



ISO Guide 82

Guidelines for addressing sustainability in standards

Corrected version
2014-04-01

First edition
2014-03-01





Our vision

To be the world's leading provider of high quality, globally relevant International Standards through its members and stakeholders.

Our mission

ISO develops high quality voluntary International Standards that facilitate international exchange of goods and services, support sustainable and equitable economic growth, promote innovation and protect health, safety and the environment.

This document has been prepared by:

ISO Technical Management Board
Sustainability Guide Drafting Group.

Committee members:

ABNT; AENOR; AFNOR; ANSI; BSI; DIN; DS;
KATS; SA; SABS; SAC; SCC; SIS; COPOLCO.

This list reflects contributing members at the time of publication.

Cover photo credit: ISO/CS, 2014

Our process

Our standards are developed by experts all over the world who work on a volunteer or part-time basis. We sell International Standards to recover the costs of organizing this process and making standards widely available.

Please respect our licensing terms and copyright to ensure this system remains independent.

If you would like to contribute to the development of ISO standards, please contact the ISO Member Body in your country:

www.iso.org/iso/home/about/iso_members.htm

Copyright protected document

All rights reserved. Unless otherwise specified, no part of this publication may be reproduced or utilized otherwise in any form or by any means, electronic or mechanical, including photocopy, or posting on the internet or intranet, without prior permission. Permission can be requested from either ISO at the address below or ISO's member body in the country of the requester:

© ISO 2014, Published in Switzerland

ISO copyright office
Case postale 56 • CH-1211 Geneva 20
Tel. +41 22 749 01 11
Fax. +41 22 749 09 47
E-mail copyright@iso.org
Web www.iso.org

Executive Summary

- 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.
- Standards writers are encouraged to consider sustainability issues in their work at all stages in the standards development process.
- This Guide provides guidance to standards writers on how to take account of sustainability in the drafting, revision and updating of ISO standards and similar deliverables.
- It aims to raise awareness of sustainability issues arising from the application of ISO standards.

Contents	Page
Foreword	5
Introduction	6
1 Scope	7
2 Normative references	7
3 Terms and definitions	7
4 What is sustainability?	7
5 Addressing sustainability in standards	9
6 Planning the strategy	9
6.1 Issues to think about before establishing a committee	9
6.2 Issues to think about when a committee has been established: the strategic business plan	11
7 Planning the content	12
7.1 Responsibilities	12
7.2 Understanding approaches to sustainability	12
7.3 Identifying principles related to sustainability	14
7.4 Identifying sustainability issues	14
8 Addressing sustainability issues	16
8.1 General	16
8.2 Addressing sustainability in certain types of standards	16
8.3 Solutions to address conflicting multiple sustainability issues	17
9 Review and revision of standards	18
Annex A (informative) Example of a list of structured sustainability issues	19
Annex B (informative) Examples of guidance and questions on sustainable development	21
Annex C (informative) Examples of how to develop provisions on environmental aspects	22
Bibliography	24

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 on the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the WTO principles in the Technical Barriers to Trade (TBT) see the following URL: [Foreword - Supplementary information](#)

ISO Guide 82 was prepared by the ISO Technical Management Board Sustainability Guide Drafting Group.

This corrected version of ISO Guide 82:2014 incorporates the correction of cross-references in [Clause 5](#) and of the URL in [Annex B](#).

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 can contribute to 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 developments 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 writers do not reach overall conclusions that particular activities (including processes) or products (including services) are “sustainable.”

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

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

a) raise awareness of sustainability issues arising from the application of ISO standards;

- b) provide standards writers 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, where appropriate, among standards that address sustainability.

This Guide 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).

Standards writers are 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 might 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 writers (including project leaders, convenors, committee chairs and secretaries) are encouraged to actively promote the application of this Guide, and thereby involve experts knowledgeable in the subject.

1 Scope

This Guide provides guidance to standards writers 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 writers can use to develop their own approach to addressing sustainability on a subject-specific basis.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. 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.

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^[17].

3.3 stakeholder

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

[SOURCE: ISO 26000:2010, definition 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, definition 2.18]

3.5 standards writer

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*)^[17]. 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”).

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 and individuals. The economy, as one part of the social system, includes the 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, 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 C](#) provides examples of how to develop provisions on environmental aspects.

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 communities, nations, etc.) 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 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) might be a more familiar term than "social responsibility", the view has recently emerged that "social responsibility" is applicable to all organizations, as different types of entities or groups of people and facilities, both inside and outside the business world, recognize that they also have a responsibility to contribute to current sustainable development and future sustainability.

The standards development process provides standards writers 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 (see [Annex B](#)).

EXAMPLE ISO/TC 59/SC 17 has provided guidance on sustainability issues related to buildings and civil engineering works.

However, it might 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. It can also be useful to include other relevant, current sector-specific guidance on environmental, social or economic provisions identified in related ISO standards.

