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WORLD SUSTAINABILITY STANDARD ORGANIZATION

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Introduction

This standard specifies the requirements for the chain of custody of wood, wood products, cork, non-wood fiber raw materials (such as bamboo, rattan and reed) and their products, and related commodities including cattle, cocoa, coffee, oil palm, rubber and soybean may refer to it for application. It applies to all supply chain links from raw material procurement to finished product delivery, including production, processing, transportation, trade and product claims. This standard aims to establish a unified chain of custody system, ensure the legality, traceability and sustainability of raw materials, reduce the impact of supply chains on deforestation and forest degradation, and advance the conservation and sustainable utilization of global forest resources.



Content

The WSSO Zero Deforestation Products Compliance Evaluation Technical Guidelines Project Proposal standard is designed to coordinate the actions of all countries through unified global norms to systematically solve the problem of forest destruction and promote the balanced development of international trade and environmental protection. Unify global rules, reduce trade friction and eliminate fragmentation of standards: There are differences in zero-deforestation regulations in different countries or regions (e.g., EU, U.S.), and the international standard can provide global enterprises with unified technical thresholds (e.g., origin verification methods, forest degradation definitions), reducing the compliance complexity of cross-border trade. Avoid duplicate certifications: Reduce the cost of companies submitting data or undergoing audits repeatedly to meet multi-country regulations through an internationally recognised certification system. Protect global ecology and climate, and quantify forest protection targets: Incorporate indicators such as forest cover and carbon stock changes into international standards, directly supporting the implementation of the Paris Agreement and the Kunming-Montreal Global Biodiversity Framework. Protecting transboundary ecosystems: Developing regional technical specifications for transboundary forest areas and coordinating multinational actions to avoid 'race to the bottom'.

Technical Guidelines for Compliance Evaluation of Zero-Deforestation Products

1 Overview

1.1 Scope

This standard specifies the requirements for production and consumption supply chain supervision of wood and wood products, cork, non-wood fiber raw materials (such as bamboo, rattan and reed) and their products, as well as associated commodities including cattle, cocoa, coffee, oil palm, rubber and soybeans. It applies to all supply chain links from raw material procurement to finished product delivery, covering production, processing, transportation, trade and product claims.

1.2 Purpose

This standard aims to establish a unified production and marketing chain of custody system, ensure the legality, traceability and sustainability of raw materials, reduce the supply chain's impacts on deforestation and forest degradation, and advance the conservation and sustainable utilization of global forest resources.

2 Normative References

The following referenced documents are indispensable:

ISO 9000 Quality management systems — Fundamentals and vocabulary

ISO 9011 Guidelines for auditing management systems

ISO 13694 Risk management — Vocabulary

ISO 15770 Compliance management systems — Requirements with guidance for use

ISO 45001 Occupational health and safety management systems

ISO 16577:2022 Molecular biomarker analysis — Vocabulary for molecular biomarker analytical methods in agriculture and food production

ISO 24294:2021 Timber — Round and sawn timber

EC Directive 2000/76 of the European Union (Waste Incineration Directive)

Regulation (EU) 2023/1115 of the European Parliament and of the Council (on the regulation of commodities associated with deforestation and forest degradation)

GB 13456 Discharge standard of water pollutants for iron and steel industry

3 Terms and definitions

3.1 Definitions

For the purposes of this document, the following terms shall apply:

3.1.1 Chain of Custody for Production and Sales

A process in which an organization handles information related to forest products, associated goods and their raw material categories, and makes accurate and verifiable claims.

3.1.2 Wood

The xylem located between the pith and bark of trees or shrubs.

3.1.3 Wood Products

Products wholly or partially derived from wood or wooden components, processed through mechanical, chemical, biological and/or thermal treatments.

3.1.4 Non-Wood Fibre Raw Materials

Fibre materials sourced from the bark of trees or shrubs, or perennial plants incapable of forming wood due to the absence of a cambium layer (such as bamboo, rattan, reeds, etc.).

3.1.5 Cork

The protective layer of cork oak trees, which can be periodically stripped from trunks and branches to serve as raw material for cork products.

3.1.6 Legally Harvested / Sourced Raw Materials

Raw materials obtained through harvesting and trade in compliance with national laws and regulations, with evidence conforming to the due diligence system available.

