INTERNATIONAL STANDARD

ISO 14002-1

First edition
2019-11

Environmental management systems — Guidelines for using ISO 14001 to address environmental aspects and conditions within an environmental topic area —

Part 1: General

Reference number
ISO 14002-1:2019(E)

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Published in Switzerland

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Foreword

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

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

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

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

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

This document was prepared by Technical Committee ISO/TC 207, *Environmental management*, Subcommittee SC 1, *Environmental management systems*.

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

0.1 Background

Human society faces the challenge of living within planetary boundaries related to, for example, climate change, freshwater consumption, land-use change and loss of biodiversity. Organizations need to take into account the limitations these boundaries impose and can drive positive change in line with global goals for sustainable development, such as those established by the United Nations. The ISO 14000 family of standards can help organizations to protect the environment and respond to changing environmental conditions in support of these efforts.

Organizations have varying priorities related to environmental management based on their internal and external contexts, including the surroundings within which they operate, the nature of their interactions with the environment, as well as the concerns and requirements of their interested parties. Organizations can benefit from applying a management system with a focus on an area of interest or concern for environmental management that is of particular relevance for the organization itself, the sector to which it belongs or public policy. ISO 14001 provides a framework for environmental management regardless of an organization's context, and without specifying how to implement its requirements. ISO 14004 offers general guidance on establishing and implementing the ISO 14001 framework, but is not designed to address an organization's specific environmental aspects, issues or areas of interest.

0.2 Aim of the ISO 14002 series

The ISO 14002 series provides topic-specific guidance and examples for organizations that want to apply their environmental management system to a more focused set of environmental aspects or a combination of specific environmental aspects and environmental conditions.

This document presents generic guidance and establishes a framework for common elements to guide the development of topic-specific parts. The subsequent parts of the series will provide a holistic approach on how to use ISO 14001 in relation to a particular area of interest for environmental management.

The ISO 14002 series supplements the general requirements and guidance in ISO 14001 and ISO 14004 and aims to connect other documents of the ISO 14000 family to ISO 14001. While this document does not address every clause of ISO 14001, the clauses are in the same order and are consistent with a Plan-Do-Check-Act (PDCA) approach.

Figure 1 shows how the ISO 14002 series is related to ISO 14001 and ISO 14004.

