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Introduction

This draft standard is based on national and international discussions. Your comments on this draft are invited and will assist in the preparation of the consequent standard.

For international standards, comments will be reviewed by the relevant UK national committee before sending the consensus UK vote and comments to the international committee, which will then decide appropriate action. If the international standard is approved, it is usual for the text to be published as a British Standard.

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Template for comments and secretariat observations

Date: xx/xx/20xx	Document: ISO/DIS xxxx
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1	2	(3)	4	5	(6)	7
MB	Clause No./ Subclause No./Annex (e.g. 3.1)	Paragraph/ Figure/Table/Note	Type of comment	Comment (justification for change) by the MB	Proposed change by the MB	Secretariat observations on each comment submitted
	3.1	Definition 1	ed	Definition is ambiguous and needs clarifying.	Amend to read '...so that the mains connector to which no connection...'	
	6.4	Paragraph 2	te	The use of the UV photometer as an alternative cannot be supported as serious problems have been encountered in its use in the UK.	Delete reference to UV photometer.	



DRAFT International Standard

ISO/DIS 14092

Adaptation to climate change — Requirements and guidance on adaptation planning for local governments and communities

*Adaptation au changement climatique — Exigences et
recommandations relatives à la planification de l'adaptation
pour les autorités locales et les communautés*

ICS: 13.020.40

ISO/TC 207/SC 7

Secretariat: **SCC**

Voting begins on:
2025-04-01

Voting terminates on:
2025-06-24

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Contents

Page

Foreword	v
Introduction	vi
1 Scope	1
2 Normative references	1
3 Terms and definitions	1
4 Principles	5
4.1 Accountability	5
4.2 Continuous learning and improvement	6
4.3 Flexibility	6
4.4 Mainstreaming and embedding	6
4.5 Practicality	6
4.6 Prioritization	6
4.7 Proportionality	6
4.8 Relevance	6
4.9 Transparency	6
5 Pre-planning	7
5.1 General	7
5.2 Framing adaptation	7
5.3 Roles, responsibilities and duties of the teams	7
5.3.1 Core decision making team	7
5.3.2 Facilitation team	8
5.3.3 Interested parties	9
5.3.4 Agreement and approval	10
6 Assessing climate change risks including opportunities	10
6.1 General	10
6.2 Identifying climate change	10
6.3 Analysing climate change impacts	11
6.4 Climate change risk assessment methods	13
6.4.1 General	13
6.4.2 Climate change risk assessment	14
6.4.3 Vulnerability assessment	15
6.4.4 Thresholds analysis	15
6.4.5 Defining areas and sectors where adaptation is needed	15
6.5 Assessing adaptive capacity	16
6.6 Identifying opportunities	17
6.7 Identifying uncertainties	17
7 Formulating the Adaptation Plan	18
7.1 General	18
7.2 Planning considering the policy context	19
7.3 Identification of potential adaptation measures	19
7.4 Assessment of adaptation measures	20
7.5 Decision-making	21
7.5.1 General	21
7.5.2 Interested parties' engagement	22
7.5.3 Selection of climate change adaptation measures	22
7.5.4 Short, medium and long lifespan decisions	22
7.5.5 Documenting the decision	23
7.6 Local Adaptation plan	24
7.6.1 General	24
7.6.2 Scope of the plan	24
7.6.3 Boundaries of the system	24
7.6.4 Formulation and Presentation	25

7.6.5	Implementation	26
7.6.6	Monitoring and evaluation	26
7.6.7	Consultation on the draft adaptation plan	26
7.6.8	Confirmation and authorization	27
7.6.9	Publication and archive	27
8	Implementation	27
8.1	Leadership and commitment	27
8.2	Preparation for implementation	28
8.3	Implementation plan	28
9	Monitoring and evaluation	28
10	Reporting and Communication	29
Annex A (informative) Examples of Table of Contents of Local Adaptation Plans		30
Annex B (informative) Tools for local adaptation planning		34
Annex C (informative) Indicators for monitoring and evaluation in local adaptation planning		37
Annex D (informative) Informative Guidelines on Climate Change Adaptation		38
Bibliography		40

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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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/TC207, Environmental management, Subcommittee SC 7, *Greenhouse gas and climate change management and related activities*.

