



# CarbonFix Standard

Control & Promote Climate Forestation Projects



Version 3.2



## Foreword

When it became clear that the criteria of the Kyoto Protocol would not have the desired effect of promoting the establishment of new forests, the CarbonFix Standard (CFS) was created and released at the Climate Conference in Bali in December 2007.

Since then, over 60 organisations have contributed to continuously develop and improve the CarbonFix Standard. With Version 3.2 the CarbonFix association goes another step further to provide project developers a practical framework to certify forestation projects in order to generate high-quality carbon credits. Beyond high-quality credits CFS brings additional benefits to local people and the environment.

CarbonFix follows the guideline of the WWF forest carbon working group specifying that carbon credits must be real, additional, permanent, independently certified, unique and have social and ecological co-benefits.

The non-profit association CarbonFix was founded in 1999 to observe the UN climate process and to promote the potential of climate forestation projects. It is registered under German law and administrated by the CarbonFix Secretariat. The CFS is controlled and directed by its Technical Board, comprised of experts from the fields of forestry, environmental protection, climate change and development cooperation.

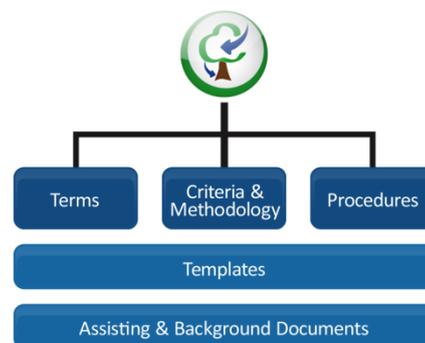
## The CarbonFix Standard

The CFS consists of 3 components: Terms, Criteria & Methodology and Procedures.

The 'Terms' define the technical wording used within the standard. All dashed underlined words within the CFS documents are defined in this chapter. Fully underlined words are defined directly on the page, with a footnote.

The 'Criteria & Methodology' part describes the criteria projects have to meet in order to become successfully certified.

The 'Procedures' set requirements how project developers have to prepare their project information in order to get pre-validated and certified. It includes procedures and information on project exclusion, assurance of permanence, adaptation of the standard, the fees charges by CarbonFix as well the issuance & assignment of credits.



## How to read the CarbonFix Standard

Grey boxes mark the regulations (criteria and requirements) of the CarbonFix Standard that have to be given evidence to by the project developer in the templates.

Green boxes mark the terms, general regulations and procedures of the CarbonFix Standard. These must be followed, but do not require additional documentation by the project developer.



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## Criteria & Methodology

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## Terms

1. **Technical board** | The technical board is a body of the organisation CarbonFix which consists of experts from the fields of forestry, environmental protection, climate change and development cooperation.

The technical board of CarbonFix maintains the quality of the CarbonFix Standard, pre-validates projects and conducts project spot-checks.

2. **Certification body** | The certification body conducts certification processes by validating and verifying the compliance of project information with the regulations of the CarbonFix Standard.

Certification bodies must not certify projects where they have been involved as project participants.

Certification bodies are organisations that are sufficiently qualified to certify projects according to the regulations of the CarbonFix Standard.

The CFS recognizes certification bodies that can attest a valid accreditation by the

- UNFCCC as DOE or AIE under the sectoral scope of 'Afforestation and reforestation', OR
- FSC under the scope of 'Forest Management', OR
- ANSI for verification and validation under the scope of '03. Land Use and Forestry'.

For contact details of the certification bodies - see [www.CarbonFix.info/Developers/Certifiers](http://www.CarbonFix.info/Developers/Certifiers)

3. **CO<sub>2</sub>-buyer** | The CO<sub>2</sub>-buyer is any person or legal entity that has been assigned CO<sub>2</sub>-certificates by the project developer within the CO<sub>2</sub>-registry.

## Project Actors

4. **Project participants** | Project participants is an umbrella term for the terms 5. to 10.

5. **Project developer** | The project developer is the person or legal entity that prepares the project information for the certification process and bears the liability towards the CO<sub>2</sub>-buyer and the CarbonFix organisation.

6. **Owner of the CO<sub>2</sub>-rights** | The owner of the CO<sub>2</sub>-rights is the person or legal entity that has the CO<sub>2</sub> user rights of the project area.

7. **Owner of the land** | The owner of the land is the person or legal entity that holds an uncontested legal land title of the project area.

8. **Owner of the timber** | The owner of the timber is the person or legal entity that holds the timber user rights of the project area.

DOEs | DOEs (Designated Operational Entities) are accredited certification bodies of the UN climate secretariat - <http://cdm.unfccc.int/DOE/scopes.html>

AIEs | AIEs (Accredited Independent Entities) are accredited certification bodies of the UN climate secretariat - <http://ji.unfccc.int/AIEs/List.html>

ANSI | American National Standards Institute - [www.ansi.org](http://www.ansi.org)



## Terms

9. **Owner of other resources** | The owner of other resources is the person or legal entity that holds the user rights of other resources (e.g. a stone quarry, mines, water) within the project area.

10. **Project financier** | The project financier is the person or legal entity that finances the project activities.

11. **Project workforce** | The project workforce is an umbrella term for the terms 12. to 16.

12. **Project management** | The project management coordinates and controls the project activities.

13. **Working staff** | Working staff is used as an umbrella term for employees, contractors and workers.

14. **Employees** | Employees are employed by the project management.

15. **Contractors** | Contractors are legal entities or individuals that have signed working contracts with the project management.

16. **Workers** | Workers are individuals who are employed by a contractor.

17. **Project stakeholders** | Project stakeholders is an umbrella term for

- all project participants
- the national or regional forest authority that is responsible for the project area
- all national NGOs that are active in the field of sustainable forestry
- indigenous people influenced by the project activities
- communities influenced by the project activities

## Project

18. **Project** | A project consists of planting areas with similar socio-economic and ecological attributes and similar impacts on its socio-economic and ecological environment.

19. **Planting start** | The planting start is the date when the planting of the first trees took or will take place.

20. **Project start** | The project start is when the project was first seriously considered to begin with the project activities.

21. **Project lifetime** | The lifetime of a project must be minimum 30 years from the planting start.

22. **Project activity** | Project activity is any kind of activity undertaken to implement and manage the project.

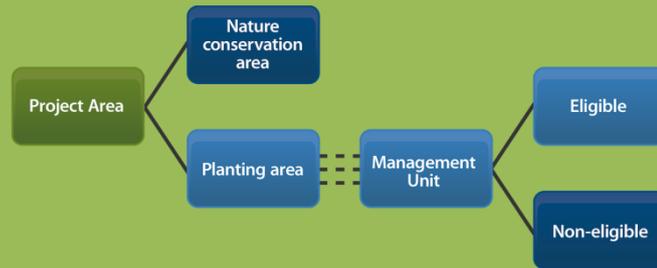


## Terms

### Areas

23. **Project area** | The project area includes the total land of a project.

A project area does not have to be one continuous area. It can also consist of several fragmented areas.



24. **Nature conservation area** | The nature conservation area is part of the project area and serves the ecological protection or management of native fauna and flora in order to establish, maintain or restore the natural ecosystem in the landscape the project is integrated in.

25. **Planting area** | The planting area is the part of the project area where tree planting activities take place.

26. **Eligible planting area** | The eligible planting area is the part of the planting area which is classified as 'eligible' according to the CFS criteria (see chapter '01 Eligibility').

The eligible planting area represents the sum of eligible areas of all management units.



27. **Non-eligible planting area** | The non-eligible planting area is land which is planted, but does not fall under the eligibility criteria outlined in chapter '01 Eligibility'.



