



# Supply Base Report: Palser - Bioenergia e Paletes, Lda.

Fourth Surveillance Audit

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# Completed in accordance with the Supply Base Report Template Version 1.3

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## *Document history*

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# 1 Overview

Producer name: Palsar, Bioenergia e Paletes, Lda.

Producer location: Sertã Industrial Area, 6100-711 SERTÃ, Portugal

Geographic position: Lat.: 39° 49' 00" N; Long.: 8° 06' 25" W

Primary contact: Bioenergy and Pellets Manager Engº Pedro Inácio, Edifício Palsar,  
Zona Industrial da Sertã, Apartado 25, 6101-909 SERTÃ, Portugal  
Tel.: +351 274 600 600 Email: produção.bio@palsar.pt

Company website: www.palsar.pt

Date report finalised: 30/Apr/2020

Close of last CB audit: Sertã, 20 e 21/Jun/2020

Name of CB: NEPCon

Translations from English: Yes

SBP Standard(s) used: Standard 2 version 1.0, Standard 4 version 1.0, Standard 5 version 1.0

Weblink to Standard(s) used: <https://sbp-cert.org/documents/standards-documents/standards>

SBP Endorsed Regional Risk Assessment: Not applicable

Weblink to SBE on Company website: <http://www.palsar.pt/sobre/certificacao/>

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

#### **History of the Palser Group**

The Palser group started in 1984 as a result of the efforts of two workers who had the opportunity to acquire a small sawmill, to which they subcontracted the sawing of the logs.

Currently Palser has two plants, in Sertã and Palmela, with 190 employees and a share capital of 5,800,000 Euros. The manufacturing area is 75,000 m<sup>2</sup> in each plant, of which 20,000 m<sup>2</sup> are covered in Sertã and 7,000 m<sup>2</sup> in Palmela where it develops its main activities of sawmilling, production and recovery of pallets and wooden packaging in three plants, production of electricity and forest biomass pellets.

In 1984, Pinhoser was the first company to start its activity located in Cumeada, in the municipality of Sertã, and its activity is the sawmill industry of pine wood.

In 1990 Palser was set up in Sertã, dedicated to the manufacture of pallets, platforms and wooden packaging.

The third bet of the group was Recupser in 1997, in Palmela, with the initial goal of recovering and selling used pallets, but after a few years it also started manufacturing new pallets and producing sawn timber.

In 2010 the construction of a Forest Biomass Thermolectric Plant in Sertã was completed, starting the production of electricity to inject into the public grid.

In 2011, through a merger process, Recupser was incorporated into Palser, thus becoming a single company, thus constituting a subsidiary of Palser in Palmela.

In 2013 Palser started the production of biomass pellets at the end of 2013 and of wood thermo treated at the end of 2014.

At the end of 2019, in order to continue its policy of reducing the need for sawn wood and promoting the sustainability of the forest, a new agglomerate block production plant was installed in Sertã

Since its inception, the group has invested in a location with suppliers of the main raw material and an automated pallet manufacturing process in order to obtain good levels of productivity and quality. Along its path it has optimized the integration between the various industrial components, currently achieving complete raw material cycles to which it has added the energy component. This integration aims to constitute a single quality brand, with more notoriety, greater dimension and know-how, which will allow the company to grow and bring advantages to all those who work with us.

As a result of this evolution the company has become more competitive in the sector, both nationally and internationally.

Palser - Investimentos, S.A. is responsible for the management of its subsidiaries, in addition to holding stakes and making various investments.

## **Certifications**

Since 1992 it is certified by the European Pallet Association for the production of EPAL pallets with the PT-006 brand. It is also certified by PlasticsEurope of Belgium (Chemical Industry), ANFEVI of Spain (Glass Industry) and C.S.V.M.F. of France (Glass Industry).

It obtained ENplus certification in September 2014, being the PT006 manufacturer for the production of D6mm wood pellets, class ENplus -A1.

Its Quality Management System has been certified since September 2000, by the NP EN ISO 9001 Standard, for the design, manufacture and marketing of wooden pallets and packages, marketing of lumber and pellet manufacturing.

Palser has certified its Chain of Custody for two globally recognized systems: FSC® (*Forest Stewardship Council*®) and PEFC™ (*Programme for the Endorsement of Forest Certification schemes*), which allows it to make certified products available to its customers on request.

It also holds the authorisation to treat wood and wood packaging material in accordance with FAO International Standard for Phytosanitary Measures (ISPM) No 15, number PT-4279.

SBP Certification was achieved in September 2016.

## **GENERAL DESCRIPTION OF THE SUPPLY BASE**

The company is supplied by 17 sawmills located in Portugal, the vast majority coming from our Group sawmills, whose material supplied is FSC Certified or FSC controlled and can thus be used as SBP material.

### **Supply Base: Portugal**

For the manufacture of pellets, Palser supplies exclusively secondary raw material (sawdust) originated from the sawmill of *Pinus pinaster* wood from Portugal.

On November 21, 2019, the ICNF released the results of the 6th National Forest Inventory (IFN6). This Inventory has 2015 as reference year and also incorporates the evaluation of areas, volumes and biomass affected by rural fires from 2016 to 2018.

In 2015, the main trends of previous inventories, in general, became more pronounced: decrease in area and volume, increasingly concentrated in young age classes.

