that provides evidence of the stated benefits.

NOTE ISO 14034 offers insight on how to confirm credible, reliable and independent attributes of an environmental technology.

When developing a baseline scenario, which attributes the assumptions, values and procedures used, care should be applied to select appropriate criteria to ensure that environmental performance improvements and reduction of adverse environmental impacts are not overestimated.

It is not uncommon to characterize unintended consequences in a project, asset or activity as a risk. For some, this infers a negative outcome. To avoid situations where unintended consequences are not properly considered, the use of life cycle thinking and climate risk analysis, through scenario analysis or simple brainstorming activities, or modelling programs for policy simulators, can bring these to light. The intent behind green finance is to bring forward innovations, whether they are new technologies, new products or new services. These represent opportunities to reduce adverse impacts to the environment, improve environmental performance of an existing process, or introduce innovative products or services.

[Annex C](#) includes a few initiatives, such as En-ROADS^[41] and Project Drawdown^[39], which can assist the borrower or the financier in this assessment.

7.2.5.3 Assessment of environmental aspects and associated risks and opportunities

Significant environmental aspects and associated risks and opportunities that can affect the financing of the project, assets or activity should be identified and included in the assessment.

Examples of associated risks and opportunities can include:

- increases in GHG emissions including direct and indirect emissions;
- negative effects of a construction project on the economic viability of neighbouring businesses;
- cost overruns, requiring an extension of a loan or additional financing;
- competition from similar projects;
- changes in regulation, such as changes issued by central banks or security commissions;
- failure to meet growth targets, such as sales, market share or profitability;
- changes in trade agreements, such as the imposition of tariffs;
- subsidies or government grants;
- increases in habitat preservation through improvements in environmental impacts.

Associated risks should be considered as they can alter the projected economic targets and financial goals, and affect the viability of a project, asset or activity for either the borrower or financier. The financier should assess the financing proposal as a whole and make sure the decision to advance financing is sound.

7.2.6 Review

The results of the assessment should be reviewed to ensure that the project, asset or activity meets the intended purpose.

The review can be done by scenario or sensitivity analyses, including appropriate data on uncertainty (variation and bias). A review can follow a simple approach to reduce the cost of the request for financing for the financier and support the development of a level playing field for a SME borrower. Refer to [Annex D](#) for insight on opportunities for the financier and the SME borrower.

The review should examine the inputs to the assessment to ensure:

- the boundaries are as defined in the scope of the assessment;
- the environmental criteria and related indicators and impacts are adequately selected and accurately assessed;
- the data sources are traceable, credible and complete;
- the elements to be reviewed and what they are related to, i.e. baseline data information, measures taken and performance outcome(s);
- any constraints (e.g. data gaps) have been identified;
- double counting is avoided;
- the assumptions, methods and data used are appropriate and applied consistently unless an exception is supported by relevance for the assessment.

7.2.7 Documentation

The following information should be documented:

- descriptions and justifications about the methods used in the assessment;
- the data sources used;
- diversity of qualification and expertise of the assessment team;

- the assumptions, extrapolations and simplifications made.

If an EIA has been undertaken to support the financing of a project, asset or activity, the report should be included.

7.2.8 Assessment report

The report of the assessment should strive to use plain language, avoid unnecessary jargon and include:

- the purpose and intended use;
- the project, asset or activity assessed;
- the type of green finance sought;
- the taxonomy or exclusions used in financial instruments, where appropriate;
- relevant standards, regulations, guidelines and BAT lists for each country/region;
- the environmental aspects and associated impacts assessed;
- the environmental performance and improvement assessed;
- the environmental impacts, associated risk and preventive measures assessed;
- accuracy, transparency, completeness, credibility and consistency of data, including the level of certainty in light of the intended application and the way in which data are monitored;
- which interested parties were engaged and how;
- the assessment method(s) applied;
- data sources and references used, including references to reports or databases;
- the reference situation or baseline, when relevant;
- any limitations in applicability of the determined value(s);
- any other relevant assumptions made;
- a third-party assurance report, when appropriate.

7.2.9 Progress report

Both the borrower and the financier should maintain communication once the funds have been released. The borrower and the financier will benefit from periodic reporting to maintain trust. Progress reporting, which is sometimes referred to as “post-issuance reporting”, is intended to ensure that the terms and conditions under which the funds were released are honoured. In addition, the borrower needs to be confident that the financier is upholding their performance goals and addressing the needs of their investors and depositors.

