

A COMMON VISION OF THE PROBLEM OF EUCALYPTUS PLANTATIONS

Analysis and proposals by the Iberian ecologist movement to solve the social and environmental conflicts of eucalyptus plantations

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1. A common vision of the problem of eucalyptus plantations

In the year 2005, “A common vision for transforming the European paper industry” was presented publicly¹, a document signed by a broad representation of European environmentalist and social organisations pooling demands to the European paper industry. One of the demands made by the ecologist movement called for a “*Europe that consumes dramatically less paper than at present*”, and that “*Europe’s paper be made from responsibly and sustainably sourced fibres, provide employment and have social impacts that are beneficial, conflict-free and fair*”.

But for these demands to come true, we must put an end to the conflicts generated by eucalyptus plantations in the Iberian Peninsula.

In the International Year of Forests, the Iberian ecology movement wishes to propose to the public administrations and the eucalyptus sector a solution to shelve these conflicts and join forces with the industry and owners using social-based and environmentally-responsible forestry products.

The proposals are not new, since it is not the first time that the ecologist movement or the scientific community have advocated a rational planning of the sector and the improvement of forestry practices in these plantations.^{2 3}

As we already proposed in a manifesto from 2004, the ecologist movement wishes to avoid irreconcilable positions for or against the eucalyptus. Our demands point to a road map for the sector and for the future of surfaces occupied by eucalyptus.

2. The importance of the eucalyptus in the Iberian peninsula

Due to more than half a century of institutional support, the economic sector engaged in growing eucalyptus and the manufacture of paper paste from its cellulose enjoys great importance in some areas of Spain and Portugal. Owners, sellers, timber operators and pulp and paper factories in Andalusia, Galicia, Asturias, Cantabria and the province of Biskaia, as well as in Portugal, are crucial in the industrial fabric and also in the dynamisation of the rural setting and the forestry sector.

¹ A common vision for transforming the European Paper industry. Document agreed to at the meeting of the Forest Movement Europe (FME) on October 2, 2005. <http://www.shrinkpaper.org/spanish/pages/bm-doc/eepn-commonvision.pdf> . For the Spanish and Catalan version: <http://www.ecoedicio.cat/?p=132>

² A Eucalptização em Portugal. Análise da Situação e Propostas de Resolução. Document of AGROBIO, APB, GEOTA, GUEA, LPN, QUERCUS. Lisbon, 1989.

³ Manifesto for the regulation of the growing of eucalyptuses in Cantabria, signed by 14 environmentalist, social and trade union organisations in July, 2004.

The growing of the eucalyptus in the Iberian Peninsula takes up around one and a half million hectares in pure or mixed masses. In Portugal, Andalusia and Extremadura, the surface area has diminished in the last decade, but in other regions forestry planners have been unable or unwilling to define how and where eucalyptuses can still be planted. The setting of Doñana, hinterland Galicia or the mid-mountain areas of Asturias or Cantabria are still occupied or run the risk of being affected by these plantations. Moreover, the eucalyptus presents a significant invasive capacity, particularly after fires, which favours its expansion.

The sector is currently calling for new and better soil for growing the eucalyptus, this time with enhanced “super-tree” planting with greater growth and profitability, and with the promise of reducing the occupied surface. The sector is no longer interested in less productive forests which are mechanically difficult to work, whose cycles are depleted or are affected by pests and diseases that have caused major damage to the producers. This new situation generates a displacement of the eucalyptus towards new areas. Moreover, a new demand has emerged for agricultural land for plantations of eucalyptuses for use as biomass.

3. Conflicts surrounding eucalyptus plantations

This highly relevant economic sector is also a source of conflicts. The growing of eucalyptus continues to pose a problem for the conservation of wild life and plant life, for the conservation of land resources, the management of water resources, protected spaces and proper territorial planning.

