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

## Part 3: Climate

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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 document 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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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*.

A list of all parts in the ISO 14002 series can be found on the ISO website.

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.

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# Introduction

## 0.1 Background

The climate crisis is putting lives and livelihoods at risk across the globe, especially for the most vulnerable. As the effects on people and nature will only intensify in the coming decades, this calls for fundamental shifts in development, business practices and urgent, transformative actions. Generally, all economic activity leads to a certain degree of direct or indirect contribution to global climate change.

The Intergovernmental Panel on Climate Change (IPCC) has indicated that stabilizing the climate will require strong, rapid, and sustained reductions in greenhouse gas (GHG) emissions, and reaching net zero $CO_2$ emissions. In addition, the IPCC has stated that limiting other GHGs and air pollutants, especially methane, can have benefits both for health and the climate.[1]

Organizations affect global climate, and can in turn be affected by changing climate and environmental conditions. Until recently, the climate change dialogue has been largely focused on mitigation issues relating to the reduction in emissions of GHGs. However, adaptation is as urgent as mitigation. It is therefore prescient to globally ramp up actions to become more resilient to the changing climate while continuing to reduce GHG emissions.

The overall level of adaptation effort is dependent on the rate and scale of global GHG emission reductions. However, for individual organizations, the level of adaptation is dependent on threats from cumulative global emissions over several decades, rather than their own emissions and mitigation efforts. In addition, the effects vary with geographic location, as some regions of the world are much more vulnerable than others.

This document provides guidance to organizations on becoming more climate resilient and preparing for the inevitable effects of the climate crisis while simultaneously managing and reducing their GHG emissions. Successful climate change mitigation and adaptation are integral to achieving sustainable development and the United Nations (UN) Sustainable Development Goals (SDGs).

Many organizations apply the general ISO 14001 [2] framework to manage their interactions with the environment. This document provides guidance and examples focused on applying the ISO 14001 [2] framework to address climate-related environmental aspects and impacts, as well as climate-related environmental conditions, vulnerabilities and dependencies that can have an effect on the organization. It supports organizations to plan action(s) where needed in relation to environmental impacts, risks and opportunities at their site(s) and in the life cycle of their products and services.

This document is designed for compatibility with other standards related to climate change mitigation and adaptation. It follows the same approach and order of elements as ISO 14001 [2] but does not address every subclause.

## 0.2 Risk-based approach

This document enables organizations to address:

— actual and potential adverse or beneficial climate-related environmental impacts originating from their activities or their supply chains;

— actual and potential effects of climate change on the organization itself, including risks and opportunities related to climate change.

Potential effects of climate change on the organization can include acute and chronic physical threats (e.g. increasing frequency of extreme weather events) as well as transitional risks and opportunities related to changes in regulations, technology and markets. The organization's reputation and its opportunity to contribute to sustainable development from a life cycle perspective can also be affected.

The magnitude of climate-related risks and opportunities can be influenced by various context-related factors such as physical, social, economic and environmental factors that determine vulnerability to climate change, including an organization's geographic location, availability of natural resources, conditions of existing infrastructure, characteristics of the built environment, sensitivity of the workforce and adaptive capacity.

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## 0.3 Holistic approach to climate change mitigation and adaptation

An environmental management system (EMS) conforming to ISO 14001 [2] requires an organization to determine and address significant environmental aspects and impacts associated with its activities, products and services, as well as environmentally related risks and opportunities for the organization that need to be addressed in relation to its context. This process involves using a life cycle perspective as part of a comprehensive evaluation of the influence the organization can have on the environment and how it depends on it.

This document provides guidance on addressing climate-related environmental impacts, as well as the effects of climate change on the organization, addressing both climate change mitigation and climate change adaptation. The organization can control or reduce its climate-related environmental aspects such as GHG emissions through climate change mitigation. In addition, the organization can consider its internal and external context and how it is affected by climate change and take action to minimize potential adverse effects or leverage beneficial effects through climate change adaptation.

An organization that intends to strengthen its environmental management efforts on climate change mitigation and adaptation should recognize the interrelation of climate with other environmental media and respective ecosystems. Actions taken for climate change mitigation and adaptation can potentially incur adverse environmental impacts on media such as soil and water, or on terrestrial and aquatic ecosystems. To avoid such unintended consequences, this document encourages the organization to take a holistic approach when taking mitigation and adaptation action. Figure 1 shows how ISO 14001 [2] and the parts of the ISO 14002 series[3] can be applied using a holistic approach. The correlation between the clauses in this document and the corresponding clauses in ISO 14001:2026 [4] are shown in Annex E.