The progress report should include:

- what percentage of funds is allocated for the intended purpose;
- how the unallocated funds are managed;
- schedule of funds allocation for the intended purpose;
- the progress of the impact to the environmental issues;
- explanation of the gap between the forecasted and the actual impact;
- modified forecasted impact, if appropriate.

The borrower and the financier will benefit from periodic reporting, at least annually, to maintain trust.

7.2.10 Credibility of information

Both borrowers and financiers should consider methods to ensure the credibility of information they provide. The methods may include, but are not limited to:

- third-party assurance report;
- internal auditing report;
- external auditing report;
- inclusion of environmental covenants in the debt contract.

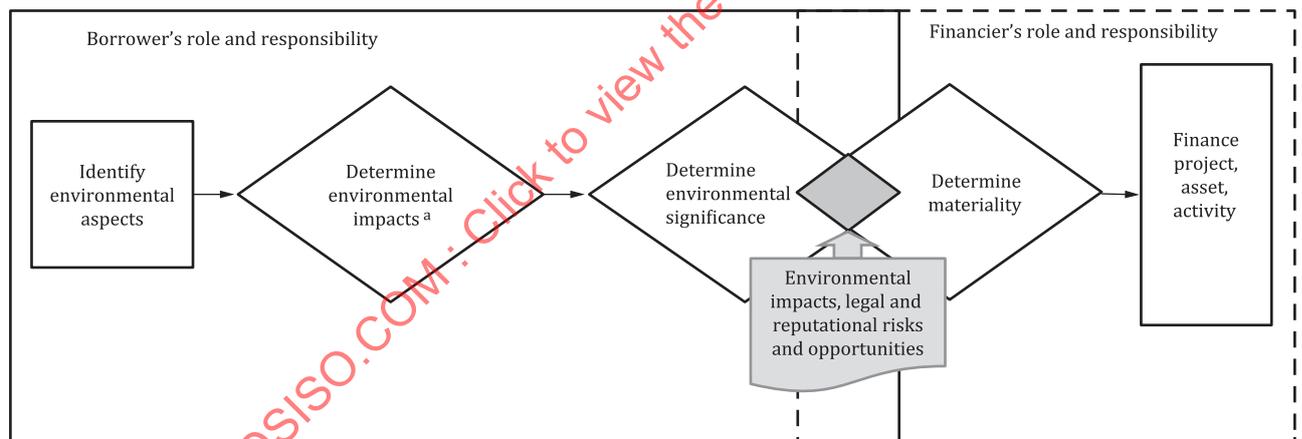
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Annex A (informative)

Relationship between environmental aspects, environmental impacts, environmental performance, significance, context and materiality

Green finance addresses the opportunity to finance projects, assets and activities that reduce adverse environmental impacts, support beneficial environmental impacts or drive environmental performance improvements. [Figure A.1](#) shows the general relationship between the borrower's role to identify environmental aspects and the associated environmental impacts and the financier's consideration of this information when deciding whether to finance a project, asset and activity. It also shows the interface when factors can be added to the determination of significance, but they cannot be used to diminish or downgrade the physical basis.

Significance and materiality are two important concepts that need to be taken into account in this process. This annex explains each concept and their relationship. It is important to fully understand both concepts in a green finance context as their use is evolving. At this time, their interpretation can slightly vary depending on whether they are viewed from the environmental management lens or through the lens of traditional finance practices.



^a Identify beneficial (positive) and adverse (negative) impacts, as well as direct and indirect impacts, capturing upstream and downstream concerns.

Figure A.1 — Relationship between environmental aspects and environmental impacts of projects, assets and activities

“Significance” is the term that environmental experts and interested parties use to describe what matters environmentally or ecologically and is applied to environmental aspects and impacts. Environmental aspects are commonly described with phrases such as the “use or generation of a material”, an “emission” or a “release to a medium”. Environmental impacts focus on change(s) to the environment and are often described in terms of the scale, severity, duration or exposure that result. There is a cause-and-effect relationship between aspects and impacts, so it is important to understand which environmental aspects result in significant environmental impacts. Environmental aspects can be managed by humans. Impacts are nature’s response.

Significance is often seen as a complex concept that requires differing levels of scientific, technical or management knowledge. There is no single method for determining significant environmental aspects or impacts. However, the method and criteria used should provide consistent results.

Environmental criteria are the primary and minimum criteria for assessing environmental aspects and determining which are significant. Criteria can relate to the environmental aspect (e.g. type, size, frequency) or the environmental impact (e.g. scale, severity, duration, exposure). Impacts can be event-related or acute, or they can be chronic, and can be the result of accumulated impacts that have widespread impacts. As impacts are contextual, they can either occur in a small, localized area or be widespread with regional, national or global consequences.