28. **Management Unit (MU)** | Management units are a distinct parts of the planting area with homogeneous characteristics.



Natural ecosystem | The natural ecosystem is a unit of plants, animals, water and soil which would have occurred on the area in case of no human intervention.



## Terms

### Certificates

29. **CO<sub>2</sub>-certificates** | CO<sub>2</sub>-certificates have the unit of 1 metric ton CO<sub>2</sub>-equivalent [tCO<sub>2</sub>].

CO<sub>2</sub>-certificates are valid perpetually, as projects under the CFS are designed to create a sustainable carbon stock.

Projects that are certified according to the CFS can sell their CO<sub>2</sub>-certificates as different types. The term CO<sub>2</sub>-certificates is used as an umbrella term for all of these types of certificates.

- **Ex-post** certificates are CO<sub>2</sub>-certificates which have been verified by a certification body.
- **Ex-post forward** certificates are CO<sub>2</sub>-certificates which have been validated by a certification body and will be delivered in a defined year of delivery (e.g. 2016).
- **Ex-ante / future** certificates are CO<sub>2</sub>-certificates which have been validated by a certification body and will be delivered during the crediting period of a project. They include an expected, non-binding, year of delivery.

30. **Year of delivery** | The year of delivery is defined as the year when the CO<sub>2</sub> of the CO<sub>2</sub>-certificates has been sequestered by the trees.

31. **Crediting period** | The crediting period is the time span during which a project can account for its fixation of CO<sub>2</sub>.

The crediting period must not extend beyond the project's lifetime.

The crediting period for CFS projects is limited to a maximum of 50 years. It may be expanded in case the CO<sub>2</sub>-buyer explicitly agrees to this.

32. **Compensation activities** | See chapter '004 Assurance of Permanence'.

33. **Buffer pool** | See chapter '004 Assurance of Permanence'.

34. **Assigning CO<sub>2</sub>-certificates** | See chapter '009 Issuance & Assignment'.

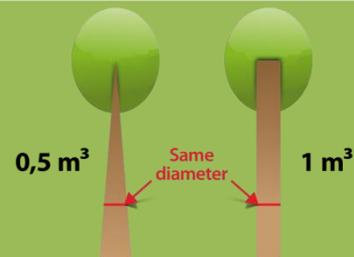
CO<sub>2</sub>-calculation

35. **Net CO<sub>2</sub>-fixation**  
 36. **Baseline**  
 37. **Leakage**  
 38. **Project emissions**  
 39. **Present CO<sub>2</sub>-fixation**  
 40. **Future CO<sub>2</sub>-fixation**  
 41. **Equilibrium stand volume**  
 42. **Mean stand volume**
- } See chapter '06 CO<sub>2</sub>-fixation'

43. **CO<sub>2</sub>-fixation** | CO<sub>2</sub>-fixation is used as umbrella term for the present CO<sub>2</sub>-fixation and the future CO<sub>2</sub>-fixation. See chapter '06 CO<sub>2</sub>-fixation'.

44. **Form Factor** | The form factor of a tree is the ratio of the tree volume to the volume of a cylinder with the same diameter at breast height (1.3 m above ground).

Example: Form factor = Tree volume / Cylinder volume  
 = 0.5 / 1  
 = 0.5



45. **Wet-to-Dry ratio** | The ratio between dry and fresh biomass determines the Wet-to-Dry ratio.

Example: Wet-to-Dry ratio = Dry biomass / Wet biomass  
 = 1 / 2  
 = 0.5



46. **Biomass Expansion Factor (BEF)** | See graph below

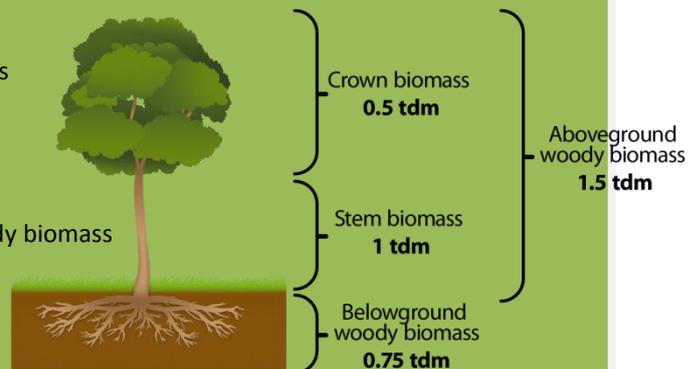
47. **Root-to-Shoot ratio** | See graph

The following graph shows how the BEF and Root-to-Shoot ratio are determined based on the ratio of different parts of the tree.

Examples:

BEF = Aboveground woody biomass / Stem biomass  
 = 1.5 / 1  
 = 1.5

Root-to-Shoot ratio =  
 Belowground woody biomass / Aboveground woody biomass  
 = 0.75 / 1.5  
 = 0.5





## Terms

### Certification

48. **Pre-validation** | See chapter '002 Process to Pre-Validation'

49. **Certification** | Certification is used as an umbrella term for the process of validation and verification by a third-party certification body.

50. **Validation** | The validation is a prospective confirmation that a project meets the regulations of the standard. This includes the determined amount of CO<sub>2</sub>-certificates.

51. **Verification** | The verification is a retrospective confirmation that a project has met the regulations of the standard. This includes the measured amount of CO<sub>2</sub>-certificates.

52. **Initial certification**  
 53. **Monitoring certification**  
 54. **Management Unit (MU) certification** } See chapter '003 Certification'

55. **Certification body** | See Term 2.

56. **Corrective Action Request (CAR)** | With a CAR, the technical board or the certification body requests the project developer to provide more clear or additional information of compliance with a respective criterion.

57. **Forward Action Request (FAR)** | With a FAR, the technical board or the certification body requests the project developer to take distinct action in the project in order to avoid possible future non-compliances with a criterion.

A FAR must be

- limited in the scale of its impact, AND
- correctable within less than 6 months.

Within these 6 months, evidence must be given to the respective certification body that the FAR has been solved.

58. **Full review**  
 59. **Intermediate review**  
 60. **Clarification statement** } See chapter '007 Adaptation of the Standard'



## Terms

### Project documentation

61. **Project information** | Project information is used as an umbrella term for project documents, supporting documents and other information about the project (including maps, pictures, videos).
62. **Project documents** | Project documents are documents which describe how the project meets the regulations of the CarbonFix Standard.
63. **PDD** | PDD is the abbreviation for Project Design Document. The PDD unites all project documents into one single document.
64. **Supporting documents** | Supporting documents are referenced within the project documents and provide additional evidence to meet the regulations of the CarbonFix Standard.

### Others

65. **ClimateProjects** | The ClimateProjects platform is an online application that enables projects to transparently present themselves and to efficiently manage the pre-validation and certification processes.  
  
The platform is free of charge. For more information see [www.ClimateProjects.info](http://www.ClimateProjects.info)
66. **CO<sub>2</sub>-registry** | In the CO<sub>2</sub>-registry CO<sub>2</sub>-certificates are issued and thereafter assigned to a CO<sub>2</sub>-buyer. The CarbonFix Standard CO<sub>2</sub>-registry is operated by the *Markit Environmental Registry*.  
  
See [www.markit.com](http://www.markit.com) and chapter '009 Issuance & Assignment'.
67. **General Terms & Conditions** | The General Terms & Conditions outline the rules and obligations that apply for the use of the CarbonFix Standard.



## Preconditions

### 01 Eligibility

1. A description of the historical and the current situation of the project area must be given for the last 50 years. This description must include the development of its socioeconomic situation, its changes in land-uses and changes of property rights.

