International Standard

ISO 17317

Biodiversity — Requirements and guidelines for the characterization of native species and products derived from native species

Biodiversité — Exigences et lignes directrices pour la caractérisation des espèces indigènes et des produits issus d'espèces indigènes

First edition
2026-06

Reference number
ISO 17317:2026(en)

© ISO 2026



COPYRIGHT PROTECTED DOCUMENT

© ISO 2026

All rights reserved. Unless otherwise specified, or required in the context of its implementation, no part of this publication may be reproduced or utilized otherwise in any form or by any means, electronic or mechanical, including photocopying, or posting on the internet or an intranet, without prior written permission. Permission can be requested from either ISO at the address below or ISO's member body in the country of the requester.

ISO copyright office
CP 401 • Ch. de Blandonnet 8
CH-1214 Vernier, Geneva
Phone: +41 22 749 01 11
Email: copyright@iso.org
Website: www.iso.org

Published in Switzerland

Contents

Page

Foreword ..... **v**
Introduction ..... **vi**
1 Scope **1**
2 Normative references **1**
3 Terms and definitions **1**
4 Sustainable management of natural resources **3**
4.1 General 3
4.2 Biodiversity conservation and management 5
4.2.1 General 5
4.2.2 Native species collection 6
4.2.3 Cultivation of native species 6
4.2.4 Management of forests and other ecosystems 7
4.3 Conservation of aquatic systems 7
4.4 Phytosanitary measures 8
4.5 Greenhouse gas management 8
4.6 Market requirements 9
4.7 Sustainable use of native species in primary forests 9
4.8 Products derived from native species originating in forests and other ecosystems 9
4.9 Land-use changes 9
4.10 Engagement with indigenous peoples and local communities 10
4.11 Land tenure and rights 10
4.12 Respect and conservation of traditional knowledge and practices 10
5 Prioritization of the product: Risks and opportunities from a market perspective **10**
5.1 General 10
5.2 Market analysis 11
5.3 Market intelligence 12
6 Product characterization **13**
6.1 General 13
6.2 Literature review and systematization 13
6.2.1 General 13
6.2.2 Step one: Botanical and fungi identification 14
6.2.3 Step two: Prospecting 14
6.2.4 Step three: Properties 15
6.2.5 Step four: Databases 16
6.3 Identifying Native species and products derived from native species 17
6.3.1 General 17
6.3.2 Morphology and physical characteristics 18
6.3.3 Composition 18
6.3.4 Sensory characteristics 19
6.3.5 Microbiology 19
6.3.6 Contaminants 19
6.4 Methodology 20
6.4.1 Methodological framework for determining quality parameters and their categories 20
6.4.2 Laboratory methods and metrology 26
6.5 Documents and publication of results 27
7 Biodiversity-responsible value chain **27**
7.1 Monitoring of biodiversity 27
7.1.1 General 27
7.1.2 Monitoring biodiversity 29
7.1.3 Monitoring of biodiversity performance of the supply chain 29
7.2 Respecting limit values to avoid overexploitation 30

© ISO 2026 – All rights reserved

7.3 Identifying negative impacts in the life cycle of a product 30
7.4 Traceability from the shop to the origin 31
7.5 Information and awareness raising of consumers 31

Annex A (informative) **Good practices and tools for measuring elements of biodiversity, and collecting species and ecosystem data** **32**

Bibliography **35**

© ISO 2026 – All rights reserved

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).

ISO draws attention to the possibility that the implementation of this document may involve the use of (a) patent(s). ISO takes no position concerning the evidence, validity or applicability of any claimed patent rights in respect thereof. As of the date of publication of this document, ISO had not received notice of (a) patent(s) which may be required to implement this document. However, implementers are cautioned that this may not represent the latest information, which may be obtained from the patent database available at www.iso.org/patents. ISO shall not be held responsible for identifying any or all such patent rights.

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 331, *Biodiversity*.

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.