This second edition cancels and replaces the first edition (ISO/TS 14092:2020), which has been technically revised.

The main changes are as follows:

- Adding an [Annex D](#) Informative Guidance on Climate Change Adaptation.
- The information has been updated throughout to reflect the current situation.

A list of all parts in the ISO 14090 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.

Introduction

Preparing for risks posed by climate change and planning for adaptation at local government and community levels are essential for the safety and security of society, as well as for their economic, environmental and social well-being. Changes in our climate often reflected by floods, heatwaves, droughts, coastal erosion and other impacts that have been identified across the globe, pose threats to our lives, property, economic well-being and to ecosystems. The UN Intergovernmental Panel on Climate Change (IPCC) has projected that global warming from past anthropogenic emissions will persist for centuries to millennia and will continue to cause further long-term changes in the climate system such as sea-level rise, with associated impacts.

The 1st edition of this standard was issued in 2020 as technical specification and presented guidance for local governments and communities on how to prepare for such threats and the associated risks. The standard recognises that the impacts posed by climate change vary widely from region to region, and affect directly communities' well-being and local governments including the public services they offer, as well as the safety and security of individuals within their jurisdiction. It is the responsibility of local governments and communities to provide leadership in planning and preparing to manage these risks.

This standard also describes how to develop an adaptation plan at the local government and community levels. The planning process details why and how to establish an appropriate (well-structured and collaborative) governance structure and the elements of the adaptation planning and implementation processes. These details include establishing a facilitation team, assessing risks and developing an effective plan, and importantly, monitoring the progress of adaptation implementation and evaluating its achievement with the aim of improving the plan. The step by step process presented enables tailoring of the local adaptation plan to suit the climatic, environmental and societal conditions in each case. Following the standard will lead to developing a robust, effective adaptation plan that can be implemented, promoting appropriate climate action today and in the future.

Several years have passed since the publication of the 1st edition of this standard, it has been decided to revise to International Standard while keeping the title, scope, and other technical content unchanged to make the content more responsive to the current situation according to the needs of users.

In making this revision, the importance and interrelationship of the following two standards published after the 1st edition should be highlighted.

ISO14091:2021, Adaptation to climate change — Guidelines on vulnerability, impacts and risk assessment

ISO 14091 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 ISO 14091 provides a basis for climate change adaptation planning, implementation, and monitoring and evaluation for any organization, regardless of size, type and nature.

This standard recommends that ISO 14091 be referred to accommodate various user situations and conditions.

ISO14093:2022, Mechanism for financing local adaptation to climate change — Performance-based climate resilience grants — Requirements and guidelines

ISO 14093 establishes an approach and methodology for a country-based mechanism to channel climate finance to subnational authorities to support climate change adaptation and to increase local resilience thereby contributing to the achievement of the goals of the 2015 Paris Agreement of the United Nations Framework Convention on Climate Change (UNFCCC) and the UN Sustainable Development Goals (SDGs). The country-based mechanism uses performance-based climate resilience grants (PBCRGs) which ensure programming and verification of climate change expenditures at the local level, offering strong incentives for performance improvements in enhanced resilience.

ISO 14093 provides requirements and guidelines and is applicable to organizations such as national and subnational authorities, donors, companies, financial institutions and international organizations that

are involved in implementing a country-based mechanism for channelling climate finance to subnational authorities to support climate change adaptation and resilience.

This standard also recommends that ISO 14093 be referred to appropriately manage climate funds so on.

It is important to note that our climate is changing and planning and implementing adaptation is a continuous learning and improvement process that requires sustained attention and action. This standard is designed to help local governments and communities in taking initial action to create a safe, socially and economically secure and sustainable society that is resilient to current and future impacts of climate change.