2. Planting area is ONLY eligible, if the land:

- is planted with trees during the initial certification AND
- is not a forest at the date of the project start AND
- will result in the creation of a forest AND
- has not been a forest for at least 10 years prior to the planting start OR has been a forest in the last 10 years prior to the planting start, but evidence is given that absolutely no relation between the project participants and the cause of deforestation exists (e.g. that the forest destruction was caused by force majeure)

Criterion 2d. must be proven by the interpretation of satellite images, aerial photographs, official maps or land-use records.

3. Planting area is NOT eligible, if the land:

- was deforested and thereafter replanted in order to generate CO<sub>2</sub>-certificates OR
- is wetland OR
- is situated on ground that is permafrost OR
- is agriculture farming land and threatens the food security of the local population through the conversion to forest.

4. Evidence must be given, that in case any agricultural, agroforestry or silvopasture activities are taking place on the planting area, they contribute to the aim of creating a forest.

5. Evidence must be given that project activities will NOT lead to a long-term increase of greenhouse gas emissions in the carbon pool 'soil' on the project area.

6. If litter (leaves and small branches) is extracted from the eligible planting area, it must be limited to the extent of not harming the nutrient balance of the soil.

Forest	A forest is defined by the Designated National Authority (DNA) of the <u>project's</u> host-country: <a href="http://cdm.unfccc.int/DNA">http://cdm.unfccc.int/DNA</a> . In case no forest definition is yet given by the DNA, the project developer can take the forest definition of the FAO: <a href="http://www.fao.org/docrep/003/x6896e/x6896e0e.htm">http://www.fao.org/docrep/003/x6896e/x6896e0e.htm</a> or the national forest definition of the <u>project's</u> host country.
Satellite images	Cost free satellite images are available from the following webpages: <ul style="list-style-type: none"> <li>• Global Land Cover Facility: <a href="http://glcf.umiacs.umd.edu">http://glcf.umiacs.umd.edu</a></li> <li>• USGS: <a href="http://eros.usgs.gov">http://eros.usgs.gov</a></li> </ul>
Wetland	Definition of wetland according to the IPCC: 'This category includes land that is covered or saturated by water for all or part of the year (e.g. peatland) and that does not fall into the forest land, cropland, grassland or settlements categories.' Source: IPCC - Good Practice Guidance - Wetlands.
Permafrost	Grounds of permafrost are defined by the International Permafrost Association - <a href="http://www.solcomhouse.com/Permafrost.htm">www.solcomhouse.com/Permafrost.htm</a>
Silvopasture	Silvopasture is the practice of combining forestry and grazing of domesticated animals in a mutually beneficial way.

## Preconditions

### 02 Additionality



1. Evidence must be given that the project is not business as usual. Therefore, the additionality analysis must be executed according to the latest version A/R CDM 'Combined tool to identify the baseline scenario and demonstrate additionality in A/R CDM project activities'.

Link: <http://cdm.unfccc.int/methodologies/ARmethodologies/tools/>

Hereby, the first Point of STEP 0 can be omitted.

Note that some terms in this tool (e.g. CERs, A/R CDM project) differ from the terms defined by the CFS and shall be interpreted accordingly.

2. Evidence must be given that the most likely without-project-scenario would not lead to an increase of 'woody biomass' on the eligible planting area.

If this is not the case, the baseline must refer to the biomass that would have been on the area in the long-term.

3. Evidence must be given that the project contributes to a more sustainable development than the most likely without-project scenario, short-, mid- and long-term.

## Sustainable Forest Management

### 03 Forest Management



1. A description of the project's general forest management objectives must be given.
2. Evidence must be given that the boundaries of the project area, planting area (eligible and non-eligible), management units and nature conservation area are clearly defined and visible in the field.
3. A description of the following tree species characteristics must be given:
  - a. Origin and distribution of the tree species  
(indicate if the species are native or not)
  - b. Provenance of the seeds
  - c. Main purpose / Use of trees
  - d. Possible pests and diseases
  - e. Time when forest products are foreseen to be used
4. Evidence must be given that at least 10% of the project area is managed
  - a. as a nature conservation area OR
  - b. to meet a national or sub-national HCV area definition.

Criterion 4. does not have to be fulfilled in case more than 30% of the project area is managed according to chapter '06 CO<sub>2</sub>-fixation - Option 1b) Conservation forest'.
5. Evidence must be given that the nature conservation area is managed in order to establish, maintain or restore the natural ecosystem of the landscape the project is integrated in.
6. Evidence must be provided that the protection or management of the nature conservation area enhances habitat connectivity.
7. Key figures on the following areas must be provided:
  - a. Project area
  - b. Planting area(s)
  - c. Eligible planting area(s)
  - d. Nature conservation area(s)
8. Shapefiles with the following information must be submitted through ClimateProjects:
  - a. Project area(s)
  - b. Management Units
9. The certification body may require the submission of shapefiles with the following information:
  - a. Land-use classes of the project area 10 years prior to planting start for '01 Eligibility'
  - b. Wetland areas within the project area for '01 Eligibility'
  - c. Nature conservation area(s) for '04 Environmental Aspects'
  - d. Neighbours of the project (individuals, villages, towns, etc.) for '05 Socio-economic Aspects'
  - e. Eligible planting area and non-eligible planting area for '06 CO<sub>2</sub>-fixation'
  - f. Land-use classes of the project area just before the planting start for '08 Baseline'
  - g. Infrastructure of the project (roads, rivers, houses, etc.) for '11 Capacities'

HCV area	High Conservation Value (HCV) areas are defined on a national or sub-national level by the networks of the HCV program. See <a href="http://www.HCVnetwork.org">www.HCVnetwork.org</a>
Natural ecosystem	The natural ecosystem is a unit of plants, animals, water and soil which would have occurred on the area in case of no human intervention.
Land-use classes	Land-use classes are areas with homogeneous patterns on their ecological features as well as their land-use. Examples of land-use classes: agriculture land, wetland, forest, shrubland, grassland.

## Sustainable Forest Management

### 04 Environmental Aspects



1. The project developer must provide a description of the different land-use classes of the project area.  
If significantly different land-use classes are bordering the project area, they must also be described.

2. Evidence must be given that the project has net-positive ecological impacts.

Therefore,

- a. positive ecological impacts of the projects must be enhanced AND
- b. negative or potential negative ecological impacts must be mitigated.

Descriptions of the following project characteristics must be given in regard to criteria 2a. and 2b.:

- Soil                      Nutrients, Erosion
- Water                    Quality, Quantity
- Biodiversity            Flora, Fauna
- Climate                 Temperatures, Precipitation

3. All endangered and critically endangered species of the IUCN Red List must be identified and evidence must be provided that appropriate measures are put in place to protect them.

4. Evidence must be given that the use of chemical products is

- a. justified AND
- b. documented AND
- c. minimized

5. Evidence must be given that waste is disposed in an environmentally appropriate way.

6. Evidence must be given that 15 meter wide buffer strips along permanent or temporary water courses (streams, rivers, wetlands) are implemented. These buffer strips must be

- part of the nature conservation area, OR
- must be managed according to '06 CO<sub>2</sub>-fixation - Option 1b) Conservation forest'.

In both cases only native tree species are allowed to be planted.

7. Evidence must be given that no genetically modified species are being used.

8. The project management shall plant native species in mixed stands and in case the timber of the forest is being used, selective harvesting management shall be applied.

