



FOREST CERTIFICATION



Planting and growing paper



1GF | G4-EC9

The forest is the source of the paper cycle: it all starts in the plantations where *paper is planted and grown*. Forests and forest products such as paper are part of an integrated cycle.

Paper is made with cellulose fibre obtained from wood, a **natural and renewable resource grown in plantations** and of which the paper industry makes increasing use, thereby responding to the Efficiency principle, so deeply rooted in the

sector, of doing more with less. The cellulose fibre from wood is turned into paper, which is then transformed into a host of paper products. Once used, these products are recycled again and again in paper mills. And even the waste from the papermaking process is re-used in different applications or as fuel at the mill or other industrial facilities.

The plantations where pulp wood is grown are continuously being regenerated and replanted.



These are plantations of fast growing species (pine and eucalyptus).

78% of the 5.7 million cubic metres of wood that the Spanish pulp and paper industry used as raw material in 2014 came from **local pine and eucalyptus plantations** that stand on 420,580 hectares, thus accounting for 2.3% of the country's total forest land cover. The rest of the wood is imported but also comes from plantations of the same species. Imports of pulp wood are mainly eucalyptus, while almost all pine wood is of domestic origin.

Over the period 2011-2014, domestic wood consumption stood at around 80%, **ten percent more than the data recorded in previous years**. However, in regard to domestic wood supply rates in 2014, the impact should be noted of the decline in wood consumption due to the year-long shutdown of one pulp mill and the closure of a second mill halfway through the year.

Wood consumption for paper production by species ('000 m³ without bark)



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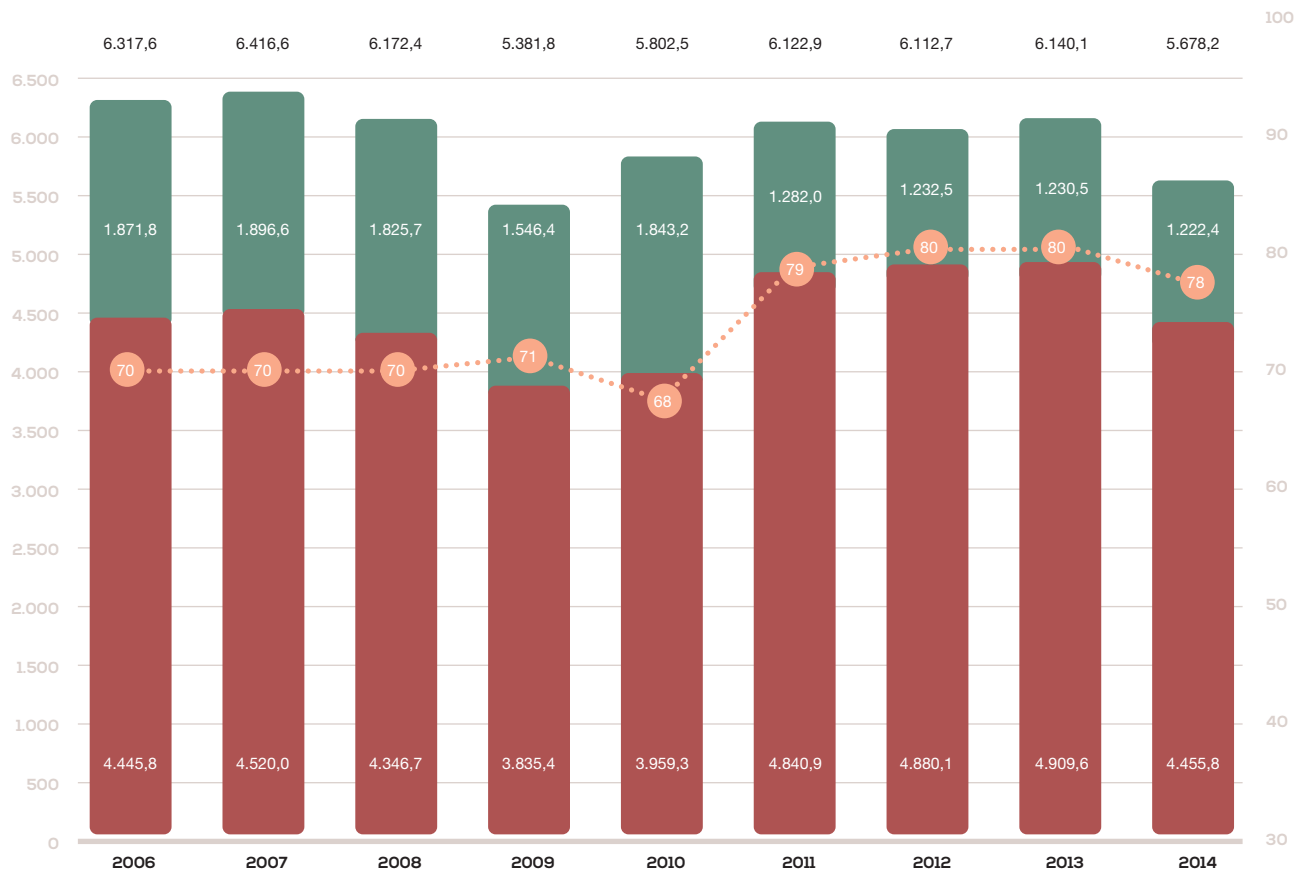
	2006	2007	2008	2009	2010	2011	2012	2013	2014
TOTAL	6.317,6	6.416,6	6.172,4	5.381,8	5.802,5	6.122,9	6.112,7	6.140,1	5.678,2
Eucalyptus	5.045,0	5.185,2	5.038,0	4.292,4	4.605,5	4.897,3	5.004,6	5.009,8	4.525,2
<i>Eucalyptus - national</i>	3.250,0	3.364,6	3.287,4	2.813,9	2.833,7	3.708,5	3.772,1	3.779,3	3.310,8
<i>Eucalyptus - import</i>	1.795,0	1.820,6	1.750,6	1.478,5	1.771,8	1.188,8	1.232,5	1.230,5	1.214,4
Pine	1.272,6	1.231,4	1.134,4	1.089,4	1.197,0	1.225,6	1.108,0	1.130,3	1.153,0
<i>Pine -national</i>	1.195,8	1.155,4	1.059,3	1.021,5	1.125,6	1.132,4	1.108,0	1.130,3	1.145,0
<i>Pine - import</i>	76,8	76,0	75,1	67,9	71,4	93,2	0,0	0,0	8,0

