
Guidelines for addressing sustainability in standards

*Lignes directrices pour la prise en compte de la durabilité dans les
normes*

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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 the ISO Technical Management Board Sustainability Guidance Drafting Group.

This second edition cancels and replaces the first edition (ISO Guide 82:2014), which has been technically revised. The main changes compared to the previous edition are as follows:

- addition of reference to the United Nations Sustainable Development Goals ([Annex C](#));
- addition of the relevant sections of the guidance on partnership developed by TMB Task Force 16.

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

Sustainability is the goal of sustainable development. It refers to any state of the global system in which the needs of the present are met without compromising the ability of future generations to meet their own needs. The concept of sustainability is continually evolving. Understanding and achieving a balance between environmental, social and economic systems, ideally in mutually supporting ways, is considered essential for making progress towards achieving sustainability. The achievement of sustainability is now recognized as one of the most important considerations in all human activities.

The term “sustainable development” is often used to describe development that leads to sustainability, and the term “social responsibility” is often used to describe how an individual organization (e.g. a company) can contribute to sustainable development.

ISO standards impact on the achievement of sustainability, either directly (where they specifically address sustainability issues) or indirectly (e.g. where they relate to testing, products, procedures, services, terminology, management systems or auditing). However, since sustainable development and progress towards sustainability are heavily dependent on a multitude of variables, including social, environmental, economic, geographic and technical conditions, it is important that standards developers do not reach overall conclusions that particular activities (including processes) or products (including services) are “sustainable.”

NOTE 1 In this document, the term “activities and products” includes “processes and services”.

This document is intended for use by anyone involved in the development of ISO standards and similar deliverables. It aims to:

- a) raise awareness of sustainability issues arising from the application of ISO standards;
- b) provide standards developers with a systematic approach to addressing sustainability issues in a coherent and consistent manner, with regard to both new and revised standards, and in a manner related to the objective and scope of the standard being developed;
- c) promote consistency and compatibility, as far as is practical, among standards that directly or indirectly address sustainability.

This document makes reference to related ISO deliverables, as appropriate, e.g. ISO Guide 64 (which addresses environmental issues in product standards) and ISO 26000 (which provides guidance on social responsibility).

This document also makes references to the 2030 Agenda for Sustainable Development, adopted by all United Nations Member States in 2015, which is known as the United Nations Sustainable Development Goals (UN SDGs) [23].

NOTE 2 [Annex C](#) contains an overview of the UN SDGs.

Standards developers are strongly encouraged to consider sustainability issues in their work at all stages in the standards development process. If sustainability issues have not been considered, this can be a valid reason to start the revision of a standard. In addition, the significance or relevance of specific issues can have changed since the previous edition of a standard was drafted or reviewed. Whenever a new standard is drafted or an existing standard is revised, all standards developers (including project proposers, project leaders, convenors, committee chairs and managers) are encouraged to actively promote the application of this document, and thereby involve experts knowledgeable in the subject.

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Guidelines for addressing sustainability in standards

1 Scope

This document provides guidance to standards developers on how to take account of sustainability in the drafting, revision and updating of ISO standards and similar deliverables.

It outlines a methodology that ISO standards developers can use to develop their own approach to addressing sustainability on a subject-specific basis.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO/IEC Guide 2, *Standardization and related activities — General vocabulary*

ISO 14050, *Environmental management — Vocabulary*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO/IEC Guide 2, ISO 14050 and the following apply.

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

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

3.1

sustainability

state of the global system, including environmental, social and economic aspects, in which the needs of the present are met without compromising the ability of future generations to meet their own needs

Note 1 to entry: The environmental, social and economic aspects interact, are interdependent and are often referred to as the three dimensions of sustainability.

Note 2 to entry: Sustainability is the goal of *sustainable development* (3.2).

3.2

sustainable development

development that meets the environmental, social and economic needs of the present without compromising the ability of future generations to meet their own needs

Note 1 to entry: Derived from the Brundtland Report^[18].

3.3

stakeholder

individual or group that has an interest in any decision or activity of an organization

[SOURCE: ISO 26000:2010, 2.20]

3.4

social responsibility

responsibility of an organization for the impacts of its decisions and activities on society and the environment, through transparent and ethical behaviour that

- contributes to *sustainable development* (3.2), including the health and the welfare of society;
- takes into account the expectations of *stakeholders* (3.3);
- is in compliance with applicable law and consistent with international norms of behaviour; and
- is integrated throughout the organization and practised in its relationships.

Note 1 to entry: Activities include products, services and processes.

Note 2 to entry: Relationships refer to an organization's activities within its sphere of influence.

