SBP

Sustainable Biomass Partnership

Supply Base Report: Pellets Power 2 - Produção de Pellets, Lda

www.sustainablebiomasspartnership.org

Completed in accordance with the Supply Base Report Template Version 1.2

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

Document history

Version 1.0: published 26 March 2015

Version 1.1 published 22 February 2016

Version 1.2 published 23 June 2016

Contents

1 Overview

Producer name:	Pellets Power 2 - Produção de Pellets, Lda
Producer location:	Herdade do Castelo de Arez, Barrosinha 7580 Alcácer do Sal.
Geographic position:	N 38^0 21' 46.23''; W 8^0 28' 20.14''
Primary contact:	Maria João Preto, **Gesfinu** - Avenida Villagarcia de Arosa, 1919, 4460-439 Matosinhos , +351 969647006, maria.preto@gesfinu.com
Company website:	www.gesfinu.com
Date report finalised:	03/Nov/2015
Close of last CB audit:	-
Name of CB:	NEPCon
Translations from English:	Not applicable
SBP Standard(s) used:	Standard 2, Standard 4, Standard 5
Weblink to Standard(s) used:	http://www.sustainablebiomasspartnership.org/documents
SBP Endorsed Regional Risk Assessment:	not applicable
Weblink to SBR on Company website:	www.gesfinu.com

Indicate how the current evaluation fits within the cycle of Supply Base Evaluations				
Main (Initial) Evaluation	**First Surveillance**	**Second Surveillance**	**Third Surveillance**	**Fourth Surveillance**
☒	☐	☐	☐	☐

2 Description of the Supply Base

2.1 General description

Portugal forest area covers 3 154 800 hectares. According with ICNF (Instituto da Conservação da Natureza e Florestas), forest land use is the dominant use of the mainland (35.4% in 2010). The Portugese owned forest was 84.2% and public forest (Public forest – private domain of the *National Authority forests* – 15,8%. (source: *6.º Inventory Forest National.* Areas of land use and forest species of Portugal continental (Preliminary results v1.1 | fevereiro 2013)).
All types of forest areas presented in Portugal mainland are plantations, semi-natural and natural forests.

Distribution of soils areas in Portugal (ICNF, 2013):

- Forests - 35%
- Pastures - 32%
- Inland water – 2%
- Urban – 5%
- Agriculture – 24%
- Infertile land -2%

Iit appears that in 2010 the land use Forest is the dominant use in mainland Portugal, occupying 35.4% of the mainland. The woods and pastures are the following class of land use with larger area, the bushes corresponding to 32% of this class. Agricultural areas account for 24% of the mainland.

Distribution of total areas for species / species group Portuguese forest:

- *Pinus pinaster* - 23%
- *Eucalyptus spp.* - 26%
- *Pinus pinea* - 6%
- *Quercus suber* - 23%
- *Quercus ilex* - 11%
- *Quercus spp.* - 2%
- *Castanea sativa* - 1%
- Other hardwoods - 6%
- Other softwoods - 2%

The area occupied by coniferous species corresponds to 31% of the Portuguese forest, the remainder (69%) is occupied by broadleaf species. The forest area from which the dominant species is the eucalyptus is the largest area of the country (812 000 ha, 26%), cork the second (737,000 ha; 23%), followed by maritime pine (*Pinus pinaster*) (714,000 there is; 23%) and 6% *Pinus pinea*.

From 6.º INVENTORY FOREST NATIONAL. Areas of land use and forest species of Portugal continental (Preliminary results v1.1 | fevereiro'2013)

The Portuguese forest management areas are protected from illegal harvesting, settlement and other unauthorized activities.

