

# Supply Base Report: Template for Biomass Producers

Pinewells, S.A.

[www.sustainablebiomasspartnership.org](http://www.sustainablebiomasspartnership.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](http://www.sbp-cert.org)*

### *Document history*

*Version 1.0: published 26 March 2015*

*Version 1.1 published 22 February 2016*

*Version 1.2 published 23 June 2016*

*Version 1.3 published 14 January 2019*

© Copyright The Sustainable Biomass Program Limited 2019

# Contents

<b>1</b>	<b>Overview</b> .....	<b>1</b>
<b>2</b>	<b>Description of the Supply Base</b> .....	<b>2</b>
2.1	General description .....	2
2.2	Actions taken to promote certification amongst feedstock supplier .....	5
2.3	Final harvest sampling programme .....	5
2.4	Flow diagram of feedstock inputs showing feedstock type [optional] .....	6
2.5	Quantification of the Supply Base .....	6
<b>3</b>	<b>Requirement for a Supply Base Evaluation</b> .....	<b>8</b>
<b>4</b>	<b>Supply Base Evaluation</b> .....	<b>9</b>
4.1	Scope .....	9
4.2	Justification.....	9
4.3	Results of Risk Assessment.....	9
4.4	Results of Supplier Verification Programme .....	14
4.5	Conclusion.....	16
<b>5</b>	<b>Supply Base Evaluation Process</b> .....	<b>17</b>
<b>6</b>	<b>Stakeholder Consultation</b> .....	<b>21</b>
6.1	Response to stakeholder comments .....	21
<b>7</b>	<b>Overview of Initial Assessment of Risk</b> .....	<b>22</b>
<b>8</b>	<b>Supplier Verification Programme</b> .....	<b>23</b>
8.1	Description of the Supplier Verification Programme .....	23
8.2	Site visits .....	23
8.3	Conclusions from the Supplier Verification Programme.....	23
<b>9</b>	<b>Mitigation Measures</b> .....	<b>24</b>
9.1	Mitigation measures .....	24
9.2	Monitoring and outcomes .....	36
<b>10</b>	<b>Detailed Findings for Indicators</b> .....	<b>37</b>
<b>11</b>	<b>Review of Report</b> .....	<b>38</b>
11.1	Peer review.....	38
11.2	Public or additional reviews.....	38
<b>12</b>	<b>Approval of Report</b> .....	<b>39</b>

<b>13</b>	<b>Updates .....</b>	<b>40</b>
13.1	Significant changes in the Supply Base .....	40
13.2	Effectiveness of previous mitigation measures .....	40
13.3	New risk ratings and mitigation measures.....	40
13.4	Actual figures for feedstock over the previous 12 months .....	40
13.5	Projected figures for feedstock over the next 12 months .....	40

# 1 Overview

On the first page include the following information:

Producer name: Pinewells, S.A.

Producer location: Zona Industrial da Relvinha – Sarzedo, Arganil 3300-416 Sarzedo AGN, Portugal

Geographic position: N 40.264° W 8.076°

Primary contact: Nazaré Costa (Pinewells - Zona Industrial da Relvinha – Sarzedo, Arganil 3300-416 Sarzedo AGN, Portugal; [nazarecosta@visabeiraglobal.com](mailto:nazarecosta@visabeiraglobal.com); +351 235 240 940)

Company website: [www.pinewells.com](http://www.pinewells.com)

Date report finalised: 13/03/2020

Close of last CB audit: 13/03/2019 (Pinewells - Sarzedo, Arganil 3300-416, Portugal)

Name of CB: Control Union Certifications B.V.

Translations from English: Yes (Portuguese)

SBP Standard(s) used: Standard 1, v. 1.0;  
Standard 2, v. 1.0;  
Standard 4, v. 1.0;  
Standard 5, v. 1.0.

Web link to Standard(s) used: <http://www.sustainablebiomasspartnership.org/documents>

SBP Endorsed Regional Risk Assessment: Not applicable

Web link to SBE on Company website: <https://pinewells.com/pellets-o-produto>

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 type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

# 2 Description of the Supply Base

## 2.1 General description

The Supply Base is Portugal. The SBP reporting period is the year 2019; statistics provided in this report are based on this period.

### **Description 'Portugal'**

Forest areas (forest, bush and unproductive land) occupy 6.2 million hectares (69.4%) of the mainland. The forest, which includes wooded and temporarily deforested land (cut, burned and regenerating surfaces), is the main use of national soil (36%).

The downward trend in the forest area, which has been observed since 1995, was reversed in 2015, with the last inventory registering an increase of 60 thousand ha (1.9%) compared to 2010 (last assessment date).

The national forest is mostly made up of forest species indigenous (72%), although some occupy territories larger than their geographic origin.

In structural, functional and landscape terms, the continent's forest can be organized into four large groups, or forest formations:

- pine forests (consisting of maritime pine and stone pine) - area close to 1 million hectares, with forest ecosystems with the greatest reduction in the occupied area.
- perennial trees ("montados", cork oak and holm oak) - area of about 1 million hectares (represent 1/3 of the forest)
- deciduous hardwoods (oaks, chestnuts and others) - 46 mil ha (17%)
- silvo-industrial hardwoods (eucalyptus) - 845 mil ha (26% of the continental forest)

The decrease in area is due to maritime pine forests, which are very affected by fires and pests (the nematode being the most significant), which exceeds the significant increase in the pine tree pine area (20.7 thousand ha; 12% between IFN5 and IFN6). However, in the period between 2010 and 2015, the area of pinus pinaster, registered a very significant deceleration in view of the sharp downward trend that has been observed since 1995 (IFN4), which reveals the extraordinary resilience of these pine forests to disturbances.

Bush and pasture represent the second most significant category of land use (31%). The bush has grown continuously since 1995.

In Portugal, private property from private owners (89%) and community (Baldios, 8%) correspond 97% of total forest land, including 5,7% property of industry companies. Public areas are up to 2,9% (around 94 thousand ha). The forest area under communitarian management (Baldios) is 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 entering 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 area. Also, transportation documentation identifies the origin of the transport. There are still areas in Portugal without a cadastral registration.

Regarding species, the most relevant in terms of pellets production are maritime pine (*Pinus pinaster*), eucalyptus (*Eucalyptus spp.*) and stone pine (*Pinus pinea*). 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 distribution of the main tree species:

1. Eucalyptus (*Eucalyptus globulus*) is the main tree species – 812 000 ha. Originally from Tasmania eucalyptus is present all over the country. 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<sup>o</sup>. 175/88 of May 17 and Law N<sup>o</sup>. 513/89, 6 July) that restricts the increase of monoculture plantation of this species.
2. Cork oak (*Quercus suber*) – 737 000 ha. The cork oak is seen as the 'national tree' of Portugal. Portugal is the leading producer, processor and exporter of cork.
3. Maritime pine (*Pinus pinaster*) – 714 000 ha. Maritime pine is scattered over the regions of northern and central coast of the country. This tree species was chosen in afforestation campaigns carried out during the nineteenth century. It regenerates easily. Its timber is widely used commercially.

Pine forests are usually managed in stands of trees, generally of seed or seedling origin, that normally develop a high closed canopy, and can be managed using natural regeneration or by sowing or planting. In cases of natural regeneration and planting, the initial phase is intended to gradually reduce the density of plants to 1 200 – 1 600 trees per ha. Initially in groups and then selectively with mechanical or manual harrowing or slashing. After 10 years the trees can be pruned and thinned, utilizing the residual material, leaving a final cut (after 30 - 40 years) of about 500 - 600 trees per ha, while proceeding to also control unwanted vegetation mechanically or manually harrowing or slashing. In the case of natural regeneration, during the final cut about 25 large trees per ha are left as seed trees.

Eucalyptus plantations are based on planting and the clear-cutting the forest, usually between 10 and 15 years, utilizing all of the wood with or without the bark (simple coppice). Priority is given to conducting coppice for 1, 2 up to 3 rotations, selecting shoots after each cut. If last cut is not deemed productive then the area is re-planted.

In mixed stands with maritime pine, the management system is based on thinning the forest, in order to leave a percentage of remaining trees for future use when the stumps of the harvested eucalyptus trees produce shoots (composed coppice).