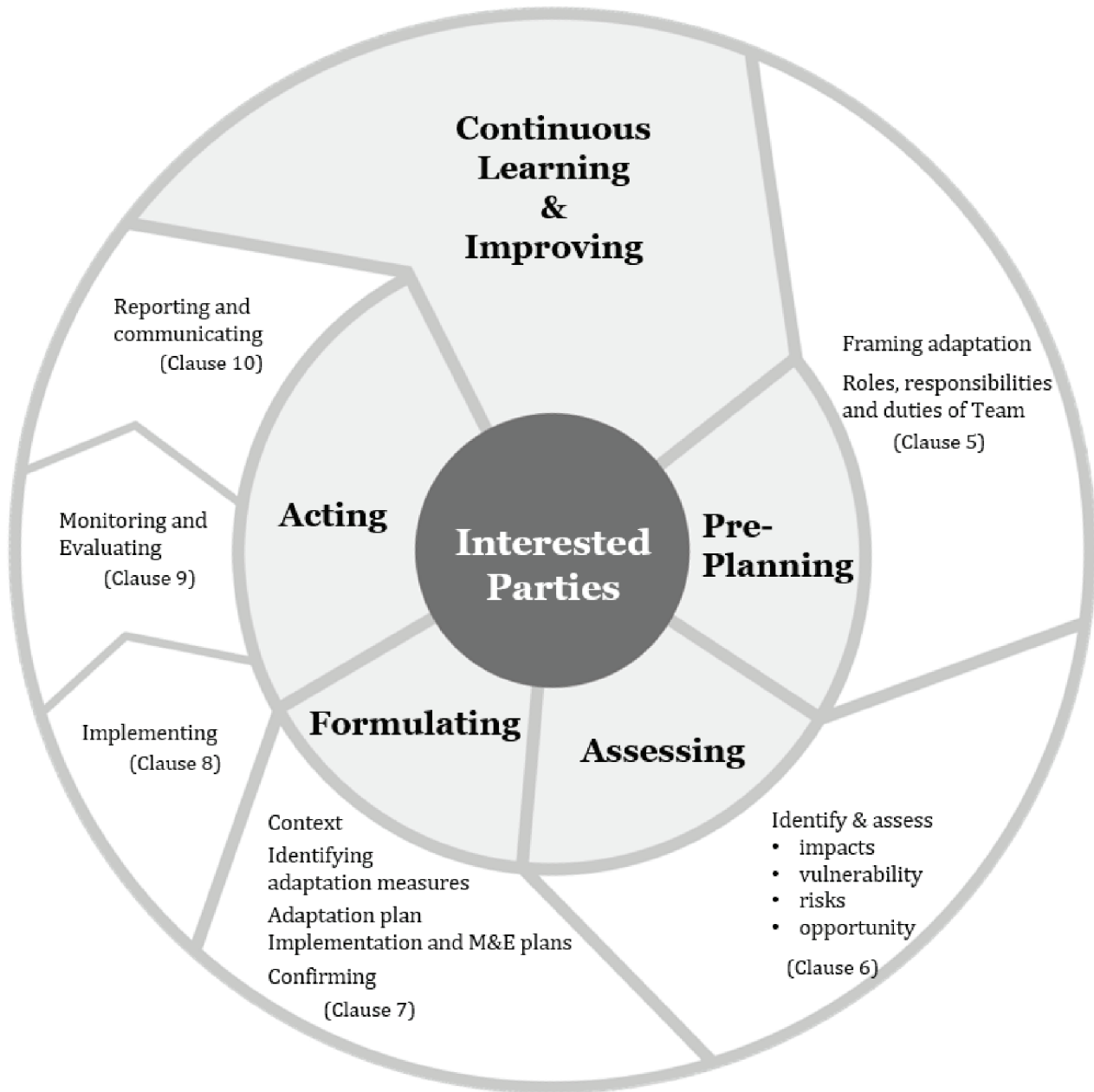


Figure 1 — ISO 14092 Logical framework

The framework is designed according to ISO 14090:2019 and has been still kept in this standard, was not re-discussed in this revision.