[SOURCE: ISO 26000:2010, 2.18]

3.5

standards developer

individual or group taking part in the development of a standard

4 What is sustainability?

Sustainability is the goal of sustainable development, a widely applied concept that gained international recognition following the publication in 1987 of the *Report of the World Commission on Environment and Development, Our Common Future* (commonly referred to as the *Brundtland Report*)^[18]. Since then, the importance of sustainability and sustainable development has been reiterated in numerous international forums, such as the United Nations Conference on Environment and Development in 1992 (the “Rio Declaration”), the World Summit on Sustainable Development in 2002, and the United Nations Conference on Sustainable Development in 2012 (“Rio+20”). In 2015, the UN General Assembly adopted the 2030 Agenda for Sustainable Development and its 17 Sustainable Development Goals. These goals are of an integrated and indivisible nature and call for coherent and holistic consideration.

Sustainability encompasses three dimensions (economic, environmental and social) which are interdependent and can be mutually reinforcing. The environment sets natural limits to the social system, which is made up of human institutions, organizations and individuals. The economy, as one part of the social system, includes the use and consumption of resources, employment, meeting the needs of populations (which are typically growing), income, and the distribution and use of products. Sustainability has been misunderstood by some as being primarily an environmental concept, including issues such as climate change, non-sustainable resource use or depletion, and loss of fertile soil and biodiversity. However, sustainability also includes social and economic issues, such as social structures, standards of living, peace and justice, income distribution, production, distribution and use of resources, products and services, and employment. Sustainability relates to the interaction with, and relationship between, these issues.

Sustainability is relevant to all levels of human activity, from the global level to the national, regional and community levels, as well as to the behaviour of individuals. It is also affected by all kinds of organizations, including governments, non-governmental organizations, companies, co-operatives, federations and unions. Sustainability is much more likely to be achieved by society as a whole if social, economic and environmental aspects are addressed in an integrated manner.

NOTE [Annex B](#) provides examples of how to develop provisions on environmental aspects within a specific standard.

As defined in 3.1, sustainability refers to a state of the global system, encompassing the environmental, social and economic subsystems, in which the needs of the present are met without compromising the ability of future generations to meet their needs. Given the intergenerational nature of sustainability (i.e. the needs of future generations cannot be fully defined by the present generation) and the

constant changes in the environmental, societal (e.g. population growth) and economic subsystems, sustainability cannot be described purely in terms of a single fixed end point. From this perspective, sustainability is a characteristic of the planet as a whole, and not of any particular activity or organization. However, sustainable development addresses the activities and products of particular organizations (or, for example, communities, nations) and the ability to engage in such development in a manner that contributes to sustainability. Such development is needed to meet the needs of both present and future generations, and it is therefore essential to sustainability.

In this context, sustainability and sustainable development issues can be viewed as concerns about changes (adverse or beneficial) to the environmental, societal or economic subsystems as a result of development, which can affect the ability of future generations to meet their own needs. Sustainability issues can arise from a wide range of activities and products that interact with, or can have an impact on, society, the economy or the environment.

The terms “sustainability”, “sustainable development” and “social responsibility” are used interchangeably by some stakeholders, but even though there is a close relationship between them, they are three different concepts and are therefore not interchangeable. Since sustainable development relates to the economic, social and environmental goals common to all people, it can be used to refer to the broader expectations of society.

Social responsibility encompasses an organization's responsibility for the impact of its decisions and activities on society, the environment and economy, and therefore the organization's contribution to sustainable development and sustainability. Although the term “corporate social responsibility (CSR)” is possibly a more familiar term than “social responsibility”, the view has emerged that “social responsibility” is applicable to all organizations, as different types of entities or groups of people and facilities recognize that they also have a responsibility to contribute to current sustainable development and future sustainability.

The standards development process provides standards developers with the opportunity to contribute to sustainable development, and in particular to encourage sustainable production and consumption.

5 Addressing sustainability in standards

There are parallels between addressing sustainability in standards and addressing the sustainability issues of an organization, even though there are some unique challenges in standards due to the nature of standards writing (e.g. it is largely done by volunteers from a variety of organizations who meet only occasionally, and often disband after a particular project is completed). Once the relevant principles of the work have been discussed, the main task is to identify sustainability issues that are relevant and significant (see 7.4.2 and 7.4.3) and to address them by integrating specific provisions into standards.

Existing information related to sustainable development, including information that has already been the subject of standardization, can be used to identify and evaluate relevant issues.

EXAMPLE 1 ISO/TC 59/SC 17 has published several deliverables on sustainability issues related to buildings and civil engineering works.

EXAMPLE 2 ISO/TC 268 has published several deliverables on sustainable cities and communities, including the management system standard ISO 37101. ISO/TC 268 has committed to link its standardization work directly to the UN SDGs and assesses all new work item proposals against the UN SDGs applying specified criteria.

NOTE 1 The document “Contributing to the UN SDGs with ISO standards”^[25] contains specific examples of standards that relate to each UN SDG.

However, it can sometimes be necessary to involve experts who are knowledgeable on the subjects related to sustainability, e.g. in complex fields such as human rights, the environment or economics as SDG 17 – *Partnerships for the goals*, underlines. It can also be useful to include other relevant, current sector-specific guidance on environmental, social or economic provisions identified in related ISO standards.

