elobio

Biofuel policies for dynamic markets

1st ELOBIO stakeholder workshop

Report from the workshop: "Searching for new answers in the food-fuel debate - developing innovative options for EU biofuels policy"

Brussels, 30 October 2008

Intelligent Energy Europe

1st ELOBIO stakeholder workshop

Report from the workshop: "Searching for new answers in the food-fuel debate - developing innovative options for EU biofuels policy"

Brussels, 30 October 2008

Authors: Jeppe Lundbæk (COWI) and Marc Londo (ECN)

December 2008

Table of contents

Executive summary

The ELOBIO project is meant to develop ideas and criteria for EU biofuels policy, aiming at minimising negative impacts on food, feed and ligno-cellulosic markets. The objective of the stakeholder workshop was thus to engage with key stakeholders, asking them to provide relevant suggestions and questions to be analysed, and consequently providing an opportunity for them to influence the project by feeding their viewpoints into the process. Their input will be used for the further modelling and analysis in the project.

27 people participated in the workshop, held on October 30, and out of these 12 people were stakeholders (industry and NGOs), 4 were invited EU officials from relevant DGs, and the remaining 11 people were from the ELOBIO team. The background of the 12 invited stakeholders was mixed, reflecting in a quite balanced way the whole production biofuels chain and affected industries.

To nobody's surprise, a general note from the discussions at the workshop was that biofuels producers are most interested in increased agricultural productivity, farmers are interested in good prices for their produce, and if those are right they will expand production, while food producers are mostly concerned with the competitiveness of their products in terms of increasing input prices.

Furthermore, it was clear that stakeholders were well informed about biofuels and biofuels issues. There was a fairly general agreement that biofuels could only to a limited extend be blamed for the recent price spikes in food markets (only for a few crops were this was more marked, e.g. maize). A range of other important factors are also contributing to the situation of recent price spikes. The overall picture of the different studies now available is that the future impacts of biofuels targets on agricultural commodity markets are still difficult to assess: impacts on food prices, effectiveness of sustainability safeguards, and impacts on developing countries depend on numerous complex factors that are still not well-understood. In any strategy, this should be taken into account.

It also emerged from the workshop that stakeholders were quite capable of pointing out problems and opportunities, but it was more difficult for them to come up with ideas for new less disturbing biofuels policies. They did, however, provide useful feedback to the policies suggested by the Elobio team. Furthermore, it is believed that the stakeholders can play a strong role in assessing the results of the analyses and model runs later in the project, during the planned 2nd and 3rd consultation rounds. The more precise specifications of the policy options feeding into the models will be done by the ELOBIO team by taking into account the relevant comments and suggestions.

Key research questions that emerged from the workshop:

- Agricultural development and productivity increases are a vital precondition for responsible biofuels development. The extent to which this will happen, partly in response to additional policies or higher feedstock prices, is a highly relevant question
- The biofuels introduction rate is relevant as agriculture will need time to respond to this. It could be interesting to see whether this "response time" could be estimated and taken into account in policy making
- Trade policies will also be a critical factor for the extent to which price signals will influence farmers in different regions. This is a point worth attention in the modelling activities.
- An accelerated introduction of 2nd generation biofuels is expected to reduce impacts on food and feed markets. It would be useful to obtain more quantitative insights into this effect. However, impacts on affected lignocellulosic markets would also be worth noting.
- For the introduction of 2nd generation biofuels (and for investments in biofuels in general), volatilities in feedstock and biofuels markets can strongly influence investment risks. It will be

relevant to see how these volatilities affect investments in 1st and 2nd generation technologies, and how policies may be developed to reduce these risks, particularly for the 2nd generation.

- When performing overall analyses, it would be worthwhile also to analyse relatively extreme cases as an illustration.

Other concerns raised:

- An often overlooked advantage of using food crops for biofuels is that these crops can be directed to food consumption in the case of "price crisis". This cannot be done for non-edible oils such as Jatropha, or with woody crops for 2nd generation biofuels

- Co-products are quite a relevant issue. 1st generation biofuels provide substantial amounts of protein feed, a feedstock in which the EU is for ca. 80% dependent on imports.

- How do we communicate better the facts (pros and cons) of biofuels to a non-expert audience (the public in general), so that non-experts are better informed about the merits of biofuels

1. Introduction

1.1. The ELOBIO project

As the debate of "food versus fuel" intensified in the wake of rising food prices in the past few years, the relevance of achieving a clear understanding of the complexity of the relationships between biofuels, agricultural markets and food markets is of ever greater importance. Stress in commodity markets, allegedly induced by biofuels, can become a major barrier for political and public support for biofuels, thus seriously hindering their further development without achieving stability on agricultural markets.

