CFP Communication Program

Basic instructions

Revised on June 25, 2012

Document ID: G-01-02

Japan Environmental Management Association for Industry

About “Program instructions”

This document has been prepared by using the ground that, “the CFP program operator shall prepare general program instructions describing the operation of the program including the objectives of the program,” cited from one of the requirements for the CFP Program prescribed in the “ISO/DIS14067: Carbon footprint of products – Requirements and guidelines for quantification and communication” which is currently under development.

In addition, this document has been developed based on the outcomes of the "program instructions" organized under the Japanese CFP Pilot Project which had been conducted for a three-year period from FY 2009.

General program instructions include not only program instructions but also various relevant procedures, standards, and formats, but in this document, some items of them have not been included, as a result of considering its contents or the frequency of revision.

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1. Positioning of this document

This document prescribes objectives, targets, operational structure, and procedures of the CFP Communication Program operated and managed by JEMAI (Japan Environmental Management Association for Industry) in accordance with ISO/DIS14067:0000 (Greenhouse gases - Carbon footprint of products - Requirements and guidelines for quantification and communication).
Under the ISO/DIS14067, multiple types of receivers of CFP information and multiple methods of communication are considered, but this CFP Program only covers the scope of "CFP declaration intended to be available to the public."

2. Name of this CFP Program

The name of this CFP Program is the "Carbon Footprint of Products Communication Program" (hereinafter called "the CFP Program").

3. Purpose of the CFP Program

Carbon Footprint of Products (hereinafter called "CFP") means CO_2 equivalent emissions (hereinafter called "CO_2 emissions") converted from greenhouse gases emissions emitted from an entire life cycle of a product. CFP shall be quantified based on the LCA (life cycle assessment) method by collecting activity data for each process and then by multiplying the activity value by CO_2 emission factor (hereinafter called "emission factor") per product unit.
The purpose of this CFP Program is that the businesses making a CFP declaration communicate with their interested parties by using "CFP declaration" released based on the result of the CFP quantification (i.e., CFP mark, value in the CFP mark, and additional information) as well as registration information released on the website managed by the program operator (hereinafter called "the CFP website"), and also gain the following benefits.

<Benefits considered to be gained through the efforts using CFP>

(1) Visualization of CO_2 emission emitted from an entire life cycle of a product (good or service)
(2) "Awareness" of the actions to reduce CO_2 emissions shared between businesses and consumers
(3) Promotion of further reduction of CO_2 emissions by businesses using the "visualized" information in cooperation with all the business partners comprising the supply chain
(4) Changes in consumer behaviors toward a lower-carbon life style by using the "visualized" information

4. Overview of the CFP Program

4-1. Scope of the CFP Program

This CFP Program only covers greenhouse gases (hereinafter called "GHG"), and is not applied to any other assessment of environmental impacts.

4-1-1. Targets of CFP declaration

Targets of the communication using CFP declaration shall be interested parties including consumers and other businesses that use the information disclosed to the public.

4-1-2. Products covered by the CFP Program

Products covered by this CFP Program shall include all products, such as goods (e.g., daily commodities), durable consumer goods, agricultural/marine products (e.g., foods), and services. They shall not be limited to final goods but can also include intermediate goods.

4-1-3. Regions covered by the CFP Program

This CFP Program has been established to be used in communication mainly within Japan. However, participations of any overseas businesses are not restricted.

Applications and other procedures shall be made by the Japanese language in principle, but in some cases, applications by using other languages may be approved as appropriate.

4-2. Mechanism to ensure reliability of the CFP Program

It is need to ensure reliability of the information provided by the CFP declaration, since the CFP declaration in this CFP Program is used for the communication with interested parties. Therefore, when making a CFP declaration, transparency and reliability of the information shall be ensured through the following measures.

4-2.1. Use of CFP-PCR

This CFP Program uses “CFP - Product Category Rule” (hereinafter called "CFP-PCR"). CFP-PCR refers to the basic rules for CFP communication and CFP quantification for product category, and it aims to provide interested parties with information about the conditions for conducting the CFP quantifications and to enhance better understanding of the communication contents.

4-2-2. Conducting of verification

This CFP Program conducts verification to provide interested parties with information about the results of CFP quantification and the method of CFP declaration based on a CFP-PCR.