Guidance on identifying partnerships to enhance the ability to take into account the UN SDGs in standards writing is provided in [Annex D](#). These same principles can be applied in seeking partnerships for the purpose of enhancing the use of sustainability generally in standards writing. This clause ([Clause 5](#)) discusses how sustainable development can be addressed at the planning stages of standards work. [Clauses 6](#) and [7](#) provide specific guidance on identifying sustainable development issues (including principles and approaches). [Clause 8](#) discusses how those issues can be addressed in the standards writing or revision process.

[Figure 1](#) illustrates a process for identifying and addressing sustainability issues.

NOTE 2 Other approaches than the linear depiction represented in [Figure 1](#) can be used.

NOTE 3 The numbering in [Figure 1](#) refers to the clauses and subclauses in this document.

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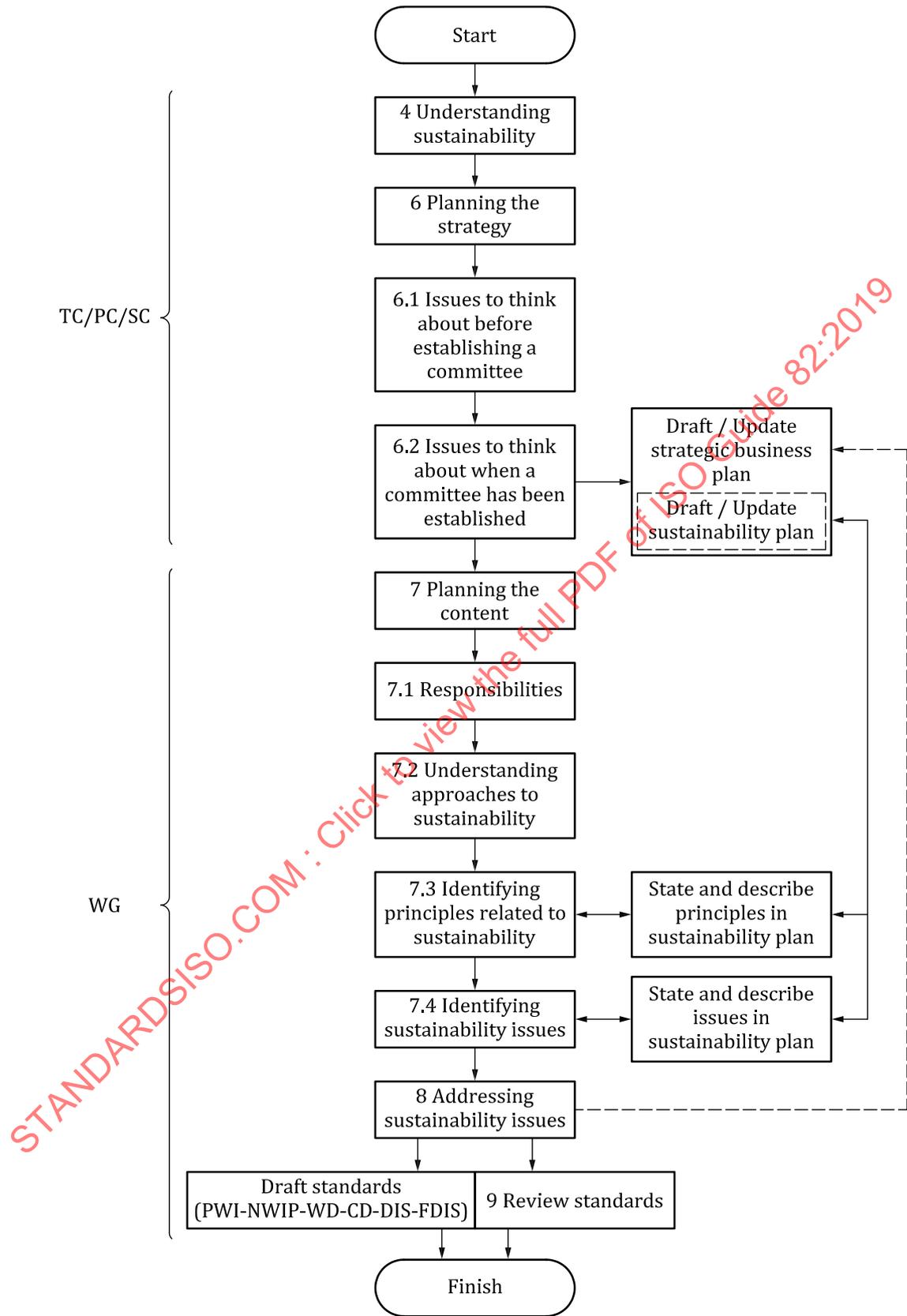


Figure 1 — ISO Guide 82 process flow

6 Planning the strategy

6.1 Issues to think about before establishing a committee

NOTE In this document, unless otherwise stated, the term “committee” includes technical committees (TC), project committees (PC) and subcommittees (SC).

Sustainable development should be taken into account during the formation of committees and in subsequent phases of the development process of ISO standards, including which UN SDGs can be supported by the work of the committee.