The main threats mentioned by WWF are continuing conversion of these forest areas to agriculture, grazing or urban use. Other threats are frequent fires, harvesting of the remaining areas of natural forests, the

excessive use of exotic species and overgrazing. According to this indicator, Portugal can be considered a low risk country. www.panda.org/about_our_earth/ecoregions/mediterranean_forests_scrub.cfm
www.icnb.pt

In Portugal existing legislation prohibits conversion of natural forest to plantations (1901 and 1903 regime florestal decrees, decree-laws n. º 166/2008, of 22-08 on the National Ecological Reserve, 254/2009, of 24-09 (revoke by Decree-Laws n.º 12/2012) on the Forest code and 169/2001, of 25-05 on cork and holm oak).

Furthermore, land use changes after forest fires are conditioned by law (decree-laws n. º254/2009, of 24-09, on the Forest code and 169/2001, of 25-05); changes must be submitted to the National Forest Authority (AFN).

Natural forests are classified as habitats, and are thus safeguarded by another legal framework which is even more limiting. The results of the last National Forest Inventory (2013) show an increase of forest area.

Legislation does not allow conversion of natural forest. After forest fires any changes have to be submitted to the national forestry authority. There is also legislation to protect wetlands, peat land, protected areas and highly biodiverse grasslands.

The raw material received is from private land suppliers or National Authority forests. Portuguese Ministry (AFN – Portuguese National Authority for forest).

Law No. 33/96 of 17 August: defines the bases of national Forest Policy this act defines the following goals:

1. Define the foundations of national Forest Policy;

2.The National Forest Policy, fundamental to the development and strengthening of institutions and programs for the management, conservation and sustainable development of forests and associated natural systems, aimed at meeting the needs of the community, a framework of spatial planning. (decree-laws n. º 254/2009, of 24-09, - Forest National Code).

The Mediterranean stone pine, *Pinus pinea L.* (Pinaceae), is one of the most appreciated species in the Mediterranean basin due to the multiple products and functions it offers (timber and fruit production, resins, soil protection, biodiversity, or landscape). Between them the most interesting from the economic point of view is the pine nut production.

Stone pine forests have been used since ancient times as a source of timber, edible pine nuts, fuelwood, barks and resins. Besides, stone pine forests provide important ecological, landscape and recreational services, and, due to their capacity growing over continental and coastal dunes, they have been widely used as protectors against soil erosion.

Stone pine forests have been managed under multifunctional principles since the end of the 19th century. Bark extraction, resin tapping and pruning for fuelwood are abandoned practices in stone pine forests, and timber prices for the species have recently dropped so that cone production and pine-nut extraction have become the most interesting and profitable outputs from these forests.

Today, cone harvesting from the trees, subsequent industrial pine nut extraction and market processes are economic activities supporting jobs increase in South of Portugal Regions.

Extensive research and development have been conducted on the biology, ecology and silviculture of the species and, in particular, its cone and nut.

The first goal of forest management is to improve the production (timber and cones/pine nuts). This strategic forest planning methodology allows the integration of two different silvicultures (timber production or forest products) and the choice of the best in each stand.

Pellets Power 2 - Produção de Pellets, Lda receives material coming from forest clean operations and pine plantation maintenanvce (including round wood, pine cones, branches, needles, leaves, thinning etc.), that includes cleaning operations in older forest (more than 40 years).

Pellets Power 2 - Produção de Pellets, Lda valorize all silvicultural which final destination would be burning or incorporation in the soil.

The raw material origin is all from Portugal. Pellets Power,2 - Produção de Pellets, Lda, receives the majority of fibre from *Pinus pinaster* forest. The forest management practices consist in cleaning the trees and soil and promoting the wood pine growing. The forestry products derived from the same species: the timber and the pine nut (*Pinus pinea)*.

All raw material received by Pellets Power 2 - Produção de Pellets, Lda is evaluated as FSC-Controlled Wood (included in our internal suppliers' audits), and some percentage is FSC 100%.