4-2-3. Use of emission factor data

This CFP Program manages emission factor data used for CFP quantification. The emission factor data includes "basic secondary data" which is approved by the review panel on emission factor) and “available secondary data" which is approved to be used for complementing the basic secondary data as appropriate.

4-3. Basics of CFP quantification

4-3-1. GHG covered by CFP quantification

GHG covered by CFP quantification shall be as follows:

- Types of GHG: Six types of GHG prescribed by the Kyoto Protocol; CO_2, CH_4, N_2O, HFCs, PFCs, and SF_6
- Emission sources covered: anthropogenic processes (including emissions from livestock and other agricultural processes)
- GWP (*): A 100 year value in the 2nd Assessment Report of IPCC shall be used as a baseline of the CFP Program as it has been defined as the quantification standards of

emissions by country in the Kyoto Protocol.

(*) GWP (Global Warming Potential): a factor representing the ratio of the degree of greenhouse effect of GHG to CO_2.

4-3-2. Range of CFP quantification

Range of qualification shall be set so as to cover the range in which product functions are fulfilled and to include processes which cannot be ignored in terms of its significant contribution to the total CO_2 emissions.

4-3-3. Method of CFP quantification (basic rules on quantification)

CFP quantification method shall be conducted according to the following equation:

CO_2 emissions = $\sum$(activity data *i* x emission factor *i*)
(*i* refers to a process)

Activity data is an indicator which represents the amount of emission from activity, correlated with CO_2 emissions. It can be, for example, material usage amount, electricity consumption amount, or landfill amount, etc., though it depends on the activity.
Emission factor is an indicator which represents the CO_2 emissions during a life cycle per activity data. It can be CO_2 emissions during a life cycle per kg of material, though it depends on the activity. In this CFP Program, emission factor refers to the basic secondary data, etc., disclosed by the program operator.

4-3-4. Unit of quantification

In this CFP Program, quantification unit shall be the "functional unit." The functional unit includes "product unit," "sales unit" and "physical unit (for example, ‘per 100g’)."

4-4. Basics of CFP declaration

CFP declaration refers to “a CFP mark,” “value in the CFP mark,” and “additional information” disclosed based on the result of CFP quantification, and “registered information” released on the CFP website. This CFP Program prescribes the minimum requirements for these four components.
When businesses conduct communication using CFP declaration, the communication shall use the CFP mark in principle.

4-4-1. Efforts made by businesses that make CFP declaration

A business that makes a CFP declaration is required to make efforts to reduce CO_2 emissions continuously.

4-4-2. Cautions when making CFP declaration

A CFP declaration shall be easy to understand for receivers of the information, and any misleading expression shall be avoided.

4-4-3. Handling of comparison in CFP declaration

Unless otherwise approved in this CFP Program, any CFP comparison shall not be

conducted.

4-5. Operational structure of the CFP Program

The program operator shall be responsible for the proper operation and management of this CFP Program. In addition, the fairness and transparency of the documents related to the CFP Program and the individual audit results shall be ensured by advices made by the advisory board mainly consisting of interested parties and experts, as well as by audits conducted by review panels in the CFP Program.

4-5-1. Committee for the CFP Program operation

(1) The advisory board

The advisory board shall provide advice for operation and management of the whole CFP Program, and for establishing/revising the basic instructions of the CFP Program. Under the advisory board, working groups (hereinafter called "WG") shall be established, and the WG shall identify and sort out technical issues and problems which have been clarified through the operation of the CFP Program, and shall provide advice for improvements for those issues to be reflected in the CFP Program.

For the rules on the establishment and operation of the advisory board, refer to the following document:
R-02: Rules on establishment and operation of advisory board

4-5-2. Review panel for audit

(1) The review panel

The review panel shall conduct “final judgment on a CFP-PCR review,” “confirmation and making final judgment on CFP verification results by the ‘product-by-product verification method,’ which is a CFP verification method in this CFP Program,” and “confirmation on audit results by the ’system certification method’".

For rules on the establishment and operation of the review panel, and competence of the review panel member, refer to the following document:
R-03: Rules on establishment and operation of review panel

(2) Review panel for emission factor

This review panel shall develop requirements for basic secondary data used for CFP quantification, and shall make a confirmation and final judgment on the review results of basic secondary data.