This enables sustainable development to be integrated into the scope, structure and work plan of a TC from the start, as well as promoting awareness of sustainable development amongst the TC's leadership and participants and clarifying that sustainable development will be an integral part of the TC's work. The considerations that should be taken into account at this stage include the following.

- a) Scope: Has sustainable development been taken into account in a manner appropriate to the subject matter of the TC?
- b) Structure: How will sustainable development be addressed through the structure of the TC? The options include:
 - including sustainable development as a discrete issue to be dealt with by a subcommittee;
 - creating a specific group on sustainable development;
 - integrating sustainable development into the efforts of each SC or working group (WG);
 - a combination of these options.
- c) Participation: Will the TC have the appropriate participation (consistent with and taking into account the ISO/IEC Directives and guidance on participation), in terms of both diversity of stakeholders and expertise, to effectively address sustainable development issues? What measures can be taken to address any shortcomings?

When a TC is created, the documentation should include a description of how each of these questions has been addressed. These same concepts apply to the formation of SCs within TCs.

It is recommended that existing TCs also go through this process and update their scope, structure and participation processes accordingly.

6.2 Issues to think about when a committee has been established: the strategic business plan

ISO requires each TC to prepare a strategic business plan for its field of activity within 18 months of its creation. The strategic business plan is reviewed by the ISO Technical Management Board (TMB).

NOTE PCs and SCs are not required to prepare a strategic business plan.

As outlined in this document, it is recommended that each strategic business plan should include a sustainability plan that describes how the TC intends to address sustainable development in its work. TCs currently in existence should update their strategic business plans to include sustainable development.

This sustainable development component of the strategic business plan should be appropriate to the TC's field of work, given that sustainable development issues can be more directly implicated in some areas of standardization than in others. The sustainability plan should include:

- defined processes describing how sustainable development will be taken into account in the selection of new work items, including the setting of the scope of such work items;

- programmes for ensuring that TC participants are aware of sustainable development and how it applies to standards writing, including the guidance provided in this document;
- a description of how the work of the TC will be reviewed with respect to the identification of relevant general sustainable development principles and approaches, and how particular sustainability issues can emerge in the context of the standard being developed.

The strategic business plan should identify relevant sustainable development issues that can be applicable to all or most of the TC's work. The strategic business plan should be updated regularly. Alternatively, relevant sustainable development issues can be identified at SC or WG level, or on a document-by-document basis, or by a combination of these approaches, as appropriate (e.g. a TC-wide evaluation of sustainability issues can be fine-tuned at both SC and WG levels).

The value of the sustainability plan is in its implementation in the standards writing itself. Therefore, the processes to verify that relevant sustainability issues are being identified and addressed in the documents being produced are central to its success.

7 Planning the content

7.1 Responsibilities

After determining the general strategy for addressing sustainability within the committee work, agreement should be reached on how it will be applied in the context of a specific standardization project. Unlike strategic planning, which is usually done at TC/PC level, this task is usually performed within the WG responsible for developing the technical content for a particular standard.

7.2 Understanding approaches to sustainability

7.2.1 General

Before discussing and selecting the sustainability issues to be addressed in a standard, the WG should make itself aware of the approaches that can be used to document the technical work and identify and evaluate sustainability issues. A description of some of the approaches that can be used is given in [7.2.2](#) to [7.2.6](#). These approaches can be used individually or in any combination, depending on the circumstances. There can also be other approaches that are not identified here.

7.2.2 Systemic approach

When considering a certain sustainability issue within a given system, the related systems and subsystems should also be considered, because they are all interconnected and interdependent.

For example, an aspect that seems to be primarily related to the environmental dimension of sustainability can also have an impact within a social or economic dimension of sustainability, e.g. depletion of fish stocks by excessive fishing has an environmental impact, as well as a social and an economic impact on people and communities employed in the fishery. The potential for these multiple impacts to occur should always be considered when drafting provisions relating to any particular sustainability issue.

Systemic thinking encourages the internalization of costs. Economic costs are often externalized in the form of environmental and social impacts, for which the monetary costs are not necessarily known. Similarly, by including appropriate provisions directly within the text, standards developers can also encourage the users of the standards to apply systemic thinking in the application of the standard.

7.2.3 Life cycle approach

Life cycle thinking examines all stages of the life cycle of a particular activity or product in order to identify the widest range of relevant sustainability issues.

Typical stages of a product life cycle include material acquisition, design, production, use, maintenance and repair and end-of-life (including recycling). For some activities or products, the life cycle is likely to include different stages, e.g. design, promotion, provision and termination. For other activities or products, it might not be possible to apply life cycle thinking directly. Different stages can also include an element of transportation, which itself can involve a number of different sustainability issues.

From a purely environmental standpoint (i.e. not taking into account the social and economic dimensions of sustainability), an example of the range of issues related to the life cycle of manufactured equipment can include the material impact (e.g. resource depletion) and energy flows (e.g. greenhouse gas emissions) resulting from the manufacturing stage, as well as the impact resulting from its distribution and operation during the use stage of the equipment (e.g. energy use and emissions). The end-of-life stage can involve consideration of issues related to designing for disassembly, which can impact the ability to recover and reuse or recycle materials. The life cycle approach can also be used to address economic and social aspects (e.g. as assessed in life cycle costing and social life cycle assessments).