EXAMPLE 1 A location can provide habitat to various species of animals or plants, which are common or unique to a specific ecosystem. Documenting the location of the aspect and impact and providing the financier with photographs of the location can be a simple but efficient and effective means of communicating the positive value of the project, asset and activity. This location can be directly associated with the request for finance for a project, asset and activity.

Other environmental impacts are global in nature. GHG emissions emitted anywhere in the world from sources such as industrial sites, vehicles and supply chains accumulate in our shared atmosphere. GHG emissions collectively are significant as they contribute to climate change. There are models and simulations available that can help both the borrower and the financier develop an appreciation for these broader risks and opportunities that can affect a project, asset and activity.

Not all environmental impacts are equal in terms of the consequences they have. Some can be significant in minute quantities. Some impacts are obvious; others can barely be perceived by the human eye, but they can be detected by touch or smell. In other situations, there can be many impacts, but even in higher quantities these are relatively benign as they are temporary.

EXAMPLE 2 Consider the operation of driving a gasoline powered vehicle. One of the environmental aspects can be emissions that contain a blend of gaseous chemicals, including carbon dioxide (CO₂). The emissions from one vehicle on its own may not be considered significant in isolation. However, when CO₂ and other gaseous chemicals are released into the atmosphere, it causes impacts such as air pollution, and there are many gas-fuelled vehicles in the world. Emissions of CO₂ and other GHGs negatively impact the environment by increasing atmospheric concentrations of gases that cause global warming.

Not all environmental impacts are negative. Some can be positive. For example, tree planting enables carbon to be sequestered in the soil, which is why tree planting options are popular and can be a green financing opportunity.

Environmental impacts and the environmental performance of organizations upstream can have a profound effect on the risks and opportunities of those downstream. The way customers and clients use an activity, product or service can have an effect on the ability of the borrower to repay.

Additional criteria may be used to determine significance, although it is not acceptable to use these other criteria to downgrade an aspect that is significant when taking the impact(s) into account. For example, if an environmental aspect is not considered significant in of itself, or in isolation, it can be considered significant when combined with other aspects if it reaches or exceeds a threshold that makes it significant and material. Other issues can include legal requirements or the concerns of interested parties.

NOTE 1 Taken from ISO 14001:2015, A.6.1.1 and A.6.1.2, and modified.

EXAMPLE 3 There is growing acceptance of the phrase “do no significant harm” in policy, standards and regulatory initiatives that are involved in framing the discussion and growth around green finance for transition initiatives or sustainability. This concept emphasizes the importance of evaluating trade-offs when considering the environmental benefits of a project, asset or activity, and guarding against outcomes that, viewed holistically, are not sub-optimized. In a management process, environmental objectives follow the determination of aspects and impacts.

Well written policy or legal documents can include caveats applied to a request for financing that the proposed project, asset and activity should:

- contribute substantially to one or more environmental objectives;
- not undermine the achievement of any of the other environmental objectives;
- be carried out in compliance with minimum safeguards, with some reference to the concept of a just transition, where environmental sustainability as well as decent work, social inclusion and poverty eradication are considered;
- comply with technical screening criteria.

The determination of materiality, just as significance, is not an exact science. The definition of materiality is evolving in the financial world with the International Accounting Standards Board (IASB) playing a leading role. The following text explores its current situation and how the concept can assist with the development of green finance.

NOTE 2 The IASB is affiliated with the International Federation of Accountants (IFAC), which offers insight on the traditional view of materiality.

ESG aspects are increasingly viewed as material to financial decision-making. The concept of materiality primarily functions as a filter through which management sifts information. Its purpose is to make sure that non-financial information that can influence investors' decisions is included with financial statements. The concept of materiality is widely applied when describing both financial and non-financial information. Materiality applies not only to the structuring and disclosure of information, but also to decisions about recognition and measurement.

When making materiality judgements, organizations need to consider a range of facts and circumstances, including both quantitative factors (e.g. how big the amount involved is) and qualitative factors identified by internal as well as external interested parties (e.g. the specific circumstances of the company). When materiality assessments are not performed adequately, they result in inconsistent, incomplete or misleading disclosure.