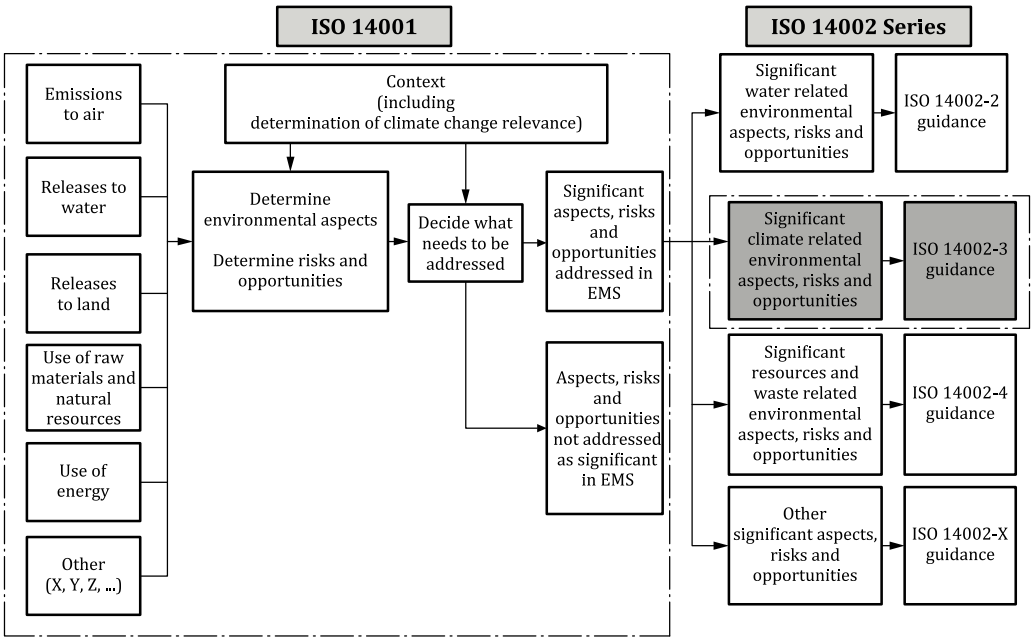



**Figure 1 — Interaction between ISO 14001 [2] and the ISO 14002 series[3]**

## 0.4 Using this document to address the environmental topic area of climate within an environmental management system

An organization can use this document to help determine the most appropriate way to address and embed climate change mitigation and climate change adaptation within its EMS. This can be related to, for example:

— specific commitment(s) in the organization's environmental policy (e.g. reduction of GHG emissions, enhancement of infrastructure resilience, improved energy efficiency, conservation of ecosystems and related biodiversity);

— one or more of the organization's significant environmental aspects or compliance obligations related to climate, energy use or air pollution associated with GHGs;

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— compliance with applicable climate-related permits;

— commitments related to the organization's social responsibility;

— specific risks and opportunities that need to be addressed for climate-related environmental conditions or dependencies;

— management of environmental aspects across the life cycle of the organization's products and services.

Climate change mitigation and adaptation can be implemented following the existing ISO 14001 [2] framework, based on a Plan-Do-Check-Act (PDCA) cycle. Climate change mitigation fits directly into the ISO 14001 [2] PDCA framework in relation to environmental aspects. Climate change adaptation fits into the ISO 14001 [2] framework as a means to address risks and opportunities to the organization. Related frameworks for climate change adaptation, such as ISO 14090 [5], follow a similar cycle and include additional guidance, organized in different elements. Figure 2 illustrates climate change adaptation within the PDCA framework and the clauses of this document.