When understanding sustainability aspects of the draft standard, developers should explore how the standard can contribute to a circular economy. A circular economy is an industrial economy that is restorative (by design or intention) and whose goal is to produce goods and services while reducing consumption of raw materials, water and energy, as well as reducing waste.

EXAMPLE From an environmental standpoint, the relevant standards on life cycle assessment include ISO 14040 and ISO 14044.

7.2.4 Precautionary approach

The precautionary approach suggests that, where threats of serious or irreversible damage to the environment or human health have been identified, the lack of full scientific certainty is not used as a reason for postponing cost-effective measures to help prevent or reduce environmental degradation or damage to human health. While the precautionary approach can provide a basis for acting in the absence of scientific certainty, available scientific information should be relied upon, and efforts should be made to identify and close gaps in the relevant scientific knowledge.

7.2.5 Risk-based approach

The risk-based approach involves identifying risks, evaluating the nature and significance of such risks, and then managing those risks in accordance with sustainability criteria and other considerations that are determined to be applicable to the situation. Risk management actions can include eliminating the risk entirely (e.g. by not undertaking the activity), decreasing the risk associated with the activity (e.g. by modifying the activity), mitigating the consequences of the activity, accepting some or all of the risk, or a combination of these approaches.

NOTE The choice of any one or a number of risk areas (e.g. human health, vulnerable groups, income generation or ecosystems) depends on the available information, the topic of the standard, the views of interested stakeholders, and the type of intended user of the standard.

EXAMPLE ISO 31000 sets out principles, a framework and a process for the management of risks that are applicable to any type of organization in the public or private sector. ISO/IEC Guide 51 provides specific guidance to standards developers for the inclusion of safety aspects in standards.

7.2.6 Stakeholder approach

The stakeholder approach considers how application of the standard can have a sustainability impact on stakeholders. Like other types of impact, the impact on stakeholders can be either beneficial or adverse.

Different groups of stakeholders can be affected by sustainability issues, either individually or collectively, and any group that can potentially be affected by the use or application of a standard should be taken into consideration by standards developers. In addition to consumers, customers, workers, organizations in the supply chain, and communities, this also includes future generations and the wider general public, especially when considering broader sustainability issues, such as climate change.

Particular attention should be paid to potentially vulnerable stakeholders, such as children or persons with special needs, because the impact on them can be both greater and more difficult to identify than the impact on other stakeholder interests.

EXAMPLE Examples of existing ISO deliverables that include stakeholder considerations include ISO/IEC Guide 71 and ISO/TR 22411, which provide guidance and examples of how standards developers can consider the needs of older people and those with disabilities, and ISO 21542, which provides a range of requirements and recommendations for many elements of the built environment related to meeting the needs of the maximum number of people and to accommodating the diversities of age and of human condition at a minimum level. Other examples include ISO 14031 and ISO 26000.

7.3 Identifying principles related to sustainability

7.3.1 General

In addition to the general approaches to be taken into account in the development process of all standards, the WG should agree on some principles related to sustainability that are particularly relevant to the specific subject area. These principles can either be kept internal to the WG in order to guide its work, or be included in the standard in order to guide the user of the standard as well. Examples of principles commonly used in standards writing and reflected in the ISO Code of Conduct^[26] and the ISO Code of Ethics, and that are particularly relevant when considering sustainable development in standards writing, include transparency, stakeholder interests and ethical considerations.

7.3.2 Transparency

Standards developers should be transparent in their decisions and activities. They should present information in a manner that is open and comprehensive when they consider different sustainable development issues in the context of a particular standard and its provisions (if any), which are included to address the potential impact of an issue on society, the economy or the environment.

In new standards or revisions, adherence to this principle can be demonstrated by the inclusion of a statement indicating whether this document was considered during their preparation.

7.3.3 Stakeholder interests

Standards developers should respect, consider and respond to the needs of the relevant stakeholders and, where possible and practical, engage them in an exchange of ideas and information-sharing based on input from a broad and balanced base of expertise and representation, e.g. reflecting geographic, gender, ethnic and stakeholder diversity.

7.3.4 Ethical considerations

ISO standards have global implications, so standards developers should follow the ISO Code of Conduct and Code of Ethics, and give due consideration to all relevant intergenerational, interregional and intra-societal factors.

7.4 Identifying sustainability issues

7.4.1 General

Form 4 requires that New Work Item Proposals (NWIP) identify any UN SDGs that will be supported by the proposed work.

With reference to the principles and approaches outlined in [7.2](#) and [7.3](#), standards developers should identify those sustainability issues, not limited to UN SDGs, that are considered relevant and significant for the subject area for which a standard is being drafted. Many sources of information about sustainability and sustainable development can be useful in this process. These sources include material data sheets, studies on risks or trends, legal requirements, product declarations, sustainability

reports, impact assessment reports, published peer-reviewed scientific studies, life cycle assessments and the results of stakeholder consultations.