SOURCE: ASPAPEL

Source of pulp wood ('000 m³ debarked)



■ Spain
■ Imported
● Percentage of local wood (%)



SOURCE: ASPAPEL

WHAT DO YOU KNOW ABOUT SPANISH FOREST?

- According to FAO, the largest forest areas in Europe are Russia, Sweden, Finland, Spain and France.
- The forests in our country are expanding: 13.8 million hectares in 1990 to 17 million hectares in 2000 or 18.2 million hectares in 2010, according to MAGRAMA.
- Many more trees are planted than are logged: annual wood growth in our country in 2014 was 46.3 million cubic metres of barked timber and annual loggings for all uses (including papermaking, which accounts for a little more than one third of the total) were just 14.7 million m³ of debarked wood.
- The forest economy in Spain involves almost 30,000 companies, 200,000 workers (forestry and reforestation, paper industry, wood and furniture, biomass...) and a turnover of over 18 billion euros.



MILLION m³
WOOD

46.3

ANNUAL GROWTH RATE OF
WOOD IN SPAIN



Paper, an ally against climate change



Trees use the sun's energy to capture CO₂ from the atmosphere and convert it into wood. That is how they feed and grow. And fast growing trees such as the eucalyptus and pine in pulp wood plantations, precisely because of their rapid development, are **great CO₂ sinks, so they help curb climate change**. Eucalyptus, for example, sequesters twice as much CO₂ in a year as Chestnut and five times faster than Holm Oak.

The 420,580 hectares of **pulp wood plantations** used by the Spanish sector for raw material supplies in 2014 **stored 27.9 million tonnes of CO₂ equivalent**. Over the period 2011-2014, the CO₂ equivalent stored in plantations of eucalyptus and pine for use by the paper industry ranged between 27 and 32 million tonnes, while in earlier years, it stood at a much lower level (19 -21).