If this criterion is not met, the project developer must justify its

- choice of tree species
- silvicultural system
- harvesting method

9. Evidence must be given that all species planted are site-adapted under changing climate conditions.

Land-use classes	Land-use classes are areas with homogeneous patterns on their ecological features as well as their land-use. Examples of land-use classes: agriculture land, wetland, forest, shrubland, grassland.
IUCN Red List	See <a href="http://www.IUCNredlist.org">www.IUCNredlist.org</a>
Genetically modified	Genetically modified trees species are defined according to the FSC guideline: FSC-POL-30-602
Native species	Species are defined as native, if their presence on the project area is the result of only natural resources, with no human intervention.
Mixed stands	Mixed forest stands consist of two or more dominant tree species.
Selective harvesting	Selective harvesting is defined as the continual harvest of single trees or groups of trees by maintaining forest on the area.

## Sustainable Forest Management

### 05 Socio-Economic Aspects



1. Evidence must be given that the project has net-positive socio-economic impacts.

Therefore,

- a. positive socio-economic impacts of the projects must be enhanced AND
- b. negative or potentially negative socio-economic impacts must be mitigated.

For criterion 1a. descriptions of the following aspects must be given:

- Creation of employment
- Capacity building of project workforce
- Welfare activities

For criterion 1b. descriptions of the following aspects must be given:

- Displacement of people
- Spiritual, religious, or other socially important places influenced by the project activities

2. Stakeholders must be subject to free, prior, and informed consent on project activities that may have an influence on them.

With all stakeholders groups an agreement on the continuous dialog shall be established from the project start. In this agreement the following topics shall be addressed:

- Contact person that represents the stakeholder group
- Means, frequency and contents of information exchange
- Standard procedure to address and solve concerns

3. Evidence must be given that the working staff is able to organize themselves and negotiate with their employers on a voluntary basis.

4. Evidence must be given that the working staff's working environment is kept safe and risk free.

5. Evidence must be given that no children under the age of 16 are working for the project.

6. Evidence must be given that contracts are clearly defined and include the following aspects:

**For employees**

- a. working hours and leave days
- b. duties
- c. salary
- d. modalities on health insurance
- e. modalities on the termination of the contract

**For contractors**

- a. tasks (quantity, quality, time)
- b. payment
- c. modalities on the termination of the contract

7. Evidence must be provided that preference is given to working staff from neighbouring areas.

## CO<sub>2</sub>-Certificates Calculation & Carbon Pools



For detailed information the CFS methodology, the background document 'CFS methodology' can be downloaded from [www.CarbonFix.info/Standard](http://www.CarbonFix.info/Standard)

### Calculation of CO<sub>2</sub>-certificates

To determine the quantity of CO<sub>2</sub>-certificates, the following formula must be applied:

$$\text{CO}_2\text{-certificates [tCO}_2\text{]} = \text{Eligible planting area [ha]} * \left( \text{CO}_2\text{-fixation [tCO}_2\text{/ha]} - \text{Project emissions [tCO}_2\text{/ha]} - \text{Baseline [tCO}_2\text{/ha]} - \text{Leakage [tCO}_2\text{/ha]} \right)$$

Net CO<sub>2</sub>-fixation

The ClimateProjects web system assists the project developer to apply this formula. Before the parameters are submitted to the ClimateProjects web system, they must be determined using the CarbonFix templates.

Within the ClimateProjects websystem the parameters must be submitted as integers.

The system automatically multiplies the eligible planting area by the net CO<sub>2</sub>-fixation and deducts the buffer.

#### CO<sub>2</sub>-certificates that can be assigned to a CO<sub>2</sub>-buyer

$$= (\text{Eligible planting area [ha]} * \text{Net CO}_2\text{-fixation [tCO}_2\text{/ha]}) * - 30\% \text{ Buffer}$$

For the calculation of the parameters CO<sub>2</sub>-fixation, baseline and leakage, the following carbon pools are preset to be assessed:

Carbon Pools		Includes	CO <sub>2</sub> -fixation	Baseline	Leakage
Woody biomass	Aboveground	Stem, branches, bark	Selected	Selected	Selected
	Belowground	Tree roots	Selected	Selected	Selected
Non-woody biomass	Aboveground	Grass		Selected	
	Belowground	Grassroots		Selected	
Soil		Organic material			
Harvested wood (timber & energy wood)		Furniture, construction material, ...			
Litter		Leaves, small fallen branches, ...			

Positive climatic effects, other than those caused by the project's forestation activities (such as those from agriculture activities, silvopasture or positive leakage), cannot be accounted for.

Standing dead-wood is part of the carbon pool 'woody biomass' and must be accounted for in all parameters.

## CO<sub>2</sub>-Certificates Conversion Procedure



Most of the variables used in forestry appear in a different unit than [tCO<sub>2</sub>], most often in [m<sup>3</sup>] or [tdm]. Therefore, they need to be converted by using appropriate conversion factors. The following page describes the conversion steps for 'Woody biomass' and 'Non-woody biomass'.

### Woody biomass

Conversion of Stem volume [m<sup>3</sup>] to tons of CO<sub>2</sub> [tCO<sub>2</sub>]



#### Aboveground Woody biomass

= Stem volume \* Biomass Expansion Factor \* Wood density \* Carbon fraction \* C to CO<sub>2</sub> factor

Biomass Conversion and Expansion Factor (BCEF)

#### Belowground Woody biomass

= Aboveground Woody biomass \* Root-to-Shoot ratio

The different factors can be influenced by one or several of the following attributes and which must therefore be considered during the calculations:

- Some Biomass Expansion Factors (BEF) already include the Root-to-Shoot ratio.
- Sometimes the 'Stem volume' is calculated over-bark and sometimes under-bark.
- The 'Stem volume' is based on a specific cut diameter (x cm). The BEF must relate to this.
- Most Root-to-Shoot ratios are calculated from the 'Wood volume' (including branches and litter), but some are based on the 'Stem volume'.
- In case a Biomass Conversion and Expansion Factor (BCEF) is used it replaces the parameters BEF and 'Wood density' in the formula above.
- For the quantification of dead-wood in the carbon pool 'woody biomass' the factor 'Woody density' may differ, which shall be taken into account.

Background information on the carbon pool 'woody biomass':

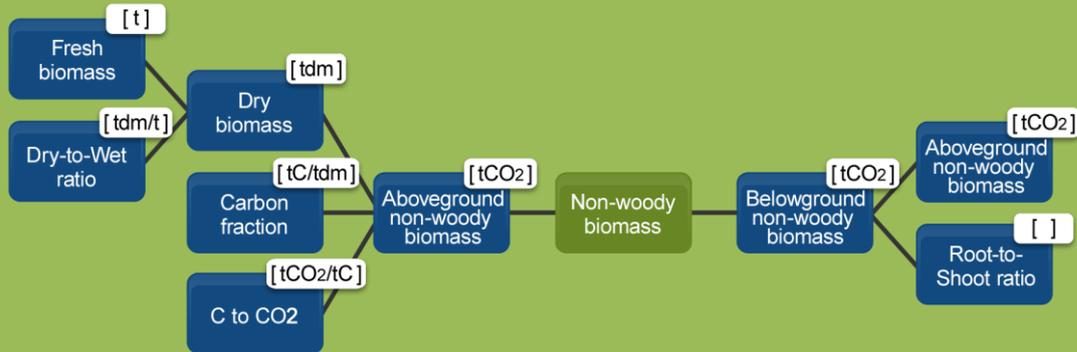
[http://www.ipcc-nggip.iges.or.jp/public/2006gl/pdf/4\\_Volume4/V4\\_04\\_Ch4\\_Forest\\_Land.pdf](http://www.ipcc-nggip.iges.or.jp/public/2006gl/pdf/4_Volume4/V4_04_Ch4_Forest_Land.pdf)

