

International Standard

ISO 13391-1

Wood and wood-based products — Greenhouse gas dynamics —

Part 1:

Framework for value chainh Standards calculations (https://standards.iteh.ai)

Produits en bois et dérivés du bois — Dynamique des gaz à effet de serre —

Partie 1: Cadre pour les calculs de la chaîne de valeur

ISO 13391-1-2025

https://standards.iteh.ai/catalog/standards/iso/97e15d07-d778-4109-9c0b-7951a5612c13/iso-13391-1-2025

First edition 2025-04

iow

iTeh Standards (https://standards.iteh.ai) Document Preview

<u> 180 13391-1:2025</u>

https://standards.iteh.ai/catalog/standards/iso/97e15d07-d778-4109-9c0b-7951a5612c13/iso-13391-1-2025



COPYRIGHT PROTECTED DOCUMENT

© ISO 2025 All rights reserved.

ISO publications, in their entirety or in fragments, are owned by ISO. They are licensed, not sold, and are subject to the terms and conditions set forth in the ISO End Customer License Agreement, the License Agreement of the relevant ISO member body, or those of authorized third-party distributors.

Unless otherwise specified or required for its implementation, no part of this ISO publication may be reproduced, distributed, modified, or used in any form or by any means, electronic or mechanical, including photocopying, scanning, recording, or posting on any intranet, internet, or other digital platforms, without the prior written permission of ISO, the relevant ISO member body or an authorized third-party distributor.

This publication shall not be disclosed to third parties, and its use is strictly limited to the license type and purpose specified in the applicable license grant. Unauthorized reproduction, distribution, or use beyond the granted license is prohibited and may result in legal action.

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	
Fore	word	iver references 1 ative references 1 arching requirements and principles 7 General 7 Organizational requirements 8 4.2.1 General 8 4.2.2 Competence and requirements for the greenhouse gas dynamics calculations 8 4.2.3 Control of information, documents and records 9		
Intro	oductio	n	vi i	
1	Scon	e e	1	
2	-			
3				
4				
	4.1			
	4.2			
		4.2.3 Control of information, documents and records	9	
5	Meth	odology of calculating greenhouse gas dynamics for wood and wood-based		
	5.1			
	0.1			
		5.1.2 Calculation of biogenic carbon	12	
		•		
	F 2			
	5.2	Forest management unit (FMU) 5.2.1 General requirements		
		5.2.2 Handling of forest carbon balance for purchased material where data is not		
	5.3	available		
	5.4	Calculating the contribution to the HWP carbon pool		
	0.1	5.4.1 General		
		5.4.2 Tier 1 – Simplified production approach using a stock change method		
		5.4.3 Tier 2		
		5.4.4 Tier 3 <u>180 13391-1:2023</u>		
	://stand	5.4.5 Reuse log/standards/iso/97e15d07-d778-4109-9c0b-7951a5612c13/iso-13391-1-2		
	5.5	End of life		
		5.5.2 Landfill		
		5.5.3 Energy recovery		
		5.5.4 Recycling for production of various materials		
		5.5.5 Decomposition without energy recovery		
	5.6	Displacement potential	23	
6	Reporting			
	6.1	General requirements		
	6.2	Reporting on the scope of the study		
	6.3	Reporting on the results of the calculations		
		6.3.1 General requirements for reporting results6.3.2 Reporting results for the forest carbon balance		
		6.3.3 Reporting results of displacement potential calculations		
7	Com	munication and claims		
		formative) Specifications of carbon pools		
	ex B (i	nformative) Cross-references between components in the ISO 13391 series and reference documents		
_				
Ann	ex C (in	formative) IPCC tier approach	31	
Dibli	iograph	117	22	

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 287, Sustainable processes for wood and woodbased products.

A list of all parts in the ISO 13391 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.

Licensing and use terms

The ISO publications, as well as any updates and/or corrections, and any intellectual property or other rights pertaining thereto, are owned by ISO. ISO publications are licensed, not sold. Nothing in this document shall operate to assign or transfer any intellectual property rights from ISO to the user. The ISO publications are protected by copyright law, database law, trademark law, unfair competition law, trade secrecy law, or any other applicable law, as the case may be. Users acknowledge and agree to respect ISO's intellectual property rights in the ISO publications.

The use of ISO publications is subject to the terms and conditions of the applicable licensing agreement.