The main conclusions of the 6th National Forest Inventory (IFN6) held in Portugal, are transcribed below:

- Forest areas (forest, scrubland and unproductive land) occupy 6.2 million hectares (69.4%) of the national continental territory;
- The forest, which includes wooded and temporarily deforested land (areas cut, burned and in regeneration), is the main national land use (36%);
- The IFN6 characterizes the state of the forest in 2015, which is different from its current situation of 2019, which results from the dynamics of the forest ecosystems themselves and also from the consequence of the

severe rural fires of 2017 and 2018 (Monchique). The impact of these disturbances and of the afforestation/replanting and resource exploitation dynamics will be duly assessed in the next IFN. However, it is possible to make rough estimates of the consequences of these rural fires based on existing IFN6 data and the areas affected. Therefore, these reports contain estimates for the area burned and the volume/biomass potentially affected by these fires, which total 296,000 ha;

- The national forest is mostly made up of native forest species (72%), although some occupy larger territories than their geographical origin;
- In structural, functional and landscape terms, the forest of the continent can be organized in four large groups, or forest formations: pine forests (consisting of stands of maritime pine and stone pine); evergreen hardwoods ("montados", cork oaks and holm-oaks); deciduous hardwoods (oaks, chestnut trees and others); and the eucalyptus hardwoods (eucalyptus);
- The "montados", cork oaks and holm-oaks are the main forest occupation, with about 1 million hectares and representing 1/3 of the forest. They are multiple use forest ecosystems, which do not have woody production as their main function;
- The pine forests are the second forest formation, with an area close to 824 000 hectares, being the forest ecosystems with the greatest reduction in the area occupied. The decrease in area is due to *Pinus pinaster* pine forests, which are highly affected by fires and pests (the most expressive being the nematode), which surpasses the significant increase in *Pinus pinaster* pine area (20.7 thousand ha; 12% between IFN5 and IFN6). However, in the period between 2010 and 2015, the *Pinus pinaster* area recorded a very significant deceleration in comparison with the sharp downward trend that had occurred since 1995 (IFN4), which shows the extraordinary resilience of these pine forests to disturbances;
- The deciduous hardwoods (oak, chestnut and others) are the least representative forest formation in occupied area, although there has been a systematic increase over the last 20 years, the most significant being in the period between the last two inventories (2005 and 2015) (46 thousand ha; 17%);
- The eucalyptus trees occupy 845 thousand ha, about 26% of the continental forest and showing a systematic increase over the last 50 years;
- The forests and pastures represent the second most expressive category of land use (31%). The woodlands have a continuous increase since 1995;
- In 2015, Portugal had 172 million cubic metres (Mm<sup>3</sup>) of growing wood, the same value as in IFN5 (2005);
- The maintenance of wood volumes between the last two inventories shows that in this period forest production, in global terms, can be considered sustainable, since wood cuts and losses due to fires or pests were in balance with forest growth. However, this analysis carried out for the main woody species reveals a distinct situation;
- The volume of growing wood (i.e. living trees) of *Pinus pinaster* shows a decrease of 15 Mm<sup>3</sup> in relation to the previous IFN, reaching 67 Mm<sup>3</sup> in 2015. The volume of eucalyptus growing wood has remained constant since IFN5 (43 Mm<sup>3</sup>), despite an area increase of about 59 thousand ha. In other words, the availability of pine wood is decreasing and the eucalyptus wood does not accompany the increase in area;
- In terms of woody biomass and carbon stored in living trees in forest areas, there is an increase in both, resulting from the change in the specific composition of the forest, and partly from improved assessment



methods. In addition, estimates of carbon stored in other reservoirs in the forest have been included, namely overburden, dead wood and litter;

- The condition of the stands was categorised according to their vitality, fuel load, soil parameters and recent forestry interventions. The natural regeneration of the main species was also categorised and evaluated, providing an indication of their capacity for occurrence or distribution, given their climatic and soil characteristics;

- Invasive species<sup>1</sup> have been identified at all sampling points (about 12 000), and the presence of these species has been found to be widespread throughout the continental territory, although the most abundant situations (groups of plants or extent over the whole area) are significantly less frequent. Acacias and hawks, reeds and beach weepers are the most frequently occurring species;

- The IFN6 also identified the habitats present and assessed their conservation status at each of the sampling points carried out in the field. From their analysis it was found that approximately 20% of the points located in forest and 23% of the points located in woodland/pasture are habitats, and that their occurrence extends beyond *the land classified as having conservation status*<sup>2</sup>. It was also found that these habitats had a good conservation status in about 14% in forest and 18% in woodland/pasture;

- In the forest, the most represented habitats are those derived from the forests of kercinia, montados (4%, habitat 6310), Cork Oak (4%, habitat 9330), Oak (3%, habitat 9230) and Holm oak (2%, habitat 9340), with the highest representation in the bushes, the habitats of low bushes of soya and heather (14%, habitat 4030) and of the high evolved bushes of pyornos, strawberry tree, executioner or oak (6%, habitat 5330).

The National System of Classified Areas (SNAC) consists of the National Network of Protected Areas (RNAP), the Classified Areas that make up the Natura 2000 Network and the other Classified Areas under international commitments assumed by the Portuguese State.

The National Network of Protected Areas (RNAP) represents 7.78% of the national continental territory and is made up of the protected areas classified under Decree-Law No. 142/2008 of July 24 and the respective regional classification diplomas. Protected areas are those terrestrial and aquatic inland areas and marine areas in which biodiversity or other natural occurrences present, due to their rarity, scientific, ecological, social or scenic value, a special relevance that requires specific conservation and management measures, in order to promote the rational management of natural resources and the enhancement of the natural and cultural heritage, regulating artificial interventions that may degrade them.

The classification of a Protected Area (PA) aims at granting it a legal status of adequate protection for the maintenance of biodiversity and ecosystem services and geological heritage, as well as for the enhancement of the landscape.

There are the following types of Protected Areas (PA):

- National Park (1);
- Natural Park (12);
- Nature Reserve (9);
- Protected Landscape (6); and
- Natural Monument (6).

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<sup>1</sup> in accordance with the classification of Decree-Law no. 92/2019

<sup>2</sup> according to the classification of the Habitats Directive - Directive 92/43/EEC, transposed into national law by Decree-Law 140/99

With the exception of the "National Park", Regional or Local Protected Areas (PA) may adopt any of the above typologies, which must be accompanied by the designation "regional" or "local", as the case may be ("regional" when more than one Municipality is involved, "local" when only one Municipality is involved).