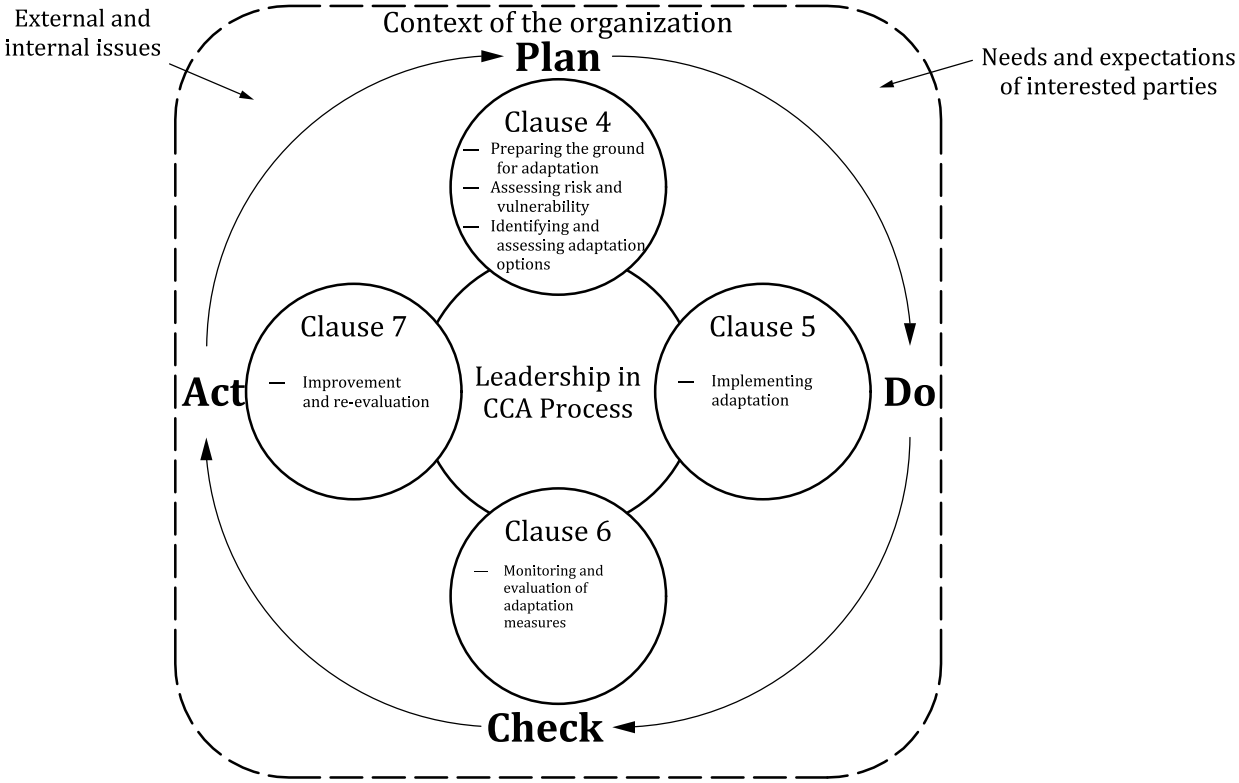



**Figure 2 — Adaptation cycle**

NOTE Figure 2 is adapted from ISO 14001 [2] and the European Environment Agency (EEA) Climate-ADAPT.

Climate change adaptation should start with preparing the ground for adaptation in a structured way, and assessing climate-related environmental impact(s) and the organization's climate risks and vulnerabilities with consideration of current and future climate conditions, as well as transboundary issues to avoid maladaptation. Identifying, assessing and prioritizing adaptation options are part of the planning process. The adaptation options should be implemented, monitored and evaluated, consistent with the Do, Check and Act phases in the PDCA cycle.

As shown in Figure 2, adaptation to climate change is not static. It is a continuous process that must be re-evaluated and adjusted regularly in accordance with a changing climate and state of the art knowledge.

Table E.2 provides additional information regarding the climate adaptation process.

References to other standards and helpful guidance can be found in Annex C.

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### 0.5 Case studies

The guidance provided in this document includes three case studies of organizations applying the ISO 14001 [2] framework to address climate-related environmental aspects and environmental impacts, the effects of climate change on the organization, and the associated risks and opportunities that need to be addressed. The organizations in these case studies are fictional and serve as illustrative examples in diverse contexts, including different business and service sectors and different geographic locations and environmental conditions.

These cases are provided to illustrate how this document can be applied, with examples from different settings and perspectives, and are not intended as models or templates for applying ISO 14001 [2] or this document. The first of these cases represents a dairy company and is incorporated in the main body of the document, with examples shown in each clause as appropriate. The other cases in Annex A and Annex B represent a medium-sized polyurethane manufacturer and a large research university.