For rules on the establishment and operation of the review panel on emission factor, and competence of the review panel member, refer to the following document:
R-04: Rules on establishment and operation of review panel on emission factor

4-6. Responsibilities of each party involving in the CFP Program

It is important to clarify the responsibilities of each party involving in the CFP Program in order to ensure a smooth operation in this CFP Program. Responsibilities of the each party are prescribed as below:

- Business that participates in the CFP Program: responsible for CFP quantification results and the contents of its CFP declaration.
- CFP-PCR reviewer: responsible for conducting CFP-PCR review in accordance with the judgment criteria on CFP-PCR approval by following the prescribed procedures.
- CFP verifier: responsible for conducting CFP verification in accordance with the judgment criteria for CFP verification by following the prescribed procedures.
- CFP system auditor: responsible for conducting audit in accordance with the criteria on CFP system audit by following the prescribed procedures.
- Program operator: responsible for ensuring proper operation in this CFP Program.

5. CFP quantification and declaration

5-1. Development of CFP-PCR

Business that wishes to develop or to revise a CFP-PCR shall follow the rules prescribed in the following document.

R-06: Rules on approval of CFP-PCR

5-1-1. Development of CFP-PCR draft

A business that wishes to develop CFP-PCR for a new product category shall consider a CFP-PCR draft by the individual company or by the WG on development of CFP-PCR draft. This WG consists of a group of multiple interested parties or an industry group.

A CFP-PCR draft shall include definition of an applicable product, setting of each life cycle stage, data collection items, primary data collection items and its data collection method, and content of the rules for CFP declaration, etc.

When developing a CFP-PCR draft, CFP trial quantification shall be made, and then the requirements for the data described in the CFP-PCR shall be determined based on the quantification result.

5-1-2. CFP-PCR approval

Upon receipt of an application for approval of CFP-PCR draft from a business, the program operator selects a CFP-PCR reviewer from among licensed reviewers. The selected CFP-PCR reviewer conducts a CFP-PCR review of the CFP-PCR draft applied. After receiving a report submitted from the CFP-PCR reviewer, the review panel makes a final judgment on approval or not. When the CFP-PCR is approved, it will be released on the CFP website.

5-1-3. Validity period of CFP-PCR and handling after approval

Validity period of an approved CFP-PCR shall be set as 5 years.

Business that wishes to revise the CFP-PCR can undergo an audit of revision of CFP-PCR regardless of its validity period by submitting an application for revision of the CFP-PCR. The business can apply the renewal of the CFP-PCR before expiring of the validity period.

If an approved CFP-PCR has not been used by any CFP verification for over one year after the approval, or if a new technology is required to be reflected in the CFP-PCR, the program operator judges that necessity of conducting review of the CFP-PCR as appropriate regardless of its validity period, through consultation with interested parties.

5-2. CFP verification

Business that wishes to make a CFP declaration shall undergo a verification prescribed by the program operator, for the conformity of the CFP quantification result and a CFP declaration draft to the approved CFP-PCR and the relevant rules. There are two methods for conducting the CFP verification: the product-by-product verification method, and the CFP system certification method.

5-2-1. CFP qualification, and development of a draft CFP declaration

Business that wishes to make a CFP declaration shall conduct CFP quantification for its product and shall develop a draft CFP declaration, in accordance with the approved CFP-PCR and the relevant rules.

For rules on CFP quantification and development of a draft CFP declaration, refer to the following document:
R-07: Rules on CFP quantification and declaration

5-2-2. Basic approach to CFP verification

Under this CFP Program, CFP quantification and a CFP declaration draft are examined from the following basic perspectives:
- Conformity to relevant rules
- Conformity to an applicable CFP-PCR
- Ensuring of traceability of data

5-2-3. Product-by-product verification method

Upon receipt of an application of CFP verification which is submitted from the business that wishes to make a CFP declaration, the program operator selects a CFP verifier from among licensed reviewers. The selected CFP verifier conducts CFP verification for the applicable product, and makes a approval/disapproval decision. Then the review panel confirms the result of the verification submitted by the CFP verifier, and makes a final judgment on approval or not.

