

Supply Base Report: Reginacork - Indústria e Transformação de Cortiça SA

Second Surveillance Audit

www.sbp-cert.org



Completed in accordance with the Supply Base Report Template Version 1.3

For further information on the SBP Framework and to view the full set of documentation see www.sbp-cert.org

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Contents

1	Overview	1
2	Description of the Supply Base	2
2.1	General description.....	2
2.2	Actions taken to promote certification amongst feedstock supplier.....	7
2.3	Final harvest sampling programme.....	7
2.4	Flow diagram of feedstock inputs showing feedstock type [optional].....	7
2.5	Quantification of the Supply Base.....	8
3	Requirement for a Supply Base Evaluation	9
4	Supply Base Evaluation	10
4.1	Scope.....	10
4.2	Justification.....	10
4.3	Results of Risk Assessment.....	10
4.4	Results of Supplier Verification Programme.....	16
4.5	Conclusion.....	16
5	Supply Base Evaluation Process	17
6	Stakeholder Consultation	19
6.1	Response to stakeholder comments.....	19
7	Overview of Initial Assessment of Risk	20
8	Supplier Verification Programme	21
8.1	Description of the Supplier Verification Programme.....	21
8.2	Site visits.....	21
8.3	Conclusions from the Supplier Verification Programme.....	21
9	Mitigation Measures	22
9.1	Mitigation measures.....	22
9.2	Monitoring and outcomes.....	31
10	Detailed Findings for Indicators	33
11	Review of Report	34
11.1	Peer review.....	34
11.2	Public or additional reviews.....	34
12	Approval of Report	35

13	Updates	36
13.1	Significant changes in the Supply Base.....	36
13.2	Effectiveness of previous mitigation measures.....	36
13.3	New risk ratings and mitigation measures	38
13.4	Actual figures for feedstock over the previous 12 months	38
13.5	Projected figures for feedstock over the next 12 months.....	38

1 Overview

Producer name: Reginacork - Indústria e Transformação de Cortiça SA
Producer location: Herdade do Monte Novo, apartado 75, 2959-909, Pinhal Novo, Portugal
Geographic position: 38°39'30.8"N, 8°55'04.1"W
Primary contact: Sofia Cardoso (reginacork@reginacork.pt)
Company website: www.reginacork.pt
Date report finalised: 14/02/2020
Close of last CB audit: 19/02/2020
Name of CB: NEPCon
Translations from English: Yes
SBP Standard(s) used: Standard 1 version 1.0,
 Standard 2 version 1.0,
 Standard 4 version 1.0,
 Standard 5 version 1.0
Weblink to Standard(s) used: <https://sbp-cert.org/documents/standards-documents/standards>
SBP Endorsed Regional Risk Assessment: not applicable
Weblink to SBE on Company website: www.reginacork.pt

Indicate how the current evaluation fits within the cycle of Supply Base Evaluations				
Main (Initial) Evaluation	First Surveillance	Second Surveillance	Third Surveillance	Fourth Surveillance
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

2 Description of the Supply Base

2.1 General description

The Biomass Producer (BP) Reginacork is a company located in Pinhal Novo in the centre-south of Portugal. Reginacork produces wood pellets, wood chips, and half-products out of cork (cork granules). Roundwood is sorted at the plant; saw logs are sold to sawmills.

The SBP reporting period is the calendar year. The statistics provided in this report are based on the reporting period that is year 2019.

The Supply Base is Continental Portugal, both for wood resources, and cork. Reginacork has performed an SBP Supply Base Evaluation (SBE). The scope of the SBE is in line with the Supply Base (also Continental Portugal). Cork, however, is not included in the scope of the SBE, as it is not used for pellet production.

In the reporting period, the BP executed forest operations itself, and bought different kinds of feedstock and cork. Sourced are roundwood, low-grade tree stems and forest residues, sawdust, and raw cork.

Feedstock supply covers the following categories (and tree species):

- Low grade tree stems / Fuel wood (FSC W1.2):
Maritime pine (*Pinus pinaster*); Umbrella pine (*Pinus pinea*); Eucalyptus (*Eucalyptus spp.*); Acacia (*Acacia spp.*); Narrow-leafed ash (*Fraxinus angustifolia*);
- Harvesting residues / Twigs (FSC W1.3):
Maritime pine (*Pinus pinaster*); Umbrella pine (*Pinus pinea*); Eucalyptus (*Eucalyptus spp.*); Poplar (*Populus spp.*); Acacia (*Acacia spp.*); Narrow-leafed ash (*Fraxinus angustifolia*);
- Sawdust (FSC W3.2):
Maritime pine (*Pinus pinaster*); Umbrella pine (*Pinus pinea*);

Although the supply base consists of continental Portugal as a whole, in the reporting period, the BP has sourced wood and cork only from the following regions in the centre-south of the country:

- Lisbon;
- Setubal;
- Santarem;
- Evora;
- Beja;
- Portalegre.



Figure 1: The 18 regions of Continental Portugal

These regions are mainly composed of pine, oak and eucalyptus. In Portugal that there are more than half a million forest owners, and most own only one or two ha of land. However, in the South the average size of the properties is larger. In the region of Alentejo (which includes Évora, and Beja) the average size of the wood land plots is 22,6 ha (Coelho Inocêncio).

Reginacork works with approximately 25 primary wood suppliers and buys wood directly from forest owners (wood on stem). When buying from forest owners, Reginacork subcontracts harvesting teams to conduct the harvesting. The harvesting teams mainly do maintenance and selective cuttings. When the wood is chipped at the place of harvesting, Reginacork does this with its own chipper and personnel. The harvesting teams work at a small number (approximately six) land owners a year.

Reginacork can buy a small amount of non-certified secondary feedstock from a few sawmills in the neighbourhood (around 3 companies), but that feedstock is not used for SBP biomass production.

Considering pellet production around 98% of the feedstock was in SBP-scope and 98% was SBP-compliant feedstock. Considering wood chips around 82% was in SBP-scope and 79% SBP-compliant feedstock. Regina Cork maintains physical segregation of feedstock and biomass out of scope. Next to the export of SBP

industrial pellets, Reginacork sells wood chips to companies on the local market and high-quality wood pellets to the residential market.

Cork powder is a residue from Reginacork's own production of natural cork granules is used for heating the feedstock dryer. Natural cork from the cork oak (*Quercus suber*) is coming from about 100 suppliers in Continental Portugal.

Description 'Continental Portugal'

According to the final report of last National Forest Inventory (IFN6) - 2015, the Portuguese Forest covers 6,2 million ha, it represents 69,4% of Portugal Mainland.

The soil use in Portugal Mainland (2015) correspond to:

- 36% of forest
- 31% - pastures and bushes;
- 24% - farmland;
- 5% - urban use;
- 2% - inland waters;
- 2% - unproductive.

Forest occupation in Portugal Mainland (2015):

- 26% - *Eucalyptus spp.*;
- 22% - *Quercus suber*;
- 22% - *Pinus pinaster*;
- 6 % - *Pinus pinea*;
- 3% - *Quercus spp.*;
- 2% - *Castanea sativa*;
- 6% - Other hardwoods;
- 2% - Other softwoods.

In Portugal, around 97% of forest land is private (including individuals, communities, cooperatives and companies). The remaining 3% is public. Forest areas integrated in the National System of Conservation Areas represent 19% of the Portuguese mainland forest (IFN6). National forests and forest perimeters, under ICNF represent 6% of the forest. Typical distribution of the Forest private property on several regions of the Portuguese mainland (Coelho, Inocêncio):

- Trás-os-Montes, Douro e Minho regions show a property average size of 1,9 ha/owner, being 63% of properties with less than 10 ha.
- Beira Interior and Beira Litoral, in the central region of Portuguese mainland show a property average size of 1,46 ha/owner and properties under 10ha representing 62% of the forest area.
- Ribatejo and West – 7,53 ha/owner average and 55,6% of the forest properties above 100 ha.
- Alentejo – 22,6 ha/owner average and 68,8% of the forest properties above 100 ha.
- Algarve – 2,83 ha/owner and 59% of properties with less than 10 ha

The forest area under communitarian management (Baldios) are subject to old customary and traditional rights and regulated by specific laws. In Portugal, there are no indigenous peoples or specific minorities relying on the forests.

Some key aspects of forests in Portugal determine the development of its management, namely:

- A long and well-established relationship between forests and society;
- One of the biggest large-scale afforestation programs of the twentieth century (forest cover has increased from under 2,0 million to over 3,2 million ha over the last 100 years);
- Various regions with different forest species and silvicultural systems; specific forestry legislation directed towards regional development strategies;
- The small property size and its fragmentation, mainly in the northern and central regions, where estates often have dimensions of less than 1 hectare.

