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Carbon footprint for seafood — Product category rules (CFP-PCR) for finfish

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Contents

Page

Foreword	v
Introduction	vi
1 Scope	1
2 Normative references	1
3 Terms and definitions	1
3.1 Quantification of the carbon footprint of a product	1
3.2 Products, product systems and processes	2
3.3 Data and data quality	5
3.4 Greenhouse gases	5
3.5 Waste, storage and transport	6
4 Calculation and communication requirements	6
5 Methodological requirements	7
5.1 General	7
5.2 Functional unit or declared unit	7
5.3 Principles of data and methodological reporting	7
5.4 Impact assessment	8
5.5 System boundaries	8
5.5.1 General	8
5.5.2 The cut-off criterion: General rule for what can be excluded from the carbon footprint	9
5.5.3 General processes which can be excluded	9
5.5.4 System boundaries for waste	10
5.5.5 Use of recycled or recovered materials	10
5.5.6 Capital investments	10
5.5.7 System boundaries for fishing	10
5.5.8 System boundaries for feed production	11
5.5.9 System boundaries for products from aquaculture	12
5.5.10 System boundaries for processing	12
5.5.11 System boundaries for distribution to dealers	13
5.5.12 System boundary for final consumption	14
5.6 Data requirements	15
5.6.1 General	15
5.6.2 Rules for data sampling	15
5.6.3 Data on electricity	15
5.6.4 Data on fuel	15
5.6.5 Geographical delimitation	16
5.6.6 Time delimitation	16
5.6.7 Validation of data	16
5.6.8 Transport calculation rules	16
5.7 Allocation	16
5.8 Impact assessment	17
5.9 Interpretation	17
5.10 Fossil and biogenic carbon	17
5.11 Land use change	17
5.12 Land use	17
5.13 Carbon sequestration	17
5.14 Communication of carbon footprints for finfish	18
5.14.1 General	18
5.14.2 Details about the producer	18
Annex A (informative) Example of data collection in the calculation of the carbon footprint of finfish products from aquaculture and fisheries	19
Annex B (informative) Example of mass allocation for salmon co-product processing	21

Annex C (informative) Example of LCA seabass value-chain modelling	22
Annex D (informative) Example of fish meal LCA value-chain modelling	24
Annex E (informative) Example of LCA fish oil value-chain modelling for human consumption	25
Bibliography	27

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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).

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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 234, *Fisheries and aquaculture*.

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.

Introduction

This standard contains product category rules for the calculation and communication of the carbon footprint of finfish products. The CFP-PCR — Carbon Footprint of Products — Product Category Rules is as defined in ISO 14067:2018.

This standard sets out rules for the calculation and communication of the carbon footprint of finfish products. The overarching aim of the standard is to provide a basis for reliable and accurate information about the climate impact of the product. It is a pre-condition for a market-driven reduction of climate impact of finfish products that dealers and consumers are able to choose the products with the least climate impact. In addition to this, the standard will provide:

- A basis for the development of tools and databases for calculating the carbon footprint of finfish products;
- A basis for internal improvement efforts in the finfish industry;
- An improved knowledge base concerning the value chains of finfish products, their resource consumption, and climate impacts;
- A basis for further understanding the environmental impact of finfish products beyond climate change alone.

This standard is intended to function in line with ordinary market mechanisms. Providing credible and transparent information about the products' climate impact will pave the way for increased demand and market value of the most climate-friendly finfish products. It will also provide incentives to drive further improvements and reduce energy consumption and climate impacts from all links in finfish value-chains.

Carbon footprint for seafood — Product category rules (CFP-PCR) for finfish

1 Scope

This document specifies requirements for calculating the carbon footprint specific to finfish product category rules (CFP-PCR). This methodology builds on the requirements of ISO standards for life-cycle assessment (LCA) and products' carbon footprints.

This document is applicable to the calculation and communication of finfish products' carbon footprints from fishing and/or cultivation of feed ingredients to the consumption of finfish products. It is applicable to the carbon footprints of products from both fisheries and aquaculture value-chains.

This document used alone does not apply to specifying a product's overall environmental or sustainability characteristics.