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. 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. 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<sup>o</sup>.155/2004) and European holly (*Ilex aquifolium*; protected by Law N<sup>o</sup>. 423/89).

Portugal 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).

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, the loss of vitality and the mortality of maritime pine is mainly related with the Wood Pine Nematode (WPN), detected in Portugal in 1999.

#### **Description Pinewells, S.A.**

Pinewells is a producer wood pellets in the center of Portugal. It is one of the ten main forest based industries in the region, however, still several times smaller than the five largest ones (pulp and paper industry).

In 2019, Pinewells sourced feedstock from the following districts:



- Aveiro;
- Viseu;
- Guarda;
- Coimbra;
- Leiria;
- Castelo Branco.

Most of the feedstock suppliers work with organizations of forest producers (OF). Organizations of forest producers are a central element in representing the interests of owners and forest managers, performing a service to support owners and in turn to the forest producers, whose objective is to achieve best forest management practices.

The raw material is received from private forests suppliers and / or the forest domain of the National Forestry Authority; the following situations can be found:

- Controlled Feedstock: 74,7% of the supply, 43 suppliers, from small forest owners (< 500 ha) and the National Forestry Authority, including wood stand cleanings to avoid fires, diseases, etc.;
- SBP-compliant Primary Feedstock: 25,3% of the supply, 14 suppliers, from small forest owners.

Pinewells works with several suppliers who are owners of forest areas which are legally required to ensure the cleaning and maintenance of their wood lands and forests.

## 2.2 Actions taken to promote certification amongst feedstock supplier

The company has contacted each of its suppliers and affirmed the importance of providing certified material (FSC), pointing out the increasing demands of markets and consumers regarding the legal and sustainable source of forest products, including biomass for energy production.

## 2.3 Final harvest sampling programme

This paragraph does not apply, as the harvesting operations are not performed for the production of wood pellets; all valuable trees are used by (sold to) other industries. Considering primary feedstock, the selection is made in the forest by the feedstock suppliers. Pinewells uses harvesting residues, low-grade tree stems, and sawdust for pellet production. A part of pine wood originates from maintenance operations (thinnings).

From the tree species used by Pinewells, only the maritime pine (*Pinus pinaster*), umbrella pine (*Pinus pinea*) and narrow-leafed ash (*Fraxinus angustifolia*) have a planned rotation period of more than 40 years. The eucalyptus (*Eucalyptus* spp.) and poplar (*Populus* spp.) are fast-growing tree species, which are harvested before the age of 40 years.

Forest plots are examined before harvest (by sampling) and stand age are identified in the supplier checklist information. Monitoring and inspection system has described the steps of sampling and monitoring of harvest plot.

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

*Feedstock inputs are indicated in the SAR.*

## 2.5 Quantification of the Supply Base

*Provide metrics for the Supply Base including the following. Where estimates are provided these shall be justified.*

### 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 (3%)
- c. Forest by type (ha): Temperate: 3,2 million ha
- d. Forest by management type (ha): Plantation: 1,8 million ha; Natural/Semi Natural: 1,4 million ha
- e. Certified forest by scheme (ha):  
473 179 ha FSC certified (<https://pt.fsc.org/pt-pt>)  
277 697 ha PEFC certified (<https://www.pefc.pt/>)

## Feedstock

- f. Total volume of Feedstock: 242 574,26 tons
- g. Volume of primary feedstock: 197 529,60 tons
- h. List percentage of primary feedstock (g), by the following categories.  
Subdivide by SBP-approved Forest Management Schemes:
- Not certified to an SBP-approved Forest Management Scheme – 74,7%
  - Certified to an SBP-approved Forest Management Scheme – 25,3%
- i. List all species in primary feedstock, including scientific name:
- Maritime pine (*Pinus pinaster*),
  - Umbrella pine (*Pinus pinea*),
  - Black pine (*Pinus nigra*),
  - Monterey pine (*Pinus radiata*),
  - Scots pine (*Pinus sylvestris*),
  - Douglas fir (*Pseudotsuga menziesii*),
  - Mimosa (*Acacia dealbata*),
  - Australian blackwood (*Acacia melanoxylon*),
  - Poplars species (*Populus spp.*),
  - European ash (*Fraxinus spp.*),
  - Alder (*Alnus Glutinosa*),
  - Cedrus (*Cupressocyparis leylandii*),
  - White cedar (*Cupressus lusitanica*),
  - Portuguese chestnut (*Castanea sativa*),
  - Portuguese oak (*Quercus faginea*),
  - Blue gum (*Eucalyptus globulus*),
  - Red gum (*Eucalyptus camaldulensis*).
- j. Volume of primary feedstock from primary forest: None (0 tons)
- k. List percentage of primary feedstock from primary forest (j), by the following categories.  
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 (0%).*
- l. Volume of secondary feedstock: 45 044,65 tons (sawdust, chipped slab wood and offcuts).
- m. Volume of tertiary feedstock: None (0 tons).

# 3 Requirement for a Supply Base Evaluation

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

For information on why an SBE was developed and implemented, please see chapter 4.2.

# 4 Supply Base Evaluation

## 4.1 Scope

Pinewells' Supply Base Evaluation (SBE) scope covers:

- Mainland Portugal;
- Primary Controlled Feedstock.

Pinewells is using the FSC CoC control system and the FSC Controlled Wood evaluation method.

Most of the feedstock received at Pinewells is Controlled Material and a small percentage is SBP-compliant feedstock.

SBE was completed for controlled material that Pinewells sources under its own FSC Controlled Wood system.

## 4.2 Justification

In the current pellet market, certification is becoming a key factor. The demand from clients to get SBP-certified products is increasing the awareness of producers to become certified on SBP Standard 1 – Feedstock Compliant.

Because only a minor percentage of feedstock is sourced from SBP-approved certification programs, Pinewells completed a Supply Base Evaluation to ensure its compliance with SBP requirements.

The Supply Base Evaluation was made according to SBP Standard 1 version 1.0 requirements and one assessment was made for Portugal with the applicable classification of the risks. This evaluation was based on a review and analysis of legal documents/requirements, public information from different sources, scientific research and other relevant sources or cartography.

Pinewells defined mitigation measures to reduce the risk and ensure a low risk for the indicators that were identified as “specified risks”. The specified risks founded are possible to mitigate and Pinewells regularly monitors its suppliers to ensure the compliance.

Pinewells kept its sustainability team, developed several SBP procedures and a Best Practice Harvest Operations Guide.

## 4.3 Results of Risk Assessment

As a result of risk assessment carried out in line with the SBP standard 1, version 1.0, and considering the (final) draft of National Risk Assessment provided by ANPEB, Pinewells identified 15 indicators with the specified risk within its supply base (11 indicators have specified risk in the final draft NRA and 4 indicators Pinewells additionally considered as specified risk).

Table 4.3: Final results SBE risk assessment (15 specified risks)

SBP Indicator	NRA PT Final Draft	Specified Risks Pinewells
1.1.2	Feedstock can be traced back to the defined Supply Base.	
	Yes	<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	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	
	Yes	<p>Pinewells 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 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> <ol style="list-style-type: none"> <li>a. Cadastral data are unavailable;</li> <li>b. The land will be impounded by the government;</li> <li>c. There are complaints about the land owner, or the harvest operation.</li> </ol> <p>In these cases, the internal procedure 'Procedure on the legality and origin of raw material' is activated.</p>
2.1.1	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.	
	Yes HCV 1+3	<p><b>HCV 1+3+4+5</b></p> <p>In chapter 9 of this report a list of websites is given for identifying and mapping the HCVs.</p> <p>See indicator 2.1.2. for more information.</p>
2.1.2	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.	
	Yes HCV 1+3	<p><b>HCV 1+3+4+5</b></p> <p><b>HCV 1 – Species diversity</b></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><b>HCV 3 – Ecosystems and habitats</b></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.</p> <p>See below, indicator 2.2.3</p> <p><b>HCV 4 – Critical ecosystem services &amp; HCV 5 – Community needs</b></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 in 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>
<b>2.1.3</b>		<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>
	<b>No</b>	<p>Pinewells considers all pine stands as forests and eucalyptus stands as plantations. Pinewells 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 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>
<b>2.2.1</b>		<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>
	<b>Yes</b>	<p>Sometimes no forest plan is available (no PROF, 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>

		See also indicators 2.2.2, 2.2.3, 2.2.4, and 2.4.2.
<b>2.2.2</b>	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).	
	<b>No</b>	In some regions, there is the problem of degradation of (poor) soils due to previous land-use practices and climate change.
<b>2.2.3</b>	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).	
	<b>Yes</b>	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.
<b>2.2.4</b>	The Biomass Producer has implemented appropriate control systems and procedures to ensure that biodiversity is protected (CPET S5b).	
	<b>Yes</b>	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.  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.
<b>2.3.2</b>	Adequate training is provided for all personnel, including employees and contractors (CPET S6d).	
	<b>Yes</b>	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.
<b>2.4.2</b>	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).	
	<b>Yes</b>	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 affect in 2011 24% of the forest area, generated by a regressive vicious cycle that combines fire, 'seca', pests, diseases and invasive species.
<b>2.5.1</b>	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).	