The Natura 2000 Network is an ecological network for the European Union's community area resulting from the implementation of Council Directive 79/409/EEC of 2 April 1979 (Birds Directive) - repealed by Directive 2009/147/EC of 30 November - and Directive 92/43/EEC (Habitats Directive) which aims to ensure the long-term conservation of Europe's most threatened species and habitats, contributing to halting the loss of biodiversity. It is the main instrument for nature conservation in the European Union.

The Natura 2000 network, which also applies to the marine environment, consists of

- Special Protection Areas (SPAs) - established under the Birds Directive, which are essentially intended to ensure the conservation of the species of birds, and their habitats, listed in Annex I thereto, and the species of migratory birds not listed in Annex I thereto, the occurrence of which is regulated. There are currently 40 SPAs in mainland Portugal occupying 998,521.27 hectares;
- Special Areas of Conservation (SACs) - established under the Habitats Directive, with the express aim of "contributing to ensuring biodiversity through the conservation of natural habitats (Annex I) and the habitats of species of wild flora and fauna (Annex II) considered to be threatened within the European Union". There are currently 61 SCIs - Sites of Community Importance in Continental Portugal occupying 1,606,664.96 hectares.

In these areas of Community importance for the conservation of certain habitats and species, human activities should be compatible with the preservation of these values, aiming at an ecologically, economically and socially sustainable management (ICNF Portal).

The group of classified areas covers a total area of 2 057 407 hectares, involving 196 municipalities and representing 21.8% of the national continental territory (ICNB, 2010).

An analysis of the distribution of the most relevant land use classes by the two most representative typologies of classified areas (National Network of Protected Areas (RNAP) and Natura 2000 Network), allows us to verify that the agroforestry territory as a whole covers around 90% of the surface of classified areas in mainland Portugal, which attests to the importance of the management of agroforestry ecosystems as a support for biodiversity (DR, no. 24, February 4, 2015).

The list of species of the Convention on International Trade in Endangered Species of Wild Fauna and Flora, also known as the Washington Convention (CITES), does not include wood species in Portugal (UNEP-WCMC portal, Species+). CITES is an International Agreement to which countries adhere voluntarily, currently involving about 180.

Table 1 - Distribution of the number of species among the three appendices of the CITES Convention (CITES, 2020).

Appendice	Kingdom		Grand Total
	Animalia	Plantae	
I	number	number	
I	26		26
I/II	3		3
II	179	72	251
III	1		1
Grand Total	209	72	281

The CITES species list does not include wood species in Portugal (UNEP-WCMC portal, Species+).

The Red List of Threatened Species of the International Union for the Conservation of Nature (IUCN) released on July 18, 2019, that more than 28,000 species are threatened with extinction, including 40% amphibians, 34% conifers, 33% reef corals, 25% mammals and 14% birds. Of the 1.7 million species already identified, the Red List has assessed the risk of extinction of nearly 105,000. Threatened species are divided into three categories: "vulnerable" (VU), "endangered" (EN), and "critically endangered" (CR).

Portugal ranks 4th among European countries with the most endangered species, with 465 species, 144 of which are plants. In three years, the most endangered plant species in Portugal almost doubled, with the group showing the highest number.

The species used in our activity are the following:

- Pinus pinaster
- Pinus Sylvestris
- Pinus halepensis
- Pinus nigra
- Pinus radiata
- Pinus pinea

### **Property and Forest Management**

The Portuguese forest is mostly private, with public forest areas occupying only 2% of the total forest area. About 8% of forest areas are under community management (vacant land). The remaining 90% belong to individual private owners or companies.

Land ownership is divided into about 11 million rustic buildings of which only a part representing about 53% of the surface is subject to cadastre.

The forest properties are on average small, and may not exceed 1 ha in areas of Central and Northern Portugal.

The management of the forest subject to Forest Management Plans already covered about 44% of the forest area in 2013.

Sustainable forest management certified by systems such as FSC and PEFC already cover about 12% of the total forest area, with predominance of eucalyptus and cork oak.

The management of the maritime pine is carried out by regular standards, taking advantage of areas of natural regeneration, or installed essentially by plantation and then thinning and pruning throughout the life of the stand.

The initial densities go from 1200 trees/ha at the time of planting to half at the end of the revolution, which can range from 30 to 40 years.

### **Economy of Forest Products**

In terms of employment, the sub-row "Madeira" represents around 20 800 jobs, with the entire forest sector accounting for around 1.7% of the employed population.

The Pine Sector represented 80% of jobs (55 826 companies) and 88% of companies in the forest industries (8 437 companies), which represented a rate of change in 2016/2017 of +3% and -0.3%, respectively,

according to the PINUS Centre, from INE (SCIE), 2019 to 2017 Data. Also according to this publication and to the same period of analysis, this sector now has more weight in GVA and Turnover (NRV), +7% (52%; 1 133M euros) and +6% (46%; 4 137 M euros), respectively.

At a national level, the export of "Wood in chips, sawdust, wood waste and scrap including pellets and briquettes" grew about 48% in the period between 2011 and 2013, which made this sub-sector the fastest growing in that period in the sub-row "Wood".

As an indication of these data, it is noted that employment in the forestry sector has been decreasing since 2004, in line with other activities, having decreased by about 28.3% from 2004 to 2012, remaining constant only in the sub-row "forestry and logging".

The pulp, particleboard and sawmill industry consumes around 7.5 or 5 million tons (various sources) of pine (ANEFA, 2014). The pellet industry consumes around 1.4 million tonnes of biomass annually, of which products and by-products from forestry and first processing of wood stand out (ANPEB portal data).

The pine sector represented 35% of the forest industry's exports of goods (1830M euros, +5% from 2017 to 2018), equivalent to 3.2% of national exports of goods. Within this sector, pellets increased 16%, representing 65M Euros in this period (PINUS Centre, from INE (International Trade), 2019 b, 2018 data (preliminary).