Forest Management Plans (PGF) are mandatory for forest areas above a minimum area defined by Regional Forestry Management Plans (PROFs) as well as in Forest Intervention Areas (ZIF, 940 432 ha). In 2016, there were 1 680 000 ha under PGF from which 450 034 ha overlap the National Classified Areas Network. A felling manifest is required for commercial felling (including all thinning) of all tree species for industrial purposes, with a 30-day deadline after the operation is concluded. The national forest and conservation authority is the Institute of Conservation of Nature and Forests (ICNF) with competencies on all forest, hunting and nature conservation affairs. ICNF also manages public forest areas and is involved in the management of community areas. Additionally, the Environmental Service of the National Republican Guard (SEPNA / GNR) is engaged in the inspection of environmental issues and natural resources in all private and public areas.

In Portugal getting in forest lands is not considered invasion even on private properties, and it is common the use of wild products by communities (mushrooms, asparagus, snails, besides fishing on public waters).

The felling phytosanitary manifest includes identification of the origin of the felling. Also, documentation for transportation identifies the origin of the transport which could be useful in case of direct transport to BP facilities and in any case, is useful in the traceability of material. Both are the most common ways to trace back to origin even if the origin area is not the forest land itself but the smallest administrative division where forest land is included. However, there are still areas in Portugal without a cadastral system.

Regarding species, the most relevant in terms of biomass production are maritime pine (*Pinus pinaster*) 23% of forest surface 714 000 ha, eucalyptus (*Eucalyptus spp.*) 26% of forest surface 812 000 ha and stone pine (*Pinus pinea*) 6% of forest surface 175 000 ha. It is important to highlight that stone pine is mainly used to produce pine nut and mostly the thinning and pruning by-products are used for pellet production. maritime pine and eucalyptus are spread all around the country. Stone pine can mainly be found in the South.

To derive maximum economic benefit, distribution of the three main forest species – maritime pine, eucalyptus and cork oak – is vertically integrated within the forestry industry, with maritime pine and eucalyptus being concentrated in timber-producing areas and cork oak in multifunctional areas.

Regarding the main three tree species in Portugal:

- The maritime pine (*Pinus pinaster*), has rounded crown and grows up to 40 meters. It is the predominant species in the national forest. It is scattered all over the regions of northern and central coast of the country. This has been the species chosen in the afforestation campaigns carried out

during the nineteenth century, due to its ability to adapt to poor and rocky soil. In addition, it regenerates easily. Its timber is widely used commercially.

Eucalyptus (*Eucalyptus globulus*), originally from Tasmania is present all over the country. These trees can grow up to 55 meters and grow rapidly. Especially used by pulp and paper industry,

- eucalyptus became one of the most planted trees in Portugal. In the 80's, there was great controversy about the negative effects of these trees in soil, water and biodiversity, which resulted in the implementation of legislation (Law N°. 175/88 of May 17 and Law N°. 513/89, 6 July) that restricts the increase of monoculture plantation of this species.
- The cork oak (*Quercus suber*) is a tree with a rounded canopy up to 20 meters, which produces cork intensively. This is an evergreen indigenous species, typical of Mediterranean climate forests. Their presence can be found throughout the territory. Cork is a raw material with unique characteristics, the cork oak is the 'national tree' of Portugal. Portugal is the leading producer, processor and exporter of cork.

CITES (Convention on International Trade in Endangered Species of Wild Fauna and Flora) does list a considerable number of protected plant species for Portugal, however, the list does not include any tree species.

<i>Antipathes erinaceus</i>	<i>Stichopathes dissimilis</i>	<i>Stichopathes richardi</i>
<i>Stichopathes robusta</i>	<i>Stichopathes setacea</i>	<i>Leiopathes expansa</i>
<i>Tanacetipathes cavernicola</i>	<i>Tanacetipathes squamosa</i>	<i>Tanacetipathes wirtzi</i>
<i>Paracyathus arcuatus</i>	<i>Leptopsammia formosa</i>	<i>Madracis profunda</i>
<i>Crypthelia medioatlantica</i>	<i>Crypthelia vascomarquesi</i>	<i>Errina atlantica</i>
<i>Errina dabneyi</i>	<i>Lepidopora eburnea</i>	<i>Euphorbia despoliata</i>
<i>Euphorbia longifolia</i>	<i>Euphorbia pedroi</i>	<i>Euphorbia piscatoria</i>
<i>Euphorbia stygiana</i>	<i>Dactylorhiza foliosa</i>	<i>Goodyera macrophylla</i>
<i>Orchis scopulorum</i>	<i>Platanthera micrantha</i>	

The 'Red List' of the IUCN (International Union for Conservation of Nature and Natural Resources) indicates hundreds of plant species for the continental territory of Portugal, but also does not include any tree species. 49 plant species are reckoned relevant regarding forest operations.

<i>Ammoides pusilla</i>	<i>Anarrhinum longipedicellatum</i>	<i>Andrena curtula</i>
<i>Andrena fulva</i>	<i>Andrena gredana</i>	<i>Antirrhinum lopesianum</i>
<i>Arabis sadina</i>	<i>Aristolochia paucinervis</i>	<i>Armeria rouyana</i>
<i>Arnica montana</i>	<i>Asphodelus bento-rainhae</i>	<i>Bunium bulbocastanum</i>
<i>Calopteryx virgo</i>	<i>Candidula belemensis</i>	<i>Centaurea fraylensis</i>
<i>Clytus tropicus</i>	<i>Culcita macrocarpa</i>	<i>Dactylorhiza elata</i>
<i>Dianthus marizii</i>	<i>Elona quimperiana</i>	<i>Eryngium viviparum</i>
<i>Euphorbia transtagana</i>	<i>Festuca brigantina</i>	<i>Festuca summilusitana</i>
<i>Flavipanurgus granadensis</i>	<i>Flavipanurgus ibericus</i>	<i>Flavipanurgus venustus</i>
<i>Helicigona lapicida</i>	<i>Juncus valvatus</i>	<i>Leiostyla anglica</i>
<i>Lucanus barbarossa</i>	<i>Lynx pardinus</i>	<i>Malus sylvestris</i>
<i>Narcissus asturiensis</i>	<i>Narcissus cyclamineus</i>	<i>Narcissus triandrus</i>

The national legislation of Portugal does list protected tree species, and, for example, it is forbidden to cut any cork oaks (*Quercus suber*), and holm oaks (*Quercus ilix* / *Quercus rotundifolia*; protective measures by Law N°.155/2004) and European holly (*Ilex aquifolium*; protected by Law N°. 423/89).

Climate change and the occurrence of extreme meteorological events has increased the phenomenon of forest fires, mainly medium and big fires (more than 100 ha), one of the largest perceived risks in the Portuguese forestry sector, incurring very high costs. Climate change may also induce pests and diseases due to stress in host plants. In Portugal, phytosanitary problems affect mainly the cork oak and holm oak, showing its decline. The loss of vitality and the mortality of maritime pine is mainly related with the Wood Pine Nematode (WPN), detected in Portugal in 1999.

Goods produced by way of forestry activities sustain an important and integrated industrial chain based on natural resources that in turn supports a strong export sector. Portugal, therefore, views forests and forestry products as an area of crucial importance to its economy. The forest sector has a significant impact on its GDP - higher than the European average. The forest sector represents almost 10% of the national export trade and 2% of the Gross Value Added. Forests are also the base of an economic sector which generates around 100 000 direct jobs (4% of the active population).

2.2 Actions taken to promote certification amongst feedstock supplier

Reginacork strives to buy an increasing volume of sawdust and wood chips from FSC and PEFC certified feedstock suppliers. The company has informed its feedstock suppliers of the importance of certified wood supply. FSC certified suppliers will be rewarded through higher payments.

2.3 Final harvest sampling programme

In 2019, all roundwood delivered from the harvesting places was sold to saw mills or used for the production of high-quality pellets (out of scope of SBP). Practically no final harvesting applies to the production of industrial pellets, a sporadic selective cutting can take place. For SBP pellets are used forest residues from forest maintenance operations, tops and branches. The operations are executed by sub-contractors and third parties. The residues are mainly chipped in the forest by personnel of Reginacork. In 2019, only from one plot eucalypt was harvested, it was an relatively old FSC certified stand that needed a selective cut. Reginacork decided, however, not to use eucalypt anymore.

2.4 Flow diagram of feedstock inputs showing feedstock type [optional]

2.5 Quantification of the Supply Base

Supply Base

- a. Total Supply Base area (ha): 3,2 million ha;
- b. Tenure by type (ha): Private: 3,1 million ha (97%, including 8% community managed);
Public: 0,1 million ha;
- c. Forest by type (ha): Temperate Forest: 3,2 million ha;
- d. Forest by management type (ha): Plantations: 1,8 million ha;
Managed (semi-) natural: 1,4 million ha;
- e. Certified forest by scheme (ha): FSC: 434 thousand ha (2019)
PEFC: 277 thousand ha (2019)

Feedstock

- f. Total volume of feedstock: 40420.7 tonnes
- g. Volume of primary feedstock: 39709.3 tonnes
(This feedstock is totally in-scope of, and used for SBP pellet production)
- h. Percentage by categories of primary feedstock:
 - Certified to an SBP-approved Forest Management Scheme: 39.5%
 - Not certified to an SBP-approved Forest Management Scheme: 60.5%
- i. Species present in the primary feedstock:
 - Maritime pine (*Pinus pinaster*)
 - Umbrella pine (*Pinus pinea*)
 - Eucalyptus (*Eucalyptus spp.*)
- j. Volume of primary feedstock from primary forest: None (0,00 m³)
- k. List percentage of primary feedstock from primary forest (j), by the following categories.
Subdivide by SBP-approved Forest Management Schemes:
 - Primary feedstock from primary forest certified to an SBP-approved Forest Management Scheme
 - Primary feedstock from primary forest not certified to an SBP-approved Forest Management Scheme

Not applicable
- l. Volume of secondary feedstock: 711.3 tonnes
(This feedstock was out-of-scope of SBP pellet production, it is mentioned here, as it plays a role in the overall pellet production and SAR energy calculations)
- m. Volume of tertiary feedstock: None (0,00 m³).