3.1.7 Certified Raw Materials

Raw materials certified by third parties to meet the requirements of specific certification schemes (e.g., CFCC, PEFC, FSC, etc.).

3.1.8 Recycled Raw Materials

Raw materials recovered from production waste, end-user discarded products or supply chains, excluding waste reused within the same production process.

3.1.9 Deforestation-Free

Raw materials for relevant commodities or products that are not produced on land subject to deforestation or degradation after 31 December 2020.

3.1.10 Due Diligence System

A systematic procedure for verifying raw material characteristics, identifying categories and assessing compliance risks, including information collection, risk assessment and risk mitigation.

4 General Principles

4.1 Scientific Validity

Organizations shall establish chain-of-custody management procedures in compliance with this standard, clarifying resource allocation, record retention and compliance responsibilities.

Raw materials and products shall meet legality requirements, and raw materials illegally harvested or procured are prohibited from use.

Raw materials containing genetically modified organisms shall be declared throughout the entire supply chain (except for recycled raw materials whose origin cannot be confirmed).

Organizations shall adopt chain-of-custody approaches including physical separation, percentage method or credit method to ensure raw material traceability.

Records covering all stages of the supply chain, including procurement, production, sales and audit records, shall be retained for a minimum of five years.

5 Organizational Requirements

5.1 Responsibilities and Authorities

Top management shall commit to implementing the Chain of Custody system, clarify the responsibilities of departments and personnel, and allocate sufficient resources.

Management shall ensure relevant personnel are competent for their duties, maintain their professional proficiency through training, education and experience accumulation, and retain records verifying their competence.

The organization shall communicate the Chain of Custody requirements to partners such as suppliers and distributors.

5.2 Document and Record Control

Where inaccuracies, data falsification, or non-compliance are identified, corrective actions shall be required. The grading shall be reassessed and the final grade re-determined in accordance with the requirements of this document.

5.3 Inspection and Improvement

The Conduct an internal audit at least once a year to verify the effectiveness of the production and marketing control chain system, covering outsourced processes and partners (see Appendix D).

Develop corrective actions for non-conformities, notify affected parties and record rectification results.

The top management shall organize a management review every year to assess the operation performance of the system, incorporating internal and external changes as well as complaint handling results.

6 Raw Material Management

6.1 Raw Material Classification

Raw materials must fall into one of the following categories; otherwise, they shall not be admitted into the production and marketing supervision chain:

Certified raw materials (e.g., third-party certified);
Specified raw materials (verified raw materials complying with the requirements of the organization's public documents);
Verified raw materials (raw materials proven compliant through due diligence);
Recycled raw materials (complying with the definition of recycled sources).

6.2 Identification and Acceptance

Develop raw material identification procedures, require suppliers to provide information on raw material changes, and confirm such information via self-declarations or agreements.

Invoices or delivery orders for each batch of raw materials shall contain: organization and supplier information, raw material particulars, quantity, delivery date, genetically modified organism statement (if applicable), audit methods, and production and marketing supervision chain approaches.

7 Due Diligence System

7.1 Information Collection

Raw material information to be collected includes:

Product type, tree species name (including Latin name), harvesting location and quantity;
Supplier information and legal harvesting evidence (such as harvesting permits, tax payment certificates);
Genetically modified organism information (excluding recycled raw materials).

7.2 Risk Assessment

Assess raw material compliance risks based on the following indicators (see Appendix F):

Legality evidence (such as third-party certifications, government permits);
Deforestation, armed conflict and corruption conditions at harvesting locations;
Supply chain complexity and international trade compliance.

Risk assessments shall be documented and filed, and risk mitigation procedures shall be initiated for high-risk raw materials.

7.3 Risk Mitigation

The following measures shall be adopted to reduce risks for high-risk raw materials:

Require suppliers to supplement compliance documents or third-party verification reports;
If risks cannot be mitigated, reject the entry of such batches of raw materials into the chain of custody.

8 Chain of Custody Methods

8.1 Physical Separation Method

Physical isolation (by space, time or identification marks) is adopted to ensure full traceability of the same type of raw materials from input to output, applicable to production with a single category of raw materials.

8.2 Percentage Method

Simple Percentage Method: Raw materials of different categories are blended at fixed proportions, and the proportion of each category in finished products is consistent with the input ratio of raw materials.