The carbon captured in plantations is not released when the tree is logged but remains stored in paper products and that storage period is prolonged through successive recycling. Not surprisingly cellulose, the wood fibre from which paper is made, is a carbohydrate. Therefore, paper products are efficient CO₂ stores and **more paper means less CO₂ in the atmosphere**.



CO₂ capture and storage ('000 tonnes)

	2006	2007	2008	2009	2010	2011	2012	2013	2014
Total Spanish timberlands									
Carbon storage	355.285,2	360.376,4	365.467,6	370.558,9	375.650,1	380.741,3	385.832,5	577.013,6	584.611,7
CO ₂ equivalent	1.302.712,3	1.321.380,1	1.340.048,0	1.358.715,8	1.377.383,6	1.396.051,5	1.414.719,3	2.115.716,6	2.143.576,4
In Eucalypt and Radiata pine plantations									
Carbon storage	13.254,5	14.058,0	14.884,5	15.734,0	16.606,4	17.402,3	15.493,0	15.754,0	16.117,3
CO ₂ equivalent	48.600,0	51.546,1	54.576,5	57.691,2	60.890,2	63.808,6	56.807,5	57.764,6	59.096,9
In plantations for use by P&P sector									
Carbon storage	5.372,0	5.715,6	5.762,9	5.219,5	5.735,3	7.451,0	8.088,3	8.674,3	7.604,9
CO ₂ equivalent	19.697,2	20.957,3	21.130,5	19.138,2	21.029,3	27.320,3	29.586,0	31.642,0	27.884,8



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FUENTE: MAGRAMA y ASPAPEL (2014)