3 Requirement for a Supply Base Evaluation

SBE completed	SBE not completed
<input checked="" type="checkbox"/>	<input type="checkbox"/>

SBE was required since primary feedstock is normally coming from non-FM-certified properties. The intention of Reginacork is to sell SBP-compliant feedstock, so SBE was conducted for the Supply Base.

4 Supply Base Evaluation

4.1 Scope

The scope of this Supply Base Evaluation (SBE) covers Continental Portugal. The scope only includes primary wood (not cork) of the category Controlled Feedstock. The BP uses the FSC CoC control system and the FSC Controlled Wood evaluation method. Final products in scope are wood pellets and wood chips.

4.2 Justification

The BP has chosen to implement the SBP Supply Base Evaluation method (SBP Standard 1), because there are many small forest owners and the development of FSC (or PEFC) group certification has only started to develop. Clients of industrial wood pellets, and wood chips, however, are demanding deliveries of SBP-compliant biomass already today. Moreover, the risks to forestry in Portugal are limited and possible to mitigate.

Forest operations, done by BP's own harvesting teams and by BP's wood suppliers, which are specialized wood harvesting companies, are based on national and international best practises. BP are interested to obtain international recognition considering the quality and sustainability of forest operations and are motivated to cooperate with the many small forest land owners to implement risk mitigation measures, regarding forestry in Portugal.

The BP has in place a monitoring procedure on checking forest operations. During the forest sites and company visits the transparency and compliance with SBP sustainable feedstock indicators are checked and the results are recorded.

The BP has the responsibility for carrying out the SBP risk assessment on forestry in the relevant regions and implementing mitigation measures to manage risks in such a way, that the risks are under control. The Supply Base Evaluation procedure also ensures active engagement with a diverse range of stakeholders.

4.3 Results of Risk Assessment

The risk assessment has been developed on basis of SBP Standards №1 and №2, version 1.0 of March 2015. The BP has assessed the risks related to each SBP indicator.

The BP has an in-depth understanding of the feedstock sourcing risks. Considering Continental Portugal and the forest operations of the BP, most risks are low, mainly because:

- a. The BP does not source protected tree species and mainly conducts maintenance operations;
- b. A stable cultural, juridical, and economical balance in the forestry sector;
- c. Low corruption in forestry (the Corruption Perception Index in Portugal is 63),

The Portuguese law requires feedstock supply to be accompanied with an AT Guide for all tree species and Felling Manifests for pine. These documents state the tree species, traded volumes, land owners and place

of harvest. In accordance with the SBP requirements, the BP can accurately classify and describe the tree species and types and categories of primary feedstock, as also the approximate share of round wood from final fellings.

The BP accepted all the specified risks in draft SBP NRA and addresses a few more. However, in practise, there is a large overlap in the causes of the specified risks and the means to mitigate them. Regarding the harvesting operations within the SBE program, the forest area is always inspected before harvesting operations commence. Before the field inspection, possible conservation values and risks are evaluated by means of a desk study. Useful in this evaluation is the website of WWF, called HABEaS Portugal, which provides information on many kinds of environmental aspects.

Below the findings of the final draft of the SBP National Risk Assessment for Portugal and the results on Risk Assessment by Reginacork.

Table 4.3: Results of Risk Assessment in the final draft SBP NRA and of the BP

SBP Indicator	Specified Risks Reginacork
1.1.2	<p>Feedstock can be traced back to the defined Supply Base.</p> <p>The Portuguese timber industry imports much pine raw material, mostly from Spain. There are several documents that should accompany raw material supply and identify the origin of the raw material.</p> <p>See also indicator 1.2.1 below.</p>
1.2.1	<p>The Biomass Producer has implemented appropriate control systems and procedures to ensure that legality of ownership and land use can be demonstrated for the Supply Base</p> <p>Reginacork does not buy any wood from wood suppliers without a valid company registration, nor from wood lands, of which the owner rights are disputed. Any dispute concerning the ownership of the wood needs to be investigated and solved first.</p> <p>Additional investigations are conducted by means of legal document research and extends to, for example, interviewing local stakeholders (owners of neighbouring wood lands) and local authorities, whenever:</p> <ul style="list-style-type: none"> a. Cadastral data are unavailable; b. The land will be impounded by the government; c. There are complaints about the land owner, or the harvest operation. <p>In these cases, the internal procedure 'Procedure on the legality and origin of raw material' is activated.</p>
2.1.1 HCV 1+3+4+5	<p>The Biomass Producer has implemented appropriate control systems and procedures for verifying that forests and other areas with high conservation values are identified and mapped.</p> <p>In chapter 9 of this report a list of websites is given for identifying and mapping the HCVs.</p>

	See indicator 2.1.2. for more information.
<p>2.1.2</p> <p>HCV 1+3+4+5</p>	<p>The Biomass Producer has implemented appropriate control systems and procedures to identify and address potential threats to forests and other areas with high conservation values from forest management activities.</p> <hr/> <p>HCV 1 – Species diversity</p> <p>There is a specified risk that forest operations on private and communitarian grounds and public areas not managed by ICNF could harm species diversity. Species diversity is evaluated and recorded before harvesting operations commence. Special attention should be given to the National System of Classified Areas (SNAC) and to Important Bird and Biodiversity Areas (IBAs).</p> <p>See below, indicator 2.2.4</p> <p>HCV 3 – Ecosystems and habitats</p> <p>There is a specified risk that forest operations on private and communitarian grounds and public areas not managed by ICNF could harm ecosystems and habitats. In these situations, Reginacork demands to evaluate the environmental impacts (on Ecosystems and habitats) of the forest operations (before the forest operations commence). Caution and best practises are applied. The Forest Engineer of Reginacork checks the environmental assessment and does field inspections. The checks and inspections are recorded.</p> <p>The habitats and species vulnerable to forestry operations are identified within the scope of Reed Natura2000 and Habitats and Birds Directive reports.</p> <p>See below, indicator 2.2.3</p> <p>HCV 4 – Critical ecosystem services & HCV 5 – Community needs</p> <p>This is a specified the risk on private, communitarian, and public forest areas not managed by ICNF, subject to clear cutting at dimensions above to the maximum area indicated for each region by the Regional Forestry Management Plan (PROF).</p> <p>There are no indigenous people in Portugal, but it is important to evaluate the interests of the (local) population and social-economic functions of the forests and woodlands (including agricultural or municipal functions). Building fences around forests is most of the time undesirable.</p> <p>See below, indicators 2.2.2, 2.2.3, 2.4.1 and 2.5.1.</p> <p>Indicator 2.6.1 functions as a safety net.</p>
2.1.3	<p>The Biomass Producer has implemented appropriate control systems and procedures for verifying that feedstock is not sourced from forests converted to production plantation forest or non-forest lands after January 2008.</p> <hr/> <p>Reginacork considers all pine stands as forests and eucalyptus stands as plantations. Reginacork checks if forests have been changed to plantations.</p> <p>There is a specified risk that this indicator is not met. There are no assurances, new eucalyptus plantations from after Jan. 2008 are not already maintained or harvested. First</p>