Rolling Percentage Method: When multiple batches are blended with fluctuating proportions, the composition of products shall be declared based on the average proportion within a declaration period (no more than 12 months).

8.3 Credit Method

An independent credit account is established for each type of raw material, and the balance between raw material input and product output is calculated based on the conversion factor.

Calculation formulas for credit account balance:

Before raw materials enter the account: $Cb = Cbp + (Min \times r) - Mo - Mex$

After raw materials leave the account: $Cb = Cbp + Min - Mex - (Mo / r)$

Where:

Cb = Current balance

Cbp = Balance at the end of the previous period

Min = Purchased quantity

Mo = Sold quantity

Mex = Expired raw material quantity

r = Conversion factor

No overdraft of credit limit is allowed; credit limits exceeding 24 months shall be automatically deducted.

9 Product Information and Declarations

9.1 Product Category

The product category shall be determined based on raw material categories and supply chain of custody methodologies. No claim of "certified product" shall be made without authorization from the certification scheme owner.

9.2 Product Declarations

Upon product delivery, invoices or delivery notes shall include: customer and organization information, product particulars, quantity, delivery date, genetically modified organism statement (if applicable), evaluation method, supply chain of custody methodology and complete declaration (example: pulp, 50% recycled raw material, 50% certified raw material, percentage method, self-declaration, ISO 38200:2018). Certified products shall be supplemented with authorization information of the certification scheme.

9.3 Mark Usage

Authorization from the owner shall be obtained prior to the use of marks (e.g., logos, labels), and consistency between marks and product declarations shall be ensured.

10 Compliance and Law Enforcement

Organizations shall cooperate with inspections conducted by competent authorities and provide documents as well as access to premises.

Competent authorities of member states shall establish risk-based inspection mechanisms and strengthen scrutiny of products originating from high-risk countries or regions.

Non-compliant products shall be subject to measures such as withdrawal, recall or destruction, while violators shall face penalties including fines, confiscation of proceeds or temporary trade bans.

Appendix

Appendix A (Normative) Social Welfare and Employment

Covers legal and regulatory requirements including the prohibition of forced labour and child labour, as well as the guarantee of fair employment and safe working environments.

Appendix B (Normative) Environmental Conditions

Includes environmental protection requirements such as biodiversity conservation, pollution prevention and control, greenhouse gas emissions, and resource utilization efficiency.

Appendix C (Normative) Trade and Customs

Covers trade compliance requirements involving import and export bans, licensing requirements, inspections, taxes and fees.

Appendix D (Normative) Internal Audit Guidelines

Contains procedures including audit planning, review of key links, follow-up on corrective actions, and record retention.

Appendix E (Normative) Guidelines for Legal Harvesting of Raw Materials

Covers requirements such as harvesting permits, payment of taxes and fees, environmental protection, and protection of the rights of stakeholders.

Appendix F (Informative) Examples of Risk Indicators



Low-risk indicators: third-party certified raw materials, government-verified permits, compliant origins;
High-risk indicators: frequent corruption, armed conflicts, and a history of illegal logging.

Appendix G (Informative) Examples of Chain of Custody Approaches

Application scenarios and calculation examples for the physical separation method, percentage method, and credit method.

Appendix H (Informative) Examples of Specified Raw Materials

Definitions, control methods and sample declaration formats for different specified raw materials.

This standard integrates China's chain of custody requirements for timber and wood products as well as relevant EU forest protection regulations. It aims to provide a unified regulatory framework for global supply chains, balance legality, sustainability and traceability, and advance forest resource conservation and the development of green trade.

Annex A (Normative)

Social Welfare and Employment

This appendix specifies the legal and regulatory requirements related to social welfare and employment within supply chains, ensuring that raw material and product production processes comply with international labour standards and national labour laws of all relevant countries. Specific provisions are set out as follows:

Prohibition of Forced Labour and Child Labour

All forms of forced labour (including bonded labour, mandatory overtime, etc.) are prohibited. Voluntarily signed labour contracts of employees shall be retained, with clear stipulations on working hours and remuneration.

The employment of minors is strictly forbidden (exception clauses of the International Labour Organization Minimum Age Convention shall apply to special industries only). Employee identity documents shall be verified, and age verification records shall be maintained.

Fair Employment and Remuneration

Employment discrimination based on gender, race, religion and other grounds is prohibited. Promotion and remuneration systems shall be transparent, with pay scales and promotion assessment records kept on file.