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 14040:2006, *Environmental management — Life cycle assessment — Principles and framework*

ISO 14044:2006, *Environmental management — Life cycle assessment — Requirements and guidelines*

ISO 14026:2017, *Environmental labels and declarations — Principles, requirements and guidelines for communication of footprint information*

ISO 14067:2018, *Greenhouse gases — Carbon footprint of products — Requirements and guidelines for quantification*

IPCC 2013, *Climate Change 2013: The Physical Science Basis. Contribution of Working Group I to the Fifth Assessment Report (AR5) of the Intergovernmental Panel on Climate Change (IPCC)*

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 <https://www.iso.org/obp>
- IEC Electropedia: available at <http://www.electropedia.org/>

3.1 Quantification of the carbon footprint of a product

3.1.1

carbon footprint of a product

CFP

sum of greenhouse gas emissions and removals in a product system, expressed as CO₂ equivalents and based on a life-cycle assessment using the single impact category of climate change

[SOURCE: ISO/TS 14067:2013, 3.1.1.1]

3.1.2

carbon dioxide equivalent

CO₂ equivalent

CO₂e

unit for comparing the radiative forcing of greenhouse gases to that of carbon dioxide

Note 1 to entry: Mass of a GHG is converted into CO₂ equivalents by multiplying the mass of the GHG by the corresponding global warming potential or global temperature change potential of that gas.

Note 2 to entry: In the case of GTP, CO₂ equivalent is the unit for comparing the change in global mean surface temperature caused by a GHG to the temperature change caused by CO₂.

[SOURCE: ISO 14067:2018, 3.1.2.2]

3.1.3

partial carbon footprint of a product

partial CFP

sum of GHG emissions and GHG removals of one or more selected process(es) in a product system, expressed as CO₂ equivalents and based on the selected stages or processes within the life cycle

Note 1 to entry: A partial CFP is based on or compiled from data related to (a) specific process(es) or footprint information modules, which is (are) part of a product system and can form the basis for quantification of a CFP. More detailed information on information modules is given in ISO 14025:2006, 5.4.

Note 2 to entry: "Footprint information modules" is defined in ISO 14026:2017, 3.1.4.

Note 3 to entry: The results of the quantification of the partial CFP are documented in the *CFP study report* expressed in mass of CO₂e per *declared unit*.

[SOURCE: ISO 14067:2018, 3.1.1.2]

3.2 Products, product systems and processes

3.2.1

product

any goods or service

[SOURCE: ISO 14050:2009, 6.2, modified — notes to entry have been deleted]

3.2.2

product category

group of products which have equivalent function

[SOURCE: ISO 14050:2009, 8.3.3]

3.2.3

primary product

primary output of commercial value from a production process

3.2.4

by-product

secondary output from a process, but of commercial value, which is produced in addition to a defined primary product

3.2.5

intermediate goods

raw materials or semi-finished goods, which may be recycled or recovered, which are fed into the product system

3.2.6**capital goods**

products which are not used up in consumption or production over a brief period, but which retain their function over a longer time

3.2.7**seafood**

food, of which a significant proportion of the content derives directly from animals or plants that live in the sea, in lakes or in watercourses

3.2.8**finfish**

products from fisheries and aquaculture as defined by the FAO

Note 1 to entry: Finfish species and their yearly production volumes are available in FishStatJ and regularly published by the FAO Fisheries and Aquaculture Department, available from: <http://www.fao.org/fishery/statistics/en>

3.2.9**animal feeding stuff**

substance or product, including additives, whether processed, partially processed or unprocessed, to be used for oral feeding to animals

EXAMPLE Raw materials, fodder, meat and bone meal, mixed feed and other end products, pet food, etc.

[SOURCE: ISO 12099:2017, 3.2]

3.2.10**edible product**

quantity of fish and fish products as available for sale from a retailer, excluding packaging

3.2.11**life cycle**

consecutive and interlinked stages of a product system, from raw material acquisition or generation of natural resources to the final disposal

[SOURCE: ISO 14040:2006, 3.1]

3.2.12**value-chain**

range of activities or parties who create or receive value in the form of products or services

3.2.13**product category rules for carbon footprints****CFP-PCR**

set of specific rules, requirements and guidelines for the calculation and communication of carbon footprints of one or more product categories

Note 1 to entry: CFP-PCR is an abbreviation of “Carbon Footprint of Products – Product Category Rules”.