Sustainability issues can also be identified by considering the structure of core sustainability subjects and issues related to sustainability and sustainable development (see the list of reference documents in the Bibliography).

Sustainable development is typically discussed in terms of three core dimensions:

- society;
- the environment;
- the economy.

Interactions between the three core dimensions are also important. A broad range of potential issues can arise, including, but not limited to, the following:

- a) society:
 - social equity;
 - labour relations;
 - health and safety;
 - education, training and literacy;
 - community involvement;
 - culture;
 - quality of life;
- b) the environment:
 - natural resource use;
 - energy use;
 - climate change;
 - pollution of land, water or air;
 - protection of biodiversity and natural habitats;
- c) the economy:
 - employment;
 - poverty;
 - business;
 - income;
 - economic performance and development;
 - technology and innovation;
 - value and supply chain.

EXAMPLE 1 In the context of social responsibility, ISO 26000:2010 established seven core subjects, which collectively consider 37 different issues that were identified through a stakeholder-based approach. The core subjects and issues of ISO 26000:2010 are listed in [Annex A](#) for reference.

EXAMPLE 2 The UN SDGs, along with their respective supporting targets and guidance, are another source of information on specific sustainable development issues. See [Annex C](#) for reference.

The relevance and significance of each issue should be determined by standards developers in the context of the particular standard, explained in [7.4.2](#) and [7.4.3](#), respectively.

7.4.2 Identifying relevant sustainability issues

Not all sustainability issues are relevant to all types of standards. In order to identify which sustainability issues are relevant, standards developers should consider sustainability issues in the context of the subject and scope of the standard, its intended users, and the overall goals of the standard.

To determine relevance, standards developers should:

- understand and discuss the scope of the specific standard, and identify the related activities and products;
- identify and, where necessary, engage relevant stakeholders;
- examine the range of ways in which the standard, depending on its content, can have either a positive or a negative impact on sustainability.

It is important to consider the timing of any impact, so standards developers should identify both the issues that arise in relation to the day-to-day use or application of the activity or product, as well as the issues that arise only occasionally under very specific circumstances.

7.4.3 Identifying significant sustainability issues

When relevant sustainability issues have been identified, standards developers should examine these issues and develop criteria for deciding whether any of them have any significance. The significance of an issue that has been identified as relevant to the scope of a standard is directly related to:

- the potential magnitude of its sustainability impact;
- its interconnection to other sustainability issues;
- the nature of the impact (including positive, negative, direct, indirect, specific and cumulative impacts);
- the vulnerability of the subject (e.g. individual, group, habitat) of the potential impact.

The significance of an issue can vary independent of how relevant it is.

When determining relative significance, standards developers can use criteria drawn from topics such as:

- the impact on the environment and natural resources;
- the use and consumption of energy, materials and natural resources (e.g. renewable versus non-renewable);
- compliance with legal and other requirements;
- the impact on the economy, economic development, employment and eradication of poverty;
- the impact on public and occupational health and safety and well-being;
- issues of concern to relevant stakeholders;
- potential effects of taking action or failing to take action on the core subject or issue, including issues related to the cost of implementation and economic feasibility;
- human, labour and consumer rights.

NOTE “Impact” can be positive or negative.

EXAMPLE If the issue of labour conditions has been identified as relevant to the scope of a specific standard, the use of child labour, even if it is a serious issue, can have very little significance for a product standard for one type of product where labour standards and skill levels across the sector are generally high; however, it can be very significant for a product standard related to another sector where labour standards and skill levels across the sector are generally low.

8 Addressing sustainability issues

8.1 General

When the relevant and significant sustainability issues have been identified, standards developers need to decide whether and how to provide guidance or requirements within the standard, depending on the scope of the standard and the standard type. Standards developers are also encouraged to introduce methods for assessing impacts, where appropriate.

If such provisions are included directly in a standard, it is more likely that using the standard will effectively address any adverse impact, as well as enhancing any beneficial effects or effects that are relevant in terms of sustainability.

Standards developers should recognize that there can be several appropriate ways to address these issues and that the resources and capabilities to implement particular solutions can vary considerably. They should therefore avoid introducing requirements that would discourage implementation.

Since sustainable development and progress towards sustainability are highly dependent on many variables, including social, environmental, economic, geographic and technical conditions, standards developers should avoid reaching overall conclusions that a particular activity or product is “sustainable.”

8.2 Addressing sustainability in certain types of standards

8.2.1 General

Depending on the type of standard that is being developed, standards developers can need to take particular considerations into account when incorporating specific provisions into the standard to address sustainability issues.