The problem is not the eucalyptus, but rather public policies (or the absence thereof) that lead to somewhat irrational territorial management models. Despite the sources and the gut reaction/exaltation the eucalyptus has generated in some social and economic agents, the problem, issue or debate surrounding the eucalyptus has become a confrontation between irreconcilable positions for or against this tree.

The “eucalyptus issue” is in actual fact a set of problems associated with the lack of planning and regulation of eucalyptus plantations, shortcomings which are reflected on:

- The direct impact in the biological diversity of the ecosystems it replaces.
- The negative environmental impact derived from an intensive management model of these crops with serious problems in the case of terraces.
- The presence and expansion of the surface occupied by the eucalyptus in protected natural spaces or in habitats of species included in some of the red books, national inventories of endangered species, european directives, and other national and international laws.
- Ecological factors of the ecosystems that limit eucalyptus plantations.
- The difficulty of planning instruments (forestry plans, land, territorial uses, planning of natural resources, etc.) to implement their proposals.
- The strong bias of forestry policy around the production of cellulose paste versus the exclusion of the wood conversion sector.
- The proliferation of pests and diseases from Australia and their impact on the productivity of the eucalyptus.
- A mismatch between supply and demand for eucalyptus wood
- The stagnation of the price of eucalyptus wood in Spain due to the cyclic character of the paper market, imports and falling consumption.
- New demands on the growing of eucalyptus for biomass.

The problems of the eucalyptus are not ascribable to the tree, but rather to technical deficiencies in planning, repopulation, silviculture and exploitation, or in other words, to man. And to expectations for

small owners, generated by the industry, regarding its high profitability, which are, in turn, somewhat doubtful.

4. Proposals

Guideline no. 1: Set a limit for the occupation of the territory based on scientific and technical criteria.

Forest planning is one of the demands in which there is greatest consensus among experts in the matter. The scientific community, the ecologist movement, forestry administration and part of the industrial sector underline the need to set a limit on the occupation of the territory by eucalyptus.

After decades of permissiveness, institutional support and subsidies with European Funds, the eucalyptus now occupies a large part of the Iberian Peninsula. Many of these surface areas used for eucalyptus plantations are not viable for the production of wood for industry, due to their small size, the lack of interest of their owners, the arid climate, low soil fertility and/or the action of some of the pests or diseases that affect eucalyptus. Moreover, due to its natural expansion capacity, as an invasive exotic specie, the eucalyptus has “spontaneously” taken over areas adjacent to plantations, thickets, steep banks and areas of Atlantic vegetation. Its invasive nature, boosted furthermore by the action of forest fires, is generating an increase in the forestry surface area affected by the presence of this species.

In the main eucalyptus wood-producing Autonomous Communities (AC), the ceiling suggested by the experts or the forecasts made by the forestry planning documents have already been reached.

- **Measure no. 1.** The territorial planning instruments (Forestry Plan, PORFs [Forestry Resource Planning Plans], County Plans) should establish the physical limits and the maximum extension to be occupied by eucalyptus plantations, based in an ecosystem approach as suggested by UICN and Convention of Biodiversity. If the forestry planning determines that the ceiling on the surface area occupied by the eucalyptus has already been reached, the planning will establish how to avoid new eucalyptus plantations, and, as the case may be, establish restoration scenarios for surfaces that have been over-exploited.
- **Measure no. 2.** Land planning must implement the Millennium Ecosystem Assessment in forestry ecosystems, acknowledging the importance of their conservation *per se*, besides the services they provide free of charge and which have an economic value. For this reason, planning documents must take into account the necessary quantification of the value of ecosystem services and legally establish Payment for Environmental Services (PES) systems offered by the native forest.
- **Measure no. 3.** Forestry planning should be implemented with the maximum level of social participation, integrating the greatest range of sectorial interests, including specialists in territorial planning, the conservation of biodiversity and land, etc. This planning should promote an effective integration of environmental, social and economic functions of the forest area and diversification of forestry production.
- **Measure no. 4.** If forestry planning authorises new plantations, priority will be given to land exchanges (in the case of plantations in protected spaces), grouping of owners, the need for proper management and the restoration of exchanged land.