© ISO 2026 – All rights reserved

Introduction

This document was developed to characterize native species and products derived from native species, with the aim of enhancing the sustainable collection, harvesting, or production of these products and the conservation of their ecosystems. This document is aimed at farmers, producers, exporters, importers, authorities, indigenous peoples, and local communities, containing information on quality infrastructure to support efforts in biodiversity conservation. Native species are part of "natural capital" and their commercialization can only be assured on a long-term basis if the multilateral environmental agreements[24] related to biodiversity are fully implemented. Furthermore, it is recommended that local communities be included in the commercialization process.

There is strong global demand for native species and products derived from native species as their origin and natural properties support a range of applications delivering benefits in health, well-being and agri-food sector. This document describes the characterization of native species and products derived from native species, which enables the identification of physical, chemical and biological requirements, which are then provided to interested parties. These requirements allow the commercial demand for these products to be met in a sustainable manner that is compatible with conservation efforts, and which guarantees the quality and safety of the products.

Biodiversity is important for the survival of humankind and therefore, protection and sustainable management of resources that concern biodiversity are a priority. This includes the genetic value of native species and related ecosystem services. Using biodiversity resources and services in a sustainable way benefits their conservation and contributes to equitable social and economic growth.

Requirements for native species and products derived from native species can be determined in various stages of the value chain, including:

— raw material collection or production;

— transformation into end products;

— the final consumption or use of these products.

Establishing requirements for native species and products derived from native species through standardization facilitates their access to foreign markets through a systematic approach that responds to market demand.

Many products derived from native species are produced by micro, small and medium enterprises (MSMEs). Their processing and transformation provide income and economic growth opportunities. By adequately characterizing native species and products derived from native species, the creation of technical standards is supported, thus adding value in the supply chain and contributing to the sustainable growth of organizations such as MSMEs. Properly characterized native species and products derived from native species can also help to minimize market barriers and contribute to efforts for conservation and sustainable use of biodiversity resources. For a better comprehension of how this document applies to the interested parties, see Table 1 and Figure 1.

© ISO 2026 – All rights reserved

Table 1 — Correlation between the interested parties and the clauses of this document

Users /target audience	Clause/subclause
Farmers, aquacultures	Clause 4: Sustainable management of natural resources (excluding 4.6 and 4.9) 6.4.1: Methodological framework for determining quality parameters and their categories (excluding 6.4.1.7 and 6.4.1.11) Clause 7: Biodiversity- responsible value chain (excluding 7.5) Annex A: Good practices and tools for measuring elements of biodiversity, collecting species and ecosystem data
Producers	Clause 4: Sustainable management of natural resources (excluding 4.8, 4.10 and 4.11) Clause 5: Prioritization of the product: Risks and opportunities from a market perspective 6.3: Native species and products derived from native species identification 6.4.1: Methodological framework for determining quality parameters and their categories (excluding 6.4.1.11) Clause 7: Biodiversity- responsible value chain Annex A: Good practices and tools for measuring elements of biodiversity, collecting species and ecosystem data
Trade partners (such as exporters, among others)	4.6: Market requirements Clause 5: Prioritization of the product: Risks and opportunities from a market perspective 6.3: Native species and products derived from native species identification 6.4.1: Methodological framework for determining quality parameters and their categories (excluding 6.4.1.11) Clause 7: Biodiversity- responsible value chain (excluding 7.1.2)
Regulatory and controlling bodies	Clause 4: Sustainable management of natural resources 6.2: Literature review and systematization 6.3: Native species and products derived from native species identification 7.1: Monitoring of biodiversity (excluding 7.1.3) 7.2: Respecting limit values to avoid overexploitation Annex A: Good practices and tools for measuring elements of biodiversity, collecting species and ecosystem data
Researchers, bio-prospectors and academic institutions	Clause 4: Sustainable management of natural resources (excluding 4.2 and 4.6) Clause 5: Prioritization of the product: Risks and opportunities from a market perspective Clause 6: Product characterization (excluding 6.4.2) A.2: Best practices for collecting species and ecosystem data