Portuguese forest sector (state-of-art) - Pellets Power 2 - Produção de Pellets, Lda**:**

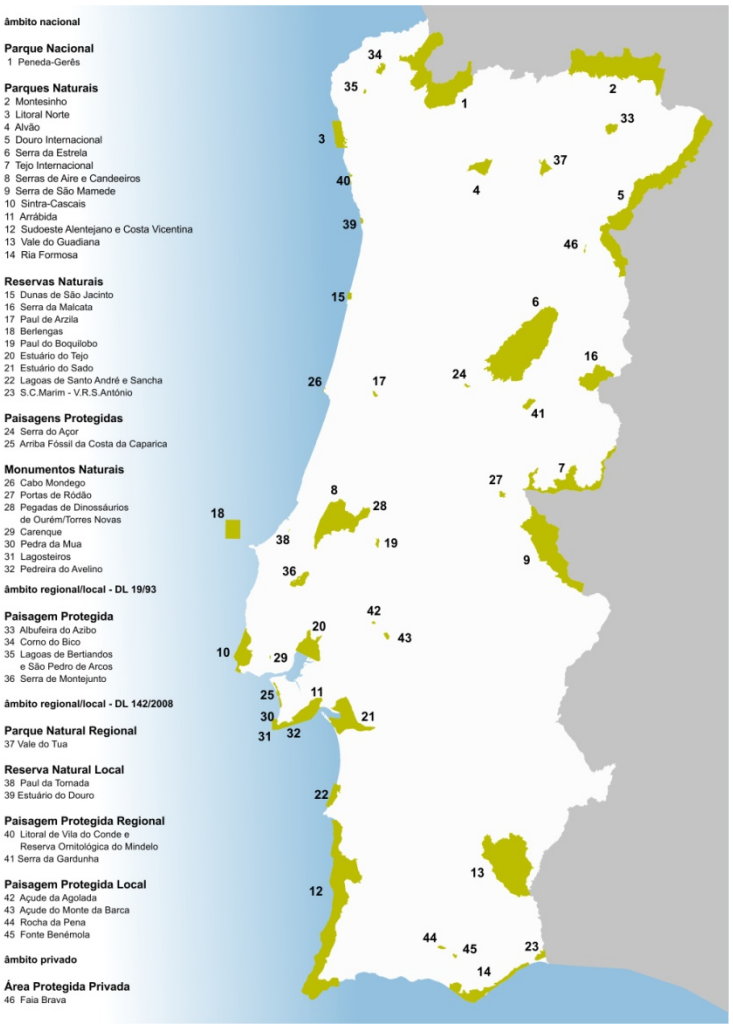
The majority of Pellets Power 2 - Produção de Pellets, Lda wood suppliers works with the Organizations of Forest Producers (OF). Organizations of Forest Producers are a central element in the representation of interests and forest owners and managers, playing a working and support forest owners and producers to achieve the good practices of forest management.

The raw material received is from private land suppliers or National Authority forests, and we can found the following situations:

- National Authority forests – Cleanings forest /lands (to avoid fires, diseases, etc..);
- Private small land suppliers (to avoid fires, and valorize economical quantities of their raw material etc…(local suppliers);
- Land suppliers < 500 ha forest area (local suppliers);
- Certificated areas, like eucalyptus, are valorized for other kind of industries, for example Paper mill;
- 100% certified material, which is very residual because raw material price from certified areas is very high. The option is to guarantee FSC controlled wood in the case of small land suppliers (that is the majority of Pellets Power, Lda suppliers).

Pellets Power 2 - Produção de Pellets, Lda - raw material:

- None of the species received is CITES-listed. *Pinus pinea; Pinus pinaster, Eucalyptus globulus, Acacia dealbata, Acacia melanoxylon.*
- Raw material close to Pellets Power 2 - Produção de Pellets, Lda is around 90% of *Pinus pinea* and the rest is 10% (*Pinus Pinaster*, *Eucalyptus,* etc…)
- Pellets Power 2 - Produção de Pellets, Lda works with many suppliers and they have their own forest so they have to make sure its clean (legal obligation).