Wood consumption amounted to 4.2 million m<sup>3</sup> in 2018 (+10% compared to 2017). The consumption of the sawmill sub-sector in the same period was 1.86M Euros (+9%) and of the pellet sub-sector 0.78M Euros (+7%). In comparison with 2017, another 376 thousand m<sup>3</sup> were consumed without bark of maritime pine.

The pine wood deficit is estimated to represent 58% of industrial consumption (with an estimated availability of 1.7 Mm<sup>3</sup>, a consumption of 4.21 Mm<sup>3</sup> corresponding to a deficit of -2.43 Mm<sup>3</sup>).

In 2018 there was one less industrial consumer in the sawmill sub-sector (248 in all) than in 2017, with 17 in the Treatment, Pulp and Paper and Panels sub-sector and 38 industrial consumers in the energy sub-sector (26 of pellets and 12 of biomass power plants) (PINUS Centre, 2019 from, among others, DGAV, 2019 and INEGI, 2019).

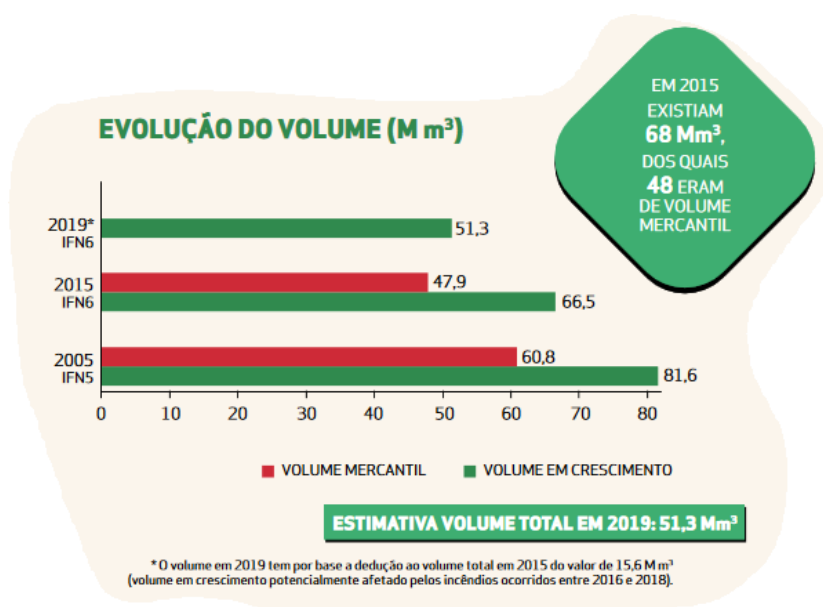


Figure 1 - Estimate of volume Mm<sup>3</sup> of Pinus pinaster. Bulletin 44 of 2019. Pinus Center.

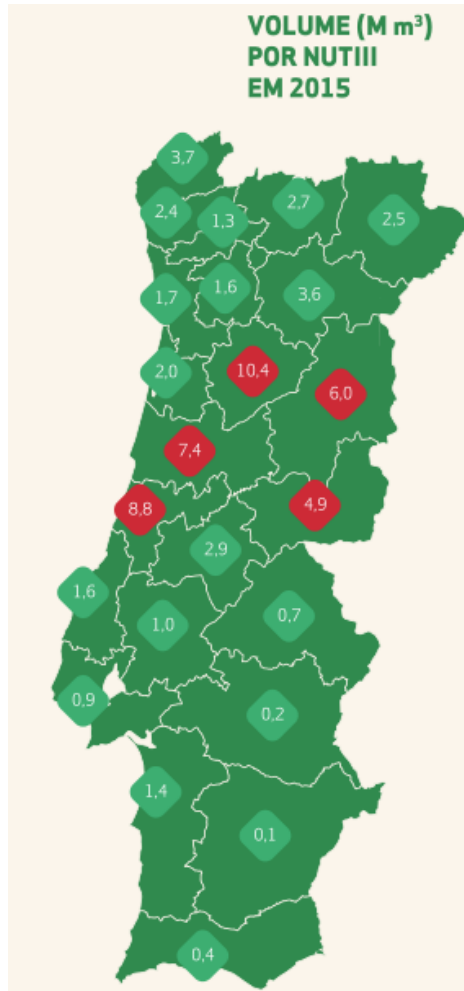


Figure 2 - Estimate of volume Mm3 of Pinus pinaster by NUTIII. Bulletin 44 of 2019. Pinus Center.

## Energy from Forest Products

In terms of renewable energies, 13,762 MW of installed capacity were reached in 2017, of which 564 MW corresponded to Biomass (4.1%). Electricity produced from biomass is estimated to have corresponded to 2.57 GWh (10%) (DGE, 2019).

## Supply Base: Spain

In the Spanish forestry structure, the indicators are very similar to those of previous years, according to the "Anuario de Estadística Forestal 2017" of the Spanish Ministry of Agriculture:

- The forested area occupies 55% of Spain's area. Specifically, the forested area represents 36% of the national total, i.e. more than one third of the country's area;
- As far as the type of forest is concerned, it should be noted that hardwood forests continue to predominate, occupying 55% of the surface. Coniferous forests are present in 37% of the wooded area and mixed stands represent 7%;
- As for the most abundant types of formations, the montados, which occupy 15% of the wooded area, are outstanding, followed by Holm oak montados, present in 14%, and Aleppo pine forests, which represent 11% of the forest. In the previous year, the area of Holm oak was slightly larger than that of the montados, but with

the incorporation of Extremadura, these two formations changed percentages and order. On the other hand, the two species that contribute with more cubic meters continue to be *Pinus pinaster* and *Pinus sylvestris*;

- Total stocks continue to increase. In the last 10-12 years, they have increased by 43% in wood volume and 35% in the number of bigger feet;
- 28% of the forest is public property and the remaining 72% is private property (unknown property is included in private property);
- The wooded and cleared area occupies 18.4 and 9.4 million hectares respectively, making a total of 27.9 million hectares.

Table 2 - Wooded area by main vegetation type.