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 1 The linear depiction in [Figure 1](#) might not be the only valid approach.

NOTE 2 The numbering in [Figure 1](#) refers to the clauses and subclauses in this Guide.

6 Planning the strategy

6.1 Issues to think about before establishing a committee

NOTE In this Guide, 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 writing process of ISO standards.

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

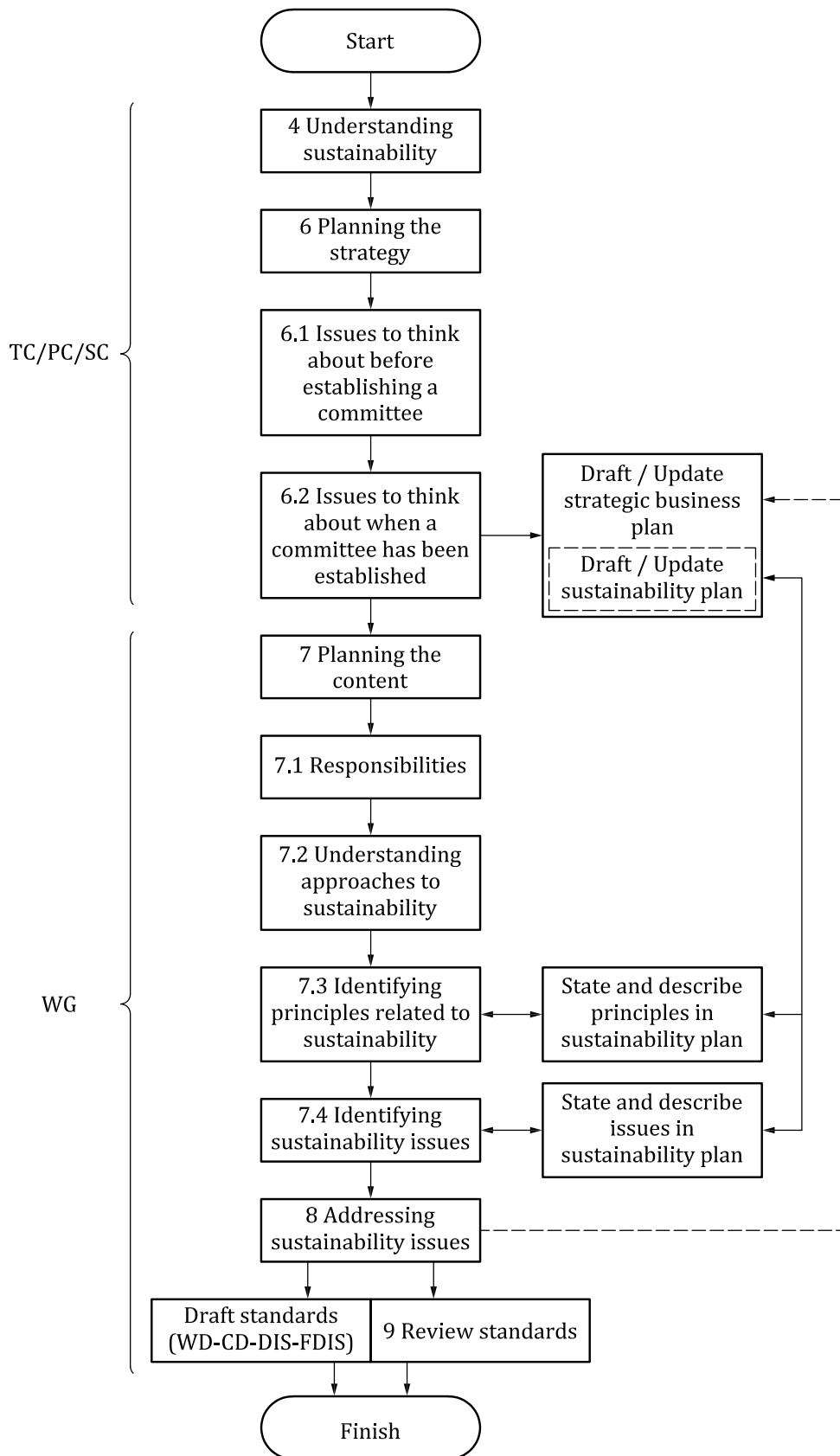


Figure 1 — ISO Guide 82 process flow

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 task force on sustainable development;
 - integrating sustainable development into the efforts of each SC or working group (WG);
 - a combination of these options.
- c) Participation: Does 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 might 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. It is recommended that existing TCs also go through this process and update their scope, structure and participation processes accordingly. These same concepts can be applied to the formation of SCs within TCs.

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 Guide, 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 Guide;
- 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 might 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 could 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 could 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 guide the technical work and identify and evaluate sustainability issues. A description of some of the approaches that might 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 might also be other approaches that are not identified here.

