
**Environmental management —
Guidelines for establishing good
practices for combatting land
degradation and desertification —**

**Part 1:
Good practices framework**

*Management environnemental — Lignes directrices pour
l'établissement de bonnes pratiques pour combattre la dégradation et
la désertification des terres —*

Partie 1: Cadre de bonnes pratiques

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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 on 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 the following URL: www.iso.org/iso/foreword.html.

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

A list of all parts in the ISO 14055 series can be found on the ISO website.

In the development of this document, ISO Guide 82 has been taken into account in addressing sustainability issues.

Introduction

Land degradation and desertification are fundamental and persistent problems that have long been recognized. They are caused by climate variability (e.g. drought and floods), other natural factors and unsustainable human activities, such as over-cultivation, overgrazing, deforestation, over-extraction of water, impacts of construction activities and unsustainable irrigation practices. These activities can lead to loss of vegetation and biodiversity, declining water supply and water quality, soil erosion and loss of soil fertility and structure. The consequences in the medium to long term are loss of agricultural and economic productivity, loss of soil quality and function and loss of ecosystem services, including biodiversity loss, and adverse social impacts.

Land degradation is estimated to affect up to 20 % of the world's drylands, according to the Millennium Ecosystem Assessment (2005) [46], and 25 % of cropland, pasture, forests and woodlands globally, according to FAO (2011)[32]. In addition, one third of the earth's population, i.e. 2 billion people, are potential victims of the increasing effects of desertification (UNEP, 2007[22]). Land degradation is both a significant driver of climate change through lack of favourable conditions for plants capturing carbon dioxide from the atmosphere and change in surface characteristics affecting solar reflectance (albedo) and is predicted to be exacerbated by climate change. Degradation and desertification greatly reduce ecosystem resilience to climate change.

Land degradation affects land productivity, and impacts directly on human livelihood and health and, in extreme cases, causes loss of life. Societies suffer from decreased access to adequate supplies of clean water, deterioration in air quality, threats to food security and declining economic status. These effects can be felt at all scales from the local to the global and by all people but especially the poor and the vulnerable.

Recognizing the significance of land degradation leading to desertification in dryland areas, the United Nations Convention to Combat Desertification (UNCCD)[18] was developed to combat desertification and mitigate the effects of drought in dryland regions, particularly in sub-Saharan Africa. The UNCCD recognizes desertification as a social and economic issue as much as an environmental concern. Therefore, it has a major focus on fighting poverty and promoting sustainable development in areas at risk of desertification. Parties to the UNCCD agreed to implement national, regional and sub-regional action programmes, and to seek to address causes of land degradation, such as unsustainable land management. This document is intended to complement and support the activities of the UNCCD by providing guidance to land managers on the establishment of good management practices that, when implemented, will reduce the risk of land degradation and desertification and assist in rehabilitation of lands affected by degradation. Land managers expected to benefit from the standard include land users, technical experts, private and public organizations, and policy makers involved in the management of land resources for ecological, productivity, economic or social objectives.

The purpose of this document is to provide guidelines for developing good practices to combat land degradation and desertification in arid and non-arid regions.

NOTE ISO/TR 14055-2 will provide regional case studies illustrating application the framework of this document to a range of land degradation cases.

This document refers to actions or interventions undertaken with the purpose of preventing or minimising degradation of land or, where land is already degraded, aiding the recovery of degraded land to improve productivity and ecosystem health.

This document seeks to provide a flexible approach to the implementation of good practices to combat land degradation and desertification by allowing for different types and scales of activities so that the guidance in this document can be applied to all activities and be relevant to public and private use. It aims to be applicable to the range of geographical, climatic, cultural and other circumstances. [Figure 1](#) illustrates the relationship between the guidelines for developing good practices presented under this document and environmental management systems and good practice programmes as they apply to land management.

Combating land degradation is critical to achieving sustainable development and hence good practices programmes need to seek to attain a balance between environmental, social and economic goals. These goals are interdependent and need to be mutually reinforcing. For example, the capacity of individual land managers and communities to implement good practices for combatting land degradation can be limited by immediate challenges of poverty and hunger. Conversely, combatting land degradation will contribute to greater socio-economic as well as environmental resilience.

Provision of guidance on establishing good practices for managing land degradation and desertification benefits both land users and the wider community and can assist in increasing their resilience to climate change. It can also complement government policies to combat land degradation and desertification and contribute to objectives of parties to the UNCCD.

