

How does EU agricultural policy help in this transition?

Farmers decide where they want to sell their products: on the food, feed or energy market. As the EU obligation to double the use of renewable energy by 2020 is strongly driving demand for biomass, it is very likely that the energy market will become more important.

Within EU agricultural policy, support for the production and use of bioenergy in rural areas has been strengthened: renewable energy and climate change are priorities for which the EU has substantially increased the financial resources available.

Support for renewable energy can take many different forms, ranging from investments in physical capital to those in human capital (such as training). Here are some examples of relevant

projects supported by EU funding (through rural development programmes):

- building biogas plants;
- planting trees for short-rotation coppicing;
- installing heating systems which run on straw, wood pellets or low-value timber;
- establishing perennial energy grasses;
- crushing oilseeds on the farm and using pure plant oil as fuel for farm machinery.

In addition, the EU encourages Member States to use more wood from forests in a sustainable manner and to make wood use more efficient.



Is bioenergy really sustainable?

There are alarming reports about burning rainforests, destruction of wildlife habitats and unsustainably intensive farming practices – to mention just a few frequently voiced anxieties. And besides such environmental concerns, many people are asking:

- will the production of bioenergy increase food prices and thus lead to hunger?
- will growing more sugarcane (to make ethanol) force more workers into poor working conditions?
- will increased demand for land force indigenous peoples to leave their homes?

Without any doubt, the increasing global demand for a range of commodities – not only energy but also food, feed and raw materials - will put pressure on virgin land and certain social groups. This is why the EU requires biofuels to be sustainable. The ultimate objective is to ensure that whenever biomass is used for energy in the EU with support from our Member States, this does not damage the environment, jeopardise efforts to mitigate climate change or bring about negative social effects.

If used wisely, bioenergy will help us to green our energy supply. That's why the EU strongly supports the production and use of sustainable bioenergy.

Directorate General for Agriculture and Rural Development

<http://ec.europa.eu/agriculture/>

<http://bookshop.europa.eu/>

© European Union, 2010

The text of this publication is for information purposes only and is not legally binding



Greening our energy supply The role of bioenergy from forestry and agriculture



What is bioenergy?

Bioenergy is basically energy from biomass: as plants grow they capture sunlight plus carbon dioxide, and energy is stored in the organic matter they build. In other words, plants store solar energy for us. When the biomass used for energy is replaced by continued growth or replanting, it can be considered a *renewable* energy source.

Bioenergy comes from forestry, agriculture and organic waste. We can heat our houses with wood, we can drive our cars on biofuels, and biogas from installations which use the organic component of waste (biowaste) can generate electricity and heat.



Why is renewable energy important for our future?

- Renewable energy plays an important role in combating climate change because it helps us reduce emissions of greenhouse gases.
- Renewable energy also makes us less dependent on imported fossil energy.
- The transition to greener energy creates jobs and raises economic growth in the EU.

These are the reasons why the EU has committed itself to increasing the share of its energy consumption from

renewable sources to 20% by 2020. This is about double the current share.

In many cases, biomass is best used in local energy supply and consumption systems. This is why the EU's renewable energy target is good news for the rural areas of the EU: it is stimulating job creation, innovation, business opportunities and prosperity in the countryside.

Why can't we do without bioenergy?

Bioenergy is by far the most important type of renewable energy in the EU: it currently provides two thirds of all renewable energy in the EU. Bioenergy holds many advantages. It is:

- **competitive:** the main sources of biomass for bioheat are relatively cheap compared with fossil energy sources;
- **always available:** unlike solar and wind energy, bioenergy has the advantage that it can be produced continuously, as most of the feedstock can be stored;

- **convenient:** bioenergy can cover changing seasonal demand (for example, many households store wood for heating in winter); and
- **ready to use:** for the current car fleet, biofuels are the only alternative to fossil fuels.

This is why bioenergy will play an important role in achieving the EU's target of 20% for renewable energy usage by 2020.

Is there enough biomass available?



Yes - there are many potential sources of bioenergy which are currently underused, for example:

- by their nature, the trees of European forests grow every year, and only two thirds of this growth is harvested.
- less than one tenth of the animal manure produced by European agriculture is used for generating biogas.
- a portion of those organic residues from forestry, agriculture or landscape management which are simply left to decay could be used for bioenergy.
- fallow agricultural land could be brought into production and trees could be planted on less productive farmland.
- farmers could either sell more traditional crops on the energy market or decide to grow dedicated energy plants, like grasses.

Studies show that the use of bioenergy in the EU could grow two- to threefold without harming the environment and without reducing production of food, feed and raw materials.

In other words: the EU's forestry and agriculture sector, together with increased use of biowaste for energy, will cover most of the 20% renewable energy obligation. This is a huge challenge but also a great opportunity for rural areas in Europe.