Green rural employment

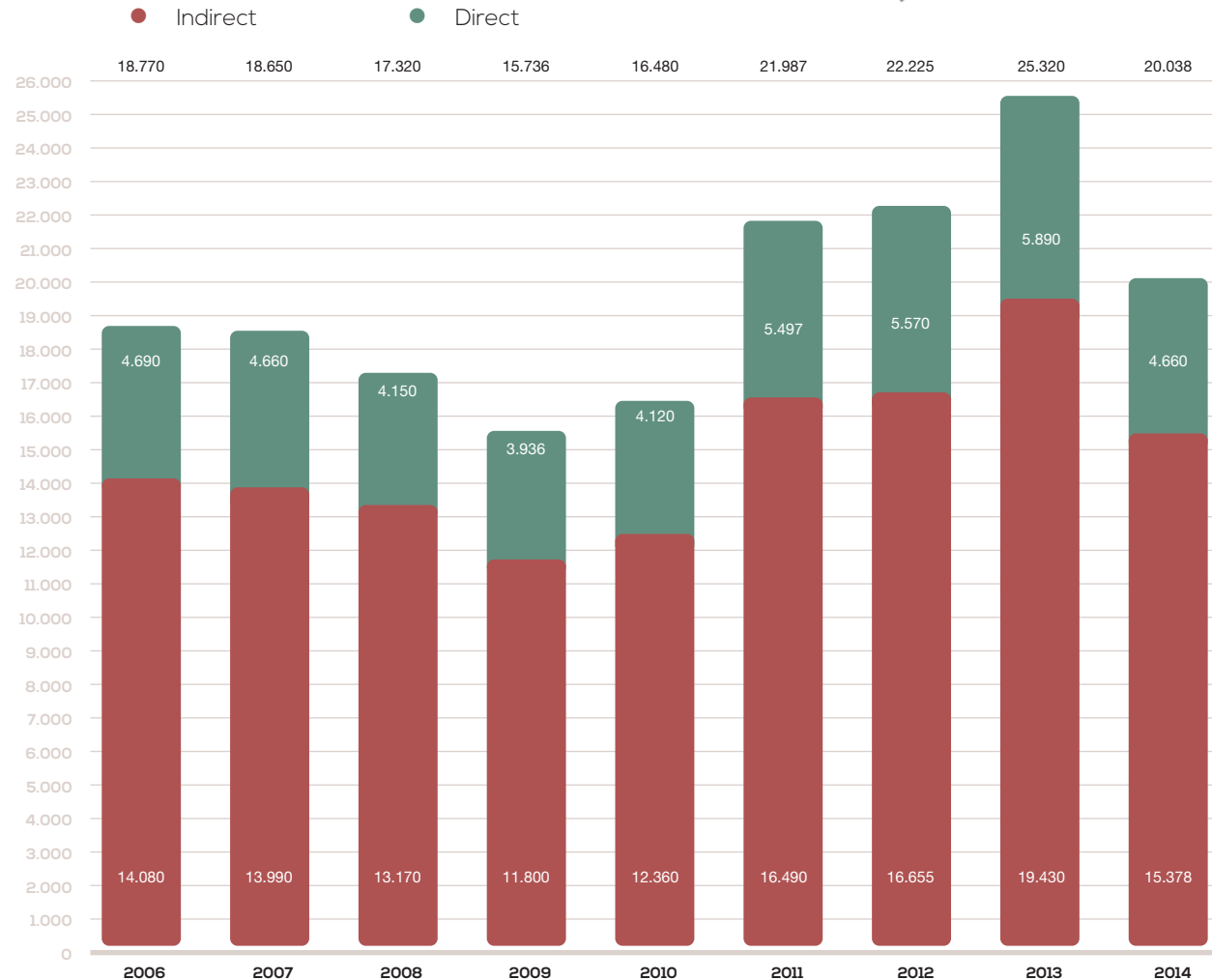


Pulp wood plantations are a source of green employment in rural areas. Better use of our forest potential would enable the growth of domestic wood consumption and act as a **motor for rural development**, creating jobs and contributing to the income of forest owners. It should not be forgotten that the sector is currently still forced to import 22% of the wood it uses, despite the growing supply of domestic timber.

The 420,580 hectares in 2014 dedicated to the production of raw materials for the paper industry in Spain accounted for **4,660 direct jobs** in forestry and re-forestation work, 82% of which corresponds to eucalyptus plantations. On top of that direct employment, a further **15,378 indirect jobs** in machinery, transport, workshops, etc. should be added.

The growth trend in rural employment in paper plantations over the 2011-2014 period was broken last year as a result of a slump in wood consumption due to the afore-mentioned shutdown of one pulp mill and the closure of another.

Direct and indirect rural employment on eucalypt and pine plantations for paper



SOURCE: ASPAPEL

Certification, from the forest to the product



Forest products are increasingly demanded by society and will be even more so in the future, in order to replace non-renewable and carbon-intensive materials. And to that end, **forest certification** is essential in that it guarantees the consumer that these forest products come from sustainably managed forests.

The paper industry, committed to sustainable forest management and certification, has been working for years on promoting the domestic supply of certified wood, which lead to an increasing percentage of certified paper on the market, with a label that guarantees its sourcing from a sustainably managed plantation.

The industry is doing its job and currently **72% of paper mills, 100% of pulp mills** and 85% of wood suppliers have a certified Chain of Custody. Great progress has been made is just a few years and currently **51% of all market pulp production and 46% of marketed paper production is certified.**

The bottleneck still lies in the **deficit of domestic certified wood**, which hampers Spanish forest industry's competitiveness. The absence of agile and effective management instruments has traditionally been the major stumbling block. Even though in recent years, considerable progress has been made, our forests still require a determined effort to bring them up to the standard of other European forests.

The inherent characteristics of our forests - small, widely dispersed and without management or planning models - restrict the availability of certified domestic wood and hinder traceability due to the large number of middlemen. That is why on occasions our forest-based industries are driven to **importing certified wood from other countries**, while our small forest farms languish.



Forest certification (%)



	2006	2007	2008	2009	2010	2011	2012	2013	2014
Certified pulp mills*	93,0	94,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0
Certified pulp suppliers* ⁽¹⁾	71,4	74,1	87,0	100,0	100,0	100,0	100,0	100,0	100,0
Certified wood consumed by paper sector	17,2	12,9	12,1	10,4	10,5	15,6	24,7	29,3	36,0
Certified wood suppliers	15,9	21,3	53,7	33,5	65,0	80,0	80,0	82,0	85,0
Certified paper mills**					25,0	32,0	51,0	59,0	72,0
Certified market pulp** ⁽²⁾					11,0	16,0	31,9	41,0	51,0
Certified paper on the market**					6,5	7,7	24,7	29,3	46,2

SOURCE: ASPAPEL

*Indicators that have reached optimal 100% fulfilment and are replaced by new indicators. **New indicators.