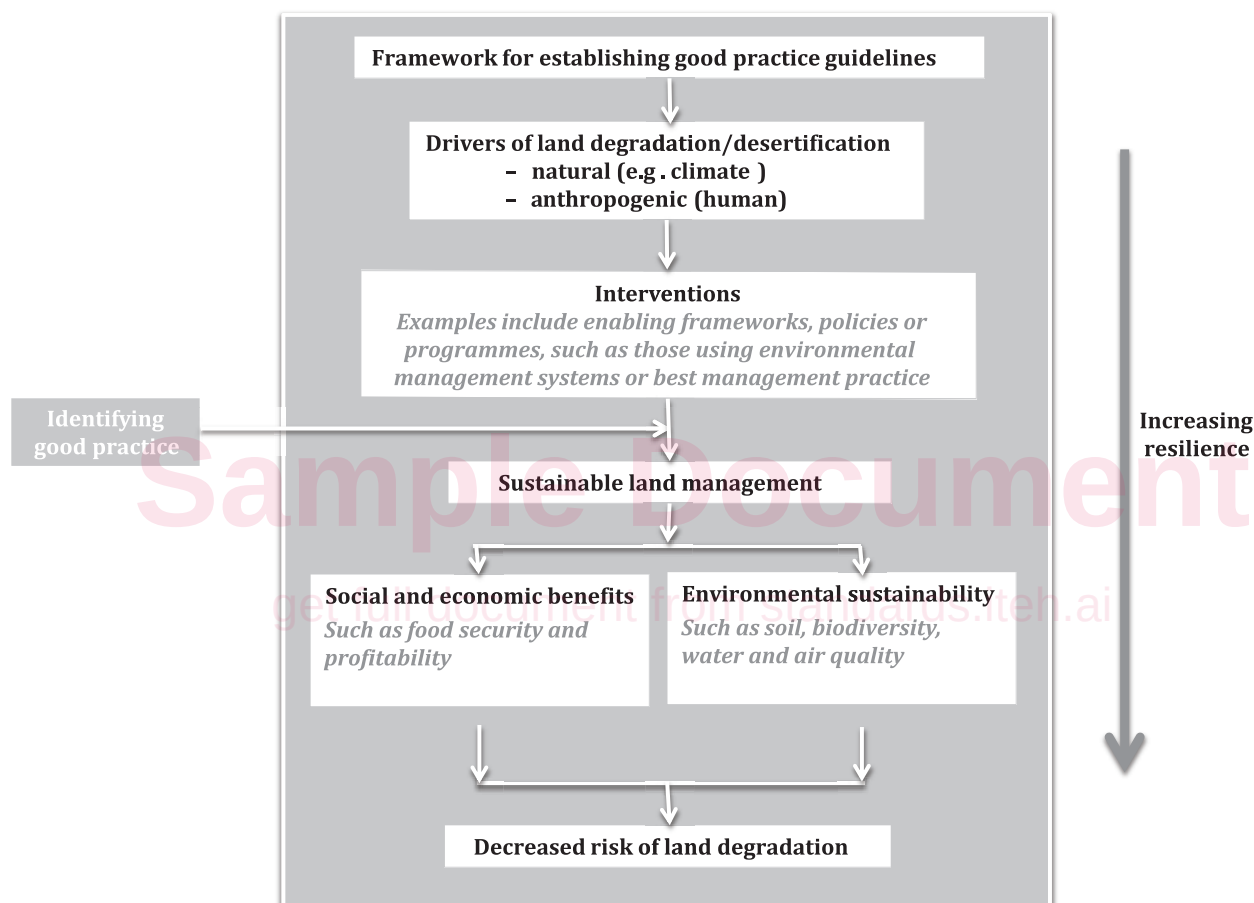


Figure 1 — Framework for establishing good practices for combatting land degradation and desertification

Environmental management — Guidelines for establishing good practices for combatting land degradation and desertification —

Part 1: Good practices framework

1 Scope

This document provides guidelines for establishing good practices in land management to prevent or minimize land degradation and desertification. It does not include management of coastal wetlands.

This document defines a framework for identifying good practices in land management, based on assessment of the drivers of land degradation and risks associated with current and past practices. Guidance on monitoring and reporting implementation of good practices is also provided.

This document is intended for use by private and public sector organizations with responsibility for land management and will allow an organization to communicate implementation of good practices.

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 Terms related to combatting land degradation and desertification

3.1.1

ecosystem

dynamic complex of plant, animal and micro-organism communities and their non-living *environment* (3.1.7) interacting as a functional unit[SOURCE: CBD[15], Art.2]

3.1.2

ecosystem service

benefit people obtain from *ecosystems* (3.1.1)

Note 1 to entry: Benefits include provisioning services such as food and water; regulating services such as flood and disease control; cultural services such as spiritual, recreational, and cultural benefits; and supporting services, such as nutrient cycling, that maintain the conditions for life on Earth.