In environmental management, significance is a core requirement of environmental aspects and impacts. Efforts are underway to better align this concept with the double materiality approach. The double materiality approach considers both the effects that any projects, assets and activities will have on environmental objectives and vice versa, how changes to the environment affect the project, asset or activity being financed. For example, where the financial costs of addressing risks associated with significant environmental aspects and impacts exceed the economic viability of the continued operation or implementation of a project, asset or activity, assets, can become stranded. In this context, the market disdains support, whether the risks are founded in significant environmental impacts or the perception that the project, asset and activity will do significant harm. Stranded assets can result when the risks associated with a project, asset or activity are deemed as significant when environmental remedial actions are either physically or biophysically impossible, or financially prohibitive.

Both borrowers and financiers need to take into account other risks in addition to environmental risks and be cognizant where aspects are addressed in regulation. There can be a direct economic, technological or financial risk related to the project, asset and activity. This relationship can result in financial risk or exposure that changes the degree or perception of risk. The project, asset and activity can also raise concerns about reputational risk or societal concerns tabled by interested parties. While these other criteria cannot be used to downgrade an aspect that is significant based on its environmental impact, they can change the risk affiliated with the request for financing.

The challenge for the borrower and the financier is to come to a mutual understanding of what is environmentally significant relative to the project, asset and activity for which green financing is sought, and what is material.

Greater ecological or environmental literacy is needed so that borrowers, financiers and interested parties learn and respect the fact that our social and economic systems are completely interdependent on the health of the planet's natural capital. While there has been much attention on climate change and

the financial risk it is causing, pandemics can be linked to the critical loss of natural habitat and zoonotic transmission of disease caused by human populations living in closer proximity to wild animals. Hence, all financial transactions need to take into account environmental impacts and performance.

There are some useful sources of knowledge on ecological literacy and how these can be leveraged to minimize the risk associated with advancing projects, assets and activities so that their development is aligned with the laws of nature. It is important to understand not only the nature of these impacts but also how they can affect the viability of a green finance opportunity. In addition to traditional areas of risk, the reputation of either the borrower or the financier resulting from implementation of a project, asset or activity can affect both immediate and future requests for financing.

[Annex C](#) contains some of the sources to which borrowers and financiers can refer. The list is indicative and not exhaustive.

More insight on projects, assets and activities, significance and materiality is useful. These determinations are challenging as they are highly sensitive to the context in which they are found. There is no simple, single method for determining significance or materiality.

[Figures A.2, A.3](#) and [A.4](#) and [Table A.1](#) provide a general understanding of the relationship between significance and materiality, including the concept of double materiality. As previously explained, the degree of significance is not lessened by other factors prior to the determination of materiality.

Context is sensitive to a number of factors, including other environmental issues, expressed or perceived interested party viewpoints and their effect on an organization's reputation and regulatory requirements. There is no exact number, no perfect equation and no consistency in perception that makes the determination of significance or materiality absolute or repeatable. Materiality is determined by taking into account what is deemed environmentally significant within the specific context. Both are a matter of judgement.

[Figure A.2](#) illustrates the generic relationship between degrees of significance and of its relationship to materiality. The double materiality concept covers two-way financial and non-financial materiality related to climate and environmental risks. It expresses the effect that climate and environment risks have on financial and corporate projects, assets and activities and, vice versa, the impact that financial and corporate projects, assets and activities have on the climate and the environment.

NOTE 3 Every financing or investment decision has an impact, whether positive or negative, on the environment, which can in turn affect the organization. This dual situation is considered as a "double materiality". For example, how climate change affects the value of a company and how a company's activities, products or services have an impact on the climate can be improved by reducing GHG emissions, which reduces vulnerability to the impacts of climate change and increases resilience (see ISO 14097).