ISO publications are provided under different licensing agreement types ("License Type") allowing a non-exclusive, non-transferable, limited, revocable right to use/access the ISO publications for one or more of the following purposes described below ("Purpose"), which may be internal or external in scope. The applicable Purpose(s) must be captured in the licensing agreement.

a) License Type:

i. a single registered end-user license (watermarked in the user's name) for the specified Purpose. Under this license the user cannot share the ISO Publication with anyone, including on a network;

ii. a network license for the specified Purpose. The network license may be assigned to either unnamed concurrent end-users or named concurrent end-users within the same organization.

b) Purpose:

i. Internal Purpose: internal use only within user's organization, including but not limited to own implementation ("Internal Purpose").

The scope of permitted internal use is specified at the time of purchase or through subsequent agreement with ISO, the ISO member body in the user's country, any other ISO member body or an authorized third-party distributor, including any applicable internal reproduction rights (such as internal meetings, internal training programs, preparation of certification services, integration or illustration in internal manuals, internal training materials, and internal guidance documents). Each internal use must be explicitly specified in the purchase order, and specific fees and requirements will apply to each permitted use.

- ii. External Purpose: external use, including but not limited to:
- testing services
- inspection services
- certification services
- auditing services
- consulting services
- training services
- Hen Standards
- software development and other digital platform or software-enabled digital services; and

any other services or activities conducted by the user or users' organization to third parties, whether for commercial or non-commercial purposes ("External Purpose").

The scope of permitted external use is specified at the time of purchase or through subsequent agreement with ISO, the ISO member body in user's country, any other ISO member body or an authorized third-party distributor, including any applicable external reproduction rights (e.g. in publications, products, or services marketed and sold by user/user's organization). Each external use must be explicitly specified in the purchase order, and specific fees and requirements will apply to each permitted use.

Unless users have been granted reproduction rights according to the above provisions, they are not granted the right to share or sub-license the ISO publications in- or outside their organization for either Purpose. If users wish to obtain additional reproduction rights for ISO publications or their content, users may contact ISO or the ISO member body in their country to explore their options.

In case the user or the user's organization is granted a license for the External Purpose of providing any of the following services to third parties:

- testing services
- inspection services
- certification services
- auditing services
- consulting services

the user or user's organization agrees to verify that the third party receiving such services has obtained a license for its own implementation of the ISO Standard being used from the ISO member body in their country, any other ISO member body, ISO or an authorized third-party distributor. This verification obligation shall be included in the applicable license agreement obtained by the user or user's organization.

The ISO publications shall not be disclosed to third parties, and Users shall use them solely for the purpose specified in the purchase order and/or applicable licensing agreement. Unauthorized disclosure or use of ISO publications beyond the licensed purpose is prohibited and may result in legal action.

Use restrictions

Except as provided for in the applicable License Agreement and subject to a separate license by ISO, the ISO member body in user's country, any other ISO member body or an authorized third-party distributor, users are not granted the right to:

- use the ISO Publications for any purpose other than the Purpose;
- grant use or access rights to the ISO Publications beyond the License Type;
- disclose the ISO Publications beyond the intended Purpose and/or License Type;
- sell,lend,lease,reproduce,distribute,import/exportor otherwise commercially exploit ISO Publication(s). In the case of joint standards (such as ISO/IEC standards), this clause shall apply to the respective joint copyright ownership;
- assign or otherwise transfer ownership of the ISO Publications, in whole or in fragments, to any third party.

Regardless of the License Type or Purpose for which users are granted access and use rights for ISO publications, users are not permitted to access or use any ISO publications, in whole or in fragments, for any machine learning and/or artificial intelligence and/or similar purposes, including but not limited to accessing or using them (i) as training data for large language or similar models, or (ii) for prompting or otherwise enabling artificial intelligence or similar tools to generate responses. Such use is only permitted if expressly authorized through a specific license agreement by the ISO member body in the requester's country, another ISO member body, or ISO. Requests for such authorization may be considered on a case-by-case basis to ensure compliance with intellectual property rights. For the avoidance of doubt, you cannot claim the benefit of copyright exception of Article 4 of the Directive (EU) 2019/790 of the European Parliament and of the Council of 17 April 2019 on copyright and related rights in the Digital Single Market, for the purpose of text and data mining on ISO Publications, as ISO hereby opts out of this exception.

If ISO, or the ISO member body in the user's country, has reasonable doubt that users are not compliant with these terms, it may request in writing to perform an audit, or have an audit performed by a third-party auditor, during business hours at user's premises or via remote access.