# CO<sub>2</sub>-Certificates Conversion Procedure



## Non-woody biomass

Conversion of fresh biomass [t] to tons of CO<sub>2</sub> [tCO<sub>2</sub>]



**Aboveground Non-woody biomass**

= Fresh biomass \* Dry-to-Wet ratio \* Carbon fraction \* C to CO<sub>2</sub> factor

**Belowground Non-woody biomass**

= Aboveground Non-woody biomass \* Root-to-Shoot ratio

Background information on the carbon pool 'non-woody biomass':

[http://www.ipcc-nggip.iges.or.jp/public/2006gl/pdf/4\\_Volume4/V4\\_06\\_Ch6\\_Grassland.pdf](http://www.ipcc-nggip.iges.or.jp/public/2006gl/pdf/4_Volume4/V4_06_Ch6_Grassland.pdf)

## CO<sub>2</sub>-Certificates Conservative Approach



For all calculations:

- 0.5 [tC/tdm] is used as 'Carbon fraction' (for woody and non-woody biomass)
- 3.666 [tCO<sub>2</sub>/tC] is used to convert [C] to [CO<sub>2</sub>]

In case no rigorous scientific information is available, the following values can be used for the different factors:

For the parameter CO<sub>2</sub>-fixation:

- 0.3 [tdm/m<sup>3</sup>] as Wood density
- 1.1 [ ] as BEF
- 0.1 [ ] as Root-to-Shoot ratio (for woody biomass)

For the parameter baseline or leakage:

- 0.7 [tdm/m<sup>3</sup>] as Wood density
- 4.0 [ ] as BEF
- 4.0 [ ] as Root-to-Shoot ratio (for non-woody biomass)
- 0.8 [ ] as Root-to-Shoot ratio (for woody biomass)
- 0.5 [tdm/t] as Wet-to-Dry ratio

All parameters used for the determination of the net CO<sub>2</sub>-fixation must be derived from the best available scientific sources. In their synergy, they must lead to a conservative calculation approach. This means that in case of uncertainties:

- the CO<sub>2</sub>-fixation should be underestimated, and
- the baseline and leakage should be overestimated

## CO<sub>2</sub>-Certificates

### 06 CO<sub>2</sub>-Fixation



The parameter CO<sub>2</sub>-fixation can occur as present CO<sub>2</sub>-fixation (ex-post) as well as future CO<sub>2</sub>-fixation (ex-ante). For its determination the following carbon pools are preset to be accounted for:

Carbon Pools		Includes	CO <sub>2</sub> -fixation
Woody biomass	Aboveground	Stem, branches, bark	Selected
	Belowground	Tree roots	Selected

**CO<sub>2</sub>-fixation** [tCO<sub>2</sub>/ha]

= CO<sub>2</sub>-fixation woody biomass [tCO<sub>2</sub>] / Area of management unit [ha]

1. The present CO<sub>2</sub>-fixation must be assessed, once the average tree height within a management unit exceeds 3 meters. Hereby, the CarbonFix guideline 'Forest Inventory' must be followed.

2. The future CO<sub>2</sub>-fixation is determined by a management unit specific growth-model.

Evidence must be given, that growth-models are based on credible scientific sources and site-adapted factors.

Evidence must be given that before any monitoring certification, the management unit specific growth-models are adjusted according to the latest actual monitoring data gained through the assessment of the present CO<sub>2</sub>-fixation.

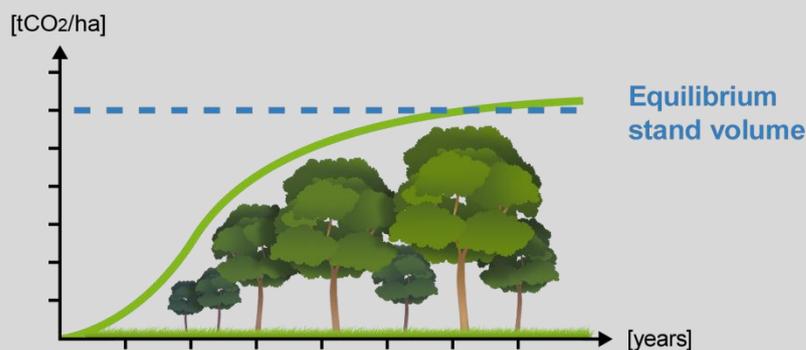
Depending on the applied silvicultural methods, one of the following calculative options must be used to determine the future CO<sub>2</sub>-fixation:

#### Option 1 - a) Selective harvesting or b) Conservation forest

3. In case of 'selective harvesting' or 'conservation forest', the future CO<sub>2</sub>-fixation is based on the equilibrium stand volume during the crediting period of the project.

If the equilibrium stand volume is not yet reached by the end of the project's crediting period, the future CO<sub>2</sub>-fixation is determined by the 'stand volume' of the year the crediting period ends.

Evidence must be given through the project characteristics (tree species, project participants, etc.) and its silvicultural objectives that the forests will be used in a 'selective harvesting' regime or will be 'conserved' (no use of timber).



Selective harvesting

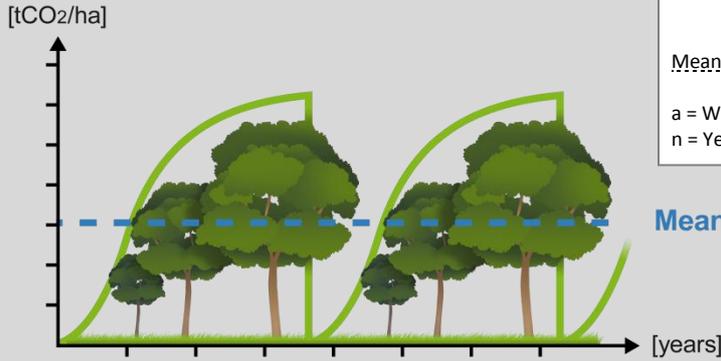
Selective harvesting is done through the continuous harvest of single trees or groups of trees by maintaining forest on the area.

CO<sub>2</sub>-Certificates  
**06 CO<sub>2</sub>-Fixation**



**Option 2 - Rotation forestry**

4. In case of rotation forestry, the future CO<sub>2</sub>-fixation is based on the mean stand volume during the first rotation period.



$$\text{Mean stand volume} = \frac{\sum_{0-n} a_n}{n}$$

a = Wood volume (m<sup>3</sup>) in year n  
 n = Years of the first rotation period

Mean stand volume

Note that the graph above only shows the rotation system within one management unit. Projects normally consist of multiple management units.

It is possible that management units are managed in different ways.

Example:

Management Unit (MU)	Planting year	Options to determine the <u>future CO<sub>2</sub>-fixation</u>
1	2008	Option 1b) - Conservation forest
2	2008	Option 1a) - Selective harvesting
3	2009	Option 2 - Rotation forestry
4	2010	Option 1b) - Conservation forest



CO<sub>2</sub>-Certificates**07 Project Emissions**

1. In order to account for project emissions due to the use of fossil fuels within the project (e.g. through machines, flights, etc.), 0.5% of the future CO<sub>2</sub>-fixation must be deducted.
2. In case fertilizer is used, 0.005 tCO<sub>2</sub> per kg of nitrogen (N) must be deducted. Hereby, no differentiation is made between synthetic and organic fertilizer.
3. In case the biomass of the baseline is burned on the field for the purpose of land preparation, an additional 10% of the baseline emissions must be accounted for. This is due to other greenhouse gases (N<sub>2</sub>O and CH<sub>4</sub>) that are released during the burning process.