[SOURCE: UNEP[22]]

3.1.3

good practice

method that has been proven to work well and produce good results, and is therefore recommended as a model

Note 1 to entry: Note to entry: Methods or techniques described as good practice have usually been tested over time and validated, in the broad sense, through repeated trials before being accepted as worthy of adoption more broadly.

[SOURCE: FAO Good Practices Template^[34], modified]

3.1.4

bio-productive capacity

capacity of *ecosystems* (3.1.1) to produce biological materials and to absorb waste materials

Note 1 to entry: Bio-productive capacity is also sometimes referred to as bio-capacity or biological capacity.

[SOURCE: Global Footprint Network^[16], modified]

3.1.5

biodiversity

variability among living organisms from all sources including, among others, terrestrial, marine and other aquatic *ecosystems* (3.1.1) and the ecological complexes of which they are part

Note 1 to entry: Biodiversity includes diversity within species, between species and of ecosystems.

[SOURCE: CBD^[15], Art.2]

3.1.6

habitat

place or type of site where an organism or population naturally occurs[SOURCE: CBD^[15], Art.2]

3.1.7

environment

surroundings in which an organization operates, including air, water, *land* (3.2.1), natural resources, flora, fauna, humans and their interrelationships

Note 1 to entry: Surroundings can extend from within an organization to the local, regional and global system.

Note 2 to entry: Surroundings can be described in terms of *biodiversity* (3.1.5), *ecosystems* (3.1.1), climate or other characteristics.

[SOURCE: ISO 14001:2015, 3.2.1]

3.1.8

sustainability

goal of *sustainable development* (3.1.9) which encompasses environmental, social and economic aspects, in which the needs of the present are met without compromising the ability of future generations to meet their needs

Note 1 to entry: Environmental, social and economic aspects interact and are interdependent. They are referred to as the three pillars of sustainability.

Note 2 to entry: Sustainability is a comparative concept, not a state or absolute value.

[SOURCE: ISO 13065:2015, 3.48]

3.1.9

sustainable development

development that meets the environmental, social and economic needs of the present without compromising the ability of future generations to meet their own needs

Note 1 to entry: Derived from the Brundtland Report.

[SOURCE: ISO Guide 82:2014, 3.2]

3.1.10

interested party

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

Note 1 to entry: Customers, communities, suppliers, regulators, non-governmental organizations, investors and employees.

[SOURCE: ISO 14001:2015, 3.1.6, modified — Note to entry has been deleted.]

3.1.11

capacity building

building human, scientific, technological, organizational, institutional and resource capabilities

Note 1 to entry: These capabilities can differ between countries.

[SOURCE: UNCED[56], Agenda 21, Chapter 37, modified]

3.1.12

off-site effect

effect that occurs away from the principle area of *land degradation* (3.2.13) or site of activity directly affected by *good practice* (3.1.3) actions

EXAMPLE Sediment loads into coastal marine systems due to land degradation at the source of a stream or river.

Note 1 to entry: The concept of off-site effect can also describe impacts in the future of a current intervention.

3.1.13

forest

land (3.2.1) spanning more than 0,5 ha with trees higher than 5 m and a canopy cover of more than 10 percent or trees able to reach these thresholds *in situ*, not including land that is predominantly under agricultural or urban land use

Note 1 to entry: According to FAO, stands in agricultural production systems, such as agroforestry systems when crops are grown under tree cover, fruit tree plantations and oil palm plantations, are excluded. FAO provides additional explanation about what a forest includes.

[SOURCE: FAO Forestry Paper 163[31], modified — Additional explanation about what a forest includes has been omitted and Note 1 to entry has been added.]

3.1.14

deforestation

direct human-induced conversion of *forest* (3.1.13) *land* (3.2.1) to non-forest land[SOURCE: UNFCCC, 2006[23]]

3.1.15

salinization

soil degradation (3.2.16) brought about by the increase of salts in the soil

Note 1 to entry: Salinization is also sometimes referred to as salination.

[SOURCE: FAO Soils Portal,[38] modified]

3.1.16

drought

naturally occurring phenomenon that exists when precipitation has been significantly below normal recorded levels, causing serious hydrological imbalances that adversely affect *land* (3.2.1) resources and production systems

Note 1 to entry: Droughts can become longer or more intense due to climate change as a result of human activities.