- **Measure no. 5.** Forestry planning must establish the conditions for the new eucalyptus plantations used for biomass, which should occupy agricultural lands, preferably abandoned, and, in any event, far away from the area of influence of protected natural areas, the habitats of species included in some of the red books, national inventories of endangered species, european directives, and other national and international laws or elements of particular hydrogeological importance.

Guideline no. 2: With regard to forestry planning, territorial strategies and planning plans and the environmental legislation.

To solve the conflict and to improve the sustainability of eucalyptus plantations, it is fundamental that both the public administrations and the private sector observe the applicable legislation, accept the necessary territorial planning and understand the need for a forestry policy that diversifies production and promotes multi-functionality of woodland.

- **Measure no. 6.** Adapt the environmental impact assessment legislation so that all eucalyptus plantations, including those implemented following the stumping of an old plantation, will be required to submit to the environmental impact assessment procedure when their surface area exceeds 25 hectares. In the case of old eucalyptus plantations, applications to plant more eucalyptuses close to areas of cultural interest, in areas near springs, fountains and water points or temporarily flooded areas, should be rejected.
- **Measure no. 7.** Reinforce the ability of the forestry and environmental administration to monitor and control the enforcement of all the legislation on eucalyptus plantations.
- **Measure no. 8.** Diligently resolve administrative claims and proceedings initiated due to non-fulfilment of administrative requirements and the legislation.

Guideline no. 3: Prohibition of new plantations in protected natural spaces and progressive elimination of existing ones.

- **Measure no. 9.** No new eucalyptus plantations will be authorised in protected natural areas (Natura 2000 Network, PNAs) or in other areas of interest for the conservation of endangered habitats or species.
- **Measure no. 10.** Forestry planning will include, in the annual budgets, items for the progressive elimination or replacement of these plantations by means of the exchange or purchase of land, direct aid for the replacement of species, prioritising locations of major environmental impact or with less productive interest. The plans will define measures, budgets, deadlines and quantitative objectives.
- **Measure no. 11.** In protected areas where there are eucalyptus plantations, the final felling, stumping and new plantation will be heavily conditioned by the adoption of new methods and criteria that give priority to the conservation and protection of the land and landscape versus production objectives.
- **Measure no. 12.** Eucalyptus plantations should be prohibited in enclaves and properties in forestry areas occupied by well-conserved autochthonous masses.

Guideline no. 4: Establish specific management guidelines with indicators to significantly reduce the negative impacts of the eucalyptus management model.

- **Measure no. 13.** Planning projects, management plans and environmental impact assessments should integrate new designs of more stable plantations that include the following aspects:
 - ✓ Respect and maintain existing specimens and small natural-vegetation forests, both in the undergrowth and in the boundaries of the plantation.
 - ✓ Promote the creation of stands of natural forest and other habitats (meadows, rocky groves, thickets), leveraging the heterogeneity of existing spaces, such as watercourses, crests, rock groves, springs, fire-brakes, etc.
 - ✓ The design of the plantation and its management should target the creation of breaks in the forestry mass, the creation of spaces or corridors that serve as ecological corridors, particularly by means of the recovery and conservation of riverside woods.
 - ✓ Avoid plantations comprised of continuous and geometric surfaces as a way of reducing the visual and environmental impact, promoting strategies for forest fires and creating biological corridors.
 - ✓ Using a viable surface, diversifying the plantation, promoting the use of autochthonous forestry species with production and/or conservation objectives (chestnut, cherry, birch, autochthonous pines, cork, beech, etc.).
 - ✓ To avoid the harmful effect of gales or problems of pests and forestry diseases, plantation design should seek to diversify classes of age.
 - ✓ When clones are used, continuous plantations based on the same clone larger than 10 ha should be avoided.
 - ✓ The deliberate felling of more than 10 ha on land with a gradient of more than 20% should be avoided. In any case, felling size should be conditioned to the erodibility of the land or soil and the rainfall system.
 - ✓ Maintain felling residue on the plantations, grinding it down and scattering it evenly over the surface to maintain soil fertility and protect it from erosion. Prohibit the use of fire as a forestry management tool, specifically in the removal of felling residue.
 - ✓ Avoid very visible fire barriers perpendicular to level curves, replacing them with fire barriers without bare land, using native species.
 - ✓ Apply pest-control methods minimising the use of pesticides and commit to preventive methods and biological fighting. The use of pesticides will only be justified in emergencies and for curative purposes, totally avoiding preventive treatments.

