SLOVENSKI STANDARD
SIST EN ISO 14091:2021

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Prilagoditev podnebnim spremembam - Smernice za oceno ranljivosti, vpliva in tveganja (ISO 14091:2021)

Adaptation to climate change - Guidelines on vulnerability, impacts and risk assessment (ISO 14091:2021)

Anpassung an den Klimawandel - Vulnerabilität, Auswirkungen und Risikobewertung (ISO 14091:2021)

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Adaptation to climate change - Guidelines on vulnerability, impacts and risk assessment (ISO 14091:2021)

Adaptation au changement climatique - Lignes directrices sur la vulnérabilité, les impacts et l'évaluation des risques (ISO 14091:2021)

Anpassung an den Klimawandel - Vulnerabilität, Auswirkungen und Risikobewertung (ISO 14091:2021)

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EUROPÄISCHES KOMITEE FÜR NORMUNG

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European foreword

This document (EN ISO 14091:2021) has been prepared by Technical Committee ISO/TC 207 "Environmental management" in collaboration with Technical Committee CEN/SS S26 “Environmental management” the secretariat of which is held by CCMC.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by September 2021, and conflicting national standards shall be withdrawn at the latest by September 2021.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN shall not be held responsible for identifying any or all such patent rights.

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The text of ISO 14091:2021 has been approved by CEN as EN ISO 14091:2021 without any modification.

INTERNATIONAL STANDARD

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First edition
2021-02

Adaptation to climate change — Guidelines on vulnerability, impacts and risk assessment

Adaptation au changement climatique — Lignes directrices sur la vulnérabilité, les impacts et l'évaluation des risques

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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).

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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, E*nvironmental management*, Subcommittee SC 7, *Greenhouse gas management and related activities*, in collaboration with the European Committee for Standardization (CEN) Technical Committee CEN/SS S26, *Environmental management*, in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

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

Climate change is impacting organizations in various ways and it is anticipated that these impacts will continue well into the future. Organizations have an increasing need to understand, mitigate and manage climate change risks. Climate change risk assessment is key in this context. For responses to be delivered at the necessary pace and scale, it is important that risk assessment approaches are systematic and replicable, permitting learning within and between assessments as new knowledge, technology and experience arise. This document provides guidelines on approaches to assess climate change-related risks.

Risk assessments improve planning of adaptation to climate change and inform the implementation and monitoring of climate change adaptation activities. Adaptation is usually more effective when initiated at an early stage of project development, and when undertaken as a planned process rather than in response to experienced impacts. Better knowledge of climate change risks will make it easier and less costly to respond.

Climate change risks differ from other risks. It is often difficult or even impossible to quantify their short- or long-term probability so a conventional risk assessment that uses statistical probabilities can be ineffective. For this reason, various approaches have been developed for assessing climate change risks. This document provides guidance on the use of screening assessments and impact chains. The screening approach can serve as a stand-alone, simplified risk assessment for a straight-forward system at risk or for organizations with a limited budget, or serve as a pre-assessment prior to the use of impact chains. Based on a participatory and inclusive process, impact chain approaches are more comprehensive, providing an opportunity to address all relevant factors. Both screening assessments and impact chain assessments allow for qualitative and quantitative analysis.

This document is relevant to any organization regardless of size, type and nature. For example, it can help financial institutions with decisions in project financing, companies operating in climate-sensitive business sectors or local governments developing adaptation strategies.

This document covers risks that result from a changing climate. It does not address risks that result from the transition to a low carbon economy. This document recognizes that climate risks can be threats or opportunities.

This document emphasizes comprehensive documentation and communication of climate change risks; these are essential for all subsequent activities. Risk assessments, among other purposes, provide information on identifying adaptation actions and prioritizing them. Risk assessments conducted in accordance with this document also strengthen planning activities on disaster risk reduction (DRR).

This document can be applied by organizations that want to carry out climate change risk assessments [in the sense of the Fifth Assessment Report (AR5) of the Intergovernmental Panel on Climate Change (IPCC)] as well as by organizations that want to carry out vulnerability assessments (in the sense of the IPCC AR4). However, it uses risk assessment as the central term.

This document belongs to an emerging family of standards on adaptation to climate change under the umbrella of ISO 14090, which describes the following elements of climate change adaptation:

— pre-planning;

— assessing impacts including opportunities;

— adaptation planning;

— implementation;

— monitoring and evaluation;

— reporting and communication.

This document is part of the second item on the above list: “assessing impacts including opportunities”. ISO/TS 14092:2020 helps define adaptation planning for local governments and communities. Other

International Standards also deal with climate change or are in some way linked to this document. For example, ISO 31000 is an excellent companion because it can help organizations manage the risks that are identified and assessed in this document, which itself is a specialized expansion of the limited risk assessment portion of ISO 31000. ISO 14001 allows for the integration of climate change adaptation into an environmental management system and this document provides additional information to support this.

This document is a guidance document for people working in the field of climate change.

This document is structured starting with an introduction to the concept of climate change risk assessment, followed by the preparation, the implementation and the documentation and communication of the climate change risk assessment.

The guidelines provided in this document are accompanied by supporting examples and information.

In this document, the following verbal forms are used:

— “should” indicates a recommendation;

— “may” indicates a permission;

— “can” indicates a possibility or capability.

Adaptation to climate change — Guidelines on vulnerability, impacts and risk assessment

1 Scope

This document gives guidelines for assessing the risks related to the potential impacts of climate change. It describes how to understand vulnerability and how to develop and implement a sound risk assessment in the context of climate change. It can be used for assessing both present and future climate change risks.

Risk assessment according to this document provides a basis for climate change adaptation planning, implementation, and monitoring and evaluation for any organization, regardless of size, type and nature.

2 Normative references

There are no normative references in this document.

3 Terms and definitions

For the purposes of this document, the following terms and definitions 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
organization
person or group of people that has its own functions with responsibilities, authorities and relationships to achieve its objectives

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

[SOURCE: ISO 14001:2015, 3.1.4]

3.2
interested party
person or *organization* (3.1) that can affect, be affected by, or perceive itself to be affected by a decision or activity

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

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

[SOURCE: ISO 14001:2015, 3.1.6, modified — “academia” has been added to the example and “applying this document” has been added to Note 1 to entry.]