The main objective of the ELOBIO research project[1] is to develop policies that will help achieve a higher share of biofuels in total transport fuel in a low-disturbing and sustainable way. The key ingredient for such a policy mix is that it is understood and accepted by all stakeholders involved and affected by the development of biofuels. Therefore, the project will strive to achieve:

- A clear vision on policy options with the least negative impacts on other markets in food, feed and ligno-cellulosic materials; a vision shared with and approved of by policy makers and by relevant market actors and other stakeholders.
- A reliable estimate of the potential and costs of biofuels, given the application of these low-disturbing policy measures.
- Improved models and tools to assess the relations between biofuels policies and the markets for food, feed and ligno-cellulosic materials.
- Improved models and tools to assess the impact of policy and market interactions on the allocation of biomass for the electricity, biofuels and heating/cooling sectors.

The ELOBIO project, which is running over 30 months, is using several analytical tools such as an agro-economic model, expertise in agricultural commodity markets, and a biofuels pathway model. However, the project has been conceptualised in a way where stakeholder consultations in form of workshops play a central role.

1.2. Stakeholder consultation a key component

The purpose of the stakeholder consultation process is to make the modelling more broad-based, realistic, and legitimate for policy makers and key actors. The workshop on 30 October 2008 was the first step in a stakeholder consultation process involving three steps in all. The October 30 workshop was aiming at having stakeholders reflect on existing policies and identifying key issues and mechanisms leading to market disturbance. The results of the first workshop will, if possible, be used as an input into an economic model developed for the purpose (assessing potential and cost of proposed biofuels policies). Later, the preliminary results of the model runs (indicating the impacts on food & feed markets as well as on ligno-cellulosic markets) are to be reflected upon by the stakeholders, encouraging them to evaluate the methodologies applied as well as suggesting further improvements.

- First stakeholder workshop, defining and setting criteria (30 October 2008) **(the focus of this report)**
- Exchange of preliminary results via email (appr. October 2009)
- Second stakeholder workshop, identifying optimal policies (appr. December 2009)

The purpose of this report is to summarise the findings of the 30 October workshop.

[1] The ELOBIO project is undertaken by seven European partners: ECN, VITO, IPIEO, CIEMAT, COWI, IIASA, and Chalmers University. For further details see www.elobio.eu

2. The workshop

2.1. Objective

The ELOBIO project is meant to develop ideas and criteria for EU biofuels policy, aiming at minimising negative impacts on food, feed and ligno-cellulosic markets. The objective of the stakeholder workshop was thus to engage with key stakeholders, asking them to provide relevant suggestions and questions to be analysed, and consequently providing an opportunity for them to influence the project by feeding their viewpoints into the process.

2.2. Organisation

The workshop started with a brief introduction to the ELOBIO project, and hereafter an invited speaker from the Institute of Food and Resource Economics at Copenhagen University gave a presentation under the title: *Trends in key agricultural commodity markets - agricultural outlook and drivers behind price fluctuations* (see Appendix 1).

The main elements of the workshop were two separate group sessions in the afternoon, where stakeholders were asked to discuss a number of relevant questions. The discussions took place in three groups of stakeholders, that had been mixed beforehand to promote diversity of views within the groups. The same groups attended the two sessions. At the end of each session, the groups were asked to report their viewpoints in plenum for cross-fertilisation of ideas. The first session was meant to open up the debate by putting all the information on the table, and identifying the most important issues. The second session was meant to narrow down the discussion by focusing on solutions and/or options for addressing some of the issues identified in session one.

A simplified way of using the Six Thinking Hats (de Bono) was used for structuring the discussions, which were guided by one facilitator and one reporter for each group. The strength of the Six Thinking Hats method is that it, if applied correctly, structures discussions along a set of steps, where the first steps encourages thinking in an open and positive way about possibilities, intuition, initial emotions, facts and information, whereas the next steps encourages thinking more about problems and pitfalls and threats, while the final steps encourages overview of the process, summarising the process, control, and next steps forward.

The point of departure for the discussions was: 1) EU biofuels policy should lead to a successful further introduction of biofuels, sufficient to meet the 2020 targets, and biofuels should be produced in a sustainable manner; and 2) As part of the sustainability criteria, a biofuels policy should not have any strong negative impacts on agricultural, ligno-cellulosic or commodity markets.

