

Biofuel policies for dynamic markets



BEHIND BIOFUELS...

I. The problem:

Increased demand for biofuels could have significant long-term impacts on several commodity markets. Current disputes on this issue (with rising prices in today's markets) require responsible policy.

II. The objective:

Introduction of efficient and low-disturbing policy options that enhance biofuels while minimizing the impacts on e.g. food and feed markets and biomass for power and heat.

III. The activities :

Review of current experiences with biofuels and other renewable energy policies and their impacts on other markets;

Iterative stakeholder-supported development of low disturbing biofuels policies;

Model-supported evaluation of these policies' impacts on food & feed and lignocellulosic markets;

Assessment of selected optimal policies' impact on biofuels development, potentials and costs .

IV. Your role:

- a. Help us in finding more appropriate policies
- b. Let us help you in defining threats as well as synergies associated with increased market presence of biofuels

What are biofuels?

Biofuels are liquid or gaseous fuels derived from biomass for use in the transport sector. The most commonly used biofuels today are biodiesel and bioethanol. They can be produced from a variety of agricultural feedstocks and woody biomass. In Europe, the most commonly used raw materials are:

- Wheat and sugar beet for ethanol
- Rapeseed and sunflower oil for biodiesel

Other feedstocks include: maize, palm oil, soybean oil etc. In the mid-term, more advanced, 2nd generation biofuels such as advanced ethanol, FT-diesel and DME are expected to have the best prospects. Feedstocks for these fuels, are woody and grassy crops (e.g. willow, switchgrass), as well as low grade residues such as straw and sawdust. However, all these feedstocks have competing applications in other industries.

THE REAL SIZE OF THE PROBLEM...

Popular perception

Biofuels to blame as beer prices soar 40 per cent in Germany

The Independent, 24 June 2007

Wheat prices have been soaring on the back of global demand, particularly from Asia, and also to feed the boom in biofuels.

The Independent, 11 September 2007

Biofuels “crime against humanity”

BBC News, 27 October 2007

Global warming and the growing use of durum wheat as a bio-fuel are blamed for the steep rise in pasta prices.

BBC News, 13 September 2007



Market evidence

Other factors contributed much more to the recent price hike in grains: weather-induced production shortfalls, low intervention stocks, increased demand from developing countries are the main ones.

Source: OECD-FAO Agricultural Outlook, 2007

60% of rapeseed is produced for biofuels production.

Source: Oil World, 2007

Currently in Europe, only 1.4% of cereals is used for production of bioethanol and 2% of palm oil imports are used for biodiesel.

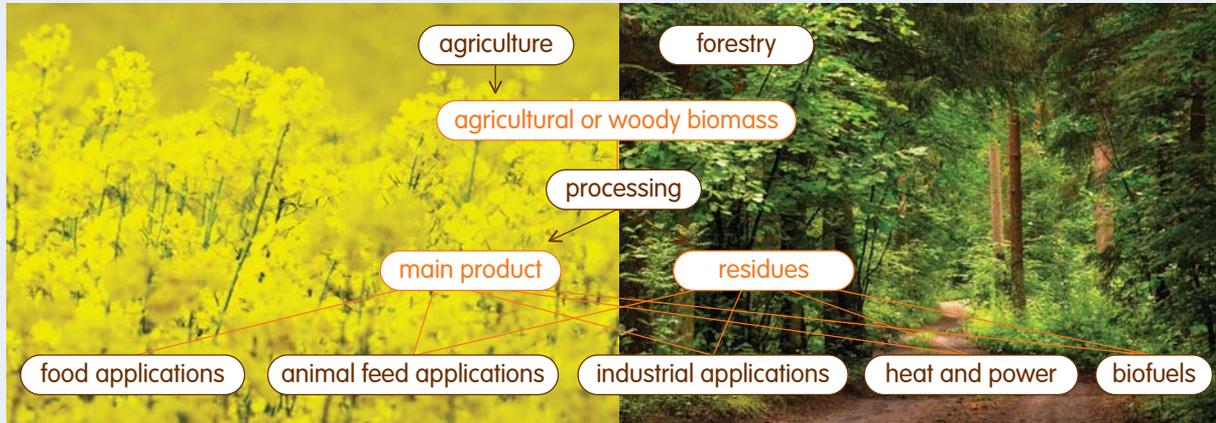
Source: EC, Management Committee on Cereals, 2007

Market evidence is mixed, no clear conclusions can be drawn on price correlations between biofuels and food and lignocellulosic markets. There is a need to distinguish real from perceived market impacts of biofuels.

Because biofuels demand is policy-induced, the driver policies need to be extra-responsible!

We must develop sensible and adaptive policy measures that take into account the complexity of effects between commodity markets, where those are affected significantly.

WHO IS AFFECTED...