© ISO 2026 – All rights reserved

Table 1 *(continued)*

Users /target audience	Clause/subclause
Indigenous peoples and local communities	Clause 4. Sustainable management of natural resources (excluding 4.2 and 4.6) 7.1: Monitoring of biodiversity (excluding 7.1.3) 7.2: Respecting limit values to avoid overexploitation
Consumers	4.6: Market requirements 6.3: Native species and products derived from native species identification 7.5: Information and awareness raising of consumers
Laboratories, metrology institutes, conformity assessment bodies	6.2.4: Step three: Properties 6.4.2: Laboratory methods and metrology 6.5: Documents and publication of results

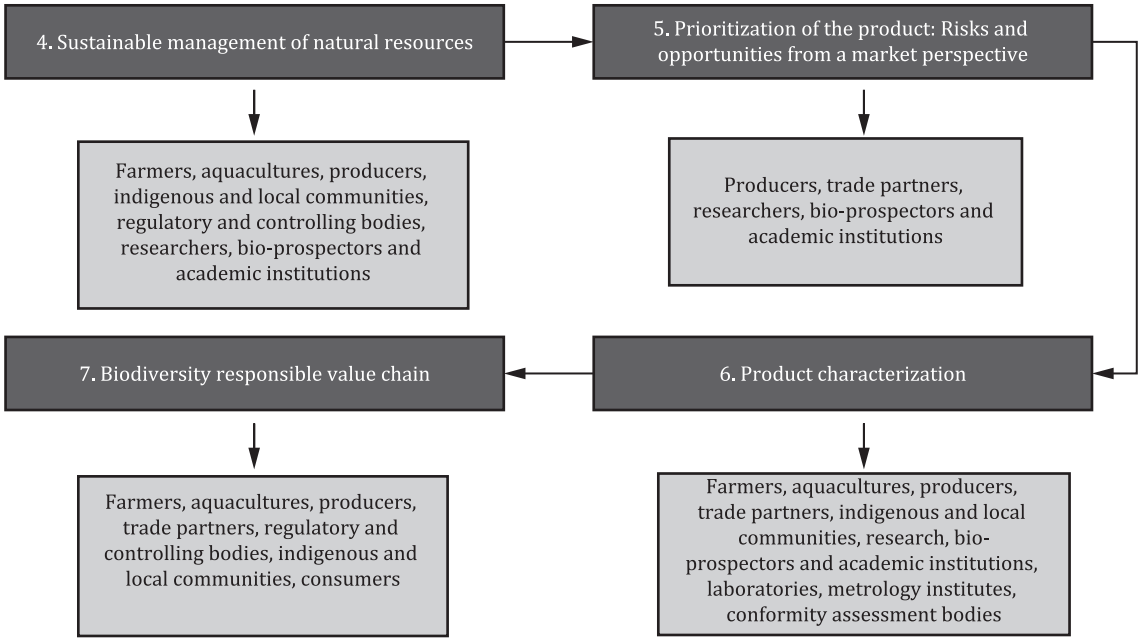


Figure 1 — Relationship between the clauses of this document and the target audience

© ISO 2026 – All rights reserved

Biodiversity — Requirements and guidelines for the characterization of native species and products derived from native species

1 Scope

This document provides requirements and guidelines for the characterization of native species of plants, algae and fungi and the products derived from them, which have been collected, harvested or processed. This document aims to enable the establishment of minimum quality and safety requirements considering sustainable management of biodiversity. This document also covers the protection of biodiversity along all steps of the value chain of the products derived from native species through the application of a biodiversity management plan.

This document does not apply to native animal species, timber and wood products.

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 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
acceptance and rejection criteria
evidence required for considering that requirements have been fulfilled or not

[SOURCE: ISO 22263:2008, 2.1, modified — “rejection criteria” has been added to the term and “or not” has been added to the definition.]

3.2
biodiversity
biological diversity
variability among living organisms on the earth, including the variability within and between species, and within and between ecosystems

[SOURCE: ISO 14050:2020, 3.8.22]

3.3
characterization of native species
description of the specific and inherent attributes, qualities or traits of a *native species* (3.7), such that it is distinguishable from other species

© ISO 2026 – All rights reserved