	<p>maintenance cuts are done after 8 years and the present forest fires result in instant harvesting of plantations. Besides, poplar and other tree species can be considered a plantation and the new law proposal only covers Eucalyptus.</p> <p>21 March 2017, the Minister Council approved a law proposal that reviews the Legal Regime of Arborisation and Reforestation Actions. It blocks the expansion of the eucalyptus plantation areas, allowing new plantations only as compensation for areas previously occupied by eucalyptus and currently abandoned. It will be mandatory that the areas previously occupied by this species shall be cleaned and used for other agricultural or forestry activities.</p>
2.2.1	<p>The Biomass Producer has implemented appropriate control systems and procedures to verify that feedstock is sourced from forests where there is appropriate assessment of impacts, and planning, implementation and monitoring to minimise them.</p>
	<p>Sometimes no forest plan is available (no PGF ZIF, PUB, SNAC, as well as no PEFC or FSC certification). Additional assessments of environmental impacts need to be made and recorded before harvest.</p> <p>See also indicators 2.2.2, 2.2.3, 2.2.4, and 2.4.2.</p>
2.2.2	<p>The Biomass Producer has implemented appropriate control systems and procedures for verifying that feedstock is sourced from forests where management maintains or improves soil quality (CPET S5b).</p>
	<p>In some regions, there is the problem of degradation of (poor) soils due to previous land-use practices and climate change.</p>
2.2.3	<p>The Biomass Producer has implemented appropriate control systems and procedures to ensure that key ecosystems and habitats are conserved or set aside in their natural state (CPET S8b).</p>
	<p>In Portugal, key ecosystems and habitats are mostly located in Protected areas and in Classified Areas (Natura 2000). However, approximately 2/3 of classified areas are not included in protected areas of the National Network of Protected Areas. Besides, there are key ecosystems and habitats occurring outside Protected and Classified areas.</p>
2.2.4	<p>The Biomass Producer has implemented appropriate control systems and procedures to ensure that biodiversity is protected (CPET S5b).</p>
	<p>About 3,600 species of plants can be found in Portugal. There are 69 taxa of terrestrial mammals, a total of 313 bird species, of which around 35% are threatened in some ways, and 17 amphibians and 34 reptile species that are present in Portugal.</p> <p>Some of the main threats to the biological diversity of Portugal include: alteration or destruction of habitats; pollution; overexploitation; invasive alien species; urbanization and fires.</p>
2.2.6	<p>The Biomass Producer has implemented appropriate control systems and procedures to verify that negative impacts on ground water, surface water and water downstream from forest management are minimised (CPET S5b).</p>
	<p>Reginacork considers the landscape where the harvest operations are executed, including hill slopes and streams that can overflow and demands the same from its feedstock suppliers.</p>

	<p>Clear cutting (of several ha) is avoided in areas where all conditions are at high risk for soil erosion. In these cases, is followed the ICNF Handbook for forest best practices: 'In the areas surrounding the water lines the risk of erosion is often very high, since these are areas of concentration of rainwater runoff. In these bands (with a minimum width of 10 meters for each side, as stated in the legal definitions and conditions of legal limits (Decree-Law no. 468/71, of 5 November) a strict prevention of erosion phenomena shall be performed, and it is therefore essential to adopt measures to protect it, such as maintaining all or a significant part of the natural vegetation and not inflict harm to the soil.'</p> <p>Best practises regarding harvesting operations are required to comply with the requirements of SBE program.</p>
<p>2.3.2</p>	<p>Adequate training is provided for all personnel, including employees and contractors (CPET S6d).</p> <p>This is not covered sufficiently. The National Strategy for Forests states that the focus on the professionalization and training of the different actors in the forestry sector is of key importance for increasing the competitiveness and, thereby, the development of the sector.</p>
<p>2.4.1</p>	<p>The Biomass Producer has implemented appropriate control systems and procedures for verifying that the health, vitality and other services provided by forest ecosystems are maintained or improved (CPET S7a).</p> <p>There is a specified risk for insufficient assessment of the impact of harvesting operations that replace (destroy) the existing forest ecosystem.</p> <p>In the NRAs are highlighted the 'health, vitality and other services provided by forest ecosystems' to the forest ecosystems. Reginacork underlines that these services can be of importance to the local population. Forests can be of importance to the environment around the forests, they can reduce the impact of extreme weather, and reduce the impact of air-pollution, and noise. For example, it takes only one dense forest stand to improve the perception of an area / to cover up 'visual pollution'.</p> <p>Forest (ecosystems) can be essential for:</p> <ul style="list-style-type: none"> a. Breaking hard winds and rainfall (roads and houses); b. Recreation in and around the forests; c. Hunting, fishing and gathering of berries and mushrooms; d. Agriculture near the forests (this is of importance in Portugal). <p>The use of wild products by communities is common practise in Portugal (mushrooms, asparagus, snails, besides fishing on public waters).</p>
<p>2.4.2</p>	<p>The Biomass Producer has implemented appropriate control systems and procedures for verifying that natural processes, such as fires, pests and diseases are managed appropriately (CPET S7b).</p> <p>Pests, diseases and fires are today the greatest perceived risks in the Portuguese forest sector. As stated in previous indicator biotic and abiotic risks are supported by disturbances</p>

	<p>affect in 2011 24% of the forest area, generated by a regressive vicious cycle that combines fire, 'seca', pests, diseases and invasive species.</p>
2.5.1	<p>Legal, customary and traditional tenure and use rights of indigenous people and local communities related to the forest are identified, documented and respected (CPET S9).</p>
	<p>There is a specified risk that the rights of local communities could be violated, but it is an exceptional one. If the land area to be harvested is fenced, moreover, if it has been recently fenced, the opinion of residents is assessed. Abuse of fences, blocked roads, and inadequate signs makes the feedstock non-compliant to the requirements of the SBE program. In Portugal entering private forest lands is not considered an invasion and the use of wild products is common practise. There are no indigenous people in Portugal.</p>
2.6.1	<p>Appropriate mechanisms are in place for resolving grievances and disputes, including those relating to tenure and use rights, to forest management practices and to work conditions.</p>
	<p>There are a very large number of land owners with extremely small forested properties in Portugal. Some regions of the country the lack cadastral data, which gives problems on assessing the boundaries of harvesting plots. Cultural and social interests could be overlooked.</p>
	<p>The aim is to track down and solve grievances and disputes before the harvesting operations commence, with special attention to the indicators, which are categorised 'specified risk'.</p>
2.8.1	<p>The Biomass Producer has implemented appropriate control systems and procedures for verifying that appropriate safeguards are put in place to protect the health and safety of forest workers (CPET S12).</p>
	<p>International Trade Union Confederation (IUTC) ranks countries against 97 indicators to assess where workers' rights are best protected. Portugal has a rating of 3 (from 1 to 5+). This score is given for countries where: (There are) 'Regular violation of rights. The government and/or companies are regularly interfering in collective labour rights. There are deficiencies in laws and/or certain practices which make frequent violations possible.'</p>
2.9.1	<p>Feedstock is not sourced from areas that had high carbon stocks in January 2008 and no longer have those high carbon stocks.</p>
	<p>There is a specified risk of reducing high carbon stocks, but it is not a prominent one. This risk has a regional to local character and is specifically related to the risks mentioned in the following indicators: a. 2.1.3 (land conversion); b. 2.2.2 (degradation of grounds). For example, the conversion of forests to urban use is significant (28 thousand ha). In total, the forest area decreased by 150 611 ha, 85% of these forest lands were converted to 'weeds and pastures' (between 1995 and 2010, according to the ICNF).</p>

	<p>Forests owners can choose to start an orchard, governments can decide to extend the area of urban lands. This occurs regularly in Portugal. When forests are converted to other land use the carbon stock is lost.</p> <p>One of the 5 principles of FSC Controlled Wood states that wood from converted land is not acceptable, in practise, however, this point is not evaluated by wood procuring companies, which normally consider all procurements from Portugal at least FSC CW. Extra monitoring is needed.</p>
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4.4 Results of Supplier Verification Programme

The RA had no inconclusive indicators and supplier verification programme was not developed to determine the level of risk for inconclusive indicators. However, suppliers are checked on a continuous basis by Reginacork for every plot from which potentially SBP-compliant feedstock could be sources from. Reginacork collects all legal documents from a supplier before starting cooperation and makes a report on every company visit and every field inspection.

4.5 Conclusion

Discussion points and opinions on possible sustainability risks in feedstock procurement in Portugal have been studied in detail over the last years during the process of the SBP NRA. In general, there is a good understanding of the necessity of performing additional Risk Mitigating Measures (RMMs).

In general, many specified risks were found during the SBP SBE of Reginacork; they are, however, manageable. Legality is supported by FSC Controlled Wood Certification and Due Diligence system in place. Forestry in Portugal has a long history and, in general, sustainability is respected. A big strength of Reginacorks' SBE is a 100% check of potentially compliant plots and harvesting teams by the forestry specialist. If any of the specified risks are not able to be mitigated, the wood is not taken as SBP-compliant feedstock. In this way the full compliance with SBP Standards is ensured.

5 Supply Base Evaluation Process

Development of the SBE

The Supply Base Evaluation took the final draft of the SBP National Risk Assessment (NRA) for Portugal into consideration, as also national legislation, national policies, and annual reports and publications of relevant institutions and authorities. During the preparation of the SBE, a detailed baseline study was made for each of the SBP indicators. A summarised description on each indicator is presented in Annex 1, and covers all relevant indicators of SBP Standard 1.

The certification team took the following steps in developing the Supply Base Evaluation:

- Develop the Risk Assessment and additional Risk Mitigation Measures (RMM) in cooperation with the suppliers of Reginacork (discussions on risks and analyses of non-conformities);
- Study the draft SBP National Risk Assessments (NRA) and compare it with Reginacork's own experience and procedures;
- Incorporate the RMM in the procedures of Reginacork (adapt and develop procedures and checklists related to feedstock procurement);
- Train harvesting teams of Reginacork;
- Evaluate the RMM during harvesting operations of feedstock suppliers in practise.

Relevant documents are:

- Signed declarations of selected feedstock suppliers and land owners (wood on stem);
- Documentation accompanying feedstock supply related to the FSC evaluation of Controlled Wood (verifying the origin of the wood);
- Evaluation of the risks and possible impacts of harvesting operations;
- Best practices regarding harvesting operations;
- Monitoring procedure;
- Harvesting plot assessment checklists;
- Complaint procedures and journals.