Because of the wide range of possible applications of biomass, several groups of stakeholders will be affected:

1. Industries throughout the production chain:

- Farmers & forest entrepreneurs
- Owners of mills, crushing facilities, refineries
- Industries competing for raw material: food industry, animal feed industry, forestry-based industries, chemical industry, the heat and power sector, the biofuels industry...
- Energy distributors

2. Representatives of the civil society:

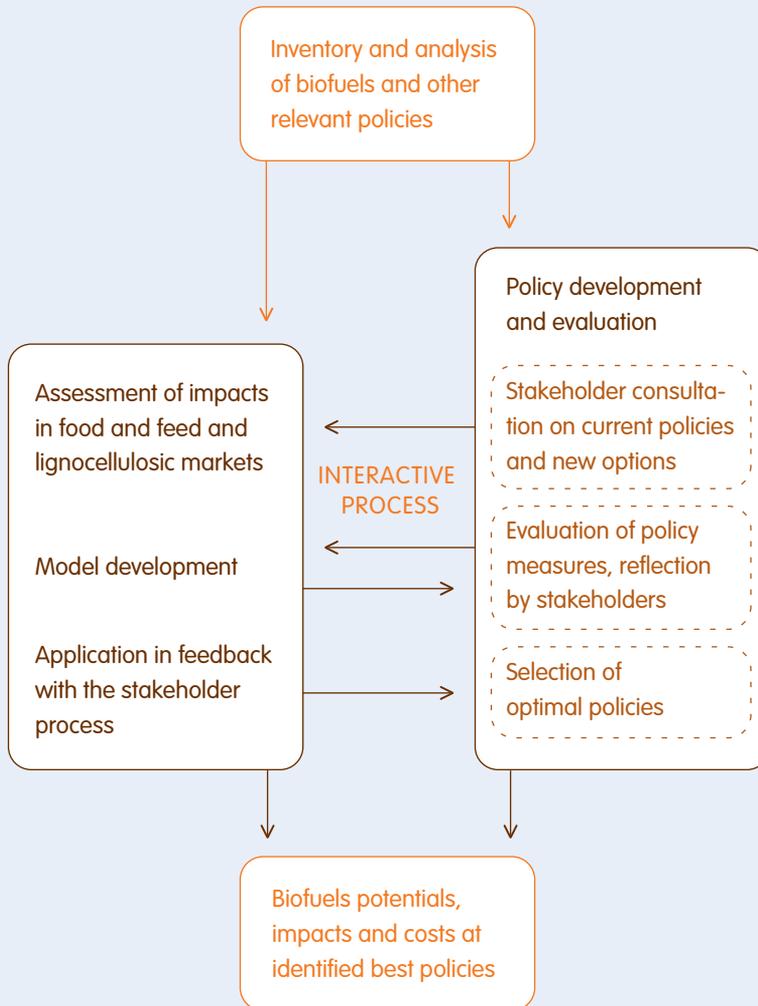
- NGOs
- Consumers associations

3. Legislative bodies that steer regulated markets

- European Commission (several DGs)
- Member states national departments of agriculture, trade, economic affairs...

The focus of the project is on European markets, however, for agricultural markets global developments will be taken into consideration. The same ambition exists for lignocellulosic markets.

WHAT ARE WE GOING TO DO ABOUT IT...



- This will provide information on the impact of these policies on biofuel market uptake, domestic biofuel production vs imports and describe the status of knowledge of induced market disturbances towards food, feed and other competing markets. It will also serve as inspirational input to the stakeholder consultation.
- Besides the stakeholder consultation, the criteria biofuel policies should meet to be classified as low-disturbing need to be defined. Based on the preliminary results reached so far, the policy options will be refined and stakeholders will be asked to provide feedback on the impacts of first-order proposed policies.
- After the first complete round of results from assessment of impacts of policies on food & feed and lignocellulosic markets, the synergies and conflicts between these impacts and identifies best policies or practices will be evaluated.

...AND WHAT CAN YOU DO ABOUT IT?

- **Adaptation to new market realities and**

- **Influence biofuel support policies!**

By reflecting on the existing biofuel policies and with your objective insights we are aiming at identifying the key issues and mechanisms leading to market disturbance. We invite you to provide your expert input through our stakeholder consultation process.

When?

Between August 2008 and November 2009.

How?

Send an email to stakeholders@elobio.eu to register and request details about the consultation process

Things to consider:

What policy options could we think of?

Currently, the most commonly applied biofuels incentives are obligations (e.g. a 2% blending mandate), or tax exemptions.

A more sophisticated approach could be to make incentives dependent on market circumstances, e.g.

- Recent EU agricultural yields
- EU Yield prospects
- Regional trading prices of commodities and their futures
- Global market developments

Also, such an approach could explicitly aim at increasing agricultural productivity in order to reduce market tightness.



USEFUL OUTCOMES...