	<b>No</b>	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.
<b>2.6.1</b>	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.	
	<b>No</b>	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.  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'.
<b>2.8.1</b>	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).	
	<b>Yes</b>	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.'
<b>2.9.1</b>	Feedstock is not sourced from areas that had high carbon stocks in January 2008 and no longer have those high carbon stocks.	
	<b>No</b>	There is a specified risk of reducing high carbon stocks, but it is not a prominent one. Considering the positive general trend of carbon accumulation by forests in Portugal, this risk has a regional to local (exceptional) character and is more specifically related to the risks mentioned in the following indicators:  d. 2.1.3 (land conversion);  e. 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).

## 4.4 Results of Supplier Verification Programme

### **Regarding SBP Standard 2, chapter 14 on the Supplier Verification Program:**

*14.1 The purpose of the SVP is to assign a risk level to those indicators where the RA was inconclusive (i.e. for indicators initially rated as unspecified risk).*

The RA had no inconclusive indicators. The results of the RA have been discussed with feedstock suppliers and other stakeholders. The indicators, risks, mitigation measures, and indicators were clear. The Evaluation of the risks and possible impacts of harvesting operations (EoR) and risk mitigation measures are regularly evaluated (and, whenever possible, improved).

Because new plots are being prepared for harvesting operations all the time, the implementation of the mitigation measures is an ongoing process. Pinewells checks relevant data and the results of the harvesting teams. In this process, the risks and mitigation measures are being specified on a practical level (for more information see chapter 8. 'Supplier Verification Programme' of this SBR.

*14.2 The SVP might include field based assessments of indicators (for example, audit of the BP's feedstock suppliers).*

Pinewells has been implementing inspections of its feedstock suppliers for a long time. It has a sampling and monitoring procedure. All feedstock suppliers are inspected. Pinewells trains feedstock suppliers to reach the level of selected suppliers that can deliver SBP-compliant feedstock.

*14.3 The purpose, extent and nature of any SVP evaluation and the associated mitigation measures shall be documented.*

Pinewells makes a report on every company visit and every field inspection. The selected feedstock suppliers also report on the harvesting area before cutting and an Evaluation of the risks and possible impacts of harvesting operations (EoR) is made.

*14.4 More detailed requirements for SVP evaluation are given in Instruction Note 2A. Supplier Verification Programme – Requirements for Biomass Producers.*

See below

## **Regarding Instruction Note 2A. Supplier Verification Programme – Requirements for Biomass Producers:**

### *1 General Requirements*

*1.1 The BP shall proactively and transparently engage affected stakeholders in its SBE planning and monitoring processes, proportionate to the scale, intensity and risk of management activities. It shall engage interested stakeholders on request.*

The SBE is had a stakeholder consultation process (chapter 6 of this report) in which this point is covered.

*1.2 Affected stakeholders shall be notified in advance of the SBE if feedstock harvesting is likely to negatively impact on them. They shall also be provided with opportunities for engagement in order to identify ways to avoid or reduce any negative impacts.*

Same as article 1.1. this becomes of importance as soon as harvesting operations are being planned. Pinewells demands an evaluation of the impact before harvesting commences.

*1.3 Interested stakeholders shall be notified at least one month in advance of the end of the SBE, and shall be provided with opportunities for engagement in management planning and monitoring processes likely to impact on their interests.*

Same as point 1.1. Pinewells encourages all stakeholders to come forward with their interests related to forest management. All complaints or suggestions obtained are dealt with seriously and recorded.

### *2 Stakeholder Concerns*

*2.1 The BP is not required to reach a consensus with stakeholders, but shall consider relevant stakeholder concerns.*

Same as the General Requirements above.

### *3 Records*

*3.1 The BP shall keep the following records:*

- a) Lists of individuals/organisations invited to comment*
- b) Copies of any correspondence and comments received.*

The SBE went through a stakeholder consultation process (chapter 6 of this report) in which this point is covered.

## 4.5 Conclusion

The purpose of this SBE is to evaluate the level of risks for all the indicators in SBP standard 1. For all the indicators identified as 'specified risk', Pinewells explains and describes the management operations for the processes.

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).

Considering the discussion points on sustainability in Portugal today, Pinewells accepted practically all as 'specified risk'. In total 15 indicators were assessed to have a specified risk. Pinewells categorized indicator 2.6.1 as specified risk, because of its important function as a safety net for sufficient performance on other indicators in the long run.

Forest ownership in Portugal is fragmented, it is therefore clear that several forest management tasks, starting with an evaluation of ecological, economic and social impacts of operational plans should be considered by the wood harvesting companies and their customers.

Because of the implementation of the FSC Controlled Wood and Due Diligence evaluations, one RMM was already in place, namely the traceability of the feedstock down to its origin. Pinewells does not work with feedstock that is not at least controlled material.

In general, many specified risks were found during the SBP SBE, however, they are manageable. Forestry in Portugal has a long history and, in general, sustainability is respected. Corruption in Portugal is relatively low, what is validated by the CPI score of 62 points (Corruption Perceptions Index 2019).

The Supply Base Evaluation process is described in chapter 5. It includes two steps:

- The approval of feedstock suppliers which can comply with the SBP requirements (SBP Standard 1)
- The approval of part of feedstock as SBP-compliant feedstock, from approved feedstock suppliers.

# 5 Supply Base Evaluation Process

## Evaluation Team

The SBE is managed by the Quality Manager at Pinewells. The field work is performed by Sustainability Team that evaluate the felling areas together with the supplier, gives training onsite to the harvestings teams of the feedstock suppliers, about Health and Safety, Protective Equipment and forestry operations. The team was assisted by Rens Hartkamp and Tatiana Savelyeva, two external international consultants on SBP certification, which have been involved over 35 initial SBP projects and over 10 surveillance audits.

## 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 evaluation 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 Pinewells (discussions on risks and analyses of non-conformities);
- Study the draft SBP National Risk Assessments (NRA) and compare it with Pinewells' own experience and procedures;
- Incorporate the RMM in the procedures of Pinewells (adapt and develop procedures and check-lists related to feedstock procurement);
- Train harvesting teams of primary feedstock suppliers;
- Evaluate the RMM during harvesting operations of feedstock suppliers in practise.

The Sustainability Team has been involved in wood procurement and field inspections and knows the legal framework in forestry.

Pinewells and its feedstock suppliers have experience in forestry in Portugal and most risk mitigation measures were already in place. The documents stated below are regularly evaluated and improved, when possible.

Relevant documents are:

- Signed declarations of feedstock suppliers;
- Procedure on the legality and origin of raw material;
- Evaluation of the risks and possible impacts of harvesting operations (EoR);
- Best Practice Harvest Operations Guide;
- Sampling and monitoring procedure
- Assessment reports and checklists on:
  - Harvest operations;
  - Primary feedstock suppliers;
- Complaint procedures and journals;
- Documentation accompanying feedstock supply

(related to the FSC evaluation of controlled material and verifying the origin of the wood).

The Risk Assessment (RA) did not result in inconclusive indicators (unspecified risks).