## CO<sub>2</sub>-Certificates

### 08 Baseline



To determine the parameter baseline the following carbon pools are preset to be accounted for:

Carbon Pools		Includes	Baseline
Woody biomass	Aboveground	Stem, branches, bark	Selected
	Belowground	Tree roots	Selected
Non-woody biomass	Aboveground	Grass	Selected
	Belowground	Grassroots	Selected

**Baseline** [tCO<sub>2</sub>/ha]

= (Baseline woody biomass [tCO<sub>2</sub>] + Baseline non-woody biomass [tCO<sub>2</sub>]) / Eligible planting area [ha]

1. The baseline is the 'woody biomass' and 'non-woody biomass' on the eligible planting area just before the planting start.

The calculation can be done in two different ways:

- a. By executing field measurements. Here, the 'Forest Inventory' guideline shall be applied.
- b. By estimating the biomass in reference to similar areas
  - regional and national default values shall preferably be used
  - international default values can only be used if other values are not available

For examples of the baseline determination, the assisting document 'Example calculations' can be downloaded from: [www.CarbonFix.info/Standard](http://www.CarbonFix.info/Standard)

## CO<sub>2</sub>-Fixation

### 09 Leakage



To determine the parameter **leakage**, the following carbon pools are preset to be accounted for:

Carbon Pools		Includes	Baseline
Woody biomass	Aboveground	Stem, branches, bark	Selected
	Belowground	Tree roots	Selected

**Leakage** [tCO<sub>2</sub>/ha]

= Leakage woody biomass [tCO<sub>2</sub>] / Eligible planting area [ha]

1. **Leakage** is caused by an increase of emissions outside of the **project area** as a result of the **project activity**.

Leakage emissions can be caused due to a shift of the following activities:

- |                      |                         |
|----------------------|-------------------------|
| a. fuelwood use      | d. agricultural farming |
| b. charcoal burning  | e. resettlement         |
| c. timber harvesting | f. livestock grazing    |

Depending on the category of leakage selected, the following formulas must be applied:

#### Formula for category a. b. c. d. and e.

**Leakage** woody biomass [tCO<sub>2</sub>]

= % of displacement [%] \* CO<sub>2</sub>-stock [tCO<sub>2</sub>/ha] \* Area [ha]

% of displacement

= displaced activities which will have impacts on the carbon pool **woody biomass** outside the **project area**

The factor is determined by:

1. credible estimations, or
2. a representative survey

CO<sub>2</sub>-stock

= average CO<sub>2</sub>-stock of the land where the activity will be displaced to

If it is not known where the activity will be displaced to, it is possible to take:

For category a. and b.

- the CO<sub>2</sub>-stock of the area where the activity took place

For category c. d. and e.

- the CO<sub>2</sub>-stock of a natural forest in the **project's** host-country

Area

= land within the **project area** that has been affected by the activity-shift

## CO<sub>2</sub>-Fixation

### 09 Leakage



#### Formula for category f.

**Leakage** woody biomass [tCO<sub>2</sub>]

= CO<sub>2</sub>-stock [tCO<sub>2</sub>/ha] \* Displaced heads [head] \* Capacity [ha/head]

CO<sub>2</sub>-stock = average CO<sub>2</sub>-stock of the land where the activity will be displaced to

If it is not known where the activity will be displaced to, it is possible to take:

- the CO<sub>2</sub>-stock of a natural forest of the project's region

Displaced heads = number of livestock that will be displaced and will have impacts on the carbon pool woody biomass outside the project area.

The factor is determined based on:

1. credible estimations, or
2. a representative survey

Capacity = sustainable grazing capacity of the area where the livestock will be displaced to

## Permanence

# 10 Capacities



### Management Capacity

1. Evidence must be given that the project management has sufficient qualification and an appropriate structure to ensure sustainable implementation and management of the project.
2. Evidence must be given that project management decisions are based on a joint process.
3. Evidence must be given that the project management has an internal quality-control system.
4. Evidence must be given that the project works with other institutions to continuously expand the project management's qualifications.
5. Evidence must be given, that suitable knowledge transfer within the project management is ensured over time.

### Financial Capacity

6. Evidence must be provided that sufficient financial means are available for the long-term finance of the project.
7. If **two** or more of the following points apply, the project is only allowed to assign 50% of its future CO<sub>2</sub>-certificates until the first successful monitoring certification - however at the earliest 3 years after the initial certification:
  - The project financier has not managed other projects (not necessarily in forestry) of similar financial scale, yet.
  - The organisation of the project developer was founded earlier than 5 years ago.
  - The project is located in a country which is ranked in the second half of Land Property (LP) rating by IPRI.

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IPRI The International Property Rights Index rates countries according to their security of property. The 'Land Property (LP)' is just one category under the IPRI. [www.internationalpropertyrightsindex.org](http://www.internationalpropertyrightsindex.org)

## Permanence

# 10 Capacities



### Technical Capacity

8. Evidence must be given that the project has sufficient technical capacity to ensure sustainable implementation and management of the project.

Therefore, a technical description of the following activities must be given:

- |   |                |
|---|----------------|
| a. Nursery                                      | e. Maintenance |
| b. Land preparation (incl. lining out /spacing) | f. Pruning     |
| c. Planting                                     | g. Thinning    |
| d. Beating up (replacing of dead seedlings)     | h. Harvesting  |

### Protective Capacity

9. Evidence must be given that non-permanence risks of a project are mitigated.

Therefore, an evaluation of the following risks must be given

- |            |   |                           |                         |
|------------|---|---------------------------|-------------------------|
| a. Water   | (drought, flood, hail, snow, heavy rains ...) | e. Diseases               | (bacteria, viruses ...) |
| b. Wind    | (storms, hurricanes ...)                      | f. Temperature            | (coldness, heat)        |
| c. Animals | (insects, domestic animals, wild animals ...) | g. Encroachment of people |                         |
| d. Fire    | (human made, natural)                         | h. Others                 |                         |

A description of the project's potential risks and risks mitigation measures in-place must be given.

10. If there is a risk of fire a 'Fire Management Plan' must implemented. This plan must include a description of the following activities:

- |                    |                               |
|--------------------|-------------------------------|
| a. Fire awareness  | d. Fire detection             |
| b. Fire prevention | e. Fire suppression           |
| c. Fire equipment  | f. Fire damage rehabilitation |

## Permanence

11 Land & CO<sub>2</sub> Tenure

1. Evidence must be given that the project developer has an uncontested legal land title of the project area, for a minimum period of the project's crediting period.
2. Evidence must be given that all necessary permits for the implementation and management of the project (planting permits, harvesting permits, infrastructures permits, etc.) are secured for a minimum period of the project's crediting period.
3. On overview on the contact details of the project participants must be provided.
4. Evidence must be given that the project developer is the
  - a. Owner of the CO<sub>2</sub>-rights AND
  - b. Owner of the land AND
  - c. Owner of the timber AND
  - d. Owner of other resources
  - e. Project financier

If the project developer is not all of the above, evidence must be given that the respective participant agrees with the expected project activity for the minimum period of the project's crediting period.
5. In case the owner of CO<sub>2</sub>-rights is a group of multiple individuals, authorization for the issuance and assignment of the CO<sub>2</sub>-certificates must be given to the project developer with a written approval.