The afternoon sessions focused on the following issues presented briefly below.

Session 1: Sharing experiences and exchanging viewpoints among stakeholders

Some of the key questions were:

- What are important ways by which biofuels policy and changes in commodity markets affects the different sectors?
- What good and bad effects may occur due to the fact that biofuels and other sectors start responding to each other via commodity markets?
- Overall, what are your initial thoughts and reflections on this food-fuel subject (is everything as it ought to be)?
- What is the maximum speed of increasing biofuels consumption in order to avoid strong increases of food/feed prices?

Session 2: Discussing and suggesting policy options that further promote biofuels production, but which does not disturb markets in significant negative ways

Some of the key questions were:

- What can be done to accommodate rising food and feed prices and prices of other commodities?
- What would be a set of relevant policy option for "low-disturbing" biofuels policies?
- What research questions should the ELOBIO project look into?
- Means of increasing agricultural productivity - impact on commodity markets?
- Trade issues (imports vs. domestic production or a combination) - impacts?
- Using 2nd generation technology - impacts?
- Key policy instruments such as quota obligations vs. tax exemptions - impacts?

2.3. Target group and participants

The *target group of the workshop* was meant to be stakeholders, who represent the various players that are most affected by biofuels policies, and whom would like to express their opinion on the issue. The *target group of the ELOBIO project* is firstly DG TREN, and secondly more generally policy makers in the EU Commission.

The aim for the number of participants was to have 25-30 people attending the workshop. In the process of inviting stakeholders some 100 relevant stakeholders were contacted. The outcome of this process was 27 people that participated in the workshop, and out of these 12 people were stakeholders, 4 were invited EU officials from relevant DGs, and the remaining 11 people were from the ELOBIO team (see list of participants in Appendix 2). The main emphasis was on gathering viewpoints from the stakeholders (industry and NGOs), and not on engaging stakeholders with the DG officials, so the DG officials had been invited to participate with a more neutral role. The background of the 12 invited stakeholders was mixed, reflecting the whole production biofuels chain and affected industries. However, the workshop was not successful in attracting stakeholders from the ligno-cellulosic industry such as forestry, pulp and paper, nor did it attract stakeholders from the energy sector. Stakeholders were primarily from either pan-European organisations or from organisations from the north-western part of the EU-15.

Targeted/invited stakeholders:

- Suppliers of raw material (agricultural crops and forestry)
- Biofuels/biomass industry
- Food and feed industry
- Energy Sector (did not participate)
- Pulp and paper industry (did not participate)
- Experts/researchers
- NGOs
- Relevant EU/DG officials

An evaluation of the workshop by the participants is found in Appendix 3.

2.4. Programme

The programme for the one-day workshop is presented below.

Time	Activity
Morning session: Setting the scene	
9.30 - 10.00	**Registration**
10.00 - 10.10	**Introduction and welcome** - purpose of the day (André Wakker, ECN)
10.10 - 10.30	**The ELOBIO project** - objective, analytical set-up, and expected outcome (Marc Londo, ECN)
10.30 - 11.10	**Trends in key agricultural commodity markets** - agricultural outlook and drivers behind price fluctuations (Kenneth Baltzer, Institute of Food and Resource Economics, Copenhagen University)
11.10 - 11.30	**COFFEE BREAK**
11.30 - 11.50	**Gathering viewpoints from stakeholders** (Jeppe Lundbæk, COWI) - introduction to afternoon sessions
11.50 - 13.00	**LUNCH BREAK**
Afternoon session: Feeding stakeholder viewpoints into the project	
13.00 - 14.15	**Group sessions: Sharing experiences and viewpoints among stakeholders on policies and market effects** - Division into 3 groups
14.15 - 14.35	**Reporting back to plenum** 5 min presentation from each group
14.35 - 14.50	**COFFEE BREAK**
14.50 - 16.00	**Group sessions: Suggest policy options that promote biofuels production, but which does not disturb markets in significant negative ways** - same 3 groups
16.00 - 16.20	**Reporting back to plenum** 5 min presentation from each group
16.20 - 16.30	**Wrap-up and comments on steps ahead** (Marc Londo, ECN)

3. Viewpoints from the sessions

3.1. Session 1: Sharing experiences and exchanging viewpoints among stakeholders

Group 1: Participants: FEDIOL, COPA-COGECA, DG AGRICULTURE, Fact Foundation, ELOBIO team

The session started with an introductory round in which the main impressions and concerns with regard to the development of biofuels were expressed by each stakeholder.