In addition, the perspective of more vulnerable regions regarding climate change adaptation may be recognized as an important perspective, it is not incorporated individually into this standard. At this stage, it is recommended for local government and community to establish, implement and maintain an adaptation

ISO/DIS 14092:2025(en)

policy with consideration for vulnerable communities including social and economic aspects in addition to climate risks in the right context.

The next revision of this standard expected to be made following the situations of other ISO 14090 series in a manner consistent with those contents.

Adaptation to climate change — Requirements and guidance on adaptation planning for local governments and communities

1 Scope

This standard specifies requirements and guidance on adaptation planning for local governments and communities.

This standard supports local governments and communities in adapting to climate change based on vulnerability, impacts and risk assessments. In working with relevant interested parties, it also supports the setting of priorities, and the development and subsequent up-dating of an adaptation plan.

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 14090:2019, *Adaptation to climate change — Principles, requirements and guidelines*

ISO 14091:2021, *Adaptation to climate change — Guidelines on vulnerability, impacts and risk assessment*

ISO 14093:2022, *Mechanism for financing local adaptation to climate change — Performance-based climate resilience grants — Requirements and guidelines*

3 Terms and definitions

For the purposes of this document, the following terms and definitions 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

adaptation to climate change

climate change adaptation

process of adjustment to actual or expected climate and its effects

Note 1 to entry: In human systems, adaptation 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.

[SOURCE: IPCC, 2014: Climate Change 2014: Impacts, Adaptation, and Vulnerability. Part B: Regional Aspects. Contribution of Working Group II to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change, modified to reflect ISO Directive 2]

3.2

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

Note 1 to entry: Coping capacity is defined as the ability of people, organizations, and systems, using available skills, resources, and opportunities, to address, manage, and overcome adverse conditions.

[SOURCE: IPCC, 2014: Climate Change 2014: Impacts, Adaptation, and Vulnerability. Part B: Regional Aspects. Contribution of Working Group II to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change]

3.3

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 surface variables such as temperature, precipitation, and wind.

[SOURCE: IPCC, 2014: Climate Change 2014: Impacts, adaptation, and vulnerability. Part B: Regional aspects. Contribution of Working Group II to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change, modified to reflect ISO Directive 2.]

3.4

climate change

climate change that persists for an extended period, typically decades or longer

Note 1 to entry: Climate change can be identified by such means as statistical tests (e.g. on changes in the mean, variability).

Note 2 to entry: Climate change might 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 use.

[SOURCE: IPCC, 2014: Climate Change 2014: Impacts, adaptation, and vulnerability. Part B: Regional aspects. Contribution of Working Group II to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change, modified to reflect ISO Directive 2.]

3.5

climate projection

simulated response of the 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 may or may not be realized.

[SOURCE: IPCC, 2014: Climate Change 2014: Impacts, Adaptation, and Vulnerability. Part B: Regional Aspects. Contribution of Working Group II to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change, modified - Note 1 to entry has been added.]

3.6

climate scenario

plausible and often simplified representation of the future climate, 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

Note 1 to entry: Climate scenario often serves as input to impact models.

[SOURCE: Intergovernmental Panel on Climate Change, IPCC Fifth Assessment Report: Climate Change 2014 (AR5 WG III)]

3.7

community

group of people with an arrangement of responsibilities, activities, relationships and with common interests in impacts of climate change

Note 1 to entry: A community can also be an organization or institute (i.e. hospital, school, volunteer group, etc.) or a group of people living or working in the same place or having a particular characteristic in common.

3.8

exposure

presence of people, livelihoods, species or ecosystems, environmental functions, services, and resources, infrastructure, or economic, social, or cultural assets in places and settings that could be affected

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

[SOURCE: IPCC, 2014: Climate Change 2014: Impacts, Adaptation, and Vulnerability. Part B: Regional Aspects. Contribution of Working Group II to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change, modified — Note 1 to entry has been added.]