See also paragraph 4.3.

### **Approval of harvesting teams and feedstock suppliers**

Harvesting teams and feedstock suppliers are treated in the same way they are assessed on their performance. Site visits are conducted nearly continuously to check operational performance and see how mitigation measures are implemented in practise. Pinewells checks the administration of suppliers (at their offices) of secondary residues at least once a year.

Those harvesting teams and feedstock suppliers showing a high level of understanding of the SBP indicators in their evaluations and during their harvesting operations are selected as 'SBE program approved'. As described in the following subsection, Pinewells, however, does not categorise all feedstock coming from the SBE approved suppliers as 'SBP-compliant feedstock'.

Pinewells' procedures regarding its harvesting teams, feedstock suppliers and their harvesting operations include:

- Training harvesting teams and feedstock suppliers;
- Checking performance of harvesting teams and feedstock suppliers;
- Selecting harvesting teams and feedstock suppliers that comply on the additional requirements to achieve 'SBP-compliant biomass';
- Withdrawal of the SBP SBE approval status whenever major non-conformances are found;
- Yearly training and re-evaluation of approved harvesting teams and feedstock suppliers.

Pinewells plans to 'SBE approve' external feedstock suppliers when they show excellent results on all risk mitigation procedures.

Pinewells' sampling and monitoring procedure applies to all primary feedstock suppliers, not only to the 'SBE approved' primary feedstock suppliers.

### **Implementation mitigation measures and acceptance of feedstock**

The SBE was performed for the first time in 2017. The practical implementation of the risk mitigation measures is an on-going process, because new plots are being prepared for harvesting operations continuously. Risks and mitigation measures need to be specified on the level of practical harvesting operations.

Most risk mitigations measures were already in place. To address all possible risks, additions were made to several of the procedures of Pinewells. 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;
- Informing harvesting teams and feedstock suppliers on found 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;
- Evaluation of the risks and possible impacts of harvesting operations;
- 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 and secondary feedstock suppliers;
- The facilities and storages of (primary and) secondary 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 selected feedstock suppliers, for example, if an estate has been poorly managed by a land owner. Pinewells does not categorise feedstock as compliant, if the wood land was insufficiently managed in the past or will be converted in the future.

Pinewells does not categorise feedstock as compliant, when:

- Land owners have managed their wood lands insufficiently, prior to the harvesting operations;
- 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 major violations of the FSC Controlled Wood or SBE indicators are found, such as violation of HCVs, the feedstock is not bought (or excluded and not used) by Pinewells.

Minor violations of the SBE indicators withhold volumes to be accepted as 'SBP-compliant biomass'.

The work-flow of Pinewells on the Supply Base Evaluation is presented in table 1 (below).

Table 1: Supply Base Evaluation work-flow at Pinewells

1 Cooperation with feedstock suppliers					
1.1	Selected feedstock suppliers sign: - Supplier declaration.				
1.2	Training of feedstock suppliers on best practices and SBE requirements and procedures: - Best practices regarding harvesting operations.				
1.3	Evaluations of FSC CW by Pinewells: - Chamber of commerce information of the companies; - Proof of origin of the feedstock (only Portugal); - Procedure on the legality and origin of raw material (if unclear origin).				
1.4	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%; vertical-align: top;"> <i>Primary feedstock suppliers In the scope of SBE</i> Pinewells checks: - the offices of feedstock suppliers (check list) - the field work of suppliers (check list)                 </td> <td style="width: 50%; vertical-align: top;"> <i>Secondary feedstock suppliers Outside the scope of SBE</i> Pinewells checks: - the offices of secondary (check list) - the primary feedstock suppliers (check list)                 </td> </tr> </table>	<i>Primary feedstock suppliers In the scope of SBE</i> Pinewells checks: - the offices of feedstock suppliers (check list) - the field work of suppliers (check list)	<i>Secondary feedstock suppliers Outside the scope of SBE</i> Pinewells checks: - the offices of secondary (check list) - the primary feedstock suppliers (check list)		
<i>Primary feedstock suppliers In the scope of SBE</i> Pinewells checks: - the offices of feedstock suppliers (check list) - the field work of suppliers (check list)	<i>Secondary feedstock suppliers Outside the scope of SBE</i> Pinewells checks: - the offices of secondary (check list) - the primary feedstock suppliers (check list)				
1.5	Individual program for feedstock suppliers on ‘SBE approval’ by Pinewells: - Internal audits of feedstock suppliers				
1.6	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%; text-align: center;"><i>Not (yet) SBE approved suppliers</i> Additional training and evaluations</td> <td style="width: 50%; text-align: center;"><i>SBE approved suppliers</i> Re-evaluation of SBE requirements</td> </tr> </table>	<i>Not (yet) SBE approved suppliers</i> Additional training and evaluations	<i>SBE approved suppliers</i> Re-evaluation of SBE requirements		
<i>Not (yet) SBE approved suppliers</i> Additional training and evaluations	<i>SBE approved suppliers</i> Re-evaluation of SBE requirements				
2 Harvesting operations by feedstock suppliers					
2.1	Pinewells prepares information on risks at the harvesting site and informs the feedstock supplier. - Pinewells sends to all suppliers Part 1 of the evaluation of the risks and possible impacts of harvesting operations ( <b>EoR</b> ); - The ‘SBP approved’ suppliers do an own risk assessment of the harvesting site in detail (sometimes together with the Sustainability Team)				
2.2	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%; vertical-align: top;">                     Suppliers evaluate the plot: - History (management by land owner); - Present harvesting operations; - Future land use plans.                       The feedstock supplier answers the question: <i>Does the wood-land management comply with forestry best practices and all SBP requirements?</i> </td> <td style="width: 50%; vertical-align: top;"> <b>Yes:</b> Pinewells double checks the findings. If the information is confirmed, the feedstock is registered as <b>SBP-compliant feedstock</b>   <b>No:</b> The supplier indicates the feedstock does not comply with all SBP requirements and explains why. Pinewells double checks if the feedstock still complies with the FSC CW requirements. If this is confirmed, the feedstock is registered as <b>SBP- controlled feedstock</b> </td> </tr> <tr> <td style="vertical-align: top;">                     Documents for the supplier: - Part 2. Evaluation of the risks and possible impacts of harvesting operations (EoR) - Best practices regarding harvesting operations - Checklist for feedstock suppliers                 </td> <td style="vertical-align: top;">                     Documents for Pinewells: - Procedure on obtaining EoR results - Registering incoming feedstock                 </td> </tr> </table>	Suppliers evaluate the plot: - History (management by land owner); - Present harvesting operations; - Future land use plans.  The feedstock supplier answers the question: <i>Does the wood-land management comply with forestry best practices and all SBP requirements?</i>	<b>Yes:</b> Pinewells double checks the findings. If the information is confirmed, the feedstock is registered as <b>SBP-compliant feedstock</b>  <b>No:</b> The supplier indicates the feedstock does not comply with all SBP requirements and explains why. Pinewells double checks if the feedstock still complies with the FSC CW requirements. If this is confirmed, the feedstock is registered as <b>SBP- controlled feedstock</b>	Documents for the supplier: - Part 2. Evaluation of the risks and possible impacts of harvesting operations (EoR) - Best practices regarding harvesting operations - Checklist for feedstock suppliers	Documents for Pinewells: - Procedure on obtaining EoR results - Registering incoming feedstock
Suppliers evaluate the plot: - History (management by land owner); - Present harvesting operations; - Future land use plans.  The feedstock supplier answers the question: <i>Does the wood-land management comply with forestry best practices and all SBP requirements?</i>	<b>Yes:</b> Pinewells double checks the findings. If the information is confirmed, the feedstock is registered as <b>SBP-compliant feedstock</b>  <b>No:</b> The supplier indicates the feedstock does not comply with all SBP requirements and explains why. Pinewells double checks if the feedstock still complies with the FSC CW requirements. If this is confirmed, the feedstock is registered as <b>SBP- controlled feedstock</b>				
Documents for the supplier: - Part 2. Evaluation of the risks and possible impacts of harvesting operations (EoR) - Best practices regarding harvesting operations - Checklist for feedstock suppliers	Documents for Pinewells: - Procedure on obtaining EoR results - Registering incoming feedstock				
3 Continuous cycle of field inspections by Pinewells					
3.1	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%; vertical-align: top;">                     Inspections of the (ongoing) operations, documentation, and management decisions: - Sampling and monitoring procedure; - Checklists on field work.                       Checked are also: - Complaint procedures and journals; - Contracts on wood procurement (when no cadastral information).                 </td> <td style="width: 50%; vertical-align: top;">                     Feedstock suppliers can: - Lose their status as an “SBE approved supplier” (minor violations) ; - Lose their supply agreement with Pinewells (major violations).                 </td> </tr> </table>	Inspections of the (ongoing) operations, documentation, and management decisions: - Sampling and monitoring procedure; - Checklists on field work.  Checked are also: - Complaint procedures and journals; - Contracts on wood procurement (when no cadastral information).	Feedstock suppliers can: - Lose their status as an “SBE approved supplier” (minor violations) ; - Lose their supply agreement with Pinewells (major violations).		
Inspections of the (ongoing) operations, documentation, and management decisions: - Sampling and monitoring procedure; - Checklists on field work.  Checked are also: - Complaint procedures and journals; - Contracts on wood procurement (when no cadastral information).	Feedstock suppliers can: - Lose their status as an “SBE approved supplier” (minor violations) ; - Lose their supply agreement with Pinewells (major violations).				