For rules on the product-by-product verification method, refer to the following document:
R-08: Rules on CFP verification

5-2-4. CFP system certification method

The objective of the CFP system certification is to confirm that a CFP system for quantification, verification, and release, which is internally established within the business

that wises to make a CFP declaration, meet the necessary requirements, and to ensure reliability for the result of CFP quantification and declaration made by the business.
The CFP system certification body registered in the program operator conducts an audit and certifies the aforementioned CFP system which is internally established within the business in accordance with the following requirements prescribed by the program operator. Then the review panel confirms the result of the audit conducted by the CFP system certification body.
Once the CFP system is certified, the business becomes available to apply for registration and release of CFP declaration by conducting an internal verification.
The validity period of a CFP system certification shall be 3 years.

For rules on the CFP system certification method, refer to the following document:
R-09: Rules on CFP system certification

5-2-5. Validity period of CFP verification

Validity period of the CFP verification shall be 3 years.

5-3. Registration and release of CFP declaration

The business that has passed the CFP verification prescribed in No.5.2 conducts a set of procedures for registering and releasing of CFP declaration by following the steps prescribed by the program operator.

For rules on the registration and release of a CFP declaration, refer to the following document:
R-10: Rules on registration and release of CFP declaration

5-3-1. Application for registering and releasing of CFP declaration

The business that has passed the CFP verification submits an application for registering and releasing of CFP declaration to the program operator, and releases registered information on the CFP website.

5-3-2. Renewal of registration and release of CFP declaration

Registration and release of CFP declaration is renewed in principle every year in accordance with the time period specified by the program operator. If no update is performed for registration and release of the CFP declaration, the verification of the applicable CFP will expire.

5-3-3. Changes in registered and released information

If there is any major change in the contents of registered or released CFP declaration, the business shall immediately apply for changing the contents of the registered/released the CFP declaration, regardless of its renewal period. In this case, the program operator conducts CFP verification again, if necessary.

5-3-4. License agreement to use CFP mark

When a business registers and releases its CFP declaration, the business shall make a

license agreement of the CFP mark with the program operator, and agree on the conditions for using CFP mark including the prevention of unauthorized use of the mark.

6. Emission factor data

The program operator shall organize and manage emission factor data including basic secondary data in an appropriate manner, and disclose it to the businesses that conduct CFP quantification.

6-1. Verification and operation of emission factor data

"Basic secondary data" to be disclosed to the public shall undergo the verification on emission factor data prescribed by the program operator.

When a business uses its own emission factor data for CFP quantification, the data shall be checked whenever necessary by following the requirements separately prescribed by the program operator, and shall be determined whether or not it can be used as "available secondary data." Such data will be released in principle.

For rules on emission factor data, refer to the following document:
R-05: Rules on verification and operation of emission factor data

7. Licensed reviewer and CFP system certification body

Licensed reviewers collectively refers to the persons who have registered by following the registration procedures prescribed by the program operator, as a reviewer to conduct a CFP-PCR review (hereinafter called "CFP-PCR reviewer") or as a reviewer to conduct a CFP verification (hereinafter called "CFP verifier").

CFP system certification body collectively refers to the organizations to be independent from the program operator and that have registered by following the registration procedures prescribed by the program operator, as an organization to conduct certification of CFP system (hereinafter called "CFP system certification body").

7-1. Requirements for licensed reviewer

This CFP Program ensures reliability of results of CFP quantification and CFP declarations through works such as CFP-PCR review and CFP verification. In this regard, those parties involved in these works are required to play their roles with a certain level of competence.

Therefore, before conducting a CFP-PCR review or CFP verification, licensed reviewer shall participate in specific training session provided by the program operator. After the training, they are also required to accumulate a certain level of work experience.

The program operator registers the persons who are considered to have necessary competence as a licensed reviewer, in order to ensure appropriate operation of the CFP Program.

For registration and competence of licensed reviewers, refer to the following document:
R-11: Rules on registration and assessment of licensed reviewer

7-2. Requirements for CFP system certification body

The value of certification is the reliability established by an audit which is fairly conducted by a third party with competence.

In this respect, CFP system certification body and CFP system auditors are required to play their roles with a certain level of competence.