3.9

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 impacts, as well as damage and loss to property, infrastructure, livelihoods, service provision, ecosystems and environmental resources.

Note 2 to entry: In this document the term usually refers to climate related physical events or trends or their physical impacts.

Note 3 to entry: Hazard comprises slow-onset developments (e.g. rising temperatures over the long term) as well as rapidly developing climatic extremes (e.g. a heatwave or a landslide) or increased variability.

[SOURCE: ISO/IEC Guide 51:2014, 3.2; modified — Original Note to entry was deleted and a new Note 1 and 2 to entry were added to reflect the definition of 'hazard' IPCC, 2014: Annex II: Glossary, Note 3 to entry was added]

3.10

impact

effect on natural and human systems

Note 1 to entry: In the context of climate change the term 'impact' is used primarily to refer to the effects on natural and human systems of extreme weather and climate events and of climate change. Impacts generally refer to effects on lives, livelihoods, health, ecosystems, economies, societies, cultures, services and infrastructure due to the interaction of climate change or hazardous climate events occurring within a specific time period and the vulnerability of an exposed society or system. Impacts are also referred to as consequences and outcomes. The impacts of climate change on geophysical systems, including floods, droughts and sea level rise, are a subset of impacts called physical impacts.

[SOURCE: IPCC, 2014: Climate Change 2014: Impacts, Adaptation, and Vulnerability. Part B: Regional Aspects. Contribution of Working Group II to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change, modified to reflect ISO Directive 2.]

3.11

incremental change

small adjustments made towards a targeted result

3.12

indicator

quantitative, qualitative or binary variable that can be measured or described, in response to a defined criterion

[SOURCE: ISO 13065:2015, 3.27]

3.13

interested party

person or organization that can affect, be affected by, or perceive itself to be affected by a decision or activity.

EXAMPLE Communities, citizens, suppliers, customers, 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.

[SOURCE: ISO 14001:2015, 3.1.6 – modified Example]

3.14

local adaptation plan

a plan of action identifying and addressing the impacts of climate change in the area of responsibility of a local government or community.

Note 1 to entry: Such plan of action may contain priorities and planned activities for identifying and addressing the impacts of climate change, including those associated with climate variability and extremes. It may include a mix of policies, projects, programmes, and measures which are updated periodically.

3.15

local government

administration of states, provinces, etc. (large local governments), which are subordinate to the major political unit, the national government, as well as counties, districts, cities, towns, etc. (small local governments), which are subordinate to states and provinces, and the services they provide.

3.16

national adaptation plan

A national document containing adaptation priorities and planned activities (policies, projects and programmes) including an implementation strategy for a given period (e.g. 3-5 years.)

Note 1 to entry: The main output of the process to formulate and implement national adaptation plans (NAPs) established under the UNFCCC in 2010 as a means to enable Parties to identify medium- and long-term adaptation needs and develop and implement strategies and programs to address those needs.

[SOURCE: United Nations Framework Convention on Climate Change, 2017]

3.17

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]

3.18

risk

effect of uncertainty.

Note 1 to entry: An effect is a deviation from the expected. It can be positive, negative or both. An effect can arise as a result of a response, or failure to respond, to an opportunity or to a threat related to achieving defined objectives.

Note 2 to entry: Uncertainty is the state, even partial, of deficiency of information related to, understanding or knowledge of an event, its consequence, or likelihood.

Note 3 to entry: Risk is often characterized by reference to potential "events" (as defined in ISO Guide 73:2009, 3.5.1.3) and "consequences" (as defined in ISO Guide 73:2009, 3.6.1.3), or a combination of these.

Note 4 to entry: Risk is often expressed in terms of a combination of the consequences of an event (including changes in circumstances) and the associated "likelihood" (as defined in ISO Guide 73:2009, 3.6.1.1) of occurrence.