## 6 Stakeholder Consultation

The implementation of the risk assessment involved in consultation of interested parties via e-mail. The stakeholders consultation involved were wood suppliers, NGO's national authorities, renowned experts in nature conservation and forestry, among others.

The public consultation took place on 31<sup>st</sup> October 2017 and 29<sup>th</sup> November 2017. An extension of the public consultation held until 20 December 2017 was carried out.

### 6.1 Response to stakeholder comments

No comments or responses to Pinewells stakeholder consultations were received during the SBE process consultation.

## 7 Overview of Initial Assessment of Risk

Indicator	Specified Risk	Low Risk	Unspecified Risk
1.1.1		X	
1.1.2	X		
1.1.3		X	
1.2.1	X		
1.3.1		X	
1.4.1		X	
1.5.1		X	
1.6.1		X	
2.1.1	X		
2.1.2	X		
2.1.3	X		
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	
2.2.9		X	
2.3.1		X	
2.3.2	X		
2.3.3		x	
2.4.1		X	
2.4.2	X		
2.4.3		X	
2.5.1	X		
2.5.2		X	
2.6.1	X		
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		
2.9.2		X	
2.10.1		X	

# 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 a large range of stakeholders. The indicators, risks, and mitigation measures, were clear.

Chapter 5 describes the system of guaranteeing the specified risks are assessed and mitigated on the level of harvesting plots and 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	<b><i>Feedstock can be traced back to the defined Supply Base</i></b>
<b>Mitigation measures</b>	<p>Pinewells does not buy any wood from wood suppliers without a valid company registration and delivery documentation indicating the place of harvest.</p> <p>When there is not cadastre information, the Pinewells team goes to the felling area to talk with the stakeholders: the owners, neighbours and people that live in the area.</p> <p>The Due Diligence System and the 'PO31_0 Monitoring and inspection system' and 'Procedure on the legality and origin of raw material' state appropriate control systems.</p> <p>See also indicator 1.2.1.</p>
1.2.1	<b><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></b>
<b>Mitigation measures</b>	<p>Pinewells does not buy any wood from wood suppliers without a valid company registration, or from wood lands, of which the owner rights are disputed. Any dispute concerning the ownership of the wood needs to be solved first.</p> <p>In cases with doubt, mostly due to the absence of cadastral data, Pinewells decides to double-check if there are no legal issues to the harvest operations. In these cases, the internal procedure 'Procedure on the legality and origin of raw material' is activated'.</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"> <li>• Cadastral data are unavailable;</li> <li>• The land will be impounded by the government;</li> <li>• There are complaints about the land owner, or the harvest operation.</li> </ul> <p>All suppliers must have an 'Economic operator registration'. Pinewells only accepts feedstock delivered with a 'Manifest' and checks if the feedstock suppliers fulfil their fiscal and legal obligations.</p> <p>Considering the 'Procedure on the legality and origin of raw material', the following aspects are addressed:</p> <ul style="list-style-type: none"> <li>• Formalization of the business through a purchase and sales agreement between the parties;</li> <li>• Identification of the plot / area (harvesting permit, if available);</li> <li>• Mapping of the plot;</li> <li>• Type of wood land and tree species.</li> </ul>

	<p>A site visit is always conducted. An interview with the land owner or his representative clarifies:</p> <ul style="list-style-type: none"> <li>• Identification of the owner (citizen card);</li> <li>• Proof of land ownership;</li> <li>• Ground boundaries of the land ownership;</li> <li>• Any special issues regarding the land rights.</li> </ul> <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>Whenever any of the above occurs, the technical responsible is contacted and called to the location whenever necessary. If there are unsolved issues related to the feedstock the procurement does not take place.</p>
<p><b>2.1.1</b></p>	<p><b><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></b></p>
<p><b>Mitigation measures</b></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.</p> <p>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>Pinewells identifies and maps of 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. In the process, HCV 6 is also checked. Previous cartography is useful for field work preparations.</p> <p>General approach to mitigating the risks:</p> <ol style="list-style-type: none"> <li>1) Pinewells prepares (publicly available) data on all relevant HCV. This information is given to all feedstock suppliers.</li> <li>2) Feedstock suppliers are trained to recognize the HCV and how to conserve them.</li> <li>3) The harvesting teams inspect visually the plot and report on the results. Pinewells demands its Evaluation of the risks and possible impacts of harvesting operations (EoR) from all feedstock suppliers.</li> <li>4) Best practices are used, including measures to conserve and increase HCV.</li> <li>5) Pinewells monitors the harvesting operations of its feedstock suppliers and checks the EoR of its suppliers.</li> </ol> <p>Below are listed the main sources of information, used to prepare the identification of these values. The feedstock suppliers evaluate every plot before the harvesting operations begin.</p>

Pinewells inspects the suppliers and harvesting areas.

**HCV 1 – Species diversity:**

- 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](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>

**HCV 3 – Ecosystems and habitats:**

- 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

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

- Habeas-Hotspot Areas for Biodiversity and Ecosystem Services [http://www.habeas-med.org/webgis/pt\\_en/](http://www.habeas-med.org/webgis/pt_en/)
- Forests located in critical areas - defined and mapped in REN-National Ecological Reserve.

**General sources of information:**

- HABEAS: [http://www.habeas-med.org/webgis/pt\\_en/](http://www.habeas-med.org/webgis/pt_en/)  
<http://www.icnf.pt/portal/florestas/profs>
- SNAC Legislation <https://dre.pt/application/file/70698029>
- RNAP: <http://www.icnf.pt/portal/ap/ap>
- National Conservation Plano of threatened Flora information <http://www.icnf.pt/portal/naturaclas/patrinatur/conserv-flora-perigo>
- Site characterization SIC e ZPE: <http://www.icnf.pt/portal/naturaclas/rn2000/p-set/Plan-set-docs>
- Data Base for fauna and flora specific plans: <http://www.icnf.pt/portal/naturaclas/patrinatur/especies>
- DRE: <http://www.icnf.pt/portal/icnf/legisl/legislacao/2012/lei-n.o-53-2012-de-5-de-setembro.-d.-r.-n.o-172-serie-i>
- <http://www.icnf.pt/portal/florestas/profs/alt-minh>
- <http://www.icnf.pt/portal/florestas/profs/baix-minh>
- <http://www.icnf.pt/portal/florestas/profs/nordest>
- <http://www.icnf.pt/portal/florestas/profs/centr-lit>
- <http://www.icnf.pt/portal/florestas/profs/ampedv>
- Reptile and amphibious of Portugal (2008): <http://www.icnf.pt/portal/naturaclas/patrinatur/atlas-anfi-rept/anfibios>
- Red book for Portuguese Vertebrates (2005):