CFP system auditors shall participate in specific training session provided by the program operator. After the training, they are also required to accumulate a certain level of work experience.

The program operator registers the organizations that are considered to have necessary competence as a CFP system certification body. Persons who conduct a CFP system audit shall have the competence required for the CFP system auditor.

> For registration and competence of CFP system certification body and CFP system auditor, refer to the following document:
> R-12: Rules on registration and assessment of CFP system certification body

8. Control of documents

The program operator prescribes the relation among documents used in the CFP Program and its management method, in a document control architecture. These documents shall be released to the public in principle.

> For rules on control of documents, refer to the following document:
> R-01 : Rules on document control

9. Compliance regarding ethical norm and handling of confidential information

The program operator prescribes the ethical norms for ensuring fair and impartial operations of the CFP Program and its tasks without being partial to any particular interest.

Parties involved in this CFP Program and the program operator shall comply with the aforementioned ethical norms.

Considering the possibility that a party might access to any confidential information of a business through CFP verification processes, in this CFP Program, the program operator shall ensure to set forth the rules for "handling of confidential matters" to which parties shall conform, and to make a required NDA (non-disclosure agreement) with each party.

> For rules on the handling of ethical norms and confidential information, refer to the following document:
> R-13: Rules for the handling of ethical and confidential matter

10. Regular review of the Basic　instructions

The program operator shall review the program instructions on a regular basis at least every five years, based on the advice provided by the advisory board, considering the operational status of the CFP Program.

11. Setting charges for CFP Program operation

The program operator sets appropriate fees necessary for ensuring and supporting proper operation of the CFP Program.

For rules on setting fees, refer to the following document:
R-14: Rules on fees

12. Handling of appeals and complaints

If there is any appeal, complaint, and dispute from parties, the program operator responds to it faithfully.
Appeal means a request from an applicant or a certified organization, which requires a second review for gaining their wishing result, due to the negative certification result determined by a CFP certification body in the first review.
Complaint means an expression of dissatisfaction with an applicant or a certified organization, in regard to its product or the process of responding to a complaint, expecting explicitly or implicitly a better responding or resolution of the complaint.

For handling of appeals, complaints, and disputes, refer to the following document:
R-15: "Rules on appeals, complaints, and dispute resolution

13. Program operator

The following entity operates and manages this CFP Program:
Name: Japan Environmental Management Association for Industry
Address: 2-1 Kajicho 2-chome, Chiyoda-ku, Tokyo, JAPAN 101-0044
(Sumitomo Mitsui Banking Kanda-ekimae bldg.)

Supplementary provisions

This document shall come to effect as from April 2, 2012.

The validity period of the approved PCRs, the period of license agreement to use CFP mark, and the validity period of CFP system certification, which have been approved under the CFP pilot project, will be extended to one year, namely, March 31, 2013.

Date of revision: June 18, 2012 (G-01-02)

Annex

This document prescribes terms and definitions which are used in the “CFP Communication Program” operated and managed by JEMAI.

1 Terms relating to CFP quantification

1.1

carbon footprint of products

CFP

sum of greenhouse gas emissions (2.5) and removals (2.6) in a product system (3.2), expressed as CO_2 equivalent (2.2) and based on a life cycle assessment (4.3).

Note 1 to entry: The CO_2 equivalent (2.2) of a specific amount of a greenhouse gas (2.1) is calculated as the mass of a given greenhouse gas (2.1) multiplied by its global warming potential (2.4).

1.2

partial carbon footprint of products

partial CFP

sum of greenhouse gas emissions (2.5) and removals (2.6) of one or more selected process(es) (3.5) of a product system (3.2), expressed as CO_2 equivalent (2.2) and based on a life cycle assessment (4.3).

Note 1 to entry: A partial CFP often covers processes that model specific stages of the life cycle (4.2).

Note 2 to entry: The partial CFP is based on or compiled from specific processes or information modules (3.4) which are part of a product system (3.2) and may form the basis for quantification of a CFP (1.1). More detailed information on information modules (3.4) is given in ISO 14025:2006, 5.4.

1.3

carbon footprint of products study

CFP study

study which includes the quantification and reporting of the CFP (1.1) or the partial CFP (1.2).