⁽¹⁾ Refers to integrated pulp and paper mills ⁽²⁾ Pulp marketed in open competition with other suppliers

DO YOU KNOW HOW FOREST CERTIFICATION WORKS?

- Sustainable forest management is managing forest stands, ensuring their permanence by reconciling the use of forest-based products with their capacity for regeneration, their health and vitality, so that they can continue to perform their functions both now and in the future.
- Thanks to forest certification, consumers can rest assured that the paper products they use are traceable and come from sustainable sources.
- It is a process in which an independent, officially accredited body certifies that the management of a particular forest area is performed in strict accordance with sustainability criteria and guarantees the traceability of wood in the chain of custody, when that certified wood enters mills and factories.
- Forest certification monitors wood from the forest to the end consumer, who receives a product bearing a label that guarantees its origin from a sustainably managed forest.

MARKET PULP
PRODUCTION
51%
CERTIFIED



PAPER
PRODUCTION
46%
CERTIFIED



The trees that do let us see the forest



Society in the 21st century lives with its back to the forest and the rural world, which continues to languish. Paper and forest-based products generally help to **make the forest more visible**, to bring it closer to citizens and at the same time, to act as a **stimulant of rural development**.

In Spain, we have no oil or gas but we do have wood. We are the number three country in the EU in terms of forest land cover and that is an opportunity for our forestry sector and related industries, which calls for the determined support of the sustainable forest management of our forests and their certification.

In the way, we have to work on three key areas: the existence of land organisation projects and management tools, with a policy of incentives and a specific tax regime for the forest, and a new form of enterprise that encourages the grouping of small forest owners. Only then will it be possible to place our forestry sector and its related industries in the competitive **position that turns our country into the acknowledged forest power that it can and should be**.

A sustainably managed forest also involves reducing the risk of wildfires, improving the health and vitality of our forests, promoting rural development, promoting industrial development and creating jobs.

To do so, it is essential that both public and private forests are suitably documented and provided with **instruments that ensure their planning and management** is performed in accordance with criteria that support their sustainability and allow for proper monitoring.

The process calls for large capital outlays, so an **incentive policy** that encourages management and documented planning is vital and will lead to an increase in certified forest products to meet both domestic and international market demands.

Moreover, the peculiarities of forestry and the administration costs that its management entails with hundreds of small land owners, calls for a new type of company or enterprise, especially designated to foster and **encourage the grouping together of small forest owners**.



Plantations and biodiversity



G4-EN11 | G4-EN12

The Spanish paper industry acquires its raw material from production plantations, standing on lands laid barren by the abandonment of arable or cattle farming and which help to preserve natural or semi-natural forests and biodiversity.

The Spanish paper sector is committed to **sustainable forest management** and works very actively on its certification, which includes maintenance, conservation and the enhancement of biodiversity.

Forest logging carried out by the sector or under its auspices takes place on plantations that were mostly established on former farm land. Specially designed forest management instruments respond to the unique conditions of each stand, including how to treat the unique biodiversity in plantations in protected or particularly sensitive nature areas. The Spanish paper industry owns or manages approximately 100,000 hectares, of which over 80% are certified by FSC or PEFC.



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THREE CLUES TO WHAT TO LOOK FOR IN THE FOREST

1 Existence management plans

2 Tax incentives for the forest

3 Promotion of groups of small forest owners

Objectives

Five objectives in forestry had been set for the period 2011-2014: improving sustainable forest management and certification, increasing the supply of domestic wood, ensuring the legal source of wood supplies, increasing the proportion of certified products, and promoting the use of forest and paper-based products.