### 0.6 Benefits

The benefits of applying this document include:

— addressing compliance obligations related to climate change, energy use and air quality, as well as supporting public socio-economic policies;

— enhancing environmental performance and fostering resilient ecosystems through the improved management of climate-related environmental aspects;

— protecting the environment through prevention or mitigation of adverse climate-related environmental impacts on natural resources and ecosystems;

— preventing and mitigating adverse climate-related effects on business and leveraging opportunities in the organization's operations and its supply chain, in response to changing environmental conditions;

— aligning the EMS with the organization's strategic direction, to support specific environmental policy or organizational commitments related to climate change mitigation and adaptation;

— supporting climate-related global goals for sustainable development (e.g. the UN SDGs);

— contributing to just transition principles, protecting workers and vulnerable communities;

— contributing to conformity with international agreements and conventions related to climate change;

— protecting infrastructure and built environment.

These benefits can also lead to cost reductions, security of supply and production, better relations with relevant interested parties, improved public image, or the maintenance of a "social licence to operate".

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

# Part 3: Climate

## 1 Scope

This document gives guidance to organizations on addressing climate-related environmental aspects, environmental conditions, and the associated risks and opportunities within an environmental management system (EMS) in accordance with ISO 14001 [2]. It addresses the environmental topic area of climate from both perspectives: mitigation and adaptation.

This document is applicable to any organization, regardless of type, size or nature. It includes consideration of the organization's activities, products and services that the organization determines it can either control or influence, taking a life cycle perspective.

## 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, definitions and abbreviated terms

For the purposes of this document, the terms and definitions given in ISO 14001 and the following apply.

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

— ISO Online browsing platform: available at https://www.iso.org/obp

— IEC Electropedia: available at https://www.electropedia.org/

### 3.1 Terms and definitions

#### 3.1.1 Terms related to condition of the environment

**3.1.1.1**
**environmental topic area**
area of interest or concern for environmental management in an organization in relation to its surroundings

[SOURCE: ISO 14002-1:2019 [6], 3.1]

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**3.1.1.2**
**ecosystem**
dynamic complex of plant, animal and microorganism communities, and their non-living environment interacting as a functional entity

EXAMPLE Deserts, coral reefs, wetlands, rain forests, boreal forests, grasslands, urban parks, cultivated farmlands.

Note 1 to entry: Ecosystems can be influenced by human activity.

[SOURCE: ISO 14008:2019 [7], 3.1.6]

**3.1.1.3**
**climate**
statistical description of weather in terms of the mean and variability of relevant quantities over a period of time ranging from months to thousands or millions of years

Note 1 to entry: The classical period for averaging these variables is 30 years, as defined by the World Meteorological Organization.

Note 2 to entry: The relevant quantities are most often near-surface variables such as temperature, precipitation and wind.

[SOURCE: ISO 14090:2019 [8], 3.4]

**3.1.1.4**
**climate change**
change in *climate* (3.1.1.3) that persists for an extended period, typically decades or longer

Note 1 to entry: Climate change can be due to natural processes, internal to the climate system, or external forcings such as modulations of the solar cycles, volcanic eruptions and persistent anthropogenic changes in the composition of the atmosphere or in land, water or raw materials and natural resource use.

[SOURCE: ISO 14090:2019 [8], 3.5, modified — Note 1 to entry deleted. “land, water or raw materials and natural resource use” replaced “land use” in Note 2 to entry.]

**3.1.1.5**
**sensitivity**
degree to which a system or species is affected, either adversely or beneficially, by *climate* (3.1.1.3)

Note 1 to entry: The effect can be direct (e.g. a change in crop yield in response to a change in the mean, range or variability of temperature) or indirect (e.g. damages caused by an increase in the frequency of coastal flooding due to sea level rise).

[SOURCE: ISO 14091:2021 [9], 3.10, modified — “variability or change” deleted in the definition.]

### 3.1.2 Terms related to threats and vulnerabilities

**3.1.2.1**
**life cycle perspective**
consideration of the environmental aspects relating to a product (or service) during its entire life cycle

Note 1 to entry: The life cycle stages include acquisition of raw materials, design, production, transportation/delivery, use, end-of-life treatment and final disposal.

[SOURCE: ISO 14050:2020 [10], 3.6.33, modified — “life cycle thinking” deleted as the preferred term. “(or service)” added to the definition. Note 1 to entry added.]

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**3.1.2.2**
**climate risk**
potential adverse effects of *climate change* (3.1.1.4) that reflects the interaction among *vulnerability* (3.1.2.7), *exposure* (3.1.2.3) and *hazard* (3.1.2.4)

Note 1 to entry: Climate risk can be reduced by enhancing *adaptive capacity* (3.1.3.9) and strengthening *resilience* (3.1.3.11) of ecology, society and economy.