8.2.2 Process standards

Process standards, and standards specifying measurements and definitions, can directly or indirectly govern or affect physical or social processes, which can themselves have an impact on sustainability. When writing these kinds of standards, consideration should be given to the nature of such underlying processes and their consequences, including in particular:

- the environmental consequences (e.g. those associated with the production, distribution and use of energy) of the production of the materials needed to implement the standard;
- the conditions of work for people involved in the production of the materials needed to implement the standard, including their health and safety;
- the environmental and health and safety consequences of the operational implementation of the processes specified by the standard;
- the potential for cost saving by improving procedures, measurement and definitions through standardization;

- the potential for facilitating the development of technologies that promote new industries and employment or that provide beneficial services or similar economic benefits (and any resulting environmental or social benefits).

8.2.3 Management system standards

Management system standards can indirectly alter the sustainability impact of the processes governed by the management system. Management systems can, for example, directly alter the activities of workers, the additional stakeholders involved, and the systematic strategies for identifying and managing sustainability issues.

NOTE Management systems standards are typically characterized by the “Plan-Do-Check-Act” model (e.g. ISO 9001 on quality management, or ISO 14001 on environmental management systems).

8.2.4 Product standards

Product standards, including standards related to services, can have many different sustainability issues. Standards developers should consider the different sustainability issues of the products and services, and how the scope and application of the standard can affect them.

Examples include:

- the resources used and the costs over the life cycle of the product;
- the greenhouse gas removals and emissions over the life cycle of the product;
- the impact on health and safety resulting from the use of the product;
- the working conditions of those delivering the service;
- the implications that infrastructure developments have on human rights and communities;
- the nature and distribution of environmental, social or economic benefits that can result from the use of the products or services;
- the impact on economic development or innovation;
- the impact of the end-of-life stage.

8.3 Solutions to address conflicting multiple sustainability issues

When multiple sustainability issues are identified as relevant and significant, it is possible that there will also be multiple solutions to address these issues. In such cases, conflicts can arise, i.e. implementing a solution for one issue can prevent a solution being implemented for another issue, or it can even aggravate the impact of the other issue.

In such cases, standards developers should reconcile the conflicts whenever possible. Alternatively, standards developers can consider providing multiple options, in order to make standards users aware of the concerns and to enable them to decide which option to adopt.

When multiple sustainability issues are addressed in a given standard and there are apparent issues of conflict, standards developers should:

- identify conflicting solutions that apply to the issues;
- determine whether there is an obvious preference for one particular solution, based on the relevance, significance or frequency of occurrence of the issues;
- if there are no obvious preferences, clearly explain the choices within the standard;
- recommend that these issues are considered explicitly by the committee or group developing the standard;

- based on the deliberations of the committee, and depending on whether the standard contains requirements or recommendations, ensure that the standard requires or recommends, as appropriate, that the specific sustainability-related choices to be made by standards users are also made known to interested stakeholders.

EXAMPLE 1 A standard on the lighting of workplaces deals with issues regarding the luminance of specific task areas, among other issues. From an environmental standpoint, it is important that the luminance is reduced as far as possible in order to save costs and energy; however, with respect to ergonomics or accessibility, it is important that the luminance of the task area does not fall below a certain value. This issue is also not simple from an economic standpoint: reduced luminance can save energy and therefore reduce operating costs, but reduced luminance can decrease productivity, and therefore result in a financial negative. Economic, environmental and ergonomic/accessibility considerations are all related to sustainability issues. However, in this case, as the standard focuses on the workplace, priority will be given to ergonomics and accessibility, while balancing the saving of costs and use of energy.

EXAMPLE 2 A standard on additives for polymers which specifies requirements for additives can focus on increasing the lifespan or performance of polymers. Increasing the lifespan and performance of polymers can address sustainability issues, such as resource efficiency, energy efficiency and waste reduction. However, other issues relevant to sustainability can be raised by such a standard. For example, additives can complicate the recyclability of polymers, or can change the rate at which polymers can degrade in the environment. Another issue can be whether there are hazards associated with the additive and whether, under what conditions, and the extent to which, humans or the environment can be exposed to and affected by such hazards (e.g. whether during production or by migration out of the polymer).

9 Review and revision of standards

All ISO standards are required to undergo regular systematic reviews. If a standard did not previously address sustainability adequately, this can be used as an argument for proposing a revision and it should be considered by the TC/SC conducting the systematic review and the experts in the national mirror committees when making a decision on whether to revise the standard or not. Committees and experts should bear in mind it is possible that the significance or relevance of specific sustainability issues has changed since the previous edition of a standard was drafted or reviewed.

Annex A (informative)

Example of a list of structured sustainability issues

[Table A.1](#) contains the list of core subjects and issues that were developed through the stakeholder-based process which resulted in the publication of ISO 26000:2010.

