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Environmental management — Guidelines for determining environmental costs and benefits

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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*, 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.

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Introduction

Growing economic consequences regarding climate change impacts (in addition to mitigation and adaption measures), concerns about the global depletion of natural resources and the loss of functioning ecosystems are resulting in many challenges for organizations and society as a whole. Dependencies on natural capital (e.g. water, soil fertility, habitats, landscapes) on the one hand and the impact on the environment on the other hand are important issues for organizations and their interested parties in terms of strategic, operational or financial consequences along the whole value chain. There is a need for guidance on practical methods on how to assess and evaluate the economic consequences of environmental actions. Determining environmental costs and environmental benefits will help organizations to manage environment-related risks and opportunities.

Environmental costs are any costs related to the environment, which can result from, for example, the loss of natural capital that companies are dependent on, impacts on human health and the environment or environmental legislation-related compliance costs. Environmental benefits are any benefits related to the environment, which can result from, for example, natural resources used within products or the production processes of a given organization, including their value chain.

Understanding its environmental costs and benefits allows an organization to link environmental impacts and dependencies to its decision-making processes. This can create a better understanding of issues, such as the financial implications related to the environmental aspects of a site, the organization as a whole, or the organization's supply or value chain. It can improve operational performance, risk management, investment decisions and corporate communications. Using this document to determine environmental costs and benefits can help an organization to manage its environmental dependencies and to mitigate its environmental impacts. It will also help to align an organization's activities with national and international environmental goals or agreements.

This document provides organizations with guidance on determining and documenting environmental costs and benefits in a comprehensive and transparent way, either quantified in monetary or non-monetary terms, or described qualitatively. Assessments of the environmental costs and benefits can be carried out either ex-ante or ex-post. Guidance is provided to help organizations to disclose and exchange relevant information.

If organizations wish to assess environmental costs and benefits in monetary terms, the economic valuation methods in this document only capture changes that affect human wellbeing (utility), i.e. it takes a so-called "anthropocentric perspective", including their concern for, and dependence on, nature and ecosystem services. This includes use and non-use values as reflected in the concept of total economic value.

This document is intended for all sizes of organizations and all sectors. It can be applied to private or listed enterprises, organizations that are held by the public or are a public service unit, those that have a role as a large global actor or a small and medium-sized enterprise.

This document is suitable for use by managers, accountants, researchers and consultants who want to determine environmental costs and benefits. The work will require input from several operational areas that will need to provide relevant information. This document can help in the integration of financial and non-financial information in order to better inform organizational decision-making.

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Environmental management — Guidelines for determining environmental costs and benefits

1 Scope

This document gives guidelines for organizations on determining the environmental costs and benefits associated with their environmental aspects. It addresses the dependencies of an organization on the environment, for example, natural resources, and the context in which the organization operates or is located. Environmental costs and benefits can be expressed quantitatively, in both non-monetary and monetary terms, or qualitatively.

This document also provides guidance for organizations when disclosing related information.

This document takes an anthropocentric perspective, i.e. looking at changes that affect human wellbeing (utility) including their concern for, and dependence on, nature and ecosystem services. This includes use and non-use values as reflected in the concept of total economic value when environmental costs and benefits are determined in monetary terms.

The ways in which the environmental costs and benefits are used after they have been determined are outside the scope of this document.

This document is applicable to 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 http://www.iso.org/obp

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

3.1 Organizations and the environment

3.1.1
natural resource
part of nature that provides benefits to humans or underpins human well-being

[SOURCE: ISO 14008:2019, 3.1.5]

3.1.2
product
item or service provided by an organization

3.1.3
good
something that satisfies human wants or needs

Note 1 to entry: A good can be a *natural resource* (3.1.1), an *ecosystem* (3.1.8) service, a *product* (3.1.2) or human health. It can be marketed or not, or be provided by an organization or not.

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