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

Part 2: Regional case studies

bsi.

National foreword

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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*, Subcommittee SC 5, *Life cycle assessment*.

A list of all parts in the ISO 14055 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

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 poor water quality, soil erosion and the 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.

The IPCC Special Report on Climate Change and Land, Summary for Policymakers, noted that "human use directly affects more than 70 % of the global, ice-free land surface" and that "about a quarter of the Earth's ice-free land area is subject to human-induced degradation"[3]. Le et al.[4] estimated that at least 3,2 billion people were affected [by land degradation], while Barbier and Hochard[1][2] estimated that 1,33 billion people were affected, of which 95 % were living in developing countries[5].

Land degradation is a driver of climate change through loss of carbon stocks in vegetation and soil, albedo changes and reduced capacity to sequester carbon as soil fertility declines. Furthermore, land degradation is exacerbated by climate change; for example, through reduction in ground cover caused by increased incidence of drought, and enhanced erosion caused by increased frequency and intensity of storms.

Recognizing the significance of land degradation leading to desertification in dryland areas, the United Nations Convention to Combat Desertification (UNCCD)[6] 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 subregional 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 document include land users, technical experts, private and public organizations, and policymakers involved in the management of land resources for ecological, productivity, economic or social objectives.

The purpose of this document is to provide case studies, in support of ISO 14055-1, on the management of land degradation from all hemispheres of the globe and across tropical, sub-tropical and temperate climates, and from a variety of topographical areas, including deserts, wetlands and marginal landscapes. Participating communities include those with poor economic profiles and limited resources, and those evidencing some wealth and access to technology and the benefits of research.

This document aims to make ISO 14055-1 more relevant and understood, and to promote its use through an illustration of regional case studies and examples that support the Sustainable Development Agenda 2030[7] of SDG 15 (life on land) and SDG 13 (climate action). This document engages a broad range of stakeholders and countries to benefit from their initiatives in combatting environmental degradation and desertification.

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

Part 2: Regional case studies

1 Scope

This document provides regional case studies of good practices in land management to prevent or minimize land degradation and desertification in support of ISO 14055-1:2017.

The case studies are presented to facilitate the application of ISO 14055-1 across a wide of range of geographical and local conditions.

NOTE The cases studies are presented as different ways of applying good practice and do not preclude alternative ways of applying good practices in accordance with ISO 14055-1.

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 14055-1:2017, *Environmental management — Guidelines for establishing good practices for combatting land degradation and desertification — Part 1: Good practices framework*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 14055-1:2017 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/

4 Abbreviated terms

AVCF	agricultural value chain finance
BAMB	Botswana Agricultural Marketing Board
C-BP	clearing and brush packing (in brush packing restoration method)
CBO	community-based organization
CEDA	Citizen Entrepreneurial Development Agency, Botswana
CLDS	composite land development sites

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