Remuneration shall not be lower than the statutory local minimum wage. Wages shall be paid monthly with itemised pay slips provided, and calculation methods for overtime pay shall be documented.

Safe and Healthy Working Environment

Production sites shall meet the requirements of the Occupational Health and Safety Management System (ISO 45001). Fire-fighting facilities and protective equipment (such as dust masks for wood shavings) shall be provided, and regular safety training shall be conducted (at least four times per year).

Work injury records and emergency response plans shall be established, and clear procedures for accident reporting shall be defined (e.g., reporting to local labour authorities within 24 hours).

Freedom of Association

Employees shall be permitted to form or join trade unions in accordance with the law. Trade union activities shall not be interfered with, and communication records between trade unions and management (such as minutes of quarterly consultation meetings) shall be retained.

Appendix B (Normative)

Environmental Conditions

This appendix specifies environmental protection requirements for all links in the supply chain to mitigate impacts on ecosystems, with detailed provisions as follows:

Biodiversity Conservation

Raw material harvesting or planting areas shall avoid ecologically sensitive zones (such as nature reserves and habitats of endangered species), and ecological assessment reports of the areas issued by third-party institutions shall be provided.

For raw materials sourced from natural forests, ecological restoration (such as replanting native tree species with a coverage rate of no less than 80%) shall be completed within 3 years after harvesting.

Pollution Prevention and Control

Wastewater and waste gas discharged during processing shall comply with local environmental standards (including China's GB 13456 Discharge Standard of Water Pollutants for Iron and Steel Industry and the EU's EC 2000/76 Waste Incineration Directive), and quarterly emission test reports shall be retained.

Hazardous wastes (such as waste liquid from chemical treatment) shall be disposed of by qualified institutions, with transfer documents and disposal certificates kept on file.

Greenhouse Gas and Resource Efficiency

Greenhouse gas emissions from all supply chain links shall be calculated in accordance with the ISO 14064 standard, and annual emission reduction targets shall be set.

Water-saving and energy-saving technologies (such as water recycling systems and solar power supply) shall be promoted, and resource consumption data shall be recorded.

Appendix C (Normative)

Trade and Customs

This appendix specifies compliance requirements applicable to international trade to ensure the cross-border movement of raw materials and products complies with trade laws and regulations of all countries, covering the following particulars:

Import and Export Bans and Restrictions

Raw materials sourced from countries on the UN Sanctions List are prohibited for import, and a "Conflict-Free Certificate" issued by the official authority of the exporting country shall be verified.

Wood products failing to meet Regulation (EU) 2023/1115 are banned from entering the EU market, and a "Deforestation Compliance Statement" shall be applied for in advance.

Licensing and Declaration

A permit issued under the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) is mandatory for importing raw materials derived from endangered species (such as rosewood). Information including the Latin name and origin of the species shall be submitted during declaration.

For wood imported into China, an FSC Certificate, Certificate of Origin and Phytosanitary Certificate must be presented upon customs clearance, with none of the three documents dispensable.

Duties and Inspections

Tariffs shall be calculated based on the HS Code of the importing country, and customs duty payment vouchers shall be retained.

Note: Wood products exported to the United States must pass quarantine administered by APHIS (Animal and Plant Health Inspection Service) of the United States, with pest control treatment records provided.

Appendix D (Normative)

Guidelines for Internal Audits

This appendix specifies the operational procedures for internal audits of the production and sales chain of custody to ensure the effective operation of the system, covering the following key aspects:

Audit Planning

An annual audit programme shall be formulated to define the audit scope (e.g. raw material procurement, production records, product declarations), audit frequency (at least once per year) and audit team.

Audit frequency shall be increased for high-risk links (e.g. acceptance of recycled raw materials), with audits conducted once per quarter.

Audit Implementation

Checklists shall cover certificates verifying the legality of raw materials (e.g. harvesting permits), traceability records (e.g. batch transfer documents), staff training records and other documents, with 30% of samples randomly selected for each category of records.

On-site audits shall verify the actual implementation of the physical separation method (e.g. separate storage of different raw materials with clear identification labels).

Correction and Follow-up

For identified non-conformities (e.g. missing records), a corrective action plan shall be developed to designate responsible persons and completion deadlines, and the effectiveness of corrective actions shall be verified (e.g. supplementing and filing missing records).