1.4

carbon footprint of products study report

CFP study report

report on a CFP study (1.3)

1.5

offsetting

mechanism for compensating for all CFP (1.1) or for a part of the CFP (1.2) through the prevention of the release of, reduction in, or removal of an amount of greenhouse gas emissions (2.5) in a process (3.5) outside the boundary of the product system (3.2).

EXAMPLE: External investment in renewable energy technologies; energy efficiency measures; afforestation/reforestation.

Note 1 to entry: Offsetting is not allowed in the CFP quantification and thus is not reflected in any CFP communication.

[SOURCE: ISO 14021:1999/FDAM 1:2011, modified — revised the information in the original Note to be presented as an “Example” (described above) and added a new “Note 1 to entry” providing information on rules regarding 66 offsetting.]

2 Terms relating to greenhouse gases

2.1

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

[SOURCE: ISO 14064-1:2006, 2.1, modified — “Notes 1 to entry” has been added, original Note listing examples of GHGs was omitted.]

2.2

carbon dioxide equivalent

CO_2 equivalent

CO_2e

calculated mass for comparing the radiative forcing of a greenhouse gas (2.1) to that of carbon dioxide

Note 1 to entry: The carbon dioxide equivalent is calculated by multiplying the mass of a given greenhouse gas by its global warming potential (2.4).

[SOURCE: ISO 14064-1:2006, 2.19, modified — “Note 1 to entry” has been clarified.]

2.3
carbon storage in products
carbon removed from the atmosphere and stored as carbon in a product (3.1)

2.4
global warming potential)
GWP
characterization factor (ISO 14050:2009, 7.2.2.2) describing the mass of carbon dioxide that has the same accumulated radiative forcing over a given period of time as one mass unit of a given greenhouse gas (2.1).
[SOURCE: ISO 14064-1:2006, 2.18, modified.]

2.5
greenhouse gas emission
GHG emission
mass of a greenhouse gas (2.1) released to the atmosphere
[SOURCE: ISO 14064-1:2006, 2.5, modified — "over a specific time period" has been omitted.]

2.6
greenhouse gas removal
GHG removal
mass of a greenhouse gas (2.1) removed from the atmosphere
[SOURCE: ISO 14064-1:2006, 2.6 modified — "over a specific time period" has been omitted.]

2.7
greenhouse gas source
GHG source
process (3.5) that releases a greenhouse gas (2.1) into the atmosphere
Note 1 to entry: The process can be natural or anthropogenic.

2.8
greenhouse gas sink
GHG sink
process (3.5) that removes a greenhouse gas (2.1) from the atmosphere
Note 1 to entry: The process can be natural or anthropogenic.

3 Terms relating to products, product systems and processes

3.1

product

any goods or service

Note 1 to entry: The product can be categorized as follows:

- service (e.g. transport, implementation of events, electricity);
- software (e.g. computer program);
- hardware (e.g. engine mechanical part);
- processed material (e.g. lubricant, ore, fuel) ;
- unprocessed material (e.g. agricultural produce).

Note 2 to entry: Services have tangible and intangible elements. Provision of a service can involve, for example, the following:

- an activity performed on a customer-supplied tangible product (e.g. automobile to be repaired);
- an activity performed on a customer-supplied intangible product (e.g. the income statement needed to prepare a tax return);
- the delivery of an intangible product (e.g. the delivery of information in the context of knowledge transmission);
- the creation of ambience for the customer (e.g. in hotels and restaurants).

Software consists of information and is generally intangible and can be in the form of approaches, transactions or procedures.

Hardware is generally tangible and its amount is a countable characteristic. Processed materials are generally tangible and their amount is a continuous characteristic.

[SOURCE: ISO 14044:2006, 3.9, modified — in Note 1 to entry "dictionary" was deleted from the second bullet, and the Note 3 to entry dealing with origin of the definition has been omitted.]