	Conifers	Leaflets	Mixed	Total wooded
Million hectares	6,79	10,17	1,37	18,37

In the period between 1998 and 2017, it is in this last year that the highest volume of bark-cut timber of this 20-year historical series is achieved, 17.7 million m<sup>3</sup>, exceeding the previous year's value by more than 800,000 m<sup>3</sup> (cuts of *Pinus radiata* increased more than 1 million m<sup>3</sup> compared to the previous year). This time it is the conifers that increase 15% (1.4 million m<sup>3</sup>) compared to the cuts in 2016, approaching 9.6 million m<sup>3</sup>. On the other hand, in the hardwoods, the cut falls just above 600,000 m<sup>3</sup> in relation to 2016, still exceeding 8 million m<sup>3</sup> with bark (even so, it is the second highest value of the entire historical series). As in previous years, eucalyptus is the most cut species, with 6.9 million m<sup>3</sup>, a little less than in 2016.

As in previous years, in most Autonomous Communities conifer cuts account for more than half of the total. Specifically, in Aragon, the Canary Islands, Catalonia, Madrid and Valencia the percentage is over 90%.

The cutting of hardwoods is mostly (95%) done on private property. On public property a quarter of all coniferous cutting takes place.

Table 3 - Stocks in volume with bark of the main species. The 12 species that exceed 20 million cubic meters each are presented. Together they represent 84% of the stocks. Data based on IFN3 and IFN4.

Forest species	Stocks m <sup>3</sup> c.c.
<i>Pinus pinaster</i>	153.627.034
<i>Pinus sylvestris</i>	153.269.839
<i>Pinus halepensis</i>	82.897.633
<i>Eucalyptus globulus</i>	79.608.018
<i>Fagus sylvatica</i>	78.798.913
<i>Pinus nigra</i>	77.051.844
<i>Quercus ilex</i>	76.378.992
<i>Pinus radiata</i>	53.049.809
<i>Quercus robur and Quercus petraea</i>	48.537.175
<i>Quercus pyrenaica</i>	45.736.340
<i>Castanea sativa</i>	29.271.237
<i>Pinus pinea</i>	25.009.692

Also according to the "Anuario de Estadística Forestal 2017", it is not possible to draw national conclusions on the growth of species, as mentioned in previous years, since the IFN4 was only concluded in some Autonomous Communities, which is why the growth of some species in particular stands out from others. Even so, it should be noted that 8 of the 12 previous species increased their stocks. It is worth mentioning the increase of *Pinus pinaster*, which increased by about 1.7 million m<sup>3</sup> with bark and becomes the species with the highest volume. It should also be mentioned that this Yearbook includes only the stocks of *Eucalyptus globulus*, which is the majority species among the *Eucalyptus*. The stocks of *E. camaldulensis* and *E. nitens* are higher than 5.5 and 1 million m<sup>3</sup>, respectively. Thus, adding up all species, the eucalyptus, in general terms, would be the third largest species in volume of stocks.

Among the most representative tree formations of the Spanish forests are the *Pinus pinaster* pine forests of the Mediterranean region, occupying 816,943 hectares, and productive pine forests of the same species of the Atlantic biogeographical region, occupying 242,062 hectares.

In 2009, forestry and logging, the wood industry, and paper generated a GVA of 6,635 million euros, representing a direct contribution to the national GDP of 0.63%.

An average of 31,000 workers worked in forestry and logging in 2013, while the forestry industry (wood, cork and paper) totalled 104,600 active workers.

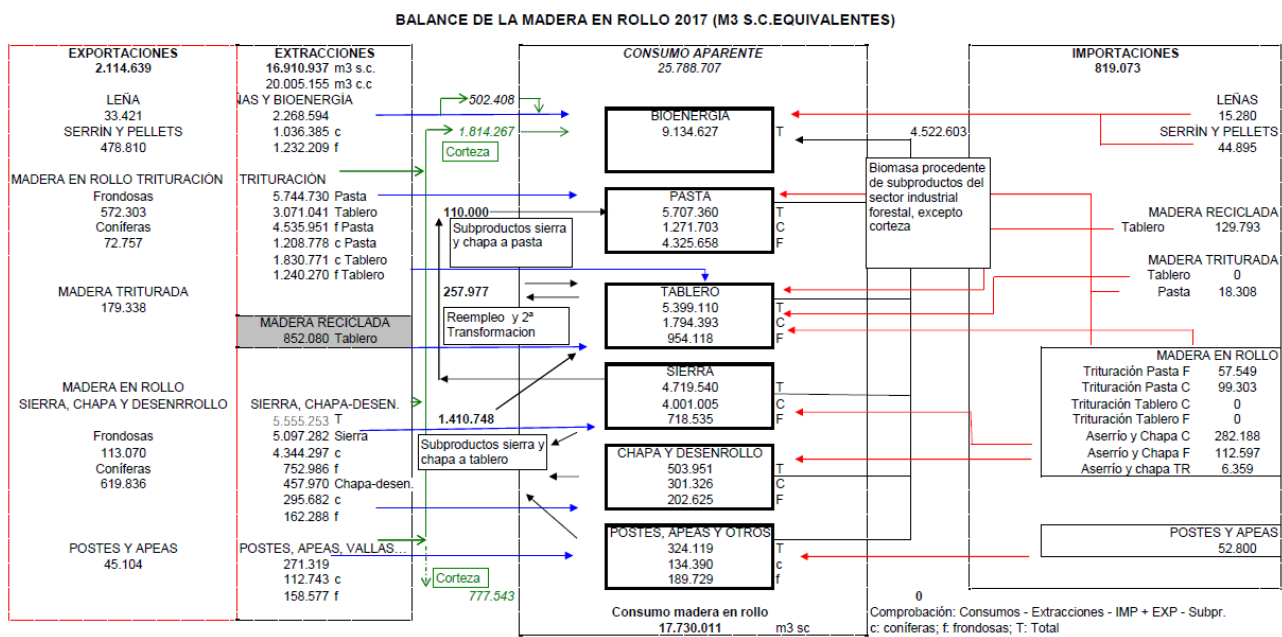


Figure 3 - Wood balance sheet diagram, 2017 (m3 without equivalent bark). Anuario de Estadística Forestal 2017.