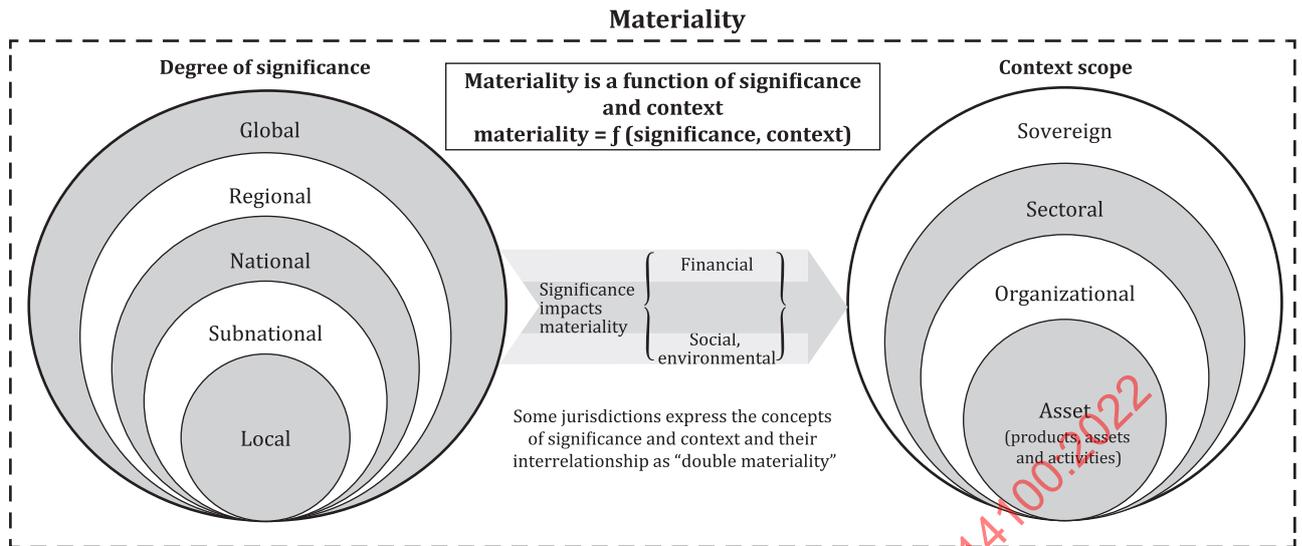
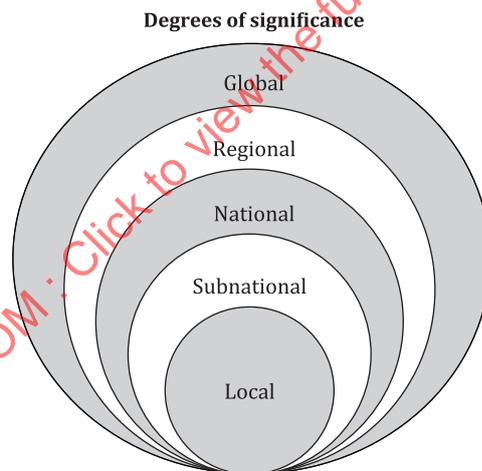


Figure A.2 — Relationship of significance, context and materiality, with double materiality considered

Figure A.3 describes the degrees of significance that range in impact from local to global systems, noting the explanation of significance earlier in this annex.



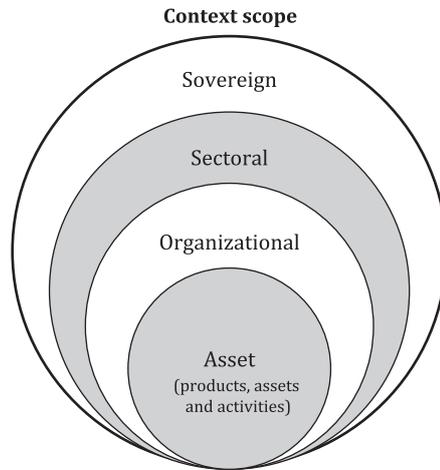
Key

- Global** This degree of significance generates global environmental impacts, which is reflected in the potential for contextual issues to be global in scope.
- Regional** This degree of significance generates regional, often transboundary, environmental impacts, which is reflected in the potential for contextual issues to be regional in scope.
- National** This degree of significance generates mostly national, seldom transboundary, environmental impacts, which are likely most relevant to context within the “sectoral” and below.
- Subnational** This degree of significance generates mostly domestic and regionalized environmental impacts, which are likely most relevant to context within the “organizational” scope and below.
- Local** This degree of significance generates mostly domestic and local environmental impacts, which are likely most relevant to context at that the level concerning “asset” and below. (“Asset” represents projects, activities and assets.)

NOTE It should be understood that the issues affecting context do not limit the degree of environmental significance determined by the borrower or the financier. Each element can be determined individually, although the product of their interactions can affect materiality in profound ways.

Figure A.3 — Degrees of significance

Figure A.4 describes the scope of context at different scales, affecting individual projects, assets, activities, organizations, economic sectors and sovereign countries.



Key

Sovereign	The context scope takes into account internal and external issues that have global or system-wide consequences, whether acute or chronic, and processes that can affect any financial public or private interested parties, lenders and borrowers, in some shape or form.
Sectoral	The context scope takes into account internal and external issues that have specific sector-related consequences, whether acute or chronic, and processes that can affect any public or private financial interested parties, lenders and borrowers, in some sector-wide shape or form.
Organizational	The context scope takes into account internal and external issues, whether acute or chronic, and processes that can affect any public or private financial interested parties, lenders and borrowers, which emanate from and around an organizational portfolio or structure.
Project, asset or activity	The context scope takes into account internal and external issues, whether acute or chronic, and processes that can affect any public or private financial interested parties, lenders and borrowers, but are predominately focused on a specific asset without directly or substantially affecting or impacting other projects, activities or assets.