[SOURCE: ISO 14080:2018 [11], 3.1.3.3, modified — "adverse effects" replaced "negative impacts" in the definition.]

**3.1.2.3**
**exposure**
presence of people, livelihoods, species or *ecosystems* (3.1.1.2), environmental functions, services, resources, infrastructure, or economic, social or cultural assets in places and settings that can be affected

Note 1 to entry: Exposure can change over time, for example as a result of land use change.

[SOURCE: ISO 14090:2019 [8], 3.6]

**3.1.2.4**
**hazard**
potential source of harm

Note 1 to entry: The potential for harm can be in terms of loss of life, injury or other health effects, as well as damage and loss of property, infrastructure, livelihoods, service provision, *ecosystems* (3.1.1.2) and environmental resources.

Note 2 to entry: Hazard comprises slow-onset developments (e.g. rising temperatures over the long term) as well as rapidly developing climatic extremes (e.g. heatwave or a landslide) or increased variability.

[SOURCE: ISO 14090:2019 [8], 3.7, modified — Note 2 to entry deleted.]

**3.1.2.5**
**physical risk**
potential adverse effects resulting from event-driven (acute) or longer-term shifts (chronic) in climate patterns associated with *climate change* (3.1.1.4)

Note 1 to entry: Physical risks can have financial implications for organizations, such as direct effect to assets and indirect effects on supply chains owing to changes in water availability, sourcing and quality, food security, and for organizations' premises and operations, supply chain, transport needs and employee safety owing to extreme temperature changes.

Note 2 to entry: Acute physical risks refer to potential adverse effects that are event-driven, including increased severity of extreme weather events, such as cyclones, hurricanes or floods.

Note 3 to entry: Chronic physical risks refer to longer-term shifts in climate patterns (e.g. sustained higher temperatures) that can cause, for example, sea-level rise or chronic heatwaves.

[SOURCE: ISO 14097:2021 [12] , 3.26, modified — "potential adverse effects" used instead of "risk", "impacts" changed to "effects" in Note 1 to entry, "potential adverse effects" used instead of "those risks" in Note 2 to entry, "such as" added in Note 3 to entry.]

**3.1.2.6**
**transition risk**
potential adverse effects related to the transition to a lower-carbon economy

Note 1 to entry: The transition risk is related to policy, legal, technology, and market changes to address *mitigation* (3.1.3.3) and *adaptation* (3.1.3.8) requirements related to *climate change* (3.1.1.4).

Note 2 to entry: Transition risk results in varying levels of effect on the financial performance and reputation of the organization.

[SOURCE: ISO 14097:2021 [12], 3.25, modified — Note 1 to entry changed, Note 3 to entry deleted, "reputation of the financier" changed to "reputation of the organization" in Note 2 to entry.]

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**3.1.2.7**
**vulnerability**
propensity or predisposition to be adversely affected

Note 1 to entry: Vulnerability encompasses a variety of concepts and elements including *sensitivity* (3.1.1.5) or susceptibility to harm and lack of capacity to cope and adapt.

[SOURCE: ISO 14090:2019 [8], 3.15]

### 3.1.3 Terms related to climate mitigation and adaptation

**3.1.3.1**
**climate action**
initiative to achieve *climate change* (3.1.1.4) measures or goals based on *mitigation* (3.1.3.3) and/or *adaptation* (3.1.3.8) priorities under climate change policies

Note 1 to entry: Climate action intends to:

a) reduce or prevent emissions or enhance *GHG removals* (3.1.3.5);

b) reduce *vulnerability* (3.1.2.7), maintain and increase the *resilience* (3.1.3.11), and increase *adaptive capacity* (3.1.3.9) of human and ecological systems from adverse effects of climate change.

[SOURCE: ISO 14080:2018 [11], 3.1.1 - modified by deleting the article “any” in the beginning of the definition, “GHG” added to Note 1 to entry and “impacts” changed to “effects” in Note 1 to entry.]

**3.1.3.2**
**climate goals**
long-term goals based on *mitigation* (3.1.3.3) and *adaptation* (3.1.3.8) priorities

Note 1 to entry: International *climate goals* (3.1.3.2) are defined in the Paris Agreement and include the principle of common but differentiated responsibilities and respective capabilities (CBDR-RC), in light of different national circumstances.