In the primary wood processing industry, there were variations in almost all products between 2016 and 2017, with the exception of paper and board and pellets. The one that decreased most in relation to 2016 was veneer, followed by firewood.

Other types of pulp, wood waste, recovered paper and paper and board also reduced their production, although by less than 10%.

Sawn timber is the product that increased its production the most in 2017, being almost 60% higher than in 2016. The production of chips and particles and of plywood has also increased considerably. Other products that also grew compared to 2016 were roundwood, particleboard, fibreboard and pulp, although in these cases the variation was no more than 10%.

Table 4 - Pellets and other agglomerates. Adapted from the tables "Madera, leña, pasta y papel: Producción y comercio exterior de España, 2017, 2018. Avance de Estadística Forestal, 2018.

Year	Unit	Extractions e Production	Imports		Exports	
			Quantity	Value (thousand EUR)	Quantity	Value (thousand EUR)
2 017	1000 m <sup>3</sup>	481	69	18 256	215	35 146
2 018	1000 m <sup>3</sup>	593	98	21 609	260	42 587

The area under management, or subject to management instruments, increases every year, not only because the number of new management projects is increasing or existing ones are being reviewed, but also because the information received from the autonomous communities is being improved. In 2017, the area managed increased by more than 320,000 hectares compared to the previous year, exceeding 18% of the forested area.

Table 5 - Forest area sorted by Autonomous Community. "Anuario de Estadística Forestal 2017".

AUTONOMOUS COMMUNITY	MANAGED SURFACE 2017 (HA)	% SUP. MANAGED IN RELATION TO THE ABOVE. TOTAL	UNMANAGED SURFACE (HA)
ANDALUCÍA	1.266.256	28,35 %	3.200.814
ARAGÓN	81.571	3,12 %	2.533.761
CANARIAS			566.418
CANTABRIA	40.465	11,11 %	323.852
CASTILLA - LA MANCHA	813.122	22,60 %	2.784.415
CASTILLA LEÓN	901.708	18,73 %	3.913.648
CATALUÑA	804.32	40,05 %	1.204.009
COMMUNITY OF MADRID	70.042	15,98 %	368.22
CHARTER COMMUNITY OF COMUNIDAD VALENCIANA	344.293	57,93 %	250.073
EXTREMADURE	167.248	5,82 %	2.705.203
GALICIA	226.528	11,10 %	1.814.226
ISLAS BALEARES	11.856	5,34 %	210.333
LA RIOJA	85.179	27,39 %	225.773
VASCO COUNTRY	91.153	18,54 %	400.633
PRINCIPALITY OF ASTURIAS	16.898	2,19 %	753.58
MURCIA REGION	111.099	21,73 %	400.265
<b>TOTAL</b>	<b>5.124.970</b>	<b>18.33 %</b>	<b>22.829.027</b>

In 2018 the forest area subject to management instruments was 5,167,697 hectares, i.e. 18.48% of the total forest area (Avance de Estadística Forestal, 2018). The ordered area increased by more than 320,000 ha compared to 2016.

As regards ownership of the area subject to management instruments, 43% of the public forest area is managed and, in private ownership, the percentage is close to 10%.



The most used management tool is the *Plan de Ordenación de los Recursos Naturales* (PORN), followed by the Fire Prevention Plan. In addition, all the Autonomous Communities have a Forestry Plan.

In Spain, two recognised certification systems coexist: FSC. (*Forest Stewardship Council*) and PEFC. (*Programme for the Endorsement of Forest Certification Schemes*), both supported by international and European organisations. On December 31, 2017 the percentage of wooded area certified by the FSC and PEFC systems was 1.5% and 11.7%, respectively. In 2018 the percentages rose to 1.6% and 12%. In addition to these systems, Spain has its own sustainable forest management regulation: UNE 162,000. This standard is consistent with the pan-European criteria and indicators for sustainable forest management, as well as with the pan-European operational guidelines and national forest programmes.

As far as the PEFC system is concerned, Castilla y León, with almost 750,000 hectares, is the autonomous community with the largest certified area and represents almost 35% of the total certified by this system. Although, if we consider the percentage of certified area in relation to wooded area, Navarra is the community with the highest percentage, 66%, followed by La Rioja with 40%.

Nature conservation in Spain is carried out by means of administrative demarcations established for the purpose of promoting nature conservation. These areas are classified as protected natural areas (ENP), Natura 2000 Network and areas protected by international instruments. The ENPs are areas of national territory that, because they meet a series of requirements, have been declared under different figures of autonomous protection.

In turn, there are high conservation values linked to cultural property and prehistoric discoveries. The Iberian Peninsula is an area with a large amount of archaeological and prehistoric remains. There is both state and autonomous community legislation that protects and catalogues goods of historical and cultural value.

The following tables show some numbers of the protected land area and how they relate to the forest area.

Table 6 - Surface protected by protection figure.

Protection figure	Protected land area (ha)	Total protected area (ha)	% of the land area protected in relation to the total protected (%)
<b>Protected surface</b>			
ENP (Protected Natural Areas)	7.383.424	7.894.870	94%
Natura 2000 Network	13.833.015	22.265.247	62%
<b>Total protected area</b>	<b>16.604.255</b>	<b>25.135.454,21</b>	<b>66%</b>
<b>Areas protected by international instruments</b>			
MAB (Biosphere Reserves)	5.550.108	6.041.886	92%
RAMSAR	282.694	308.3	92%
ZEPIM (Specially Protected Areas of Importance to the Mediterranean)	51.858	148.484	35%
Natural sites on the World Heritage List	75.863	75.984	100%

The table shows that 16.6 million hectares of land area are under protection by Natura 2000, ENP or both, which is equivalent to one third of Spain's land area.

