Preventing forest fires in Portugal with production of woodchips

Portuguese foresters are putting unused woody biomass to good use

Wildfires are one of the biggest challenges facing rural areas, especially in Southern Europe. In the northern and central regions of Portugal, forest owners and managers are looking for ways to prevent forest fires while running their businesses in a viable way. Rosario Alves, executive director of the Associação Florestal de Portugal (Forestis), the federation of Portuguese forest owner organisations, says: “Residues of forests, like shrubs and wood that remain on the ground after harvesting or thinning, act as fuel in terms of fire. Even though foresters are aware of the risks of wildfires, many small Portuguese forest owners are finding it too costly to perform tending operations. If they could find a way of generating revenue from the woody sub-products, then it would make business sense too.”

Alves would like to help: “One solution we see is to create value for the production of primary forest biomass for energy. For that, we need to find a way to generate sufficient market demand.” Alves then realised that, to achieve such change, she would need the help of experts on logistics, equipment and energy. “The Operational Group GOTEFCFOR allows us to work in partnership with research institutes, local consumers and forest owners. We aim to optimise the forest biomass supply chain by working with readily available knowledge and creating solutions in three to four years’ time.”

GOTEFCFOR has first been compiling and analysing information related to the market potential of the biomass. “Consumers have to be close to the forest, because logistic costs are a critical issue in making a business profitable or not,” Alexandra Marques, who is a researcher at Instituto de Engenharia de Sistemas e Computadores, Tecnologia e Ciência (INESC TEC), says. To facilitate the match of demand and supply, the Operational Group is developing a software tool that gives information on the location and amount of wood available in the field and the demand of potential clients nearby. “This tool will help all partners involved in the Operational Group to make this match in a cost-effective way,” Marques states. “One of the partners is a local greenhouse flower producer, Floralves. He acts as an early demonstrator, so to test if the tool actually works.”

The Operational Group will also specify what sort of modifications are needed to existing machinery, so that the small-sized wood can be recovered and pre-processed in the field. Filipe Santos, researcher at INESC TEC, says: “To reduce transport costs, the machinery has to make woodchips on-site. The machinery has to cope with steep slopes, small plots and narrow pathways and it has to produce woodchips that are appropriate for use as energy. This will result in a roadmap for machine manufacturers, who can then adapt their products and enter this new market.” Rosario Alves says that the forest owners are happy to become involved in this Operational Group: “They will be collecting wood samples, so that we can do tests to identify the wood that can be used for making the woodchips. Also, they will test machinery and their adequacy on experimental forest plots.”
Press article 250words

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Background information

Project information

Operational Group: COTECFOR (AIS poster page 79)

Associação Florestal de Portugal (Forestis) (Portugal): http://forestis.pt/ (Portuguese)

Instituto de Engenharia de Sistemas e Computadores, Tecnologia e Ciência (INESC TEC): https://www.inesctec.pt/en (English)
Pictures

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Woodchips, that are appropriate for use as energy. Copyright: Associação Florestal de Portugal (Forestis)

The Operational Group will specify what sort of modifications are needed to existing machinery, so that the small-sized wood can be recovered and pre-processed in the field. The machinery has to cope with steep slopes, small plots and narrow pathways. Copyright: Associação Florestal de Portugal (Forestis)

Ricardo Marinho presents a poster on the Operational Group, which he coordinates on behalf of Associação Florestal de Portugal (Forestis)

More information on sustainable mobilisation of forest biomass

- EIP-AGRI Focus Group Sustainable mobilisation of forest biomass
- EIP-AGRI factsheet on sustainable mobilisation of forest biomass
- EIP-AGRI workshop ‘New value chains from multifunctional forests’
- EIP-AGRI Focus Group ‘New forest practices and tools for adaptation and mitigation of climate change’
- EIP-AGRI Brochure on Creating diverse forests with multiple benefits
EIP-AGRI Inspiration from your country on sustainable mobilisation of forest biomass?

Here below you find a list of topics that have been covered in one of the EIP-AGRI events and / or EIP-AGRI publications.

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EIP-AGRI

The European Innovation Partnership ‘Agricultural Productivity and Sustainability’ (EIP-AGRI) is one of five EIPs which have been launched by the European Commission in a bid to promote rapid modernisation of the sectors concerned, by stepping up innovation efforts.

The EIP-AGRI aims to foster innovation in the agricultural and forestry sectors by bringing research and practice closer together – in research and innovation projects as well as via the EIP-AGRI network.

EIPs aim to streamline, simplify and better coordinate existing instruments and initiatives, and complement them with actions where necessary. Two specific funding sources are particularly important for the EIP-AGRI: the EU Research and Innovation framework, Horizon 2020, as well as the EU Rural Development Policy.

- EIP-AGRI Brochure on Thematic Networks under Horizon 2020 (EN – FR – HU – SP)
- EIP-AGRI Brochure Horizon 2020 multi-actor projects (EN)
- EIP-AGRI Brochure on Funding opportunities under Horizon 2020 - 2018 Calls (EN)
EIP-AGRI Operational Groups

EIP-AGRI Operational Groups are groups of people who work together in an innovation project funded by Rural Development Programmes (RDPs). Operational Groups are the EIP-AGRI’s main tool for turning innovative ideas into real solutions for the field.

An Operational Group consists of several partners with a common interest in a specific, practical innovation project. The people involved in the Operational Group should bring in different types of practical and, where necessary, scientific expertise. They may include farmers, scientists, agri-business representatives and many others. Every country or region has the possibility to define specific national demands or restrictions on how to put together an Operational Group.

- Visit the Operational Groups page on the EIP-AGRI website

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