- <http://www.icnf.pt/portal/naturaclas/patrinatur/lvv>
- Flora identification: <http://www.icnf.pt/portal/naturaclas/rn2000/p-set/psrn-flora>
  - Electric wire line manual (ICNB 2008)  
<http://www.icnf.pt/portal/naturaclas/ordgest/aa/resource/doc/man-infra-lin>
  - Law for natural values cadastre: Decree-Law n.º 242/2015 at 15/10  
<https://dre.pt/application/conteudo/70693924>
  - Fresh water Fish National cartography: <http://www.cartapiscicola.org/>
  - Flora cartographic source: <http://www.flora-on.pt/>
  - Cartography (2015) <http://webgis.spea.pt/AtlasAvesInvernantesMigradoras/>
  - AIIF: [http://www.aiif.org.pt/assets/ESTUDO\\_Prospetivo\\_-Sector-Florestal.pdf](http://www.aiif.org.pt/assets/ESTUDO_Prospetivo_-Sector-Florestal.pdf)
  - AIIF: <http://www.aiif.org.pt/assets/Relatorio-de-Characterizacao-da-Fileira-Florestal-2014-160p-CAPA-3-spread....pdf>
  - ICNF: <http://www.icnf.pt/portal/florestas/ifn/resource/ficheiros/ifn/ifn6-res-prelimv1-1>
  - Status & Trends in Sustainable Forest Management in Europe  
[https://www.unece.org/fileadmin/DAM/publications/timber/Forest\\_Europe\\_report\\_2011\\_web.pdf](https://www.unece.org/fileadmin/DAM/publications/timber/Forest_Europe_report_2011_web.pdf)
  - ICNF: <http://www.icnf.pt/portal/florestas/dfci/Resource/doc/rel/2013/relatorio-dfci-ap-2013>
  - ICNF: <http://www.icnf.pt/portal/florestas/dfci/relat/raa/resource/ficheiros/ree2012/rel-recup-inc-catraia-set-v5>
  - ICNF <http://www.icnf.pt/portal/florestas/dfci/relat/raa/resource/ficheiros/rel-tec/picoes-rel-tecn>
  - UNECE  
[https://www.unece.org/fileadmin/DAM/publications/timber/Forest\\_Europe\\_report\\_2011\\_web.pdf](https://www.unece.org/fileadmin/DAM/publications/timber/Forest_Europe_report_2011_web.pdf)
  - Martins M.J & Cerdeira, J.O. (2009) A Language and Environment for Statistical Computing. Vienna, Austria, R Foundation for Statistical Computing; & Autoridade Florestal Nacional, 2010, Florestat – Aplicação para a Consulta dos Resultados do 5º Inventário Florestal Nacional. Disponível em <http://www.icnf.pt/portal/florestas/ifn/ifn5/florestat>
  - ICNF: <http://www.icnf.pt/portal/florestas/ifn/resource/ficheiros/ifn/ifn6-term-def>
  - APFC: [http://www.apfc.pt/xms/files/Eventos/Projetos\\_APFC\\_para\\_a\\_sanidade.pdf](http://www.apfc.pt/xms/files/Eventos/Projetos_APFC_para_a_sanidade.pdf)
  - INIAV: [http://www.iniaiv.pt/fotos/gca/livro\\_causas\\_doc\\_sintese\\_1369127896.pdf](http://www.iniaiv.pt/fotos/gca/livro_causas_doc_sintese_1369127896.pdf)
  - ICNF: <http://www.icnf.pt/portal/florestas/foflo/pdr2020/resource/doc/Areas-rrc-v-final.pdf>
  - Planos de Gestão Florestal de áreas públicas:  
<http://www.icnf.pt/portal/florestas/gf/pgf/publicitacoes/encerradas>
  - Kirkby, M.J et all. European Soil Bureau Research Report No.16, EUR 21176, 18pp. and 1 map in ISO B1 format. Office for Official Publications of the European Communities, Luxembourg. European Soil Portal, 2013,  
[http://eusoils.jrc.ec.europa.eu/ESDB\\_Archive/eu soils\\_docs/esb\\_rr/n16\\_ThePeseraMapBkLet52.pdf](http://eusoils.jrc.ec.europa.eu/ESDB_Archive/eu soils_docs/esb_rr/n16_ThePeseraMapBkLet52.pdf)
  - Autoridade Florestal Nacional, 2010, Florestat – Aplicação para a Consulta dos Resultados do 5º
  - Inventário Florestal Nacional. Disponível em <http://www.icnf.pt/portal/florestas/ifn/ifn5/florestat>
  - Reserva Ecológica Nacional

	<p><a href="https://dre.pt/application/dir/pdf1sdip/2012/11/21200/0630806346.pdf">https://dre.pt/application/dir/pdf1sdip/2012/11/21200/0630806346.pdf</a></p> <ul style="list-style-type: none"> <li>➤ Sistema Nacional de Defesa da Floresta Contra Incêndios: <a href="https://dre.pt/application/dir/pdf1sdip/2006/06/123A00/45864599.pdf">https://dre.pt/application/dir/pdf1sdip/2006/06/123A00/45864599.pdf</a></li> <li>➤ ICNF <a href="http://www.icnf.pt/portal/florestas/dfci/relat/raa/resource/ficheiros/ree2012/rel-recup-inc-catraia-set-v5">http://www.icnf.pt/portal/florestas/dfci/relat/raa/resource/ficheiros/ree2012/rel-recup-inc-catraia-set-v5</a></li> <li>➤ PANCD <a href="https://dre.pt/application/file/65985917">https://dre.pt/application/file/65985917</a></li> <li>➤ PDR2020 <a href="http://www.pdr-2020.pt/site/O-PDR2020/Arquitetura/Area-3-Ambiente-Eficiencia-no-Usa-dos-Recursos-e-Clima/Medida-7-Agricultura-e-Recursos-Naturais/Acao-7.11-Investimentos-nao-produtivos/Operacao-7.11.1-Investimentos-nao-produtivos">http://www.pdr-2020.pt/site/O-PDR2020/Arquitetura/Area-3-Ambiente-Eficiencia-no-Usa-dos-Recursos-e-Clima/Medida-7-Agricultura-e-Recursos-Naturais/Acao-7.11-Investimentos-nao-produtivos/Operacao-7.11.1-Investimentos-nao-produtivos</a></li> <li>➤ Fundo Florestal Permanente:<a href="http://www.icnf.pt/portal/icnf/noticias/gloablnews/fundo-florestal-permanente-ffp">http://www.icnf.pt/portal/icnf/noticias/gloablnews/fundo-florestal-permanente-ffp</a></li> <li>➤ Alves, A. M., Pereira, J. S., Correia, A. V., 2012. Silvicultura - A gestão dos ecossistemas florestais. Fundação Calouste Gulbenkian.</li> <li>➤ ICNF <a href="http://www.icnf.pt/portal/florestas/aip/aip-monum-pt">http://www.icnf.pt/portal/florestas/aip/aip-monum-pt</a></li> </ul>
<p><b>2.1.2</b></p>	<p><b><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></b></p>
<p><b>Mitigation measures</b></p>	<p>Pinewells identifies and addresses potential threats to forests and other areas with high conservation values (HCVs). HCV 1, 3, 4, and 5 were assessed to have a specified risk.</p> <p>See also the explanation above (indicator 2.1.1).</p> <p>Pinewells ensures:</p> <ul style="list-style-type: none"> <li>• mapping HCV areas of the harvesting plot;</li> <li>• harvesting according to the technical rules in forestry;</li> <li>• best forestry practices, respecting environmental sustainability and safety;</li> <li>• cleaning of waste from plantations;</li> <li>• tree species (no genetically modified trees).</li> </ul> <p>The feedstock suppliers evaluate every plot before the harvesting operations begin. Pinewells inspects the suppliers and harvesting and keeps records of field inspections and monitoring results.</p> <p><b>HCV 1 – Species diversity</b></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 indicator 2.2.4</p> <p><b>HCV 3 – Ecosystems and habitats</b></p> <p>There is a specified risk that forest operations on private and communitarian grounds and</p>