Audit reports (including non-conformity lists and corrective action outcomes) shall be retained for a minimum of five years.

Appendix E (Normative)

Guidelines for Legal Harvesting of Raw Materials

This appendix specifies the operational requirements for the legal harvesting of raw materials to ensure compliant sources, covering the following aspects:

Harvesting Permits

A "Forest Harvesting Permit" shall be applied for from the local forestry department prior to harvesting, which shall specify the harvesting area (demarcated via GPS positioning), tree species and standing volume.

Harvesting beyond the permitted scope is prohibited, and supervision records of the harvesting site issued by a third-party institution shall be retained.

Tax and Fee Payment

Forest resource tax (the tax rate in China ranges from 2% to 10% of the value of timber) and forest cultivation funds shall be paid in accordance with regulations, and tax payment certificates issued by tax authorities shall be kept.

Export tariffs shall be levied on harvested raw materials for export, with tariff rates subject to the provisions of importing countries (for example, the EU imposes a 3% tariff on unprocessed timber).

Rights of Stakeholders

Negotiations shall be conducted with relevant local stakeholders before harvesting, a "Benefit-sharing Agreement" shall be signed, and meeting minutes and documents with signatures for confirmation shall be retained.

Appendix F (Informative)

Examples of Risk Indicators

This appendix sets out specific assessment indicators for raw material compliance risks to assist organizations in identifying high-risk raw materials, which are detailed as follows:

Low-risk Indicators

The raw materials hold authoritative third-party certifications (such as FSC/PEFC certifications);

The country of origin ranks among the top 30 in the Forest Governance Index (e.g., Finland, Canada);

The supplier has no violation records for three consecutive years (verifiable via customs "credit rating").

High-risk Indicators

The place of origin is a country scoring below 30 in Transparency International's Corruption Perceptions Index (e.g., Myanmar, Venezuela);

The raw materials originate from armed conflict zones (e.g., the Central African Republic);

The supplier has been penalized for illegal logging (checkable against the blacklist issued by local forestry authorities).

Appendix G (Informative)

Examples of Chain of Custody Methods

This appendix illustrates the application of chain of custody methods through practical examples, which specifically include:

Physical Separation Method

Scenario: A furniture manufacturer produces FSC-certified furniture. It stores FSC raw materials and non-FSC raw materials in separate warehouses marked with red and blue labels respectively. Production records are marked with "FSC batch numbers" to ensure full traceability throughout the whole process.

Percentage Method

Scenario: A pulp mill blends 50% recycled pulp with 50% certified pulp. It calculates monthly raw material input volumes (e.g., 100 tonnes of recycled pulp and 100 tonnes of certified pulp). Product claims are labelled "50% recycled raw materials, 50% FSC-certified raw materials", consistent with the input proportions.

Credit Method

Scenario: A panel mill applies a conversion factor ($r=0.8$, meaning 1 tonne of raw log yields 0.8 tonnes of panels). In a certain quarter, it purchases 200 tonnes of raw logs and sells 150 tonnes of panels with no expired raw materials. The calculation is as follows:

Balance after raw material entry into the account: $C_b = 0 + (200 \times 0.8) - 150 - 0 = 10$ tonnes

This represents a credit balance of 10 tonnes for the quarter, which may be carried forward to the next quarter (for a maximum period of 24 months).

Appendix H (Informative)

Examples of Specified Raw Materials

This appendix sets forth requirements for common specified raw materials, specifically including:

FSC Mixed Raw Materials

Definition: Containing a minimum of 70% FSC-certified raw materials, with the remainder being legal non-certified raw materials (subject to due diligence).

Control Measures: Test the proportion of FSC raw materials for each batch (e.g., sampling for inspection) and retain test reports.

Declaration Format: Mark "FSC Mix 70%" on product labels together with the FSC certificate number.

Region-Restricted Raw Materials

Definition: Timber sourced exclusively from state-owned forest areas in Northeast China (a "Legal Source Certificate" issued by the forest area is required).

Control Measures: Conduct annual audits of suppliers (forest farms in Northeast forest areas) to verify the authenticity of raw material sources.

Declaration Format: Indicate "Raw Material Source: State-owned Forest Areas of Heilongjiang Province, China" on invoices.