REPORT FOR COST E42 FROM PORTUGAL

1.) Introduction

The preliminary results from the 2005-2006 Portuguese National Inventory have been announced in July of 2006. Up to now, estimates from the total forest area as well as the estimates for each of the main species and the estimates for groups of minor species were presented. Due to the large impact of forest fires, the areas affected by fires were estimated and included.

a. Total forest area

The total forest area in Portugal is estimated in 3.24 millions of hectares (Rego 2006). This is a similar value to the previous National Forest Inventory carried out in 1995-1998 (3.20 millions of hectares). However, the burned areas were included in the 2006 estimate, corresponding to 356 thousands of hectares which correspond to around 11% of the total forest area meaning that in practice it is estimated that there was an effective reduction from the forested areas. The total forest area corresponds to around 38% of the Portuguese land cover. Portuguese total forest area evolution from 1902 to 2006 is shown in Figure 1. The methodologies and technology to produce estimates for the forest areas over the years have been improving, thus, the values of its evolution should be looked at from a qualitative perspective.

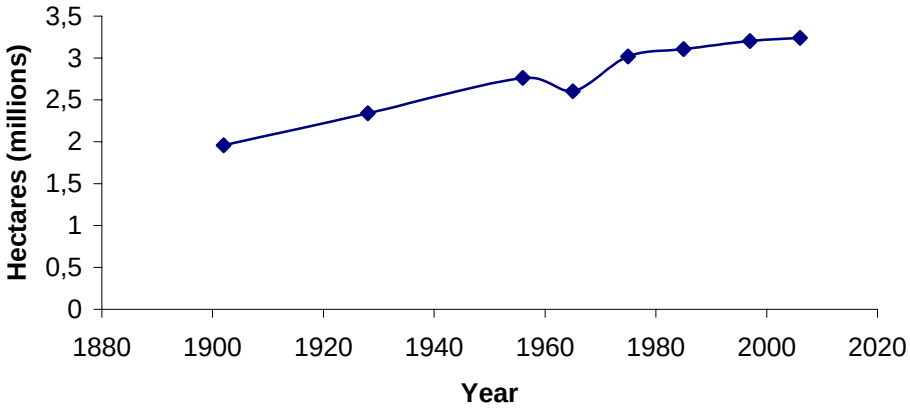

Figure 1 Evolution of the total forest area in Portugal

b. Most common species

Maritime pine (*Pinus pinaster* Ait.), cork oak (*Quercus suber* L.), eucalyptus (mainly *Eucalyptus globulus* Labill.), holm oak (*Q. ilex* L.) and stone pine (*Pinus pinea* L.) together make up 91% of Portuguese forest cover. Maritime pine is the main conifer (29%) and is spread across the country but predominates in the centre and north. Eucalyptus with 23% is the second species in terms of distribution, occurs mainly in the coastal areas of the centre and north of Portugal. The estimated forest areas per species in Portugal are summarized in Figure 2. As it can be seen, valuable broadleaved belonging to the Cost E42 objective tree species are very scarce in Portugal.

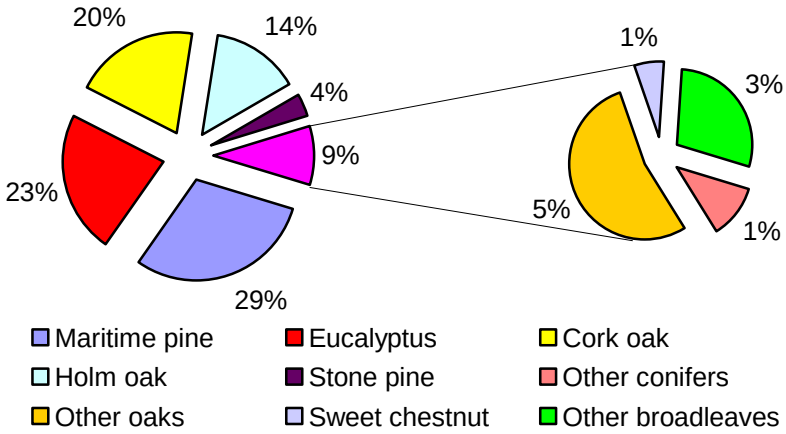

Figure 2 Percentages of the main forest tree species in Portugal

c. Characterization of the Portuguese Forestry Sector

Portuguese forest land is mainly in private ownership (85%), spread over more than 400,000 holdings. One percent of the owners have 55% of the forest area and 93% of the holdings are smaller than 10 ha, making up less than 25% of the forest area (Morais 2002). Pulp industries own 6% of the forest area, local communities 7% whilst the forest public area is only 2% (Figure 3)