Note 2 to entry: The Paris Agreement defines the following *mitigation* (3.1.3.3) and *adaptation* (3.1.3.8) goals:

a) holding the increase in the global average temperature to well below 2 °C above pre-industrial levels pursuing efforts to limit the temperature increase to 1,5 °C above pre-industrial levels, recognizing that this would significantly reduce *climate risk* (3.1.2.2);

b) increasing the ability to adapt to the adverse effects of *climate change* (3.1.1.4) and foster climate *resilience* (3.1.3.11) and low greenhouse gas emission development, in a manner which does not threaten food production;

c) making finance flows consistent with a pathway towards low greenhouse gas emissions and climate-resilient development.

[SOURCE: ISO 14097:2021 [12], 3.1, modified — “international” deleted, “the principle of common but differentiated responsibilities and respective capabilities (CBDR-RC), in light of different national circumstances.” added to Note 1 to entry.]

**3.1.3.3**
**mitigation**
⟨climate change⟩ human intervention to reduce greenhouse gas (GHG) emissions or enhance *GHG removals* (3.1.3.5)

[SOURCE: ISO 14068-1:2023 [13], 3.2.15, modified — “mitigation” replaced “climate change mitigation” as the term. Subject field “climate change” added.]

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**3.1.3.4**
**indirect greenhouse gas emission**
**indirect GHG emission**
GHG emission that is a consequence of, and within the boundary of, the subject, but that arises from GHG sources that are not owned or controlled by the entity

[SOURCE: ISO 14068-1:2023 [13], 3.2.6, modified — Note 1 to entry deleted.]

**3.1.3.5**
**greenhouse gas removal**
**GHG removal**
withdrawal of a GHG from the atmosphere by a GHG sink

Note 1 to entry: Examples of ways in which *GHG removals* (3.1.3.5) can be achieved include reforestation, carbon sequestration in soils, sustainable bioenergy with carbon capture and storage, and direct air carbon capture and storage.

Note 2 to entry: In this document, the term "GHG removal" includes permanent storage of GHGs.

[SOURCE: ISO 14068-1:2023 [13], 3.2.7, modified — Note 2 to entry added.]

**3.1.3.6**
**offsetting**
counterbalancing of the carbon footprint, by retiring (a) carbon credit(s)

Note 1 to entry: The final step in the process of offsetting is to retire the carbon credits in a public registry by, or on behalf of, the entity. Some registries use "to cancel" as synonymous with "to retire" and the terms are effectively interchangeable. The two terms "retire" and "cancel" result in the same outcome of ensuring that the carbon credits cannot be used again or be further traded.

[SOURCE: ISO 14068-1:2023 [13], 3.3.1]

**3.1.3.7**
**carbon neutrality**
condition in which anthropogenic carbon dioxide ($CO_2$) emissions associated with a subject are balanced by anthropogenic $CO_2$ removals

[SOURCE: IPCC 2023, Glossary (Annex I)[14]]

**3.1.3.8**
**adaptation**
⟨climate change⟩ process of adjustment to actual or expected *climate* (3.1.1.3) and its effects

Note 1 to entry: In human systems, *adaptation* (3.1.3.8) seeks to moderate or avoid harm or exploit beneficial opportunities.

Note 2 to entry: In some natural systems, human intervention can facilitate adjustment to expected climate and its effects.

Note 3 to entry: An adaptation plan of action can contain priorities and planned activities for identifying and addressing effects of *climate change* (3.1.1.4), including those associated with climate variability and extremes. It can include a mix of policies, projects, programmes and measures which are updated periodically (see ISO/TS 14092:2020 [15], 3.14).

[SOURCE: ISO 14090:2019 [8], 3.1, modified — "adaptation" replaced "climate change adaptation". Admitted term deleted. Subject field "climate change" added. Note 3 to entry added.]

**3.1.3.9**
**adaptive capacity**
ability of systems, institutions, humans and other organisms to adjust to potential damage, to take advantage of opportunities, or to respond to consequences

[SOURCE: ISO 14090:2019 [8], 3.2]

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**3.1.3.10**
**maladaptation**
actions intended to contribute to climate change adaptation, but which can lead to increased *climate risk* (3.1.2.2), increased *vulnerability* (3.1.2.7) to *climate change* (3.1.1.4), or diminished welfare, now or in the future

Note 1 to entry: Maladaptation is a cause of increasing concern to adaptation planners, where intervention in one location or sector can increase the *vulnerability* (3.1.2.7) of another location or sector, or increase the *vulnerability* (3.1.2.7) of the target group to future climate change.