Protected Portuguese National areas (http://www.icnf.pt/portal/ap)

2.2 Actions taken to promote certification amongst feedstock supplier

Pellets Power 2 - Produção de Pellets, Lda is promoting sustainable forest management (FSC CW / FSC 100%). Pellets Power 2 - Produção de Pellets, Lda (inside of multisite certification Gesfinu SGPS Group) has the FSC Chain of Custody and FSC Controlled Wood certification since 2012 and annually performs an audit suppliers program (Audit verification of timber supply) that checks and reviews evidences of raw material origin documentation delivery to plant. Audit processes include field visits (inspections) in which a selection of suppliers is annually audited. Main goal is to verify the origin of the material supplied, evidences related to the quantity, quality, veracity of transport documents, among other items, in order to meet the requirements of FSC Controlled Wood.

The procedures are defined internally with support of instructions and procedures.

Although Portugal is classified by FSC as a low risk country, Pellets Power 2 - Produção de Pellets, Lda choose to maintain inspections in field and work with wood suppliers to check evidences to prove all FSC controlled wood as well as environmental, quality and safety health requirements. The FSC CW audits suppliers program involved the companies (forests management) to improve the best sustainability practices in the forest.

Pellets Power 2 - Produção de Pellets, Lda tries to buy certified 100% FSC raw material and in this case the raw material price increases. All wood raw material received by Pellets Power 2 - Produção de Pellets, Lda is evaluated as FSC-Controlled wood (include in our internal suppliers' audits), and some percentage could be considered FSC 100%.

Forests in Portugal have always played an important role in economy and society. The majority of Pellets Power 2 - Produção de Pellets, Lda wood suppliers, works with the Organizations of Forest Producers (OF).

Several of the above-mentioned species (*Pinus pinaster, Eucalyptus globulus, etc..*), have commercial interest for sawmills, cork, pulp or other items, that needs to be counterbalanced with the recreational and cultural values.

Organizations of Forest Producers are a central element in the representation of interests and forest owners and managers, even playing a working and support forest owners and producers to achieve the good practices of forest management. Pellets Power, Lda receives material coming from forest cleaning operations and pine plantation maintenance (including round wood, pine cones, branches, needles, leaves, thinning and bark). On the other hand, there is a governmental financial support to promote forests projects which incentive the management of forests, so suppliers need to prove that, if they want to approve their projects. http://www.icnf.pt/portal/florestas/gf/opf/resource/doc/dcnf-c-list.

2.3 Final harvest sampling programme

1,2% of 93% (coniferous feedstock) was roundwood / woodlogs (forest residues) from continuously forested area of *Pinus pinea* from thinning operations more than 40 years, with the objective of promoting the increase of pine nuts (received in 2014).

Pellets power 2 - Produção de Pellets,Lda receives material coming from forest cleaning operations and pine plantation maintenance (including round wood, pine cones, branches, needles, leaves and thinning), that includes cleaning operations in older forest (more than 40 years).

Edible nuts have become the most important forest product in many rural areas. Sustainable development of the stone pine forest and the surrounding rural areas require more intensive management of forests resources in order to achieve maximum value per tree.

For this reason, when nut production is the main target of stone pine management, thinnings must aim low densities to encourage crown development and to avoid overlaps abs reduction of the crowns. Thinnings must also promote tree cone production even if this means a reduction in production per unit area in order to reach greater yield in harvest operations. If there is a delay in thinning treatments or they are too light, production will not be commercial until the stand is at least 60 years old (*Montero et al.2008)*. the first thinning must be carried out for achieving low densities since the beginning of fructification (15-25 years old) (*Montero et al.2008)*.