7.2.2 Systemic approach

Systemic thinking suggests that, 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 might not be known. Similarly, by including appropriate provisions directly within the text, standards writers 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 and end-of-life. 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, writers should explore how the standard could 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. 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 writers 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 writers. 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 writers 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 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 writers 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 could be demonstrated by the inclusion of a statement indicating whether

this Guide was considered during their preparation.

7.3.3 Stakeholder interests

Standards writers 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 writers 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

With reference to the principles and approaches outlined in [7.2](#) and [7.3](#), standards writers should identify those sustainability issues 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, 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 list of reference documents in the Bibliography.

Sustainable development is typically discussed in terms of three core dimensions: society, the environment and 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 and 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.

The relevance and significance of each issue should be determined by standards writers in the context of the particular standard.

EXAMPLE 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.

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 writers 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 writers 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, might have either a positive or a negative impact on sustainability.

It is important to consider the timing of any impact, so standards writers 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 writers 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, whether that

impact is positive or negative, direct or specific, or indirect and cumulative. A related, critical consideration is the vulnerability of the subject (e.g. individual, group, habitat) of any potential impact. The significance of an issue can vary independent of how relevant it is.

When determining relative significance, standards writers 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;
- 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, might 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 might 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 writers 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 writers 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 writers should recognize that there can be several appropriate ways to address these issues and also that the resources and capabilities to implement particular solutions can vary considerably, and 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 writers 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 writers might 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 following:

- 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 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 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 writers

should consider the different sustainability issues of the products and services, and how the scope and application of the standard might 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 can even aggravate the impact of the other issue.

In such cases, standards writers should reconcile the conflicts whenever possible. Alternatively, standards writers might 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 writers 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 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 might save energy and therefore reduce operating costs, but reduced luminance might 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.

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 that the significance or relevance of specific sustainability issues might have changed since the previous edition of a standard was drafted or reviewed.

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

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
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

Annex B (informative)

Examples of guidance and questions on sustainable development

ISO TCs have already been started to integrate sustainability into their work, both through specific standards (some of which are referenced in this Guide) and in more general guidance to their members. This information is available at:

http://standards.iso.org/iso/Guide_82

This information provides examples on how TCs are taking sustainability into account, and demonstrates that there are various approaches for doing so.

Annex C (informative)

Examples of how to develop provisions on environmental aspects

C.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 writers 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).

C.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 writers should identify opportunities to effect efficient and sustainable use and management of a resource.

When drafting provisions in process or product standards, standards writers 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.

C.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 writers 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 writers 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.

Bibliography

- [1] ISO 9001, *Quality management systems — Requirements*
- [2] ISO 10993-2, *Biological evaluation of medical devices — Part 2: Animal welfare requirements*
- [3] ISO 14001, *Environmental management systems — Requirements with guidance for use*
- [4] ISO 14040, *Environmental management — Life cycle assessment — Principles and framework*
- [5] ISO 14044, *Environmental management — Life cycle assessment — Requirements and guidelines*
- [6] ISO 14064 (all parts), *Greenhouse gases*
- [7] ISO 14065, *Greenhouse gases – Requirements for greenhouse gas validation and verification bodies for use in accreditation or other forms of recognition*
- [8] ISO/TS14067, *Greenhouse gases – Carbon footprint of products – Requirements and guidelines for quantification and communication*
- [9] ISO 21542, *Building construction — Accessibility and usability of the built environment*
- [10] ISO/TR 22411, *Ergonomics data and guidelines for the application of ISO/IEC Guide 71 to products and services to address the needs of older persons and persons with disabilities*
- [11] ISO 26000:2010, *Guidance on social responsibility*
- [12] ISO 31000, *Risk management — Principles and guidelines*
- [13] ISO 50001:2011, *Energy Management Systems - Requirements with guidance for use*
- [14] ISO/IEC Guide 51, *Safety aspects — Guidelines for their inclusion in standards*
- [15] ISO Guide 64, *Guide for addressing environmental issues in product standards*
- [16] ISO/IEC Guide 71, *Guidelines for standards developers to address the needs of older persons and persons with disabilities*
- [17] *Report of the World Commission on Environment and Development/Brundtland Report, Our Common Future*. Oxford University Press, 1987
- [18] Global reporting initiative (GRI), available at: www.globalreporting.org
- [19] Organization for Economic Co-operation and Development (OECD): OECD Guidelines for Multinational Enterprises, available at: <http://www.oecd.org/corporate/mne/>
- [20] UNITED NATIONS GLOBAL COMPACT. available at: www.unglobalcompact.org/



**International Organization for
Standardization**

ISO Central Secretariat
1, chemin de la Voie-Creuse
Case postale 56
CH-1211 Genève 20
Switzerland
www.iso.org

ICS 77.040.10

© ISO 2014 – All rights reserved