1. Significant progress has been made with **regard to the percentage pine and eucalyptus stands under a documented management instrument (IG)**, which has gone from 32% and 11% in 2010, respectively, to 40% and 17% in 2014.
2. There have also been significant **improvements in local wood** procurement. The percentage of Spanish wood from plantations has increased over the period by **ten percent, from 68% in 2010 to 78% in 2014**. In the case of pine, 99% is locally sourced (compared to 94% in 2010) and in the case of eucalyptus, domestic woods has risen from 62% to 73%.

3. Ensuring the legal origin of wood supplies is another clear priority on which the sector has worked hard over this period, with the result that in 2014, **36% of the wood consumed by the Spanish paper industry was certified and the rest was either controlled wood or wood from the EU**. In this sense, starting from the 11% of certified wood in 2010, the progress made between 2011 and 2014 has allowed for figures that are now approaching the European average. Another significant highlight in this matter are the organisation and development of training courses such as the Seminar on Due Diligence, to be implemented within the sector.
4. In terms of certified product, the development that has taken place can only be described as spectacular. Half of the market **pulp and paper traded is now certified (51% pulp and 46% paper)**, compared to 11% and 7% respectively in 2010
5. Finally, work has continued on promoting the sustainable use of forest and paper based products, through the publication of both printed and online educational materials aimed at schools (for further details, please see chapter 3, page 78).



In its objectives for the period 2015-2017, the paper sector goes one step further in promoting Sustainable Forest Management and its certification and in its commitment to domestic timber procurement.

1. Improving the sustainable management of plantations by **implementing management tools and certification**, with special emphasis placed on monitoring plantations' health and vitality. To further boost this aspect, **ASPAPPEL is about to launch its Award for the Sustainable Use of Resources**.
2. Increase the supply of domestic wood, with **improved productivity from plantations**, for which **purpose logging and extraction rates will be closely monitored**.
3. Ensuring legal logging and trading of wood and fibre. To further this objective, a forum will be held to monitor implementation of the **Due Diligence system**
4. Increase the supply of certified products. Two instruments will be implemented to contribute to this goal: the **Observatory of Development of certified paper types and the Observatory of Certified Market Pulp and other Fibre**.
5. Promoting the sustainable use of forest and paper-based products through **new teaching resources** and a **school competition**.

Objectives in Sustainable Forest Management

FULFILMENT OF OBJECTIVES 2011-2014

NEW OBJECTIVES 2015-2017

1. IMPROVE SUSTAINABLE FOREST MANAGEMENT AND CERTIFICATION

% forest area with Instruments for Sustainable Forest Management

2010:	Pine 32% Eucalypt 11%
2014:	Pine 40% Eucalypt 17%



2. INCREASE SUPPLY RATE OF DOMESTIC WOOD

2010:	Pine 94% Eucalypt 62% Total 68%
2014:	Pine 99% Eucalypt 73% Total 78%



3. ENSURE LEGALITY OF WOOD SUPPLY

% Certified wood

2010: 11% | 2014: 36%

Training activities (Due Diligence Seminar)



4. INCREASE % OF CERTIFIED PRODUCT

2010:	Market pulp 11% Paper 7%
2014:	Market pulp 51% Paper 46%



5. PROMOTE USE OF FORESTS AND PAPER-BASED PRODUCTS

Printed and on-line materials for schools



1. IMPROVE SUSTAINABLE PLANTATION MANAGEMENT

- Implementation of management systems and their certification
- Surveillance of plantation health and vitality
- ASPAPEL Award for sustainable use of resources



2. INCREASE SUPPLY RATE OF DOMESTIC WOOD

- Improve plantation productivity rates
- Monitor extraction and logging possibilities



3. ENSURE LEGAL LOGGING AND TRADING OF WOOD AND FIBRE

- Due Diligence System implementation monitoring forum



4. INCREASE SUPPLY OF CERTIFIED PRODUCTS

- Observatory on the development of certified types of paper
- Monitor market pulp and other certified fibre



5. PROMOTE SUSTAINABLE USE OF FORESTS AND PAPER PRODUCTS

- New teaching resources
- Competition for schools



PLANTATIONS FOR PAPER

CONSUMPTION OF PULP WOOD

FOREST CERTIFICATION

PRODUCTS