2.4 Flow diagram of feedstock inputs showing feedstock

Not applicable

2.5 Quantification of the Supply Base

Supply Base - Portugal

a. Total Supply Base area: 3 154 800 ha: Cumulative area of all forest types within SB

b. Tenure by type (ha): Privately owned– 94,2 % - 2 971 822 ha;

Public forest (private domain of the national Authority forests) – 5,8% - 182 978 ha

c. Forest by type (ha): Mediterranean Forests 3154800 ha

d. Forest by management type (ha): Naturally regenerated forest:2 306 000 ha; Planted forest: 849 000 ha (source - FRA 2015 – Country Report, Portugal)

e. Certified forest by scheme (ha):

FSC - certified forest - 359.687 ha and PEFC-certified forest 253 725 ha

Feedstock

f. Total volume of Feedstock: 159526,982 tonnes

Forest residues – chipping- 6714,68 ton, Forest residues – 147962,802; Steamwood - Long Rotation Forestry (Conifer) from thinnings – 1600 ton; Forest residues – Branch wood – 3249,5 ton.

g. Volume of primary feedstock: 159526,982 tonnes

Forest residues – chipping- 6714,68 ton, Forest residues – 147962,802; Steamwood - Long Rotation Forestry (Conifer) from thinnings – 1600 ton; Forest residues – Branch wood – 3249,5 ton.

h. List percentage of primary feedstock (g), by the following categories. Subdivide by SBP-approved Forest Management Schemes.

FSC Controlled Wood:

- **100%** SBP-approved Controlled Feedstock System certification

i. List all species in primary feedstock, including scientific name:

Pinus pinea; Pinus pinaster; Eucalyptus globulus; Acacia dealbata Link; Acacia melanoxylon;

j. Volume of primary feedstock from primary forest: 0 tonnes
k. List percentage of primary feedstock from primary forest (i), by the following categories. Subdivide by SBP-approved Forest Management Schemes: Not applicable
l. Volume of secondary feedstock: 0 tonnes
m. Volume of tertiary feedstock: 0 tonnes

Origin: Portugal

3 Requirement for a Supply Base Evaluation

SBE completed	SBE not completed
☐	☒

4 Supply Base Evaluation

4.1 Scope

Not applicable

4.2 Justification

Not applicable

4.3 Results of Risk Assessment

Not applicable

4.4 Results of Supplier Verification Programme

Not applicable

4.5 Conclusion

Not applicable

5 Supply Base Evaluation Process

Not applicable

5.1 Response to stakeholder comments

Not applicable

6 Stakeholder Consultation

Not applicable

6.1 Response to stakeholder comments

Not applicable

7 Overview of Initial Assessment of Risk

Not applicable

8 Supplier Verification Programme

8.1 Description of the Supplier Verification Programme

Not applicable

8.2 Site visits

Not applicable

8.3 Conclusions from the Supplier Verification Programme

Not applicable

9 Mitigation Measures

9.1 Mitigation measures

Not applicable

9.2 Monitoring and outcomes

Not applicable

10 Detailed Findings for Indicators

Not applicable

11 Review of Report

11.1 Peer review

Internal review.

11.2 Public or additional reviews

Not applicable

12 Approval of Report

Approval of Supply Base Report by senior management			
Report Prepared by:	***Maria João Preto*** 	***Environmental Engineer***	***03.11.2015.***
	Name	**Title**	**Date**
The undersigned persons confirm that I/we are members of the organisation's senior management and do hereby affirm that the contents of this evaluation report were duly acknowledged by senior management as being accurate prior to approval and finalisation of the report.			
Report approved by:	***Filipa Rebelo*** 	***Diretor***	***03.11.2015.***
	Name	**Title**	**Date**

13 Updates

No updates are made.

13.1 Significant changes in the Supply Base

No significant changes in to the supply base.

13.2 Effectiveness of previous mitigation measures

Not applicable

13.3 New risk ratings and mitigation measures

Not applicable

13.4 Actual values for feedstock over the previous 12 months

Not applicable

13.5 Projected values for feedstock over the next 12 months

Not applicable