Figure A.4 — Context scope

Table A.1 illustrates the interactions of these three concepts. Borrowers and financiers should understand the importance of addressing these issues in preparing green financial agreements.

Table A.1 — Examples of degrees of significance, context scope and materiality

Examples		Materiality = f (significance, context)			
		Sovereign	Sectoral	Organizational	Asset
Degree of significance	Global	Climate change and global pandemics (e.g. Covid-19) affect all economic activities in significant ways	Global flight restrictions because of public health concerns or fuel shortages will affect the entire aviation sector	A hotel chain with a diversified asset (PAA) portfolio will only be proportionally hit by sea-level rises	A hotel company with mostly beach-front assets (PAA) will be disproportionately affected by sea-level rises
	Regional	Regional events (e.g. Amazon fires) or pandemics (e.g. Ebola outbreaks)	Interregional weather-related disasters (e.g. Monsoon) or environmental pollution (e.g. oil spills affecting fishing or tourism)	Interregional weather-related disasters or environmental pollution affecting a systemic share of an organization's activities (PAA)	Interregional disasters or events only affecting individual assets (PAA) without threatening organization as a whole
	National	National events (e.g. California/Australia wildfires) or deforestation (e.g. Congo, Indonesia)	Wildfires affecting electric utilities (e.g. California), timber industry (e.g. Australia), tourism (e.g. South Europe)	National weather-related disasters or environmental pollution affecting a systemic share of an organization's activities (PAA)	National disasters or events only affecting individual assets (PAA) without threatening organization as a whole
	Subnational	Subnational air pollution in vicinity of large cities (e.g. London, Beijing, Cairo)	Subnational city-level air pollution affecting transportation sector with policy measures taken to lower particle and GHG emissions	Subnational weather-related disasters or environmental pollution affecting a systemic portion of activities (PAA)	Subnational disasters or events only affecting individual assets (PAA) without threatening organization as a whole
	Local	Local soil contamination on agricultural lands by excessive pesticide and fertiliser use	Local authorities or legal remedial conditions impose clean-up measures on agricultural sector	Local weather-related disasters or environmental pollution affecting a systemic portion of activities (PAA)	Local disasters or events only affecting individual assets (PAA) without threatening organization as a whole

Key

PAA: products, assets and activities

Annex B (informative)

Relevant International Standards useful to the borrower and the financier

B.1 General

This annex outlines the existing environmental standards in the ISO 14000 family of standards and other International Standards that the borrower and the financier can find useful when addressing environmental criteria or processes useful in the development of green finance opportunities. Each is presented by their titles and can be reviewed on ISO's Online browsing platform (OBP) where certain sections can be viewed for free (Foreword, Introduction, Scope, Normative references, Terms and definitions, Bibliography). These references are supported by a brief explanation that highlights the utility of the standard for borrowers and financiers to advance the development of green finance.

B.2 ISO 14001

Title: *Environmental management systems— Requirements with guidance for use*

Utility for borrowers and financiers: ISO 14001 can be used in part or in whole to help an organization formalize and improve its management of the environment. Organizations that have a robust, credible and reliable environmental management system in place can provide the financier with additional confidence that the borrower has good control mechanisms in place. Small businesses typically do not know of or use ISO 14001. However, if a small business is seeking finance to improve some element of their business, it is possible they have employed other mechanisms that are satisfactory relative to the risk or opportunity they represent.

NOTE Using ISO 14001 does not assure a financier of the environmental benefits of products or services. A management system is focused on the processes that are involved in operating the business.

B.3 ISO 14007

Title: *Environmental management — Guidelines for determining environmental costs and benefits*

Utility for borrowers and financiers: This document can provide both parties with a process for determining environmental costs and benefits. It is more likely that organizations large enough to engage or employ a professional accountant to assist with their request for financing will find the guidance useful. It is unlikely that this document will be known or used by small businesses.

B.4 ISO 14008

Title: *Monetary valuation of environmental impacts and related environmental aspects*

Utility for borrowers and financiers: Organizations that are interested in providing evidence of comparable projects, assets and activities can find that research utilizing the guidance in this report useful. It is more likely that organizations large enough to engage or employ a professional accountant to assist with their request for financing will find the guidance useful. It is unlikely that this document will be known or used by small businesses.