[SOURCE: ISO 14093:2022 [16], 3.1.3.9, modified — "climate risk" replaced "risk" and "of adverse climate-related outcomes" deleted in the definition. Note 1 to entry added.]

**3.1.3.11**
**resilience**
*adaptive capacity* (3.1.3.9) of an organization in a complex and changing environment

Note 1 to entry: Intergovernmental Panel on Climate Change (IPCC) defines resilience as "capacity of social, economic, and environmental systems to cope with a hazardous event or trend or disturbance, responding or reorganizing in ways that maintain their essential function, identity and structure, while also maintaining the capacity for adaptation, learning and transformation".

[SOURCE: ISO 14097:2021 [12], 3.5]

### 3.1.4 Terms related to assessment

**3.1.4.1**
**base year**
specific, historical period identified for the purpose of comparing greenhouse gas (GHG) emissions or *GHG removals* (3.1.3.5) or other GHG-related information over time

[SOURCE: ISO 14064-1:2018 [17], 3.2.10]

**3.1.4.2**
**baseline**
⟨GHG⟩ quantified greenhouse gas (GHG) emissions and *GHG removals* (3.1.3.5) of an organization at a specified time against which assessment of progress to net zero can be performed

Note 1 to entry: Emissions and GHG removals are separate parts of the baseline and calculation of emissions reduction only refers to the baseline emissions.

Note 2 to entry: The Greenhouse Gas Protocol (GHGP) provides further information on baselines, which it refers to as "base year".

**3.1.4.3**
**climate projection**
simulated response of a climate system to a scenario of future emission or concentration of greenhouse gases and aerosols, generally derived using climate models

Note 1 to entry: Climate projections are distinguished from climate predictions in order to emphasize that climate projections depend upon the emission/concentration/radiative forcing scenario used, which are based on assumptions concerning, for example, future socioeconomic and technological developments that can be, but are not always, realized.

[SOURCE: ISO 14091:2021 [9], 3.7, modified — "may or may not be" replaced with "can be, but are not always," in Note 1 to entry.]

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**3.1.4.4**
**climate scenario**
plausible and often simplified representation of the future *climate* (3.1.1.3), based on an internally consistent set of climatological relationships that has been constructed for explicit use in investigating the potential consequences of anthropogenic *climate change* (3.1.1.4)

Note 1 to entry: Climate scenarios often serve as inputs to models for the potential effects of climate change.

**3.1.4.5**
**indicator**
quantitative, qualitative or binary variable that can be measured or described, representing the status of operations, management, conditions or impact

Note 1 to entry: The term "impact" in this definition can include both environmental impact and potential effects of *climate change* (3.1.1.4).

[SOURCE: ISO 14031:2021 [18], 3.4.1, modified — Note 1 to entry added.]

**3.1.4.6**
**global warming potential**
**GWP**
index, based on radiative properties of greenhouse gases (GHGs), measuring the radiative forcing following a pulse emission of a unit mass of a given GHG in the present-day atmosphere integrated over a chosen time horizon, relative to that of carbon dioxide ($CO_2$)

Note 1 to entry: The Intergovernmental Panel on Climate Change (IPCC) publishes and regularly updates GWP values for various time horizons, including 20, 100 and 500 years.

Note 2 to entry: GWP100 is the internationally accepted standard for national emissions accounting, as agreed at the United Nations level. GWP100 is commonly used for corporate emissions accounting and reporting programmes. GWP100 can have limitations when making decisions around short-lived gases.

[SOURCE: ISO 14068-1:2023 [13], 3.2.11, modified — Note 2 to entry added.]

## 3.2 Abbreviated terms

| | |
|---|---|
| CapEx | Capital Expenditure |
| CCA | climate change adaptation |
| CCM | climate change mitigation |
| CCS | carbon capture and storage |
| CCU | carbon capture and utilization |
| CDR | carbon dioxide removal |
| CFCs | chlorofluorocarbons |
| CFP | carbon footprint |
| $CH_4$ | methane |
| $CO_2$ | carbon dioxide |
| $CO_2e$ | carbon dioxide equivalent |
| CSRD | Corporate Sustainability Reporting Directive |
| EEA | European Environmental Agency |

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