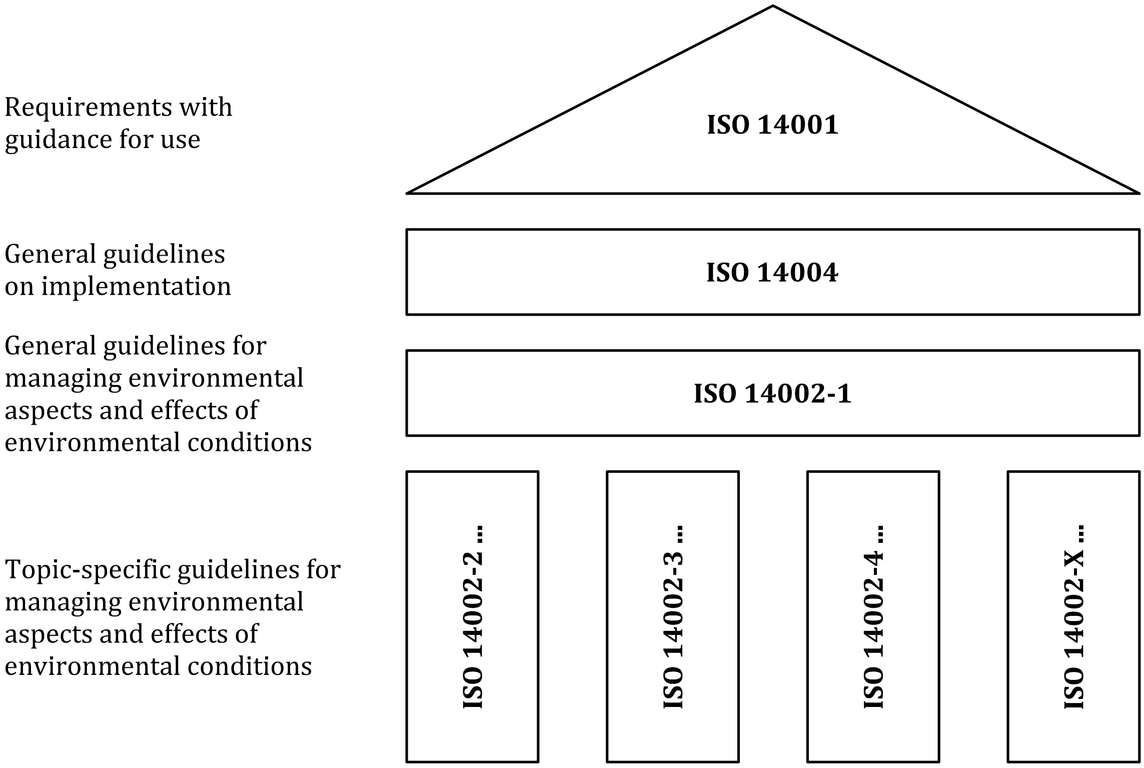

Figure 1 — ISO 14002 series and its relationship to ISO 14001 and ISO 14004

0.3 Entry points to the ISO 14002 series

The entry point for an organization applying one or more parts of the ISO 14002 series involves its decision to establish an environmental management system, and its intention to take action in relation to a particular area of interest or concern for environmental management, for example:

- specific commitment(s) related to protection of the environment, according to its environmental policy;
- one or more of its significant environmental aspects or compliance obligations;
- specific risks and opportunities that need to be addressed related to environmental conditions.

An organization that seeks to enhance its focus on such an area of interest or concern can apply ISO 14001 to that end, using the specific guidance in relevant part(s) of the ISO 14002 series.

0.4 Environmental topic areas

An environmental topic area is an area of interest or concern for environmental management in an organization, in relation to its surroundings. This can include, for example, air, water, land, natural resources, flora and fauna, consistent with the definition of environment in ISO 14001. A topic area is typically reflected in one part of ISO 14002. However, a broader topic area could be divided into more parts, if appropriate.

Managing an environmental topic area calls for an organization to take a holistic approach to addressing:

- environmental aspects that have or can have an impact on environmental conditions and can therefore affect environmental performance;
- changing environmental conditions that can affect an organization's ability to achieve the intended outcomes of the environmental management system; or
- a combination of these.

0.5 Benefits of the ISO 14002 series

The ISO 14002 series provides guidance that is targeted toward specific types of interrelated environmental aspects and environmental conditions. The benefits of applying the ISO 14002 series can include:

— enhancing environmental performance within specific environmental topic areas;

— protecting the environment by preventing or mitigating adverse environmental impacts within specific environmental topic areas;

— mitigating the potential adverse effect of environmental conditions on the organization within specific environmental topic areas;

— aligning the environmental management system with the organization's strategic direction, e.g. to support a specific environmental policy or organizational commitment.

Environmental management systems — Guidelines for using ISO 14001 to address environmental aspects and conditions within an environmental topic area —

Part 1: General

1 Scope

This document gives general guidelines for organizations seeking to systematically manage environmental aspects or respond to the effects of changing environmental conditions within one or more environmental topic areas, based on ISO 14001.

This document also constitutes a framework for common elements of subsequent parts of the ISO 14002 series.

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 14001, *Environmental management systems — Requirements with guidance for use*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 14001 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
environmental topic area
area of interest or concern for environmental management in an organization in relation to its surroundings

4 Planning actions

4.1 General

To add focus on and improve environmental management related to the environmental topic area, the organization should undertake a planning process. This includes establishing a baseline for comparison of performance over time, and determining an appropriate combination of improvement actions within the environmental management system.

4.2 Establish a baseline for the specific environmental topic area

A baseline is a starting point that can be used for comparison. It can provide the necessary information to effectively monitor and control the organization's progress towards improvement. To establish a baseline for the specific environmental topic area, the organization should review its existing activities, knowledge and information related to, for example:

— its relevant environmental aspects;

— changing environmental conditions that can affect the organization;

— relevant management processes.