3.2

product system

collection of unit processes (3.6) with elementary flows (3.9) and product flows (ISO 14050:2009, 6.11), performing one or more defined functions and which models the life cycle (4.2) of a product (3.1)

[SOURCE: ISO 14044:2006, 3.28]

3.3

system boundary

set of criteria specifying which unit processes (3.6) are part of a product system (3.2)

[SOURCE: ISO 14044:2006, 3.32]

3.4
information module
compilation of data covering a unit process (3.6) or a combination of unit processes that are part of the life cycle (4.2) of a product (3.1)
Note 1 to entry: One or more information modules can be the basis of a partial CFP (1.2), and several information modules can be the basis of a CFP (1.1).
[SOURCE: ISO 14025:2006, 3.13, modified — removed reference in definition to being “used as a basis for type III environmental declarations” and added new Note 1 to entry.]

3.5
process
set of interrelated or interacting activities that transforms inputs (ISO 14050:2009, 6.17) into outputs (ISO 14050:2009, 6.18)
[SOURCE: ISO 14044:2006, 3.11]

3.6
unit process
smallest element considered in the life cycle inventory analysis (4.6) for which input (ISO 14050:2009, 6.17) and output (ISO 14050:2009, 6.18) data are quantified
[SOURCE: ISO 14040:2006, 3.34]

3.7
functional unit
quantified performance of a product system (3.2) for use as a reference unit
Note 1 to entry: As the CFP (1.1) treats information on a product (3.1), the functional unit can be a product unit, sales unit or service unit.
[SOURCE: ISO 14040:2006, 3.20, modified — Note 1 to entry has been added.]

3.8
reference flow
measure of the outputs (ISO 14050:2009, 6.18) from processes (3.5) in a given product system (3.2) required to fulfill the function expressed by the functional unit (3.7)
Note 1 to entry: For an example of applying the concept of a reference flow, see “EXAMPLE” in 6.2.3.
[SOURCE: ISO 14040:2006, 3.29, modified — Note 1 to entry has been added.]

3.9
elementary flow
material or energy entering the system being studied that has been drawn from the environment

(ISO 14050:2009, 3.1) without previous human transformation or material or energy leaving the system being studied that is released into the environment without subsequent human transformation
[SOURCE: ISO 14044:2006, 3.12]

3.10
product category
group of products (3.1) that can fulfil equivalent functions
[SOURCE: ISO 14025:2006, 3.12]

3.11
product category rules
PCR
set of specific rules, requirements and guidelines for developing Type III environmental declarations (ISO 14050:2009, 8.5) for one or more product categories (3.10)
Note 1 to entry: PCR include quantification rules compliant with ISO 14044.
[SOURCE: ISO 14025:2006, 3.5, modified — Note 1 to entry has been added.]

3.12
carbon footprint of products-product category rules
CFP-PCR
set of specific rules, requirements and guidelines for quantification and communication on the CFP (1.1) for one or more product categories (3.10)

3.13
service life
period of time during which a product (3.1) in use meets or exceeds the performance requirements
[SOURCE: ISO 15686-1:2000, 3.1.1, modified — more general wording has been used.]

4 Terms relating to life cycle assessment

4.1
cut-off criteria
specification of the amount of material or energy flow (ISO 14050:2009, 6.13) or the level of significance associated with unit processes (3.6) or product system (3.2) to be excluded from a CFP study (1.3)
[SOURCE: ISO 14044:2006, 3.18, modified — "environmental significance" has been changed to "significance" and "study" has been changed to "CFP study".]

4.2
life cycle
consecutive and interlinked stages of a product system (3.2), from raw material (ISO 14050:2009, 6.12) acquisition or generation from natural resources to final disposal
[SOURCE: ISO 14044:2006, 3.1]

4.3
life cycle assessment
LCA
compilation and evaluation of the inputs (ISO 14050:2009, 6.17), outputs (ISO 14050:2009, 6.18) and the potential environmental impacts (ISO 14050:2009, 3.3) of a product system (3.2) throughout its life cycle (4.2)
[SOURCE: ISO 14044:2006, 3.2]

4.4
life cycle impact assessment
LCIA
phase of life cycle assessment (4.3) aimed at understanding and evaluating the magnitude and significance of the potential environmental impacts (ISO 14050:2009, 3.3) for a product system (3.2) throughout the life cycle (4.2) of the product (3.1)
[SOURCE: ISO 14044:2006, 3.4]