Table A.1 — Core subjects and issues of social responsibility

Core subject: Organizational governance
Core subject: Human rights
Issue 1: Due diligence
Issue 2: Human rights risk situations
Issue 3: Avoidance of complicity
Issue 4: Resolving grievances
Issue 5: Discrimination and vulnerable groups
Issue 6: Civil and political rights
Issue 7: Economic, social and cultural rights
Issue 8: Fundamental principles and rights at work
Core subject: Labour practices
Issue 1: Employment and employment relationships
Issue 2: Conditions of work and social protection
Issue 3: Social dialogue
Issue 4: Health and safety at work
Issue 5: Human development and training in the workplace
Core subject: The environment
Issue 1: Prevention of pollution
Issue 2: Sustainable resource use
Issue 3: Climate change mitigation and adaptation
Issue 4: Protection of the environment, biodiversity and restoration of natural habitats
Core subject: Fair operating practices
Issue 1: Anti-corruption
Issue 2: Responsible political involvement
Issue 3: Fair competition
Issue 4: Promoting social responsibility in the value chain
Issue 5: Respect for property rights
Core subject: Consumer issues
Issue 1: Fair marketing, factual and unbiased information and fair contractual practices
Issue 2: Protecting consumers' health and safety
Issue 3: Sustainable consumption
Issue 4: Consumer service, support, and complaint and dispute resolution
Issue 5: Consumer data protection and privacy
Issue 6: Access to essential services
Issue 7: Education and awareness

Table A.1 (continued)

Core subject: Organizational governance
Core subject: Community involvement and development
Issue 1: Community involvement
Issue 2: Education and culture
Issue 3: Employment creation and skills development
Issue 4: Technology development and access
Issue 5: Wealth and income creation
Issue 6: Health
Issue 7: Social investment

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Annex B (informative)

Examples of how to develop provisions on environmental aspects

B.1 Assessing and establishing provisions related to prevention of pollution within a specific standard

Where prevention of pollution has been identified as relevant and significant with respect to a specific standard, standards developers should identify opportunities to prevent pollution at all stages of the life cycle of the activity or product to which that standard applies.

Provisions in product standards can help prevent pollution. The means to prevent pollution can take many forms and can usually be incorporated at all stages of the product life cycle. For example, where hazardous, toxic or otherwise harmful substances and materials are prescribed in product standards, consideration can be given to opportunities to substitute such materials with other less harmful substances and materials, whenever possible and feasible.

Preference can be given to incorporating provisions in standards that can help prevent pollution directly at its source or during the end-of-life stage, increasing the potential to achieve waste-free and emission-free production, or waste-reduced and emission-reduced usage of the product, by elimination or source reduction. This can be achieved in a variety of ways, e.g. by applying environmentally sound design and development, material substitution, changes in process, product or process technology, and/or efficient use or conservation of energy and material resources.

In addition, the following options to prevent pollution during the end-of-life stage of the life cycle can also be considered, possibly through direct provisions within a standard addressing:

- reuse or recycling of materials;
- recovery and treatment (e.g. energy recovery from waste streams, treatment of emissions and waste to reduce their environmental impact).

B.2 Assessing and establishing provisions related to efficient use of natural resources within a specific standard

Where the use or depletion (consumption) of resources has been identified as relevant and significant with respect to a specific standard, standards developers should identify opportunities to effect efficient and sustainable use and management of a resource.

When drafting provisions in process or product standards, standards developers can consider incorporating provisions that relate to both the amount and type (renewable and non-renewable) of natural resources being used/consumed, with particular consideration for their abundance or scarcity and the impact resulting from their extraction/harvesting and use, as well as the end-of-life options for recovery of materials for reuse, recycling or energy recovery.

These kinds of provisions relate to introducing ways of improving the effective and efficient use of resources during all stages of the life cycle of the activity or product. This includes, for example, the selection and use of raw materials in the production stage, the use of water, energy and land in all stages, as well as the re-utilization/recycling of materials and energy recovery at the end-of-life stage, thereby avoiding generating waste to landfill.

Beyond the environmental impact associated with resource acquisition and use, the depletion of non-renewable resources (e.g. mineral deposits, rare earth elements and fossil fuels) is typically considered

to have a negative impact on sustainability. However, resource depletion can also be a concern when making use of renewable resources, if these are being used or consumed at rates higher than they can naturally regenerate or be replenished. In addition, there can be concerns related to how the extraction and/or harvesting of natural resources of any type affects biological diversity and the rate of replenishment of non-human biological populations, as this can lead to serious declines in certain species, or even to their ultimate extinction.

B.3 Assessing and establishing provisions related to adaptation to climate change within a specific standard

Where the adaptation to climate change has been identified as relevant and significant with respect to a specific standard, standards developers should take into account that the extent and form of this adaptation can vary depending on the nature and level of risk. The nature and extent of adaptation in each situation will depend on the costs and efforts involved, compared with the benefits of adopting different adaptation strategies to achieve sustainability and a degree of resilience.

Provisions for climate change can involve:

- policy and planning approaches to changes to designs or approvals;
- the modification, relocation or replacement of existing infrastructure; or
- the alteration of operations or maintenance regimes.

When action is required for adaptation, standards developers should adopt a systematic process for the identification and evaluation of options, in order to plan the most appropriate adaptation strategies. Numerous policies, planning documents, guidelines and requirements exist and can be used for reference. However, there are currently no central sources of climate change data that can be specified. Therefore, individuals and organizations will need to identify for themselves the best available, authoritative and credible data that they can use.