The focus of an organization's review can differ depending on the nature of its interest or concern. The organization should ensure that the baseline information is sufficient to support the planning of actions, including setting appropriate objectives for improvement.

When establishing a baseline for managing environmental aspects or responding to the effects of specific environmental conditions related to a particular environmental topic area, an organization can consider:

— internal issues, including those related to past, current and planned activities, products and services;

— associated environmental aspects, including the nature and magnitude of actual and potential environmental impacts;

— external issues, including existing environmental conditions and trends that can affect the achievement of environmental policy commitments, objectives and planned actions;

— how existing environmental conditions affect the organization, including the likelihood of occurrence of consequences, and the severity of the consequences in relation to a defined reference period;

— existing activities to address the consequences of environmental conditions on the organization;

— current environmental performance;

— interested parties' needs and expectations.

NOTE Environmental aspects can be found throughout the life cycle of an organization's products and services. The baseline information on environmental aspects can take a life cycle perspective, and could be complemented by conducting a life cycle assessment (see ISO 14040 and ISO 14044).

Table 1 provides examples of environmental conditions and how they can affect an organization.

Table 1 — Examples of environmental conditions that can affect an organization

— Over-use of shared natural resources (e.g. fish populations, forests, water basins) can lead to regulations that can restrict the organization's access to and use of a resource.
— Degraded ground or surface water quality can result in a need for the organization to pre-treat its water supply or purchase municipal water.
— Land topography can be susceptible to earthquakes, erosion, dissolution and subsidence in certain regions, which can compromise the integrity of the organization's property and structures.
— Extreme weather events, including storms, can make the oceanic shipping of products or goods more dangerous and expensive.
— Reduced or more variable rainfall can limit agricultural yields.
— Atmospheric pollution and acid deposition can damage the organization's property and structures.
— Poor air quality or high atmospheric temperature can create health problems and absenteeism for workers.

4.3 Determine appropriate actions

4.3.1 General

Taking into account the baseline information, the organization should identify its priorities for action within the environmental topic area. This can include improving performance related to significant environmental aspects, fulfilling compliance obligations, as well as addressing other identified risks and opportunities.

The nature of the action taken will depend on the results the organization wants to achieve, but should be adequate to support the achievement of the intended outcomes of the organization's environmental management system. Actions can be designed to control or improve an organization's activities. An organization may choose to take more than one type of action to address an identified risk or opportunity. For example, it can be appropriate to first set an objective that includes a set of actions to achieve desired results.

4.3.2 Types of action

The types of action that can be applied independently or in combination by an organization include, for example:

— setting environmental objectives at strategic or operational levels for system or performance improvement;

— establishing operational controls, including process and design changes as well as engineering and administrative controls;

— monitoring and measurement to assess environmental performance and conditions, or to check at the system or process level to determine whether desired results are being achieved;

— enhancing skills or knowledge of persons whose work can affect or can be affected by the environmental topic area;

— communicating to raise awareness or provide assurance to interested parties.

4.3.3 Considerations for decision-making

Decisions on the actions to be taken can depend on a variety of criteria.

When determining the nature or scope of actions to be taken, an organization can consider:

— the source(s) of the environmental aspect(s) and cause(s) of changing environmental condition(s), including those that can occur in the life cycle of its products and services;

— the extent of its control or influence over environmental aspects and the effects of changing environmental conditions;

— variables that affect risks and opportunities for the organization with regard to the likelihood and magnitude of environmental impact(s) or effects from environmental conditions;

— the potential for environmental performance improvement, including the potential to prevent or mitigate adverse environmental impacts or to generate positive environmental impacts;

— the potential for responding to the effects of environmental conditions (e.g. adaptation to climate change);

— potential consequences of the actions (e.g. shifting pollution from one medium to another);

— relevant needs and expectations of interested parties, including emerging regulations;