The Risk Assessment (RA) resulted in 17 specified risks (no inconclusive indicators). See paragraph 4.3.

Approval of harvesting teams and feedstock suppliers

Reginacork subcontracts harvesting teams, which are working mainly for one land owner. The SBE approval system focusses on legal approval of suppliers.

Site visits are conducted continuously to check operational performance and see how mitigation measures are implemented in practise. As described in the following subsection, Reginacork, does not categorise all feedstock coming from the SBE approved subcontractors as 'SBP-compliant feedstock'. Reginacork's procedures regarding its harvesting teams, feedstock suppliers and their harvesting operations, include:

- Selecting harvesting teams (and feedstock suppliers) that comply on the additional requirements to achieve 'SBP-compliant biomass';
- Training harvesting teams (and feedstock suppliers) – best forest practices, health and safety procedures, protected species list;
- Checking performance of harvesting teams (and feedstock suppliers);

Implementation mitigation measures and acceptance of feedstock

The SBE was developed in 2017. The practical implementation of the risk mitigation measures is a continuous process, because new plots are being prepared for harvesting operations all the time. Risks and mitigation measures need to be specified on the level of practical harvesting operations.

To address all possible risks, additions were made to several of the procedures of Reginacork. Important is the assessment of the plots prior to harvesting.

Steps taken to guarantee sustainable management of wood lands:

- Studying publicly available and other information regarding the plots where harvesting operations are planned and their surroundings;
- Evaluation of the risks and possible impacts of harvesting operations;
- Informing from forestry specialist on found results on possible risks;
- Onsite assessment of the plots and their surroundings prior to harvesting, measures are taken when the possible risks related to the plot prove to be applicable; for example, when habitats are found;
- Checking possible local interests, future plans regarding the land, and complaint management;
- Development of adaptations to the harvesting plans, if needed;
- Records are kept on the evaluation of risks, the investigation of the plot and its surroundings, and the performed measures.

Inspections of harvesting sites and feedstock suppliers include:

- The harvesting activities of harvesting teams and feedstock suppliers;
- The administration of the primary feedstock suppliers;

Considering the situation in Portugal, in which there are more than half a million forest owners, and most own only a few hectares of land, not all feedstock provided by the SBE approved feedstock suppliers will automatically become SBP-compliant feedstock. There are factors beyond the reach of the SBE approved feedstock suppliers, for example, if an estate has been poorly managed by a land owner. Reginacork does not categorise feedstock as compliant, if the wood land was insufficiently managed in the past or will be converted in the future.

Reginacork does not categorise feedstock as compliant, when:

- Prior to the harvesting operations, land owners have managed their wood lands insufficiently;
- The harvesting operations do not comply with the requirements on sustainability (SBP Standard 1)
- If future management of the land will not comply with the requirements on sustainability (SBP Standard 1), for example, because land conversion to urban use is planned

Whenever violations of the FSC Controlled Wood are found, such as violation of HCVs, the feedstock is not accepted as FSC Controlled Wood by Reginacork. Violations of the SBP SBE indicators withhold volumes to be accepted as 'SBP-compliant feedstock' (it is recorded as 'SBP-controlled feedstock').

6 Stakeholder Consultation

The risk assessment has been sent to many stakeholders and leading experts in nature conservation and forestry. The stakeholder consultation was open from 3 November 2017 till 4 December 2018.

Reginacork open's a new stakeholder consultation on 17 March 2018, using Portuguese and English language on every documents (SBE, SBR, email) open till 13 April 2018.

6.1 Response to stakeholder comments

More than 100 relevant stakeholders were contacted.

Reginacork did not received any comments on its SBR and SBE.

7 Overview of Initial Assessment of Risk

Table 7.1. Overview of results from the risk assessment of all Indicators (prior to SVP)

Indicator	Initial Risk Rating		
	Specified	Low	Unspecified
1.1.1		x	
1.1.2	x		
1.1.3		x	
1.2.1	X ¹⁾		
1.3.1		x	
1.4.1		X ²⁾	
1.5.1		x	
1.6.1		x	
2.1.1	X ³⁾		
2.1.2	x ³⁾		
2.1.3	X ⁶⁾		
2.2.1	x		
2.2.2	x		
2.2.3	x		
2.2.4	x		
2.2.5		x	
2.2.6	x		
2.2.7		x	
2.2.8		x	

Indicator	Initial Risk Rating		
	Specified	Low	Unspecified
2.2.9		x	
2.3.1		x	
2.3.2	x		
2.3.3		x	
2.4.1	x		
2.4.2	X ⁴⁾		
2.4.3		x	
2.5.1	x		
2.5.2		x	
2.6.1	X ⁵⁾		
2.7.1		x	
2.7.2		x	
2.7.3		x	
2.7.4		x	
2.7.5		x	
2.8.1	x		
2.9.1	X ⁶⁾		
2.9.2		x	
2.10.1		x	

- 1) Specified risk for areas without cadastral data;
- 2) This legality indicator is low risk, nevertheless, there are procedures on verifying a few aspects;
- 3) HCV 1, 3, 4 and 5 are specified risk. Mainting objects and other aspects of cultural value are considered low risk but are checked during the evaluation of best practises;
- 4) Specified risk on mainly forest fires;
- 5) The mitigation measures of this indicator are important in reducing the risks related to all social aspects of sustainability;
- 6) Of importance is the negative trend in forest cover (and loss of carbon stocks) over the last 20 years.

8 Supplier Verification Programme

8.1 Description of the Supplier Verification Programme

The Risk Assessment (RA) had no inconclusive indicators (no 'unspecified risks'). The results of the RA have been discussed with feedstock suppliers and other stakeholders. The indicators, risks, and mitigation measures, were clear.

Chapter 5 describes the system of guaranteeing that the specified risks are assessed and mitigated on the level of harvesting plots and harvesting operations.

8.2 Site visits

Not applicable, for more information see 8.1 and chapter 5.

8.3 Conclusions from the Supplier Verification Programme

Not applicable, for more information see 8.1 and chapter 5.

9 Mitigation Measures

9.1 Mitigation measures

1.1.2	<i>Feedstock can be traced back to the defined Supply Base</i>
Mitigation measures	<p>Reginacork does not buy any wood from wood suppliers without a valid company registration and delivery documentation indicating the place of harvest.</p> <p>The Due Diligence System and the ‘Procedure on the legality and origin of raw material’ state appropriate control systems.</p> <p>See also indicator 1.2.1 below.</p>
1.2.1	<i>The Biomass Producer has implemented appropriate control systems and procedures to ensure that legality of ownership and land use can be demonstrated for the Supply Base</i>
Mitigation measures	<p>Next to a lack of cadastral data on 43% of all lands, and the difficult situation of many landowners with small parcels in Portugal, for practical reasons landowners sometimes sell or transfer (inherit) parts of their property without registering the change to the government, because of the complexity. Therefor there are discrepancies between registered and actual ownership rights. Wood lands can also be impounded by the government (if the landowner has debts).</p> <p>Reginacork does not buy any wood from wood suppliers without a valid company registration, nor from wood lands, of which the owner rights are disputed. Any dispute concerning the ownership of the feedstock needs to be solved first.</p> <p>When starting business relationship with the owner or a wood supplier, Reginacork investigates if geometric cadastre is available and if not, additional investigations are conducted by means of legal document research and extends to, for example, interviewing local stakeholders (owners of neighbouring wood lands) and local authorities, whenever:</p> <ul style="list-style-type: none"> • Cadastral data are unavailable; • The land will be impounded by the government; • There are complaints about the land owner, or the harvest operation. <p>In these cases, the internal procedure ‘Procedure on the legality and origin of raw material’ is activated.</p> <p>The Due Diligence System and the ‘Procedure on the legality and origin of raw material’ state appropriate control systems.</p> <p>The following requirements are met:</p> <ul style="list-style-type: none"> • Identification of the plot / area ; • Identification of the owner (citizen card); • Proof of the relationship between the seller and the land in question;