A clear vision on policy options.

A vision of policy with the least impact on other markets shared with and approved of by policy makers and by relevant market actors and other stakeholders from the food, feed and lignocellulosic materials markets.

Optimised Member State policies on biofuels and related domains.

Elobio results will be available to MS as one of the inspirations to improve their policies towards becoming more responsible and encompassing of the important dynamics that dominate biomass markets.

A reliable estimate of the potential and costs of biofuels.

Fact and fiction will be separated and scientifically-based estimates of costs and potentials, given the application of these low-disturbing policy measures, will be provided to serve as base for future discussions on biofuels.

Improved models and tools to assess the relations between biofuels policies and the affected markets.

Future developments and new uncertainties arising from the interaction between the food, feed, lignocellulosic and biofuels markets will be better assessed with the enhanced models and tools that will result from the interactive process with stakeholders.

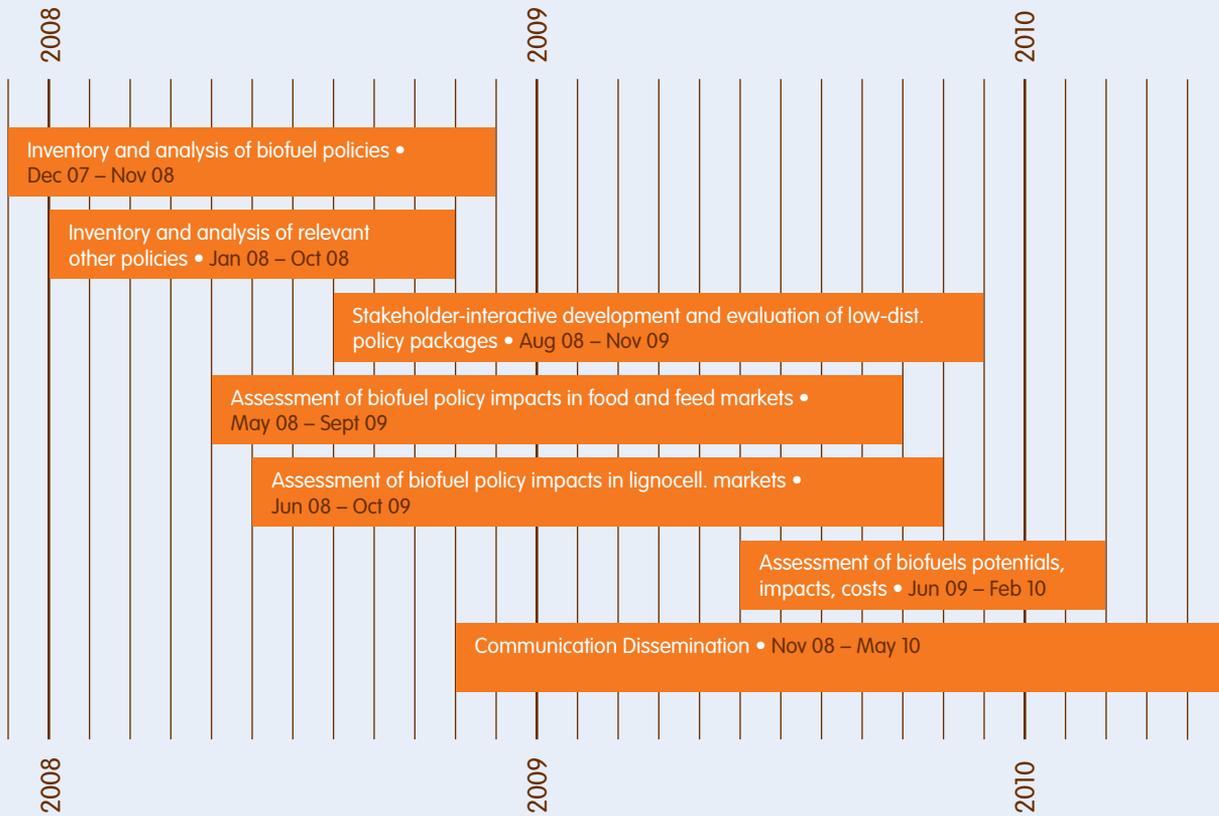
Improved models and tools to assess:

the relations between biofuels policies and the affected markets given

1. future developments and new uncertainties arising from the interaction between the food, feed, lignocellulosic and biofuels markets.
2. the impact of policy and market interactions on the allocation of biomass for the electricity, biofuels and heating/cooling sectors, which will serve as support for business decisions within the energy sector as well as for designing governmental support schemes.



TIMELINE...



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The Netherlands

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Belgium

IPiEO - Institute for Fuels and Renewable Energy
Poland

CIEMAT - Research Centre for Energy, Environment and Technology
Spain

COWI A/S
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IIASA - International Institute for Applied Systems Analysis
Austria

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