As part of the European Union’s drive to promote the use of renewable energy, a ‘Biomass Action Plan’ has been developed which is designed to increase the amount of energy derived from biomass. New research has investigated barriers to greater exploitation of forests as a source of biomass for energy production.

Biomass (biological material such as plants) could help mitigate the effects of climate change by reducing reliance on fossil fuels and potentially reducing greenhouse gas emissions (although the full environmental impact requires careful investigation before widespread use). Forestry products may therefore have an important role to play in developing the use of biomass as a renewable energy source in the heating/cooling, electricity and transport sectors.

Researchers in Spain used integrated assessment focus groups to understand the diverse range of socio-economic issues related to developing forests as a sustainable fuel source in the region. By involving scientific experts, policy makers and members of the public in the process, the political, social and environmental barriers to exploiting the forests as a source of fuel were identified.

To meet the rising demand for bioenergy, researchers estimated sources of potential fuel in Catalonia, Spain, from forest trees, shrubs and dead material, industry and manufacturing, agricultural crops, furniture and garden waste. Three options were proposed in the focus groups for the conversion of this material into bioenergy:

1. construction of small plants in, for example, schools
2. building plants to produce heating within the district
3. erection of a cogeneration plant supplying heat and electricity

A wide variety of expert information was also made available to the focus group participants, enabling informed discussions to take place. Members of the focus groups were drawn from three areas: science and expert knowledge, policy and decision-making, and from members of the public with a stake in developing forests as a source of bioenergy (forest and company owners, for example). Such involvement of all interested parties in the policy-making process can ensure the successful implementation of environmental programmes.

Conclusions drawn from the focus groups included:

- current use of forestry products is not economically viable and a market should be developed
- logistical and supply problems should be addressed
- many owners have small areas of forest, making integrated planning difficult
- accumulation of dead material poses a significant fire risk and a fire prevention policy is needed
- forest policies are not well defined and should be designed to suit local areas
- the type of energy production (heat, electricity) should be adapted to the local region

The researchers suggest that addressing social and economic issues are as important as technical factors, if the use of bioenergy is to be developed.


Contact: neus.puy@uab.cat

Theme(s): Climate change & energy, Forests