Guideline no. 5: Increase and improve independent research on forestry management applicable to eucalyptus plantations in the Iberian Peninsula.

- **Measure no. 14.** Establish a task force with experts from different disciplines to assess the terracing techniques used in the centre and south-west of the peninsula to propose specific modifications that minimise the negative impacts of this technique. The objectives would be:
 - ✓ To investigate alternatives for the preparation of the land that will minimise soil degradation, testing the best techniques that make it possible to maintain soil quality.
 - ✓ Seek alternatives to the total elimination of vegetation in land preparation work.
- **Measure no. 15.** To evaluate the impact of the extraction of cutting debris (bark, branches, leaves) for use as biomass and the growing energy demand. It is particularly relevant to

determine the amount of nutrients that is eliminated from ecosystems if felling debris is removed from the plot, and how this reduction will affect plot productivity.

- **Measure no. 16.** Increase research into non-cellulose uses of eucalyptus wood which allow a proportion of plantations to have felling cycles greater than 15 years, leading to product diversification, a reduction in the mean extraction of soil nutrients and a better capacity for biodiversity on plantations. In this regard, it is important to develop a eucalyptus plantation silviculture to obtain quality wood that permits greater multi-functionality of these plantations.
- **Measure no. 17.** Improve the methodology used to estimate the evolution of carbon in eucalyptus plantations and its products, a methodology that will include all carbon flows in the overall balance, including losses of edaphic carbon resulting from the processes of change in soil use, land preparation, forest management model and the different methods of elimination of felling debris. In this regard, progress should be made in the proper assessment of the balance of greenhouse effect gases of this type of plantations, also taking into account nitrogen, since the combustion of bark, branches and leaves releases by no means negligible quantities of nitrogen oxides.
- **Measure no. 18.** Investigate and develop economic development alternatives in areas highly dependent on the eucalyptus that will allow greater economic diversification, such as the production of quality wood, non-wood forestry products, rural tourism, ecotourism, maintenance of protected natural areas, etc.

Guideline no. 6: Use the forestry certification of the FSC (*Forest Stewardship Council*) as one of the possible tools to improve the management of eucalyptus plantations.

There are environmentalist organisations in the Iberian Peninsula that do not support the existing forestry certification systems since their flaws do not currently guarantee truly sustainable forestry management.

Other groups are actively supporting the *Forest Stewardship Council* certification system, known by its abbreviation FSC. For the groups that support the FSC, this system is based on participation and consensus among forestry management stakeholders to search for transparency, and has procedures for claims and conflict-solving in place. For this reason, the FSC is one of the forums where an understanding between the eucalyptus-wood producing sector and part of the ecologist movement is conceivable.

- **Measure no. 19.** Debate with the sector in the context of the process of revision of the FSC indicators for sustainable forestry management, on criteria and indicators that will harmonise the production of eucalyptus wood with a responsible management of natural resources.
- **Measure no. 20.** The forestry administration in different autonomous communities must support certification systems which, like the FSC, seek the greatest possible social consensus and participation and can channel conflicts in the eucalyptus sector and seek consensus and commitments among all parties.

Guideline no. 7: Do not authorise the development of transgenic eucalyptus plantations.

Genetically modified (transgenic) trees constitute a serious environmental risk. Damage to biodiversity, as well as the health and socioeconomic risks inherent in genetically modified organisms lead us to oppose their release, both in agrarian and forest crops.