[SOURCE: ISO 14001:2015, 3.2.10 modified –Note 1 to entry has been modified]

3.19

sensitivity

degree to which a system or species is affected, either adversely or beneficially, by climate variability or change

Note 1 to entry: The effect may be direct (e.g., a change in the health and functioning of green infrastructure 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: IPCC, 2014: Climate Change 2014: Impacts, Adaptation, and Vulnerability. Part B: Regional Aspects. Contribution of Working Group II to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change, modified to reflect ISO Directive 2]

3.20

transformation

change in the fundamental attributes of natural and human systems

[SOURCE: Adapted from IPCC, 2014: Climate Change 2014: Impacts, Adaptation, and Vulnerability. Part B: Regional Aspects. Contribution of Working Group II to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change.]

3.21

vulnerability

propensity or predisposition to be adversely affected.

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

Note 2 to entry: Vulnerability is the degree to which an ecological, social and economic system is susceptible to, or unable to cope with, adverse climate change impacts, including climate variability and extremes.

[SOURCE: IPCC, 2014: Climate Change 2014: Impacts, Adaptation, and Vulnerability. Part B: Regional Aspects. Contribution of Working Group II to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change, modified to reflect ISO Directive 2.]

3.22

maladaptation

actions intended to contribute to *climate change adaptation* ([3.1](#)), but which can lead to increased

risk ([3.18](#)) of adverse climate-related outcomes, increased *vulnerability* ([3.21](#)) to *climate change* ([3.4](#)), or diminished welfare, now or in the future

[SOURCE: ISO 14093:2022]

4 Principles

4.1 Accountability

The local government and community acknowledge and assume responsibility to address and plan for their climate change adaptation recognizing the roles of higher levels government so on. They accept appropriate scrutiny from authorised agencies or parties, and also accept a duty to respond to this scrutiny.

NOTE 1 This principal refers to ISO 14090 “Adaptation to climate change -Principles, requirements and guidelines”.

NOTE 2 The community acknowledges its role in collaborating with local government in adaptation activity.

4.2 Continuous learning and improvement

Continuous learning and improvement is fundamental for climate change adaptation where there are uncertainties in knowledge, but also continuous changes in the drivers of change, the knowledge and evidence available, and the context within which the responses are to be identified and implemented.

4.3 Flexibility

Allow various measures to meet goals and objectives by taking technical, social, administrative, political, legal, environmental, and economical circumstances into account to accommodate a wide range of data availabilities and technical and institutional capacities.

4.4 Mainstreaming and embedding

Climate change adaptation is most effective when it is integrated into the local government's and community's operations (such as policies, plans, procedures, risk management and implementation).

NOTE 1 This principal refers to ISO 14090 "Adaptation to climate change -Principles, requirements and guidelines".

NOTE 2 A community's understanding and endorsement of this integration is essential to success.

4.5 Practicality

Set goals and objectives to be practical and achievable. Impractical goals might prevent climate change adaptation from achieving or effectively achieving the desired benefits. Focus on indicators/metrics that are relatively easy to measure and where the underlying data are available. Aggregate and compare them across scales so as not to put in place additional burdens.

4.6 Prioritization

At the time of identifying the content of adaptation plans including the adaptation measures to implement, it is not necessary or always possible to cover all areas. The local government and community should prioritize the climate change risks in order to determine where adaptation needs are higher by assessing the relative characteristics of the risks (magnitude, likelihood and urgency). This should also take into account the capacities of interested parties and the capacities and opportunities of the local government and community to act.

4.7 Proportionality

Undertaking actions that are the most effective under the current circumstances considering economic, social, cultural and political contexts, based on capabilities, knowledge and evidence base when identifying and assessing adaptation measures, while also aspiring to continuous improvement.

4.8 Relevance

Facilitate assessments leading to information for adaptation planning that is meaningful to decision makers and practitioners, including at appropriate spatial scales and for relevant time durations.

4.9 Transparency

Reports and communications on climate change adaptation are based on an open, comprehensive and understandable presentation of information for interested parties.

NOTE This principal refers to ISO 14090 "Adaptation to climate change -Principles, requirements and guidelines".