4.5
life cycle interpretation
phase of life cycle assessment (4.3) in which the findings of either the life cycle inventory analysis (4.6) or the life cycle impact assessment (4.4), or both, are evaluated in relation to the defined goal and scope in order to reach conclusions and recommendations
[SOURCE: ISO 14044:2006, 3.5, modified — the "inventory analysis" has been replenished by using the term "life cycle inventory analysis"]

4.6
life cycle inventory analysis
LCI
phase of life cycle assessment (4.3) involving the compilation and quantification of inputs (ISO 14050:2009, 6.17) and outputs (ISO 14050:2009, 6.18) for a product throughout its life cycle (4.2)
[SOURCE: ISO 14044:2006, 3.3]

4.7
sensitivity analysis

systematic procedures for estimating the effects of the choices made regarding methods and data on the outcome of a CFP study (1.3)
[SOURCE: ISO 14044:2006, 3.31, modified — by making specific reference to “CFP study”]

5 Terms relating to data and data quality

5.1
primary data
quantified value of a unit process (3.6) or an activity within the product system (3.2) obtained from a direct measurement or a calculation based on direct measurements at its original source
Note 1 to entry: Primary data need not necessarily originate from the product system (3.2) under study.

5.2
site-specific data
data obtained from a direct measurement or a calculation based on direct measurement at its original source within the product system (3.2)
Note 1 to entry: All site-specific data are “primary data” (7.1) but not all primary data are site-specific data because they may also relate to a different product system (3.2).

5.3
secondary data
data obtained from sources other than a direct measurement or a calculation based on direct measurements at the original source within the product system (3.2)
Note 1 to entry: Such sources can include databases, published literature, national inventories and other generic sources.

5.4
uncertainty
parameter associated with the result of quantification which characterizes the dispersion of the values that could be reasonably attributed to the quantified amount
Note 1 to entry: Uncertainty information typically specifies quantitative estimates of the likely dispersion of values and a qualitative description of the likely causes of the dispersion.
[SOURCE: ISO 14064-1:2006, 2.37]

6 Terms relating to biogenic material and land use

6.1

biomass

material of biological origin excluding material embedded in geological formations and material transformed to fossilised material

Note 1 to entry: This includes organic material (both living and dead), e.g. trees, crops, grasses, tree litter, algae, animals and waste of biological origin, e.g. manure.

6.2

biogenic carbon

carbon derived from biomass (6.1)

6.3

biogenic CO_2

CO_2 obtained by the oxidation of biogenic carbon (6.2)

6.4

fossil carbon

carbon which is contained in fossilised material

Note 1 to entry: Examples of fossilised material are coal, oil and natural gas.

6.5

direct land use change

dLUC

change in human use or management of land at the location of the production, use or disposal of raw materials (ISO 14050:2009, 6.12), intermediate products (ISO 14050:2009, 6.2.1) and final products (3.1) or wastes (ISO 14050:2009, 3.12) in the product system (3.2) being assessed

6.6

indirect land use change

iLUC

change in the use or management of land which is a consequence of the production, use or disposal of raw materials (ISO 14050:2009, 6.12), intermediate products (ISO 14050:2009, 6.2.1) and final products (3.1) or wastes (ISO 14050:2009, 3.12) in the product system (3.2), but which is not taking place at the location of the activities that cause the change

7 Terms relating to verification

7.1

carbon footprint of a product verification

CFP verification

confirmation of the validity of an environmental claim (ISO 14050:2009, 8.2) using specific predetermined criteria and procedures with assurance of data reliability

[SOURCE: ISO 14021:1999, 3.1.4, modified — changed preferred term designation from “environmental claim verification”.]

7.2

carbon footprint of a product verifier

CFP verifier

competent person, body or team that carries out a CFP verification (7.1)

[SOURCE: ISO 14025:2006, 3.8, modified — changed term designation and definition to be specific to CFP verification and added reference to essential characteristic of the CFP verifier being competent.]

7.3

verification criteria

policy, procedure or requirement used as a reference against which evidence is compared

Note 1 to entry: Verification criteria may be established by governments, GHG programs (ISO 14050:2009, 9.4.1) voluntary reporting initiatives, standards or good practice guidance.

[SOURCE: ISO 14064-1:2006, 2.32, modified — Deleted reference to validation at the beginning of the Note 1 to entry.]