## Procedures

# 001 Documentation Format



Project documents must strictly follow formatting guidelines and submit their project documents using the templates provided:

Chapter		Template available	Assisting documents available
01	Eligibility	✓	
02	Additionality	✓	
03	Forest Management	✓	
04	Environmental Aspects	✓	
05	Socio-Economic Aspects	✓	
06	CO2-Fixation	✓	Forest Inventory
07	Project Emissions	✓	
08	Baseline	✓	Example Calculation
09	Leakage	✓	Example Calculation
10	Capacities	✓	
11	Land & CO2 Tenure	✓	
001	Documentation Format	✓	
003	Certification	✓ for certifiers	
004	Combined Certification	✓	
010	Double Counting	✓	
	General Terms & Conditions	✓	

Templates can be downloaded from: [www.CarbonFix.info/Standard](http://www.CarbonFix.info/Standard)

1. Templates shall be filled out with a **green** colour and the font type Calibri, size 10.
2. **Red** coloured comments in the template shall be deleted before document submission.
3. Maps shall include the following information:
  - Name of the project
  - ID of the project
  - Legend
  - Printing date
  - Scale
  - Direction of North
  - Used GPS coordinate system (e.g. WGS 84)
  - GPS grid
  - Infrastructure (roads, houses, etc.) and rivers
  - Information on the satellite or aerial picture used (date, resolutions, data source)
4. Figures above one thousand shall be formatted with a space (1 000 000), whereby decimals will be separated by a point (1.35).
5. Pictures, graphs and tables within project documents shall be clearly marked with a unique ID.



6. Supporting documents must be numbered according to the following format:

Examples of supporting documents:

'01-01\_Western Tanzania maps\_Dec 1990'

'01-02\_Geoinformation on the land-use in Western Tanzania\_Jul 2003'

Chapter of the CFS 01

ID of the document 02

Title of document Geoinformation on the land-use in Western Tanzania

Date of publication Jul 2003

In the project documents, ONLY the reference number (01-02) shall be stated, together with the exact location of the referred information.

Example:

'Ref. 01-02, Page 2, Paragraph 3 and Table 2'

7. The project documents and supporting documents must be submitted in

- English, OR
- a language which has been agreed upon by the project developer, the technical board of CarbonFix and the certification body that executes the certification process.

8. The ClimateProjects platform must be used to submit the project information for any pre-validation and certification process - see [www.ClimateProjects.info](http://www.ClimateProjects.info)

All project information must be made publically available through the ClimateProjects system, except for confidential information.



1. During pre-validation the technical board conducts a desk review on the project documents assessing whether a project is likely to comply with the regulations of the CarbonFix Standard.

The outcome of the pre-validation shall not influence the assessment of the certification body during the initial certification, but shall be taken into account.

2. The pre-validation can start before all project information is completely submitted.

3. The pre-validation can be completed before a project has started all project activities.



### Certification types

- There are three types of certifications:
  - Initial certification
  - Monitoring certification
  - Management Unit (MU) certification

Chapter		Initial Certification	Monitoring Certifications	MU Certifications
01	Eligibility	!	?	!
02	Additionality	!	?	?
03	Forest Management	!	!	?
04	Environmental Aspects	!	!	?
05	Socio-Economic Aspects	!	!	?
06	CO2-Fixation	!	!	!
07	Project Emissions	!	?	!
08	Baseline	!	X	!
09	Leakage	!	X	!
10	Capacities	!	!	?
11	Land & CO2 Tenure	!	?	?
002	Documentation Format	!	!	!
005	Combined Certification (if applicable)	!	!	?
011	Double Counting (if applicable)	!	?	?
	General Terms & Conditions	!	!	?

! = Chapter to be assessed

? = Chapter to be assessed on changes

X = no assessment

- During the assessment of changes (?) the project developer must give evidence to the regulations that no changes with respect to the existing, already certified, project information exists.

If changes have occurred, the project developer must give evidence that the project still complies with the regulations of the CarbonFix Standard.

In both cases, the regular CFS templates must be used for the documentation.

### Initial certification

- In the initial certification the certification body certifies the compliance of the project information with all regulations of the CFS.
- The process of the initial certification must start within 3 months after a successful pre-validation.
- If there is an updated version of the CarbonFix Standard, the initial certification may still be based on the templates of the pre-validation.



#### Monitoring certification

6. In the monitoring certification the certification body re-certifies the compliance of the project information with regulations of the CFS as outlined in the table.
7. The monitoring certification follows the initial certification.
8. The monitoring certification must use latest version of the CFS.
9. A monitoring certification cannot be used to add management units to a project.

#### Management Unit certification

10. The MU certification allows project developers to add new management units to their project area.
11. In the MU certification the certification body certifies the compliance of the project information with regulations of the CFS as outlined in the table, **ONLY** in regard to the newly added management units.
12. A MU certification must use the latest version of the CFS or the version used for the latest monitoring certification.  
  
In case no monitoring certification was yet conducted, the version from the initial certification can be used.
13. A monitoring certification and MU certification can take place in a combined way.



### Certification Procedure

14. The project developer is free to choose a certification body for each individual certification process. Any costs for the certification processes are covered by the project developer.

15. A certification process may lead to

- an unsuccessful certification
- a successful certification with Forward Action Requests (FARs)
- a successful certification

16. The methods applied by the certification body to confirm project's compliance with the regulations of the CarbonFix Standard include, but are not limited to

- a desk review of the PDD
- a desk review of the Supporting documents
- a field visit
- interviews

17. Once the certification process is completed, the certification body provides a written certification report.

This certification report

- gives an overview on the certification of the project, including the quantity of CO<sub>2</sub>-certificates
- describes the competences of the assessment team
- gives an overview on the history of the document
- describes the objectives, scope, level of assurance and materiality of the report
- describes the methodology applied
- provides a summary of the assessment from the certification process
- provides a certification conclusion and opinion
- includes the list of the assessment from the individual criteria, including its Corrective Action Requests (CARs) or Forward Action Requests (FARs)

Hereby, the certification body shall preferably use the template provided: [www.CarbonFix.info/Standard](http://www.CarbonFix.info/Standard)

17. Projects must be re-certified until the end of their crediting period.

18. Each certification is valid for 5 years. In case the validity of a certification expires, the project will be excluded accordingly.



The CarbonFix Standard can be used as a stand-alone standard or in combination with other credible certification schemes. Recognised certification schemes can replace specific regulations of the CarbonFix Standard in order to avoid double work for the project developer.

The CarbonFix Standard recognizes the certification schemes of the

- Forest Stewardship Council (FSC)
- Climate Community and Biodiversity Association (CCBA)

1. In case of FSC, the CarbonFix Standard recognizes the certification as replacement of the criteria contained in the chapters 04, 05, and 10.

2. In case of CCBA, the CarbonFix Standard recognizes the certification as replacement of the criteria contained in the chapters 04, 05, 10 and 11.

Chapter		FSC Certification	CCBA Certifications
01	Eligibility		
02	Additionality		
03	Forest Management		
04	Environmental Aspects	✓	✓
05	Socio-Economic Aspects	✓	✓
06	CO <sub>2</sub> -Fixation		
07	Project Emissions		
08	Baseline		
09	Leakage		
10	Capacities	✓	✓
11	Land & CO <sub>2</sub> Tenure		✓

3. The certification according to FSC or CCBS must be valid for at least 1 more year from the date of the CarbonFix certification.

4. The documentation according to FSC or CCBS must be published on the ClimateProjects system.

## Procedures

### 005 Project Exclusion



1. A project will be excluded from its status of being CFS-certified by the technical board when clear evidence is found that the project does not comply with the regulations of the CarbonFix Standard (including its General Terms and Conditions).

Information that leads to the presumption of a project's non-compliance will be investigated by the technical board. Depending on the strength of presumption, the assignment of CO<sub>2</sub>-certificates may be stopped.

2. Project developers must report possible non-compliances on the regulations of the CarbonFix Standard (including its General Terms and Conditions) within 1 month after their discovery.