The surface area covering all protection figures was slightly higher than in 2016, indicating that protected areas continue to increase slightly each year.

Table 7 - Forest area protected by RN2000, ENP and/or both. Yearbook of Forestal Statistics 2017.

FOREST AREAS (HA)	RN2000	ENP	TOTAL PROTECTION
WOODED AREA (HA)	7.219.814	4.115.676	7.406.171
% TREETOP PROTECTED WITHOUT TOTAL TREETOP PROTECTION	39%	22%	40%
DEFORESTED AREA (HA)	3.820.525	2.306.186	3.919.565
% SUP. DEFORESTATION PROTECTED AGAINST TOTAL SUP. DEFORESTATION	40%	24%	41%
TOTAL FOREST AREA	11.040.338	6.421.862	11.325.737
% FOREST PROTECTED OVER TOTAL FOREST	39%	23%	41%

41% of the forest area is protected by ENP, RN 2000 or both. Although this percentage is the same as in the previous year, both the wooded and cleared areas were slightly increased compared to 2016. In the case of wooded area, the increase was over 24,000 ha and the wooded area protected increased by almost 30,000 ha compared to the previous year.

With 61% of the forest area protected, the Canary Islands is once again the community that stands out the most. Other communities where more than half of their forest area is protected are: Valencia (58%), Madrid (53%), La Rioja (52%), Andalusia (51%) and the Balearic Islands (50%). The community with the smallest protected forest area is Galicia, with only 5%. There were no significant changes between the areas protected by the Autonomous Community from 2016 to 2017.

When the other protection figures are taken into account, the protected forest area increases by up to 45%. This increase in protected forest area is mainly due to Biosphere Reserves (BAM), which provide over 1.34 million additional hectares of protected forest. The figures for 2017 are very similar to those for 2016.

As in previous years, 80% of the protected land area is forest. The percentages of the Natura Network are maintained in relation to the previous year, in the case of trees, and the total. The percentage of tree clearing increases one point compared to 2016. As can be seen, 80% of the Natura Network on declared land is located in forest areas. When the assessment is made in relation to Protected Natural Spaces, it can be seen that 87% of the land area protected by these protection figures is forested area. In this case, all percentages are the same as in the previous year.

Table 8 - Percentage of forest area protected by each type of protection.

FOREST LAND USE	NATURA 2000 NETWORK FOREST %	ENP FOREST %	TOTAL PROTECTED LAND FOREST %
FORESTED	52%	56%	52%
UNFORESTED	28%	31%	28%
<b>TOTAL FORESTED</b>	<b>80%</b>	<b>87%</b>	<b>80%</b>

In the case of public forests managed by the Administration (public property) internal approval from the Forest Service of the Autonomous Community is required.

Each Autonomous Community shall develop its own legislation and models, both for invitations to tender and licences and for forestry and harvesting permits. There are three relevant documents needed to verify the legality of harvesting and compliance with EUTR requirements:

- Notification of work/exploitation (in private forests for work included in the planning of approved management plans, where the legislation of the Autonomous Community so permits);
- Authorisation of work/harvest (in private forests without a management plan or other mitigating circumstances in accordance with Autonomous Community legislation);

- Awarding of works (in public forests).

Property and land use rights are covered by Spanish law, and the authorities have implemented instruments to register and control these rights. These rights have had significant social and economic importance for centuries and, as a result, are widely developed and recognised. Spain has the most in 2019, 82 points in *Transparency International's* corruption perceptions index, with no reports establishing a significant link between corruption and the forest sector. The level of governance can be categorised as robust. There are no reports of significant conflicts relating to forest land ownership or the legitimacy of its use. In turn, there is legislation that protects land use. Forest land is classified as rural in urban plans and legislation exists to protect it from different uses.

The Convention on International Trade in Endangered Species of Wild Fauna and Flora, known as CITES, seeks to preserve the conservation of endangered species of wild fauna and flora by regulating trade. Spain joined CITES on May 16, 1986.

Table 9 - Distribution of the number of species among the three appendices of the CITES Convention (CITES, 2020):

Appendice	Kingdom		Grand Total
	<i>Animalia</i> number	<i>Plantae</i> number	
I	24		24
I/II	3		3
II	191	132	323
III	2		2
Grand Total	220	132	352

The CITES species list does not include wood species in Spain (UNEP-WCMC portal, Species+).

The two Iberian countries share about 35% of CITES species, spread over 159 animals and 62 plants.

The Red List of Threatened Species of the International Union for the Conservation of Nature (IUCN) released on July 18, 2019, that more than 28,000 species are threatened with extinction, including 40% amphibians, 34% conifers, 33% reef corals, 25% mammals and 14% birds. Of the 1.7 million species already identified, the Red List has assessed the risk of extinction of nearly 105,000. Threatened species are divided into three categories: "vulnerable" (VU), "endangered" (EN), and "critically endangered" (CR).

According to the IUCN, Spain ranks first among European countries with the most endangered species, with 752 species, of which 279 are plants.

The species used in our activity are the following:

- Pinus pinaster
- Pinus Sylvestris
- Pinus halepensis
- Pinus nigra
- Pinus radiata
- Pinus pinea

## 2.2 Actions taken to promote certification amongst feedstock supplier

Palser has been certified by FSC (SGSCH-COC-009172) since January 2012 for sawn wood, pallets and pellets of *Pinus pinaster* and by PEFC for the Purchase of wood and production of pallets and wooden packages (SGS-PEFC/COC-1475).

There is also Pinhoser, another company in the group, which supplies all of the sawdust used in the SBP Certification and about 60% of the sawdust used in the total manufacture of Pellets, which has been certified since 2011 by the FSC. This company also holds a PEFC certificate for the production and sale of sawn wood, wood chips, sawdust and bark.

In addition to this development, there is promotion at the time of the acquisition of wood by the various Group companies, in which the importance of the issue is highlighted, not only in the sustainability of resources, but also in the valuation of products throughout the chain.

Palser, Lda. explained to its suppliers the need for certification of its raw material.