	<ul style="list-style-type: none"> • Formalization of the business through a purchase and sale agreement between the parties; • Mapping; • Invoice and bankpayment. • Check owner of bank account. • Caderneta Predial Rustica is demanded. <p>In addition to the information collected, at least one site visit is always conducted with the owner or his representative, where information is taken about:</p> <ul style="list-style-type: none"> • Type of vegetation / species; • Ground boundaries / Confrontations; • Accesses. <p>This procedure also indicates the resolution of grievances and disputes, including those relating to tenure and land use rights to forest (or land) management practices and working conditions.</p>
<p>2.1.1</p>	<p><i>The Biomass Producer has implemented appropriate control systems and procedures for verifying that forests and other areas with high conservation values are identified and mapped.</i></p>
<p>Mitigation measures</p>	<p>The control system for feedstock, which also includes regular inspections of suppliers, is duly implemented. All used material is traceable to its origin through the harvest manifests and transport guides. All suppliers have to comply with the laws in force, which are supervised by the Tax Authority and the ICNF (Please see the file ‘Plano Regional de Ordenamento Florestal’ ‘Documentation point 4 ‘cartografia síntese’ (ICNF) for each region). Some HCV areas are designated as protected and classified areas at the national or EU level (Natura 2000). There are also smaller areas or biotopes important to biodiversity, or classified as priority species’ habitats.</p> <p>Reginacork identifies and maps areas with high conservation values (HCVs). HCV 1, 3, 4, and 5 were assessed to have a specified risk. Extra effort is needed to identify and map these values. Internet sources, as well as the local situation needs to be studied.</p> <p>Below the main sources of information, used to prepare the identification of these values for our harvesting teams. The forestry specialist evaluate every plot before the harvesting operations begin. Reginacork inspects the suppliers and harvesting areas.</p> <p>HCV 1 – Species diversity:</p> <ul style="list-style-type: none"> ➤ Classified areas: http://www.icnf.pt/portal/naturaclas/cart ➤ Protected area plans: http://www.icnf.pt/portal/naturaclas/ordgest/poap ➤ Endangered species: http://www.icnf.pt/portal/naturaclas/patrinatur/especies ➤ Endemic species: http://naturdata.com/index.php?option=com_content&view=article&id=78&Itemid=60 ➤ Digital mapping information from the Manual das Linhas Eléctricas [Manual of Electric Lines] (ICNB 2008) ➤ Important Bird Areas of Portugal at: http://ibas-terrestres.spea.pt/ ➤ Regional Forest Plans (PROF): http://www.icnf.pt/portal/florestas/profs

	<p>HCV 3 – Ecosystems and habitats:</p> <ul style="list-style-type: none"> ➤ Habitats Directive (2007-2012) ➤ Rede Natura 2000 database: http://www.icnf.pt/portal/naturaclas/rn2000 ➤ Important Bird Areas of Portugal at: http://ibas-terrestres.spea.pt/ ➤ Convention on Biological Diversity (CBD) via DL no. 21/93, dated 29 June <p>HCV 4 – Critical ecosystem services & HCV 5 – Community needs:</p> <ul style="list-style-type: none"> ➤ Habeas-Hotspot Areas for Biodiversity and Ecosystem Services http://www.habeas-med.org/webgis/pt_en/ ➤ Forests located in critical areas - defined and mapped in REN-National Ecological Reserve.
<p>2.1.2</p>	<p><i>The Biomass Producer has implemented appropriate control systems and procedures to identify and address potential threats to forests and other areas with high conservation values from forest management activities.</i></p>
<p>Mitigation measures</p>	<p>The control system for feedstock, which also includes regular inspections of suppliers, is duly implemented. All used material is traceable to its origin through the harvest manifests and transport guides. All suppliers have to comply with the laws in force, which are supervised by the Tax Authority and the ICNF (Please see the file ‘Plano Regional de Ordenamento Florestal’ ‘Documentation point 4 ‘cartografia síntese’ (ICNF) for each region). Some HCV areas are designated as protected and classified areas at the national or EU level (Natura 2000). There are also smaller areas and biotopes important to biodiversity, which can be classified as priority species’ habitats.</p> <p>Reginacork identifies and addresses potential threats to forests and other areas with high conservation values (HCVs). HCV 1, 3, 4, and 6 were assessed to have a specified risk.</p> <p>Reginacork ensures:</p> <ul style="list-style-type: none"> • mapping of the harvesting plot, • identification of the owner rights, • harvesting according to the technical rules sustainable forest management, • best practices, respecting environmental and safety rules, • cleaning of waste from plantations • tree species (no genetically modified trees) <p>The forestry specialist evaluate every plot before the harvesting operations begin. Reginacork inspects the suppliers and harvesting. Reginacork keeps records of field inspections and monitoring results.</p> <p>HCV 1 – Species diversity</p> <p>There is a specified risk that forest operations on private and communitarian grounds and public areas not managed by ICNF could harm species diversity. Species diversity is evaluated and recorded before harvesting operations commence. Caution and best practises are applied. Special attention is given to the National System of Classified Areas (SNAC) and to the Important Bird and Biodiversity Areas (IBAs).</p> <p>See also below, indicator 2.2.4</p>

HCV 3 – Ecosystems and habitats

There is a specified risk that forest operations on private and communitarian grounds and public areas not managed by ICNF could harm ecosystems and habitats. In these situations, the supplier Reginacork demands to evaluate the environmental impacts (on Ecosystems and habitats) of the forest operations (before the forest operations commence). Caution and best practises are applied. The forest specialist of Reginacork checks the environmental assessment and does field inspections. The inspections are recorded.

See also below, indicator 2.2.3

HCV 4 – Critical ecosystem services & HCV 5 – Community needs

This is a specified the risk on private, communitarian, and public forest areas not managed by ICNF, subject to clear cutting at dimensions above to the maximum area indicated for each region by the Regional Forestry Management Plan (PROF). This point is evaluated and recorded before the forest operations commence. Caution and best practises are applied. Clear cuts are reduced to the maximum size indicated in the PROFs, or even further, if the environmental aspects, such as hillslopes, require special attention.

There are no indigenous people in Portugal, but it is important to evaluate the interests of the (local) population and social-economic functions of the forests and woodlands (including agricultural or municipal functions). The legal right to passing the property must be respected.

See above indicator 2.1.1.

See below, indicators 2.2.2, 2.2.3, 2.2.6, 2.4.1 and 2.5.1 (and 2.6.1 as 'safety net').

<p>2.1.3</p>	<p><i>The Biomass Producer has implemented appropriate control systems and procedures for verifying that feedstock is not sourced from forests converted to production plantation forest or non-forest lands after January 2008.</i></p>
<p>Mitigation measures</p>	<p>Reginacork considers all pine stands as forests and eucalyptus and Poplar stands as plantations. Reginacork checks if forests have been changed to (eucalyptus) or Poplar plantations after 2008.</p> <p>When a eucalyptus or and Poplar plantation is cut the history of the plantation is investigated. First the age of the plantation is determined. If could be form after Jan. 2008, the land owner and/or residents are questioned, and the plot is searched for old tree stumps.</p> <p>Reginacork always demands a field study assessment by the forestry specialist. Reginacork checks the assessment of its suppliers and keeps records on monitoring harvesting plots.</p> <p>There are no assurances, new eucalyptus plantations from after January 2008 are not already maintained or harvested. Moreover, the forest fires result in instant harvesting of plantations, regardless of their age. Besides, poplar and other tree species can be considered a plantation and the new law only covers Eucalyptus.</p> <p>In practise there will be many issues with regard to this indicator on land conversion in the future as well. The government has too little information on the present landcover and too little capacity to implement the new legislation in full. For example, after a forest fire, it will be difficult to determine if illegal conversion to plantations are taking place, regarding the many effected woodland parcels and timeframe for regenerating forest areas. Besides, eucalyptus plantations can result in aggressive natural regeneration after forest fires, and in that case, little can be done to avoid conversion of neighbouring plots.</p> <p>The conversion of forests to urban and agricultural use is significant. In total, the forest area decreased by 150 611 ha (between 1995 and 2010, according to the 6th National Forest Inventory of the ICNF). Over the last decades, Portugal has a negative trend concerning forest area. The ICNF, however, states that the increase of wood lands excels the decline in forests. FAO statistics (2016) show a decrease in forest and agricultural area in Portugal.</p> <p>The new law on restricting conversion to eucalyptus plantations does not safeguard this issue sufficiently.</p>
<p>2.2.1</p>	<p><i>The Biomass Producer has implemented appropriate control systems and procedures to verify that feedstock is sourced from forests where there is appropriate assessment of impacts, and planning, implementation and monitoring to minimise them.</i></p>
<p>Mitigation measures</p>	<p>There is a specified risk on this point, mainly in case no forest plan is available (no PROF, PGF ZIF, PUB, SNAC, as well as no PEFC or FSC certification). Special attention deserve areas with dimensions below the minimum threshold for mandatory Forest Management Plan (refer to PROF) and outside SNAC, as also areas where PGF is mandatory or within SNAC.</p> <p>Reginacork makes an 'Evaluation of the risks and possible impacts of harvesting operations' (EoR) on sites related to the SBE program.</p> <p>The EoR and the field study of the supplier evaluate:</p> <ul style="list-style-type: none"> • The possible economical, ecological and social impact of the forest operations including its surroundings. Harvesting operations can be changed to avoid negative impacts.