3.2.14**product system**

collection of unit processes with elementary and product flows, performing one or more defined functions, and which models the life cycle of a product

[SOURCE: ISO 14040:2006, 3.28]

3.2.15**declared unit**

quantity of a product (3.2.1) for use as a reference unit in the quantification of a partial CFP

EXAMPLE Mass (1 kg of primary steel), volume (1 m³ of crude oil).

[SOURCE: ISO 14067:2018, 3.1.3.8]

3.2.16

functional unit

quantified performance of a product system for use as a reference unit

Note 1 to entry: As the CFP treats information on a product (3.2.1) basis, an additional calculation based on a declared unit (3.2.12) can be presented.

[SOURCE: ISO 14040:2006, 3.20, Note 1 to entry ISO 14067:2018]

3.2.17

allocation

partitioning the input or output flows of a process or a product system between the product system under study and one or more other product systems

[SOURCE: EN ISO 14040:2006, 3.17]

3.2.18

energy carrier

substance or phenomenon that can be used to produce mechanical work or heat, or to operate chemical or physical processes

[SOURCE: ISO 16818:2008, 3.75]

3.2.19

fishing gear

aids used to retrieve biological material from the sea or freshwater, but which are not integrated parts of the fishing vessel

3.2.20

refrigerant

medium which is used to maintain a specified temperature e.g. in a room lower than ambient through switching between aggregate states by the medium readily taking up or releasing heat

3.2.21

cut-off criterion

specification of the amount of material or energy flow or the level of environmental significance associated with unit processes or product system to be excluded from the study

[SOURCE: ISO 14040:2006, 3.18]

3.2.22

direct land use change

dLUC

change in human use or management of land within the organizational boundaries and as part of of upstream or downstream activities

[SOURCE: ISO/TR 14069:2013, 3,2,4]

3.2.23

indirect land use change

iLUC

change in the use or management of land which is a consequence of direct land use change not taking place within the operational boundaries of the GHG inventory

[SOURCE: ISO/TR 14069:2013, 3.2.5]

3.3 Data and data quality

3.3.1

primary data

quantified value of a process or an activity obtained from a direct measurement or a calculation based on direct measurements

Note 1 to entry: Primary data need not necessarily originate from the product system under study because primary data might relate to a different but comparable product system to that being studied.

[SOURCE: ISO 14064-1:2018, 3.2.2 - Note 1 to entry is replaced.]

3.3.2

secondary data

data obtained from sources other than primary data

Note 1 to entry: Such sources can include databases and published literature validated by competent authorities.

[SOURCE: ISO 14064-1:2018, 3.2.4]

3.3.3

data quality

characteristics of data that relate to their ability to satisfy stated requirements

[SOURCE: ISO 14040:2006, 3.19]

3.3.4

statistical representativeness

characteristic of a survey which requires that it is sufficiently large, that it does not include systematic measurement errors and that it is based on a random sample of measured objects

3.4 Greenhouse gases

3.4.1

greenhouse gas

GHG

gaseous constituent of the atmosphere, both natural and anthropogenic, that absorbs and emits radiation at specific wavelengths within the spectrum of infrared radiation emitted by the Earth's surface, the atmosphere and clouds

Note 1 to entry: For a list of GHGs, see the latest Intergovernmental Panel on Climate Change (IPCC) Assessment Report.

Note 2 to entry: Water vapour and ozone are anthropogenic as well as natural GHGs, but are not included as recognized GHGs due to difficulties, in most cases, in isolating the human-induced component of global warming attributable to their presence in the atmosphere.

Note 3 to entry: The focus of this document is limited to long-lived GHGs and it therefore excludes climate effects due to changes in surface reflectivity (albedo) and short-lived radiative forcing agents (e.g. black carbon and aerosols).

[SOURCE: ISO 14064-1:2018, 3.1.1. Note 3 to entry is added.]

3.4.2

greenhouse gas emission

GHG emission

release of GHG into the atmosphere

[SOURCE: ISO 14064-1:2018, 3.1.5]