	<p>public areas not managed by ICNF could harm ecosystems and habitats. In these situations, the supplier evaluates 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 Pinewells checks the assessment and does field inspections. The inspections are recorded.</p> <p>See also indicator 2.2.3</p> <p><b>HCV 4 – Critical ecosystem services &amp; HCV 5 – Community needs</b></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). 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.</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 also 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>
<p><b>2.1.3</b></p>	<p><b><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></b></p>
<p><b>Mitigation measures</b></p>	<p>Pinewells considers all pine stands as forests and eucalyptus and Poplar stands as plantations. Pinewells checks if forests have been changed to (eucalyptus) or Poplar plantations after 2008.</p> <p>The approach to mitigating this risk:</p> <ol style="list-style-type: none"> <li>1) Feedstock suppliers are trained to recognize converted lands to eucalyptus plantations;</li> <li>2) The harvesting teams inspect visually the plot and report on the results. 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. The results are reported in the Evaluation of the risks and possible impacts of harvesting operations (EoR).</li> <li>3) Pinewells monitors the harvesting operations of its feedstock suppliers and checks the EoR of its suppliers.</li> </ol>
<p><b>2.2.1</b></p>	<p><b><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></b></p>

<p><b>Mitigation measures</b></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).</p> <p>Pinewells always demands its Evaluation of the risks and possible impacts of harvesting operations (EoR). The EoR evaluates:</p> <ul style="list-style-type: none"> <li>a. The possible economical, ecological and social impact of the forest operations including its surroundings. Harvesting operations can be changed to avoid negative impacts.</li> <li>b. The quality of the management (by the land owner) prior to harvesting and regeneration plan.</li> </ul> <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 during the EoR.</p> <p>Pinewells monitors the plots to be harvested and checks the EoR of its feedstock suppliers and the performed Risk Mitigation Measures (RMM).</p> <p>Pinewells does not classify all feedstock coming from the ‘SBE approved suppliers’ as ‘SBP-compliant feedstock’. For example, if an estate has been poorly managed by a forest owner in the past, or does not comply with the SBE requirements on forest regeneration. Pinewells does not categorize feedstock as ‘SBP-compliant feedstock’.</p> <p>Also for areas without the legally mandatory EIA, Pinewells requires evaluations of the area, with relevant information to ensure compliance with this indicator. This information will be checked in the field during the audits made by Pinewells team.</p>
<p><b>2.2.2</b></p>	<p><b><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></b></p>
<p><b>Mitigation measures</b></p>	<p>Pinewells does fields inspections and checks feedstock and the felling area. In addition, trainings are given to suppliers on best forest practice guide.</p> <p>Pinewells demands an Evaluation of the risks and possible impacts of harvesting operations (EoR) from all feedstock suppliers. The EoR addresses the specified risk on soil degradation. Best practices regarding harvesting operations have to be applied.</p> <ul style="list-style-type: none"> <li>a. Low intensity of forestry, selective cuttings and small clear cuts of maximally 5 ha. were needed considering the soil and groundwater level.</li> <li>b. Regeneration focusses on tree species that maintain or improve soil quality</li> <li>c. 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.</li> <li>d. Do not operate near-water areas.</li> </ul> <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>The approach to mitigating this risk:</p> <ol style="list-style-type: none"> <li>1) Pinewells prepares data and this information is given to feedstock suppliers.</li> <li>2) Feedstock suppliers are trained to recognize the soil quality and how to conserve them.</li> <li>3) 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).</li> <li>4) Best practices are used, including measures to conserve and increase soil quality.</li> <li>5) Pinewells monitors the harvesting operations of its feedstock suppliers and checks the EoR of its suppliers.</li> </ol> <p>Poor soil quality can lead to erosion, etc; this indicator is related to indicator 2.2.6.</p>
<p><b>2.2.3</b></p>	<p><b><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></b></p>
<p><b>Mitigation measures</b></p>	<p>The approach to mitigating this risk:</p> <ol style="list-style-type: none"> <li>1) Pinewells 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). The key ecosystems and habitats are identified in Protected and Classified areas. This information is given to all feedstock suppliers.</li> <li>2) Feedstock suppliers are trained to recognise key ecosystems and habitats.</li> <li>3) Before harvesting operations commence the plot is evaluated on this point and records are kept. Best forestry practises are applied. Most importantly, the feedstock suppliers 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. <ol style="list-style-type: none"> <li>a. Study key ecosystems on the harvesting plot, conserve areas of ecological value</li> <li>b. Study flora and fauna at the harvesting plot, nests, breeding areas, anthills conserve protected tree species and habitats</li> <li>c. Do not operate near-water areas.</li> </ol> </li> <li>4) Best practices are used. Pinewells as its own Best Practice Harvest Operations Guide .</li> <li>5) Pinewells monitors the harvesting operations of its feedstock suppliers and checks the EoR of its suppliers.</li> </ol> <p>The protection and conservation of ecosystems and habitats are also covered in indicator 2.2.4 (biodiversity protection indicator).</p>
<p><b>2.2.4</b></p>	<p><b><i>The Biomass Producer has implemented appropriate control systems and procedures to ensure that biodiversity is protected (CPET S5b).</i></b></p>

<b>Mitigation measures</b>	<p>The approach to mitigating this risk:</p> <ol style="list-style-type: none"> <li>1) Pinewells prepares 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.</li> <li>2) Feedstock suppliers are trained 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).</li> <li>3) The harvesting teams inspect visually the plot, make photos and report on the results. Endangered flora and fauna are indicated on the harvesting maps. Pinewells demands its Evaluation of the risks and possible impacts of harvesting operations (EoR) from all feedstock suppliers.</li> <li>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).</li> <li>5) Pinewells monitors the harvesting operations of its feedstock suppliers and checks the EoR of its suppliers.</li> </ol>
<b>2.3.2</b>	<p><b><i>Adequate training is provided for all personnel, including employees and contractors (CPET S6d).</i></b></p>
<b>Mitigation measures</b>	<p>Pinewells trains its personnel on all relevant aspects and demands the same from its feedstock suppliers.</p> <p>During the supplier’s office inspections are checked: the training records, (new) workforce, and the hiring of specialists. The level of knowledge of personnel is inspected during site visits. Pinewells does specialized training during the field inspections. It is done by the Sustainability Team.</p> <p>In addition, Pinewells checks the training registry of the employees of their suppliers, to ensure that adequate training is given, regarding the functions of the forest workers.</p> <p>The approach to mitigating this risk:</p> <ol style="list-style-type: none"> <li>1) Feedstock suppliers are trained by Pinewells about Best Practice Harvest Operations Guide and Health and Safety at work. The owner of harvesting company demands from its workers to have specified training to work on forest.</li> <li>2) Best practises are used.</li> <li>3) Pinewells monitors the harvesting operations of its feedstock suppliers.</li> </ol>
<b>2.4.2</b>	<p><b><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></b></p>
<b>Mitigation measures</b>	<p>The approach to mitigating this risk:</p> <ol style="list-style-type: none"> <li>1) Pinewells 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.</li> </ol>

	<ol style="list-style-type: none"> <li>2) Feedstock suppliers are trained to recognise poor forest management and on mitigation measures. Pinewells team gives suppliers a Best Practice Harvest Operations Guide which includes prevention measures of fire risk. In addition, Pinewells gives training about this Guide to forest workers during the visits to the suppliers. This measure ensures that the workers are aware of the prevention measures.</li> <li>3) The harvesting teams inspect visually the plot and make records. Pinewells demands its EoR from all feedstock suppliers, in which this point is addressed. Feedstock suppliers 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). Regarding fires, before every harvesting operation an evaluation is made about the fire risk in that day. It will be checked if the harvesting area there is prevention measures applied in the case of fires.</li> <li>4) Best practises, regarding management of fires, pests and diseases, include: <ol style="list-style-type: none"> <li>a. Traps for NMP (Pine Wood Nematode <i>Bursaphelenchus xylophilus</i>, and its vector the insect <i>Monochamus galloprovincialis</i>);</li> <li>b. Use of net (cover) during transport of wood in the period insect vector NMP;</li> <li>c. Phytopharmaceutical application on the ground;</li> <li>d. Chipping and using wood with symptoms within 2, 3 days;</li> <li>e. Ensure that all suppliers have an economic operator registration;</li> </ol> </li> <li>5) Pinewells monitors the harvesting operations of its feedstock suppliers and checks the submitted EoR's. Sufficient management by the forest owner and best practises by the harvesting teams are required to comply with the SBE program requirements.</li> </ol>
<p><b>2.5.1</b></p>	<p><b><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></b></p>
<p><b>Mitigation measures</b></p>	<p>The approach to mitigating this risk:</p> <ol style="list-style-type: none"> <li>1) Feedstock suppliers are trained to recognise possible issues with legal, customary and traditional tenure and use rights.</li> <li>2) The harvesting teams inspect visually the plot have and abusive use of fences and inadequate signs including closed gates. Pinewells demands its Evaluation of the risks and possible impacts of harvesting operations (EoR) from all feedstock suppliers. This aspect is addressed. 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.</li> <li>3) Pinewells monitors the harvesting operations of its feedstock suppliers and checks the EoR of its suppliers.</li> </ol> <p>By addressing sustainable forest management and making an extra effort on indicators 1.2.1 and 2.6.1, Pinewells integrates respecting the interests of local people into its main procedures.</p> <p>There are no indigenous people in Portugal or minorities dependant on forests for their</p>