	<ul style="list-style-type: none"> The quality of the management (by the land owner) prior to harvesting and regeneration plan. <p>Indicators 2.2.2, 2.2.3, 2.2.4, 2.2.6, and 2.4.2 include relevant management measures which are checked.</p> <p>Reginacork monitors the plots to be harvested intensively and and the performed Risk Mitigation Measures.</p>
<p>2.2.2</p>	<p><i>The Biomass Producer has implemented appropriate control systems and procedures for verifying that feedstock is sourced from forests where management maintains or improves soil quality (CPET S5b).</i></p>
<p>Mitigation measures</p>	<p>Before harvesting operations commence the plot is evaluated on this point and records are kept. Best forestry practises are applied. Maps can be obtained from ‘Reserva Ecológica Nacional’ (REN).</p> <p>Reginacork makes an Evaluation of the risks and possible impacts of harvesting operations (EoR) and conducts field study with the help of forestry specialist. The assessments address the specified risk on soil degradation: Best practices regarding harvesting operations have to be applied.</p> <ol style="list-style-type: none"> Low intensity of forestry, selective cuttings and small clear cuts of maximally 5 ha. were needed considering the soil and groundwater level. Regeneration focusses on tree species that maintain or improve soil quality Leave nutrients in the forests, mainly the green fraction of forest residues (on the other hand other forest residues need to be cleared to prevent forest fires. Do not operate near-water areas. <p>For example, on dry locations (elevated grounds or on slopes) selective cuttings are required, because the ground gets less direct impact of the sun and the forest and (natural) regeneration can maintain soil quality. On other locations (small) clear cuts can sometimes have the advantage that several kinds of broadleaved trees regenerate naturally, what improves soil quality. After clear cuts, the groundwater level can rise, what sometimes is an advantage, sometimes a disadvantage.</p> <p>Poor soil quality can lead to erosion, etc; this indicator is related to indicator 2.2.6.</p>
<p>2.2.3</p>	<p><i>The Biomass Producer has implemented appropriate control systems and procedures to ensure that key ecosystems and habitats are conserved or set aside in their natural state (CPET S8b).</i></p>
<p>Mitigation measures</p>	<p>Reginacork prepares (publicly available) data on ecosystems and habitats (see above 2.1.1 on mapping and 2.1.2 on identifying and addressing potential threats) with the help of forestry specialist. This information is given to all feedstock suppliers. Feedstock suppliers are provided with training material to recognise key ecosystems and habitats.</p> <p>Most importantly, the forestry specialist inspect visually the harvesting plot and report on the results. Key ecosystems and habitats are indicated on the harvesting maps. Best practises are used to protect the high ecological values. The harvesting operations conserve these objects, mainly by not cutting the woodland or forest directly around them. In exceptional cases, low intensity harvesting operations are possible without damaging these objects.</p> <ol style="list-style-type: none"> Study key ecosystems on the harvesting plot, conserve areas of ecological value Study flora and fauna at the harvesting plot, nests, breeding areas, anthills conserve protected tree species and habitats

	<p>c. Do not operate near-water areas.</p> <p>Reginacork makes an Evaluation of the risks and possible impacts of harvesting operations (EoR) and conducts the field study. Reginacork monitors the harvesting operations of its feedstock suppliers (see also chapter 5 on ‘SBE program approved feedstock suppliers’).</p>
2.2.4	<i>The Biomass Producer has implemented appropriate control systems and procedures to ensure that biodiversity is protected (CPET S5b).</i>
Mitigation measures	<ol style="list-style-type: none"> 1) Reginacork prepares (publicly available) data on biodiversity researches and programs, red lists of Portugal, CITES, etc (see above 2.1.1 on mapping and 2.1.2 on identifying and addressing potential threats, HCV 1 – Species diversity). This information is given to all feedstock suppliers. 2) Feedstock suppliers is provided by the training material to recognise the protected biodiversity and how to conserve them. These species are often related (it can be indicator species) to key ecosystems which need conserved (previous indicator). 3) The forestry specialist inspect visually the plot, make photos and report on the results. Endangered flora and fauna are indicated on the harvesting maps. 4) Best practises are used, including measures to conserve and increase biodiversity (for example, standing dead wood, prescribed burning and other disturbances improving the conditions for endangered species flora and fauna). 5) Reginacork monitors the harvesting operations of its feedstock suppliers (see also chapter 5 on ‘SBE program approved feedstock suppliers’).
2.2.6	<i>The Biomass Producer has implemented appropriate control systems and procedures to verify that negative impacts on ground water, surface water and water downstream from forest management are minimised (CPET S5b).</i>
Mitigation measures	<ol style="list-style-type: none"> 1) Reginacork studies data (from publicly available information, researches and programs) for its harvesting teams on ground water, surface water and steams (see above 2.1.1 on mapping and 2.1.2 on identifying and addressing potential threats, HCV 1 – Species diversity). This information is given to the feedstock suppliers. 2) Feedstock suppliers are trained to not contaminate ground water and to plan forest management operations that protect the soil, forest and surroundings from surface water. 3) The forestry specialist inspect visually the plot and the hill slopes and streams in the surroundings and report on the results. 4) Best practises are used, including forest management measures that protect the plot against too high or low ground water levels, and erosion (surface water moving to quick or too slow). Related to a too quick runoff of surface water, streams in the surroundings are considered. The landscape where the harvest operations are executed is considered, including hill slopes and streams that can overflow. In areas vulnerable to water damage, the maximal contiguous clear-cut area is 5 ha. 5) Reginacork monitors the harvesting operations of its feedstock suppliers. These best practises are required to comply with the SBE program requirements. <p>The best practices follow the ‘ICNF Handbook for forest best practices’: ‘In areas surrounding the water lines the risk of erosion is often very high, since these are areas of concentration of rainwater runoff. In these bands (with a minimum width of 10 meters for each side, as stated in the legal definitions and conditions of legal limits (Decree-Law no. 468/71) a strict prevention of erosion phenomena shall be performed, and it is therefore essential to adopt measures to protect it, such as maintaining all or a significant part of the natural vegetation and not inflict harm to the soil.’</p>

<p>2.3.2</p>	<p><i>Adequate training is provided for all personnel, including employees and contractors (CPET S6d).</i></p>
<p>Mitigation measures</p>	<p>Reginacork trains its personnel on all relevant aspects and demands the same from its feedstock suppliers.</p> <p>During the feedstock supplier's office inspections of Reginacork, are checked: the training records, (new) workforce, and the hiring of specialists. The level of knowledge of personnel is inspected during site visits.</p>
<p>2.4.1</p>	<p><i>The Biomass Producer has implemented appropriate control systems and procedures for verifying that the health, vitality and other services provided by forest ecosystems are maintained or improved (CPET S7a).</i></p>
<p>Mitigation measures</p>	<ol style="list-style-type: none"> 1) Forestry specialist is trained to recognise health, vitality and other services provided by forest ecosystems. 2) Forestry specialist inspects visually the plot and the surroundings and report on the results (make photos). Reginacork demands a field study from forestry specialist , which addresses these environmental services. Best practises are used by the suppliers. Many of the relevant risks are addressed by other indicators (with specified risk), such as indicators 2.2.1, 2.2.2, 2.2.3, 2.2.4, 2.2.6, and 2.4.2. 3) The possible impacts of the harvest operations on the forest and its surroundings are assessed (before the harvesting operations commence), not only in relation to the environment, but also in relation to the interests of the local population, farmers, and people interested in recreation. Reginacork underlines that these services can be of importance to the local population. Forests can be of importance to the environment around the forests, they can reduce the impact of extreme weather, and reduce the impact of air and 'visual' pollution, as well as noise. Forest services that need to be considered: <ol style="list-style-type: none"> a. Breaking hard winds and rainfall (regarding roads and houses); b. Recreation in and around the forests; c. Hunting, fishing and gathering of berries and mushrooms; d. Agriculture near the forests (this is of importance in Portugal). 4) Reginacork monitors the harvesting operations of its feedstock suppliers. It checks with stakeholders if there are any complaints (see also below 2.6.1).
<p>2.4.2</p>	<p><i>The Biomass Producer has implemented appropriate control systems and procedures for verifying that natural processes, such as fires, pests and diseases are managed appropriately (CPET S7b).</i></p>
<p>Mitigation measures</p>	<ol style="list-style-type: none"> 1) Reginacork studies data (from publicly available information, researches and programs) for harvesting teams on risks and regulations regarding fires, pests and diseases. This information is given to all feedstock suppliers. 2) Feedstock suppliers are trained to recognise poor forest management and on mitigation measures. 3) Forestry specialist inspect visually the plot and make photos. Forestry specialist inspect if the plot was managed well on these points, if not, the feedstock is not considered compliant to the SBE program (will not become SBP-compliant feedstock). 4) Best practises are used by the harvesting teams regarding management of fires, pests and diseases. These include:

	<ul style="list-style-type: none"> a. Traps for NMP (Pine Wood Nematode Bursaphelenchus xylophilus, and its vector the insect Monochamus galloprovincialis); b. Use of net (cover) during transport of wood in the period insect vector NMP; c. Phytopharmaceutical application on the ground; d. Crushing of the same wood with no lead time of 2, 3 days (wood with symptoms); e. Ensure that all suppliers have an economic operator registration; f. Reginacork only accepts the raw material with the manifest; g. Cleaning of all utensils and machinery used in the handling of woody material; h. Application of good forest practices to avoid a spread of this pest. <p>5) Reginacork monitors the harvesting operations of its feedstock suppliers. Sufficient management by the forest owner, and best practises by the harvesting teams are required to comply with the SBE program requirements.</p>
2.5.1	<i>Legal, customary and traditional tenure and use rights of indigenous people and local communities related to the forest are identified, documented and respected (CPET S9).</i>
Mitigation measures	<ul style="list-style-type: none"> 1) Forestry specialist identifies possible issues with legal, customary and traditional tenure and use rights. 2) The harvesting teams inspect visually the plot, make photos and report on the results. If the land area to be harvested is fenced, moreover, if it has been fenced recently, the opinion of residents is assessed. Abuse of fences, blocked roads, and inadequate signs makes the feedstock non-compliant the SBE program. 3) Reginacork monitors the harvesting operations of its feedstock suppliers. <p>By addressing sustainable forest management and making an extra effort on indicators 1.2.1 and 2.6.1, Reginacork integrates respecting the interests of local people into its main procedures.</p> <p>There are no indigenous people in Portugal nor minorities dependant on forests for their livelihood.</p>
2.6.1	<i>Appropriate mechanisms are in place for resolving grievances and disputes, including those relating to tenure and use rights, to forest management practices and to work conditions.</i>
Mitigation measures	<ul style="list-style-type: none"> 1) Reginacork actively prevents grievances and disputes to arise. The aim is to track down and solve grievances and disputes before the harvesting operations commence (or not to buy from the disputed plots). 2) Reginacork makes clear to the local population that any complaint or comment related to feedstock supply is taken very seriously (via website and other communications). Reginacork takes seriously any complaint of any person or organisation considering harvesting operations. This also ensures sufficient performance on respecting local interests (HCV 5) and cultural values (HCV 6). 3) Reginacork has a complaint procedure and keep records. The feedstock suppliers are also required to actively implement a complaint procedure and keep records. Reginacork demands a field study from all feedstock suppliers, in which the interests of local population are assessed. 4) Reginacork monitors the harvesting operations of its feedstock suppliers and checks their records on Complaints and Comments. It checks with relevant stakeholders, such as land owners, if no comments were submitted, or if the complaints were dealt with sufficiently. 5) The results of the inspections of Reginacork have direct influence on the ‘SBE program approved’ status of feedstock suppliers.

<p>2.8.1</p>	<p><i>The Biomass Producer has implemented appropriate control systems and procedures for verifying that appropriate safeguards are put in place to protect the health and safety of forest workers (CPET S12).</i></p>
<p>Mitigation measures</p>	<p>Reginacork has a rigorous control system and adequate procedures on the health and safety of forest workers. Reginacork (contractually) demands the same from its feedstock suppliers and checks the health safety of harvesting personnel during its monitoring inspections.</p> <p>During the feedstock supplier's office inspections of Reginacork are checked: the training records, workforce, and the hiring of specialists in forest security. Protective equipment and knowledge of personnel is inspected during site visits.</p>
<p>2.9.1</p>	<p><i>Feedstock is not sourced from areas that had high carbon stocks in January 2008 and no longer have those high carbon stocks.</i></p>
<p>Mitigation measures</p>	<p>1) Reginacork studies data (from publicly available information, researches and programs) on aspects that can decrease the carbon stock (including regularly lit forest fires).</p> <p>2) The forestry specialist inspects visually the plot and makes photos.</p> <p>3) Reginacork checks plots and harvesting operations.</p> <p>This risk is partly covered by the mitigation measures mentioned in the following indicators:</p> <ul style="list-style-type: none"> a. 2.1.3 (land conversion), b. 2.2.2 (degradation of grounds).

9.2 Monitoring and outcomes

Mitigation measures prove to be sufficiently effective. The system has been strengthened by appointing a Forest Engineer as the manager of the SBE process. No new risk ratings were established for SBP indicators during the last year. If any requirements will prove to have become high-risk, new mitigation measures will be installed. In the last years, Reginacork did not witness issues on indicators 1.1.2; 2.4.1.; and 2.5.1. (marked yellow in chapter 7), but will maintain all specified risk categorisation till the end of the certification period. Considering indicator 1.2.1. on legality of ownership and land use a step-wise evaluation method has been implemented (see chapter 9).

37 plots were studied and checked, of which 13 plots were accepted as SBP-compliant biomass, and 26 stayed on the level of SBP-controlled feedstock supply, 1 became feedstock out-of- FSC and SBP scope, because it did not comply with legal planning requirements. Of the 26 several were aborted due to insufficient information, expected from the owner. Most time is spent on the legality aspects of small-holders, the field inspection has to be done by the Forest Engineer of Reginacork who studies whole plots before and during harvesting, checking the risks and agreeing on the mitigation measures does not take much time, however.

The teams chipping the forest residues are all employed by Reginacork and work according to the requirements. The forest teams are checked frequently. Of these forest harvesting teams 2 are working excellently.

Only 13 plots were accepted, but this gave, together with the incoming FSC certified feedstock, sufficient feedstock for Regina cork to fulfil its commercial obligations. The Forest Engineer, however, does not

restrict herself to only the bigger plots, or the easier plots to evaluate. Due care of performance is studied for the whole feedstock supply chain, and improvement is pursued in general.

Considering the category “minor, unintentional non-conformances” these non-conformances also result in corrective and mitigation actions, but in some cases Reginacork considers it acceptable it will accept the feedstock as SBP-compliant feedstock, if the supplier has shown years of compliance before, and the issue was an exceptional case.

By preparing information profoundly by the forestry specialist and by implementing best practices regarding the harvesting operations, a substantial share of the feedstock could comply with the SBE program requirements. All suppliers have a forestry guide and received internal guidance from Reginacork. All harvesting personnel have been instructed to respect the requirements of the guide.

Reginacork inspects all harvesting teams and feedstock suppliers. Reginacork constantly monitors its feedstock suppliers to see if they comply with the mitigation measures. The ‘SBE program approved’ status of suppliers is re-evaluated every year, and is directly suspended or withdrawn if a major non-conformity has been found.

10 Detailed Findings for Indicators

Detailed findings for each indicator are given in Annex 1.

11 Review of Report

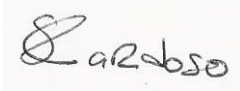

11.1 Peer review

The report has taken into consideration the drafts of the SBP NRA for Portugal and was sent to a large stakeholder group for consultation in year 2018. Current updates didn't weaken the system, but strengthened it. For example, a forestry specialist was hired to perform the field assessment. Therefore, a peer review was not necessary.

11.2 Public or additional reviews

The SBR and SBE was sent to a large group of stakeholders for review (more information in Chapter 6) in year 2018.

12 Approval of Report

Approval of Supply Base Report by senior management			
Report Prepared by:	 Sofia Cardoso	Forest Engineer, PhD	14/02/2020
	Name	Title	Date
<p>The undersigned persons confirm that I/we are members of the organisation’s senior management and do hereby affirm that the contents of this evaluation report were duly acknowledged by senior management as being accurate prior to approval and finalisation of the report.</p>			
Report approved by:	 Carlos Ascenso	Director, Administrator	14/02/2020
	Name	Title	Date

13 Updates

The updates were incorporated in the text of SBR, so it represents the actual information. The supply base didn't change, it remains continental Portugal.

Regarding SBE, its reliability was improved by appointing a forestry specialist for harvesting plot assessments and decision making, whether the feedstock can be categorised SBP-compliant.

13.1 Significant changes in the Supply Base

No changes to the Supply Base. The feedstock still originates from the regions surrounding the plant.

13.2 Effectiveness of previous mitigation measures

Mitigation measures prove to be sufficiently effective. The system has been strengthened by appointing a forest engineer as the manager of the SBE process.

Considering the method of evaluating the SBE results per supplier, Reginacork categorises possible non-conformances as 1) Major, intentional, 2) Major unintentional, 3) Minor, intentional, 4) Minor, unintentional.

Major and/or intentional non-conformances withhold the feedstock to be categorised as SBP-compliant feedstock, and can result in the unacceptance of the feedstock as FSC Controlled Wood. Regarding the kind of non-conformity the feedstock could be rejected all together. If the major and/or intentional non-conformity was the responsibility of a feedstock supplier, it loses its status as a SBE accepted feedstock supplier.

Considering the category "minor, unintentional non-conformances" these non-conformances also result in corrective and mitigation actions, but in some cases Reginacork considers it acceptable it will accept the feedstock as SBP-compliant feedstock, if the supplier has shown years of compliance before, and the issue was an exceptional case.

Below the procedure on indicator 1.2.1 has been made more specific in a visual illustration.

13.3 New risk ratings and mitigation measures

No new risk ratings were established for SBP indicators during the last year. If any requirements will prove to have become high-risk, new mitigation measures will be installed.

In the last years, Reginacork did not witness issues on indicators 1.1.2; 2.4.1.; and 2.5.1. (marked yellow in chapter 7), but will maintain all specified risk categorisation till the end of the certification period. In case no issues were found during the 5-year certification period, Reginacork will categorise the indicator as low-risk, before sending it to stakeholder consultation.

13.4 Actual figures for feedstock over the previous 12 months

See section 2.5 of this SBR.

13.5 Projected figures for feedstock over the next 12 months

Reginacork expects to process approximately 60 000 tons of feedstock in the next reference period (2020).