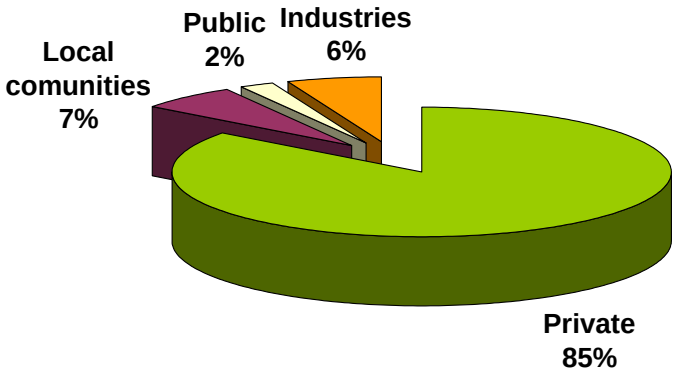

Figure 3 Forest ownership in Portugal in 2002

In 2000, the main exports of the Portuguese forestry sector were cork, paper and pulp (see Figure 4). Wood coming from COST E42 valuable broadleaved tree species has no expression at country level exports. The main imports were paper and wood and the value of the exports exceeded the value of the imports (Barradas 2002). Within the forestry sector, the wood exports have been decreasing and the wood imports have been increasing since 1991. The balance of the wood sector, which used to be positive, in 1991 there were 296 million € of exports and 163 million € of imports (Direcção Geral das Florestas 1992), was in 2000 negative, the exports were 369 million € and the imports 535 million € (Direcção Geral das Florestas 2000).

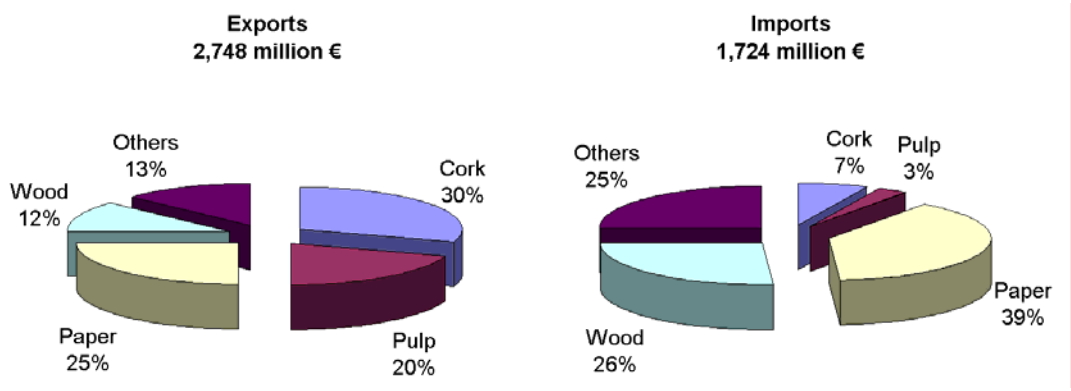

Figure 4 Distribution of the value of the imports and exports of the forestry sector in Portugal

d. Relevance of COST E42 valuable broadleaved tree species regarding ecological, economical and social aspects

As it has been previously stated COST E42 valuable broadleaved tree species occupy a small percentage of Portuguese forest area and from the economic point of view do not play any major role at country level. However, with an estimated area of 40,600 hectares (Patricio 2006) sweet chestnut (*Castanea sativa* Mill.) is, from the economic and social perspectives, locally an important tree species in particular the interior northern and central Portugal. There has been a long tradition on growing sweet chestnut for its fruits and its timber (Monteiro 2000). In the future it is expected an increase on the economic importance from the valuable broadleaved tree species arising from intensive silviculture plantations. For example, a new plantation program has been started in 2006 by a private company targeting irrigated wild cherry and walnut with wide spacing (6x6m).
Although valuable broadleaved tree species are not within the most important tree species in Portugal from the economic and social perspectives their environmental importance should not be neglected. They can grow in monocultures or in mixtures. Several can be found on the under de canopy from the main conifer tree species, maritime pine (Gonçalves 2002). They are associated with specific species of animals, insects and fungi.

2.) Completed research in different specialist areas (genetics, forest growth and silviculture, landscape, environmental and aesthetic aspects) concerning valuable broadleaves

There has not been much research carried out about valuable broadleaves with a few exceptions. Growth modelling and yield tables of *Castanea sativa* were recently published in a Ph.D. thesis (Patricio 2006). Research on *Castanea sativa* and *Pseudotsuga menziesii* mixed stands has been showing interesting results at Bem-lhe-vai in the north of Portugal (Luis and Monteiro 1998). In addition, the main characteristics of the valuable broadleaved trees growing in Portugal have been summarized in a publication (Correia and Oliveira 2003).

3.) Recent research concerning valuable broadleaves

There is on-going research with measurements of *Castanea sativa* permanent sample plots and with measurements at Bem-lhe-vai trial. It is expected in the near future more research in wild cherry and walnuts due to the increase in the interest of new plantings from these species.

4) References

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