They must be via email to the technical board of CarbonFix ([mail@carbonfix.info](mailto:mail@carbonfix.info)) as well as to the certification body of the current certification

3. The exclusion of a project leads to the cancellation of all of its CO<sub>2</sub>-certificates (issued, assigned, and buffer). The public will be informed about the exclusion of a project.

4. Fees are not refunded in case of the exclusion of a project.

5. In case the reasons of a potential exclusion are
  - limited in scale, AND
  - correctable in a time span of less than 6 monthsthe certification body may be give the project a Forward Action Request (FAR).



1. At any time of a projects crediting period, the project developer must ensure that the quantity of CO<sub>2</sub>-certificates is not lower than the assigned amount to CO<sub>2</sub>-buyers.

2. In case of shortfalls the project developer must implement compensation activities, considering the type of certificates assigned to the CO<sub>2</sub>-buyers.

Shortfalls may be caused by an adaptation of the growth-model, due to

- updated information (forest inventories, new literature)
- a change of forest management (length of rotation periods, different thinning regimes)

or the destruction of forest, due to

- force majeure (wind, droughts, flooding, erosion, earthquakes)
- diseases and pests
- mismanagement (poor establishment, maintenance)
- lack of protection (browsing, encroachment, fires)

3. Compensation activities consist of one or several of the following activities:

- replanting of the forest area destroyed
- additional planting of new areas
- allocating CO<sub>2</sub>-certificates from other management units
- purchasing CO<sub>2</sub>-certificates from other CFS certified projects
- use of CO<sub>2</sub>-certificates from the project's buffer pool  
(limited to one third of the project's own issuance to the CFS buffer pool,  
which equals to 10% of the project's total amount of CO<sub>2</sub>-certificates)

The mix of compensation activities will be agreed upon by the project developer and the technical board of CarbonFix.

Hereby, also the time frame is agreed upon up to when the project must implement the compensation activities and/or re-fill its share of CO<sub>2</sub>-certificates to the CFS buffer pool.

### CFS buffer pool

4. The buffer pool is used to compensate CO<sub>2</sub>-buyers if a project is excluded (see chapter '005 Project Exclusion').

The buffer pool compensates during the crediting period of a project, to a maximum of 50 years.

5. When CO<sub>2</sub>-certificates are issued (see chapter '009 Issuance & Assignment') 30% are allocated into the CFS buffer pool.

The allocation is distributed pro rata according to the years of delivery.

6. In case of compensation, up to 100% of the CO<sub>2</sub>-certificates available in the buffer pool at the time of project exclusion will be used to compensate CO<sub>2</sub>-buyers.



7. CO<sub>2</sub>-buyers will be compensated by the type of CO<sub>2</sub>-certificates that was assigned to them, as far as available in the buffer pool. When a specific type is exhausted, compensation through other types may occur, as far as available.
8. To be compensated, CO<sub>2</sub>-buyers must give their consent. Therefore, they will be contacted via the e-mail address available in the CO<sub>2</sub>-registry.
9. CO<sub>2</sub>-certificates that are not assigned to a CO<sub>2</sub>-buyer within the CO<sub>2</sub>-registry (see chapter '009 Issuance & Assignment') at the time of project exclusion will not be compensated.
10. The order of compensation generally depends on the date of purchase. First purchases are served first.
11. In case a project has an insurance which assures the permanence of the CO<sub>2</sub>-certificates in regard to the compensation activities, the buffer pool of a project is lowered to 20%.



1. The CarbonFix Standard can be adapted through the process of a:
  - Full review
  - Intermediate review
  - Clarification statement

Each process requires final approval by the technical board.

2. A full review includes a public review process of a minimum of 4 weeks. It leads to a new version of the standard.

3. Intermediate reviews or clarification statements are executed by the technical board. They are limited to minor adaptations of the CFS.

An intermediate review leads to a new version of the standard.

4. With a clarification statement a request on standards regulation is clarified, specified, or adapted. Clarification statements are published on the CarbonFix website together with their status of validity.

See: [www.CarbonFix.info/Clarification-Requests](http://www.CarbonFix.info/Clarification-Requests)

4. New versions and clarification statements are published on the CarbonFix website.

5. Adaptations of the standard shall not discredit earlier certifications of a project.

6. Reviews and clarification statements become valid from their date of publication.

7. A version of the CarbonFix Standard is valid up to 3 months after the release of a new version.



1. CarbonFix charges the project developer a fee of € 0.50 (excl. VAT) for every assigned CO2-certificate.

2. Fees imposed by CarbonFix are used to:

- ensure the quality of the standard
- pay the CO2-registry
- further develop, promote and finance the administration of the CarbonFix Standard organisation

3. For every pre-validation process, CarbonFix charges a fee of € 1500 (excl. VAT).

Fees are not refunded in case of an unsuccessful pre-validation.

If the pre-validation process is prolonged due unexpected reasons caused by the project developer additional fees may be charged. In this case, the project developer is informed in advance.

## Procedures

### 009 Issuance & Assignment



1. To issue CO<sub>2</sub>-certificates, the project developer must create an account in the CO<sub>2</sub>-registry and send the project documentation to the CO<sub>2</sub>-registry.
2. Issuance of the CO<sub>2</sub>-certificates must take place within 3 months after a successful certification.
3. To assign CO<sub>2</sub>-certificates, the project developer must:
  - transfer the CO<sub>2</sub>-certificates to a CO<sub>2</sub>-buyer's account, OR
  - retire the CO<sub>2</sub>-certificates in his own account.
4. The fees charged by CarbonFix (see chapter '008 Fees') include the issuance and assignment of CO<sub>2</sub>-certificates, but no further transactions.
5. In case of a revocation of CO<sub>2</sub>-certificates, reimbursement of fees is only possible within 1 month after the date of assignment.
6. Any contracts with CO<sub>2</sub>-buyers on the assignment of CO<sub>2</sub>-certificates must fully comply and explicitly agree with the regulations of the CarbonFix Standard (including its General Terms and Conditions).



1. In case a project is located in a district or country that is part of a national or pan-national scheme that must report its forest area, the project developer can only assign its CO<sub>2</sub>-certificates to a CO<sub>2</sub>-buyer using minimum one of the following options:

1a. The CO<sub>2</sub>-buyer explicitly agrees in purchase agreements to the following statement or a statement with a similar meaning:

"I am aware that this project is part of a national or pan-national scheme which is accounting the same CO<sub>2</sub>-fixation that I am purchasing with this contract in order to achieve its national reduction target. I am aware that this may have the effect that other companies within the projects host country have to reduce less CO<sub>2</sub>, as the project contributes to the reduction target of this scheme."

1b. The respective agency of the projects host-country gives the following statement or a statement with a similar meaning:

"Afforestation / reforestation projects that generate CO<sub>2</sub>-certificates within our country for the voluntary market do not lower the pressure on companies of the country(ies) the host-country is part of the compliance market in."

1c. The project developer retires

- one additional CO<sub>2</sub>-certificate from another project certified according to the CarbonbFix Standard, OR
  - one additional Gold Standard certificate
- for every CO<sub>2</sub>-certificate assigned to a CO<sub>2</sub>-buyer.

Hereby, the additional retired certificate must carry the ID of the assigned CFS CO<sub>2</sub>-certificate.



1. The communication policy is defined by the assisting document 'Communication Package'. Here, detailed information on how to use the CarbonFix logo, link their websites, etc. is provided.



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### Further Information

For further details contact the CarbonFix secretariat under [mail@carbonfix.info](mailto:mail@carbonfix.info)