## 2.3 Final harvest sampling programme

Not applicable.

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

Not applicable.

## 2.5 Quantification of the Supply Base

### Supply Base

a. Total Supply Base Area (ha):

Base	Portugal	Spain	total
Country area (ha)	9 225 600	50 403 000	59 628 600
Forest area (ha)	3 155 000	27 900 000	31 055 000

b. Tenure by type (ha):

Base	Portugal	Spain	total
Private (including communal/unknown (ha)	3 091 900 (98%)	20 088 000 (72%)	23 179 900
Public (ha)	63 100 (2%)	7 812 000 (28%)	7 875 100
total	3 155 000	27 900 000	31 055 000

c. Forest by type (ha):

<b>Base</b>	<b>Portugal</b>	<b>Spain</b>	<b>total</b>
<b>Maritime pine (ha)</b>	579 300	1 059 005	1 638 305

d. Forest by management type (ha):

<b>Base</b>	<b>Portugal</b>	<b>Spain</b>	<b>total</b>
<b>Natural/Semi-natural Management</b>	579 300	1 059 005	1 638 305

e. Certified forest by scheme (ha):

<b>Base</b>	<b>Portugal</b>	<b>Spain</b>	<b>total</b>
<b>FSC (ha)</b>	421 406	301 000	722 406
<b>PEFC (ha)</b>	278 449	2 311 218	2 589 667
<b>total</b>	699 855	2 612 218	<b>3 312 073</b>

## Feedstock

f. Total volume of Feedstock:

<b>Base</b>	<b>Portugal</b>	<b>Spain</b>	<b>total</b>
<b>Volume (m<sup>3</sup>)</b>	376 343,05	4 084,4	380 427,45

g. Volume of primary feedstock: 0 m<sup>3</sup>

h. List percentage of the primary feedstock (g), by the following categories.

- Certified to an SBP-approved Management Scheme: Not applicable
- Non-Certified to an SBP-approved Management Scheme: Not applicable

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

j. Volume of primary raw material from Primary Forest: Not applicable

k. List the percentage of primary feedstock from primary forests (j) according to the following categories.

Subdivided by SBP-approved Forest Management Schemes:

- Primary feedstock from primary forest certified to an SBP-approved Forest Management Scheme - Not Applicable
- Primary feedstock from primary forest not certified to an SBP-approved Forest Management Scheme - Not Applicable

l. Volume of secondary feedstock:

<b>Base</b>	<b>Portugal</b>	<b>Spain</b>	<b>total</b>
<b>Volume (m<sup>3</sup>) [<i>P. pinaster</i> sawdust]</b>	376 343,05	4 084,4	380 427,45

m. Volume of tertiary feedstock: 0 m<sup>3</sup>

### 3 Requirement for a Supply Base Evaluation

SBE completed	SBE not completed
<input type="checkbox"/>	<b>X</b>

Palser has its chain of custody approved by FSC for the production of wood pellets under the Percentage System. Under this certification system, Palser evaluates all raw materials purchased for the production of wood pellets, whether they come from certified or non-certified suppliers.

FSC certified raw material supplied to Palser is considered SBP-compliant Biomass and therefore does not need to be subject to the risk assessment of the supply base.

In the manufacture of SBP Certified Pellets, FSC controlled raw material is used, originating from our Group Sawmill, and is considered SBP-Controlled Biomass.

Raw materials without an SBP-approved management system claim are assessed according to the Palser verification program (FSC-STD-40-005), and in case of compliance they do not need to be submitted to the Supply Base risk analysis to be considered SBP-controlled Biomass.

In the manufacture of SBP Pellets, only FSC Certified or FSC Controlled material is used.

## 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.



## 6 Stakeholder Consultation

The stakeholders were not consulted.

### 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

Although this is not required under the SBP, Palser Lda. has implemented verification procedures in its system every two months, which result from chain of custody certification.

## 8.2 Site visits

Sawmills were randomly visited where compliance with SBP was confirmed and documented (see point 8.1).

## 8.3 Conclusions from the Supplier Verification Programme

Sawmills were randomly visited where compliance with SBP was confirmed and documented (see point 8.1).

## 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

This report was reviewed and commented on by Paulo Pereira. He graduated in forest engineering in 2001 (UTAD), with experience in forest space planning and management, thematic mapping and GIS. Consultant and auditor SBP and FSC with international experience.

## 11.2 Public or additional reviews

This report has not been reviewed by other parties and maintains a similar structure to the one published on the company's website since 2016, with no comments or complaints.

# 12 Approval of Report

Approval of Supply Base Report by senior management			
Report Prepared by:	<i>Engº Pedro Inácio</i>	<i>Responsible Bioenergy and Pellets</i>	<i>30/04/2020</i>
	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:	<i>Sr. Libânio Nunes</i>	<i>Manager</i>	<i>30/04/2020</i>
	Name	Title	Date
Report approved by:	<i>[name]</i>	<i>[title]</i>	<i>[date]</i>
	Name	Title	Date
Report approved by:	<i>[name]</i>	<i>[title]</i>	<i>[date]</i>
	Name	Title	Date

# 13 Updates

## 13.1 Significant changes in the Supply Base

There have been no significant changes since the last report.

## 13.2 Effectiveness of previous mitigation measures

Not Applicable.

## 13.3 New risk ratings and mitigation measures

Not Applicable.

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

Material	Origin	Species	Quantity (m <sup>3</sup> )
Sawdust (Sawmill Waste)	Portugal	Pine	376 343,05
Sawdust (Sawmill Waste)	Spain	Pine	4 084,4

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

Material	Origin	Species	Quantity (m <sup>3</sup> )
Sawdust (Sawmill Waste )	Portugal	Pine	300 000 – 400 000
Sawdust (Sawmill Waste)	Spain	Pine	20 000*

\* Due to the great forest fires that devastated the Portuguese supply base, the expansion of the supply base to Spain will also be considered. This figure should be insignificant, corresponding to less than 5% of the total supply.