	livelihood.
<b>2.6.1</b>	<b><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></b>
<b>Mitigation measures</b>	<p>The approach to mitigating this risk:</p> <ol style="list-style-type: none"> <li>1) Pinewells 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).</li> <li>2) Pinewells 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).</li> <li>3) Pinewells has a complaint procedure and keep records. The feedstock suppliers are also required to actively implement a complaint procedure and keep records. Pinewells demands its EoR from all feedstock suppliers, in which the interests of local population are assessed.</li> <li>4) Pinewells monitors the harvesting operations of its feedstock suppliers and checks with them if there is 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.</li> <li>5) The results of the inspections of Pinewells have direct influence on the 'SBE program approved' status of feedstock suppliers.</li> </ol>
<b>2.8.1</b>	<b><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></b>
<b>Mitigation measures</b>	<p>The approach to mitigating this risk:</p> <ol style="list-style-type: none"> <li>1) Pinewells has a rigorous control system and adequate procedures on the health and safety of forest workers. Pinewells demands the same from its feedstock suppliers and checks the health safety of harvesting personnel during its monitoring inspections.</li> <li>2) During the office inspections of feedstock suppliers are checked: the H&amp;S training records, workforce, and the hiring of specialists in forest security.</li> <li>3) To ensure compliance with this indicator Pinewells has implemented a field inspection system. The inspections are conducted and verified with a checklist filled in with supplier evidences and information by Pinewells. Protective equipment and knowledge of personnel is inspected during site visits. <ol style="list-style-type: none"> <li>a. Interviews with staff;</li> <li>b. Equipment safety measures;</li> <li>c. Fire extinguisher availability (normally in the forest tractor);</li> <li>d. First aid kit availability (normally in the forest tractor).</li> </ol> </li> <li>4) Pinewells gives training to all workers about best practices during the inspections that include an indicator about Health and safety. Every time Pinewells finds a lack of compliance, specific training will be given about the correct wear of protective</li> </ol>

	equipment and the risks that are implied of not wearing it.
<b>2.9.1</b>	<b><i>Feedstock is not sourced from areas that had high carbon stocks in January 2008 and no longer have those high carbon stocks.</i></b>
<b>Mitigation measures</b>	<p>The approach to mitigating this risk:</p> <ol style="list-style-type: none"> <li>1) Pinewells studies data (from publicly available information, researches and programs) for its harvesting teams on aspects that can decrease the carbon stock. This information is given to all feedstock suppliers.</li> <li>2) Feedstock suppliers are trained with good forest practice.</li> <li>3) The harvesting teams inspect visually the plot. Pinewells demands its Evaluation of the risks and possible impacts of harvesting operations (EoR) from all feedstock suppliers. Studied are the history, the present harvesting plans, and the future of the land use. This risk has a regional to local (and exceptional) character and relates to changes to the standing stock and accumulated carbon in the ground. It is partly covered by the mitigation measures mentioned in the following indicators: <ol style="list-style-type: none"> <li>a. 2.1.3 (land conversion);</li> <li>b. 2.2.2 (degradation of grounds);</li> </ol> </li> <li>4) Pinewells checks plots and the submitted EoRs.</li> </ol>

## 9.2 Monitoring and outcomes

Regarding forestry in Portugal, Pinewells and its suppliers are motivated to cooperate with the many small forest land owners to implement risk mitigation measures. The evaluations and inspections, together with the developed documents give the possibility to assess if the feedstock deserves the claim of 'SBP compliant feedstock'. By profoundly preparing information on the specified risks and by implementing best practices regarding the harvesting operations, a substantial share of the feedstock can comply with the SBE program requirements.

Pinewells constantly monitors its feedstock suppliers to see if they comply with the mitigation measures. The Sustainability Team monitors the suppliers and their harvesting operations.

The 'SBE program approved' status of a feedstock supplier is re-evaluated every year and is directly suspended or withdrawn if a major violation of requirements has been found.

The feedstock suppliers have a forestry guide and received internal training. All harvesting personnel have been instructed to respect the requirements of the guide.

In the course and at the end of most forestry activities, the Sustainability Team checks if the harvesting operations are going well and the SBE procedures are followed.

All the inspections are recorded, and an evaluation of feedstock suppliers is made. Reports about the evaluation of the system and the audits of suppliers are done regularly.

During every inspection, Pinewells gives training and provides the Best Practice Harvest Operations Guide that includes the measures to be aware of. The Sustainability Team is in contact with all feedstock suppliers on the practical implementation of the requirements.

If mitigation measures applied do not downgrade the specified risk to low risk, the feedstock should not be considered as Feedstock Compliant. Anyway, evidences should be checked to ensure that at least could be classified as feedstock controlled.

If more follow up audits are needed to ensure compliance with the monitoring inspection, the sustainable team will do more field audit.



# 10 Detailed Findings for Indicators

Please see Annex 1 on the SBE.

# 11 Review of Report



## 11.1 Peer review

The report has taken into consideration the drafts of the SBP National Risk Assessment (NRA) for Portugal and was sent to a large stakeholder group for consultation. Pinewells has actively participated in the SBP NRA and has therefore profound knowledge of the present sustainability issues and discussions in Portugal. 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 their review (more information in chapter 6).

## 12 Approval of Report

Approval of Supply Base Report by senior management			
Report Prepared by:	<i>Nazaré Costa</i> 	<i>Quality, Environment, Safety, Sustainability and Logistics Management</i>	<i>13/03/2020</i>
	Name	Title	Date
The undersigned persons confirm that I/we are members of the organization'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 finalization of the report.			
Report approved by:	<i>Francisco Dias</i> 	<i>Administrative, Commercial and Logistics Direction</i>	<i>13/03/2020</i>
	Name	Title	Date

## 13 Updates

This is the second surveillance audit.

### 13.1 Significant changes in the Supply Base

In 2018, Pinewells' Supply Base only covered mainland Portugal.

In 2017, Pinewells developed a Supply Base Evaluation (SBE) for mainland Portugal.

Pinewells did many internal inspections of its feedstock suppliers on basis of the SBE.

### 13.2 Effectiveness of previous mitigation measures

Several Risk Mitigation measures are being applied by Pinewells since 2016. In 2017, a complete SBE was done and an 'SBE approval program' for feedstock suppliers was implemented. The SBE includes Risk Mitigation Measures on all specified risks. These have proven to be effective. Because the mitigation measures are demanding and require additional trainings and internal inspections, Pinewells has chosen to approve suppliers on a case to case basis. Feedstock suppliers are only accepted if they show excellent results. The SBR was updated March 2020.

### 13.3 New risk ratings and mitigation measures

The present Supply Base Report lists all new risk ratings and the developed mitigation measures (see chapter and Annex 1 'Supply Base Evaluation').

### 13.4 Actual figures for feedstock over the previous 12 months

The volume of feedstock used in 2019 was 233 886,72 tons.

### 13.5 Projected figures for feedstock over the next 12 months

The expected volume of feedstock to be used in 2020 is 248 760 tons.