B.5 ISO 14020

Title: *Environmental labels and declarations— General principles*

Utility for borrowers and financiers: The guidance provided covers principles for the development and use of environmental labels and declarations. It is not unusual for statements or claims to be made that are unsubstantiated or are driven by good intentions, market goals, but not by good science or accuracy. When these occur the associated product, asset or activity may be branded as greenwashing.

B.6 ISO 14030-1

Title: *Environmental performance evaluation — Green debt instruments — Part 1: Process for green bonds*

Utility for borrowers and financiers: ISO 14030-1 provides specific requirements for determining the eligibility of green bonds and associated reporting and disclosure requirements.

B.7 ISO 14030-2

Title: *Environmental performance evaluation — Green debt instruments — Part 2: Process for green loans*

Utility for borrowers and financiers: The purpose of ISO 14030-2 is to address green lending activities as well as borrower and lender responsibilities and requirements for the wholesale and retail green loan markets. It provides specific requirements for lender and borrower responsibilities related to additional documentation, loan refinancing and disclosure. Alignment with the Green Loan Principles is achieved by using ISO 14030-2 with requirements concerning banking intermediation between borrowers and debt instruments in the following ways:

- For corporate wholesale banking, the specific requirements to develop green loans focus on the lender/borrower agreements regarding the environmental performance of the project, assets and activities, rather than on the issuer of green loan.
- For retail banking, the specific requirements to develop green loans focus on the use of proceeds, the process for project evaluation and selection, management of proceeds and verification.

B.8 ISO 14034

Title: *Environmental management — Environmental technology verification (ETV)*

Utility for borrowers and financiers: ETV provides a credible and impartial account of the performance of environmental technologies. The information obtained from statements of reports of ETV concerning the environmental performance of technologies and environmental impact can be applied to the decision-making of green finance. Improving the environmental performance of a project, asset or activity is one of the considerations for promoting the development of green finance. When new technology or new applications of an existing technology presents an opportunity, its acceptance and the confidence of a financier can assist in the decision to finance. This can also benefit the borrower in that the financier can sometimes offer more favourable terms and conditions.

B.9 ISO 14040

Title: *Environmental management — Life cycle assessment — Principles and framework*

Utility for borrowers and financiers: ISO 14040 provides insight on the techniques that are involved in LCAs. An LCA can help identify opportunities to improve the environmental performance of products at various points in their life cycle. It can be used to inform decision-makers in industry, government or non-government organizations (e.g. for the purpose of strategic planning, priority setting, product or process design or redesign), It can help users with the selection of relevant indicators of environmental

performance, including measurement techniques. It can also aid in developing marketing claims or producing an environmental product declaration.

B.10 ISO 14044

Title: *Environmental management — Life cycle assessment — Requirements and guidelines*

Utility for borrowers and financiers: ISO 14044 covers LCA studies and life cycle inventory (LCI) studies. It specifies requirements for conducting an LCA and provides guidelines to help the user establish the scope and goal, phases of an LCA and reporting, including other more detailed elements to enable a thorough understanding of the life cycle of a product.

B.11 ISO 14053

Title: *Environmental management — Material flow cost accounting — Guidance for phased implementation in organizations*

Utility for borrowers and financiers: ISO 14053 provides both parties with guidance on how to quantify the use and costs of materials and associated resources in a process. Where materials use is a significant component of the project, asset or activity for which financing is sought, the use of ISO 14053 can add useful information on significance.

B.12 ISO 26000

Title: *Guidance on social responsibility*

Utility for borrowers and financiers: ISO 26000 provides a great deal of insight that can be considered or taken in account by either the borrower or the financier if they deem this is important to support the request for financing or the assessment of the project, asset and activity.

B.13 ISO/TR 32220

Title: *Sustainable finance — Basic concepts and key initiatives*

Utility for borrowers and financiers: ISO/TR 32220 provides a collection of key terms and sources in the field of green finance and sustainable finance. The borrower or the financier can refer to it for understanding of key terms and their meaning.

Annex C (informative)

Initiatives that support borrowers or financiers in the development of green finance

C.1 General

This annex outlines a small selection of the existing initiatives by other entities that can be used by borrowers or financiers to improve or augment their understanding of the importance of developing green finance initiatives. These initiatives can assist with understanding environmental aspects and impacts that are significant. This knowledge is needed to determine their materiality for projects, assets and activities, providing context of the growing expectations for better management of environmental aspects, impacts and performance. The user is encouraged to investigate other initiatives relevant to their respective situation, noting that many of these initiatives favour the larger organizations and the financial community. Most initiatives are not commonly known or used by small business, which represent approximately 95 % of the global business market. Refer to [Annex D](#) for further insight on SMEs.