- **Measure no. 21.** The forestry administration will not authorise transgenic eucalyptus plantations in the respective Autonomous Communities.

Guideline no 8. Eucalyptus plantations should not be seen as a solution to climate change.

Well-conserved, functional ecosystems connected as ecological networks maintain highly important ecosystemic services thanks to their resilience. One of them is the CO₂ sink. Eucalyptus plantations are not an ecosystem in themselves. Their uptake of CO₂ may not be stable in the short-term or medium term depending on the use of paper and the stability of these plantations.

- **Measure no. 22.** Eucalyptus plantations will not be included in the national accounting of emissions in compensation for the surplus emissions from other sources due to their nature, which is unstable and unpredictable over time.

Guideline no. 9: Request the society's commitment to reducing the consumption of paper and energy.

The ecologist movement realises that the controversy of intensive farming for the manufacture of paper is not limited to Spain or Portugal, since in developing countries (Brazil, Uruguay, Argentina, India, South Africa, etc.) the intensive growing of eucalyptus for the production of cellulose paste or fuel takes on far greater magnitudes and degrees of social and environmental conflict than the Iberian Peninsula.⁴

This is why it is very important to accept that the reduction in the social and environmental damage associated with the eucalyptus plantations in the Iberian Peninsula does not occur at the cost of “exporting” such damage to other countries, for example, Latin America, whose eucalyptus wood, transformed or untransformed, already partially satisfies demand from the Peninsula and the rest of Europe. We understand that there is room for eucalyptus plantations in the Iberian Peninsula in a rational way, following the guidelines expounded in this document, and thus also contributing to reducing the ecological footprint of the international transport of wood and its cultivation in other countries, sometimes in undesirable social and environmental conditions.

As expressed in the manifesto “A common vision for transforming the European paper industry” in 2005, we are restating our commitment to reduce the ecological fingerprint of the production of paper all over the world.

On the other hand, and in the face of new demands for growing eucalyptus for biomass and the use of felling residue for the generation of energy, we understand that the response to the energy crisis in Spain and Portugal should be based both on the expansion of renewable energies with a guarantee of environmental respect and on the reduction of energy consumption.

- **Measure no. 23.** The public administrations should reinforce campaigns targeting the promotion of forestry products (that take into account both the source and the production systems), and the reduction of paper consumption, its efficient use and an increase in the selective collection and recycling of paper.⁵

⁴ For further information see the Website of the World Rainforest Movement, WRM.
<http://www.wrm.org.uy/boletin/150/Brasil.html>, <http://www.wrm.org.uy/boletin/136/Uruguay.html>

⁵ In turn, the ecology movement considers that the consumption of paper should be prioritised over more contaminant synthetic materials such as plastic packaging and bags, synthetic insulation, etc.

- **Measure no. 24.** The public administrations should reinforce measures targeting energy saving and improved energy efficiency in all sectors with a view to reducing energy consumption in absolute terms.

Signatory organisations of “A Common Vision”

AEMS-Ríos con Vida - Amigos de la Tierra - Asociación Asturiana de Amigos de la Naturaleza (ANA) - Asociación para a Defensa Ecolóxica de Galiza (ADEGA) - Asociación para la Defensa de los Recursos Naturales de Cantabria (ARCA) - Asociación para la Recuperación del Bosque Autóctono (ARBA) - Asociación Medioambiental Izate Ingurugiroaren Taldea (País Vasco) - Asociación Medioambiental Ecos Astures - Asociación Ereba, Ecología y Patrimonio - Colectivo Ecologista de Avilés - Coordinadora Ecoloxista de Asturias - Ecologistas en Acción - Greenpeace España - Grupu d'Ornitoloxía Mavea - Instituto para la Calidad y la Educación Ambiental - SEO/Birdlife - Sociedade Galega de Historia Natural (SGHN) - Salvemos los Territorios del Bajo Navia (SALTERNAVIA) - Sociedad de Ciencias Naturales de Sestao - Verdegaiá - WWF España.