C.2 2015 Paris Agreement

The Paris Agreement^[34] builds upon the United Nations Framework Convention on Climate Change (UNFCCC). Its central aim is to strengthen the global response to the threat of climate change by keeping a global temperature rise this century well below 2 °C above pre-industrial levels and to pursue efforts to limit the temperature increase even further to 1,5 °C. Additionally, the agreement aims to increase the ability of countries to deal with the impacts of climate change and make finance flows consistent with a low GHG emissions and climate-resilient pathway. To reach these ambitious goals, appropriate mobilization and provision of financial resources, a new technology framework and enhanced capacity building is to be put in place, thus supporting action by developing countries and the most vulnerable countries, in line with their own national objectives. The agreement also provides for an enhanced transparency framework for action and support.

Utility for borrowers and financiers: One of the aims of the Paris Agreement is to make all financial flows consistent with a pathway towards low-emissions, climate-resilient development. Aligning finance with the agreement will bring pressure to move financing away from projects, assets and activities considered carbon-intensive and drive climate action. It provides a roadmap for how finance will scale up a process to ensure finance is evolving in line with mitigation ambition, including future targets.

C.3 UN SDGs

The SDGs^[35] set forth 17 goals and affiliated targets for governments as a global agenda for sustainable development in order to enhance the resiliency of the world by 2030. While geared to national governments, other levels of government and private sector organizations have chosen to work to meet one or more of the goals.

Utility for borrowers and financiers: Both borrowers and financiers are encouraged to read the SDGs and determine which one(s) at the target level relate to the project, asset or activity for which funding is sought. Inclusion of this information can support greater transparency, facilitate communication between parties and enhance trust.

C.4 Equator Principles

The Equator Principles^[36] are intended to serve as a common baseline and framework for financial institutions to identify, assess and manage environmental and social risks when financing projects. Large infrastructure and industrial projects can have adverse impacts on people and on the environment. Signatories commit to implementing the Equator Principles through their internal environmental and social policies, procedures and standards for financing projects. Signatories will not provide project finance, project-related corporate loans to projects or project-related refinance and project-related acquisition finance to projects which do not comply with the relevant Equator Principles requirements.

The Equator Principles are also supportive of the 2015 Paris Agreement^[34] and the SDGs^[35].

Utility for borrowers and financiers: Borrowers seeking funding for project capital costs valued at USD 10 million or more can review which financial entities are signatories to the Equator Principles and ask for details from the financial entity in order to prepare their request for financing.

C.5 Global Reporting Initiative (GRI)

GRI^[37] is an independent international organization that has advocated sustainability reporting since 1997. Its mission is to empower decisions that create social, environmental and economic benefits for everyone.

The GRI Sustainability Reporting Standards (GRI Standards) are widely adopted global standards for sustainability reporting. According to a 2017 survey by an international accounting firm, 93 % of the world's largest 250 corporations reported on their sustainability performance, including companies with revenues larger than the GDPs of entire countries and supply chains that stretch the globe.

Utility for borrowers and financiers: The practice of disclosing sustainability information inspires accountability, helps identify and manage risks, and enables organizations to seize new opportunities. As with other initiatives in [Annex C](#), GRI can be aligned with the SDGs^[35]. While GRI is intending to include SMEs in its reporting process, its methodology and number of indicators remains a resource barrier to smaller enterprises.

C.6 Sustainability Accounting Standards Board (SASB)

The SASB^[38] is an independent standards board that is accountable for the due process, outcomes and ratification of the SASB standards, including any changes to the standards. SASB merged with the International Integrated Reporting Council (IIRC) to become the Value Reporting Framework (VRF), which in turn is to become part of the IFRS Foundation's initiative, the International Sustainability Standards Board (ISSB).

SASB's mission is to help businesses around the world identify, manage and report on the sustainability topics that matter most to their investors. Its standards are developed based on extensive feedback from companies, investors and other market participants as part of a transparent, publicly-documented process. SASB standards differ by industry, enabling investors and companies to compare performance from company to company within an industry.

Utility for borrowers and financiers: SASB identified financially material ESG topics that can be used by third parties to score investments. This insight can assist investors when decision-making in a rigorous, scalable way.

C.7 Project Drawdown

Project Drawdown^[39] analyses the most viable solutions to climate change and shares these findings with the world. The objective of the solutions list is to be inclusive, presenting an extensive array of impactful measures already in existence. The list is comprised primarily of "no regrets" solutions: actions that make sense to take regardless of their climate impact since they have intrinsic benefits