Fediol (the EU Oil and Protein-meal Industry) thinks the 10% target in 2020 is feasible if the European oil seed production is increased. For example, in Ukraine, farmers managed to increase the production of rapeseed in just one year from 1.1 - 2.9 million tonnes last year. The estimated production for 2050 is big enough if we have GMO policies, import of granola/rapeseed from Canada, and if we use multiple feed-stocks. Policies on imports are needed, as imports are likely to increase. In US for instance, production is subsidised with 300 USD per ton, but this is predicted to end. Also in Argentina there are subsidies, export is subsidised with 300 USD per ton. This export subsidy must be even with import tax into the EU to create a level playing field. If prices increase, production in Europe will also increase – it is an incentive for European producers to increase their production. This will also increase the volatility of the process, but this is not necessarily a problem.

MVO (The Dutch Product Board for Margarine, Fats and Oils) said this is a subject that is highly influenced by emotions and individual perceptions, and people need to learn more about what biofuels are about. The media and the people need increased knowledge but also to a certain extent the Commission and the Member States. The issue is currently very much influenced by the public opinion/perceptions, and not by facts.

COPA-COGECA (the Confederation of European Farmers Associations and Agricultural Cooperatives) support the statement of FEDIOL and emphasised that the biodiesel standard should not be changed. The annexes of the fuel quality directive should be maintained. We need more biodiesel in the diesel blends. Concerning ethanol, a balanced approach is needed and import taxes for untreated ethanol must be maintained. We cannot compete with Brazil as it is now. The blend must be increased and a revision of the directive is needed, so we need a derogation to reach the 10% target in the 2014 requirement. High prices enlarge the problems for livestock farmers wanting to export, so the sector recognises that dependency of protein products increase. We are in favour of biofuels as this increase by-products used for feed. Farmers actually agree on this.

Fact Foundation (an NGO): Biofuels has come to stay in Europe. There is a clear relation between food and fuel crops, and feedstock for fodder – oil is a by-product of fodder production and it should be communicated to the public that this is not a new phenomenon. Waste products from other food production can also be used for 1st generation biofuels, not only for 2nd generation biofuels, and this will have a market share even without new production. The extra production of crops for biofuels stems from an artificially created demand by the Commission. We need to import from developing countries to meet this demand. Why should developing countries export biofuels and import fossil fuels? This does not make any sense. They have extra transportation costs for shipping fuels back and forth.

There is a small discussion on what and how the developing countries should produce and export. It is mentioned that this is a good opportunity for developing countries.

COPA-COGECA: We need a balanced approach. Take the 50% domestic production and 50 % imports as otulined in the EU impact assessment on biofuels. EU has a bigger potential than assessed by the Commission, particularly with the enlargement of new MS the agricultural area has doubled, however productivity is low, so there are huge potentials for increased efficiency. We can do more than 50% domestic production. The restructuring of CAP will change the future market for agricultural products.

Facilitator: don't you see any problems in delivering enough biofuels to Europe based on EU sources, and also more generally? Is everything as it should be?

COPA-COGECA: We are currently far from the 2010 indicative target (5.75% biofuels). A key obstacle is the public debate. The public is confused and now the European Parliament is changing course in biofuels policies! The developments create confusion over political objectives and this creates uncertainty in the market and hampers investments.

Fediol: Remember why biofuels is promoted in the first place. The reasons are the following: Promote agriculture in the EU; CO2 reduction; Security of supply.

DG AGRI: This is not correct. Promotion of agriculture in the EU is not mentioned as a specific objective, only CO2 mitigation and security of energy supply are.

Facilitator: if the 2010 target is difficult to reach, could one envisage a sort of burden sharing agreement among the EU MS (some could go far, some less far)? Would this give the needed flexibility?

DG AGRI: The instruments provided to the Commission to enforce the target are limited. There is no obligation for MS, and the Commission can only point out that a country does not reach the target. We can't propose binding targets. We hope that this study provides some best practices and technological pathways that are not linked to the critical debate today. I see no other instruments. We need to push the MS – maybe a list of biofuels that are not based on arable land, but other materials such as animal fats could be something for the ELOBIO project to look into. A specification of barriers could be good. Use by-products instead of crops. The Commission has made a clear definition of wanted biofuels of 2nd generation that are not based on food crops but on by-products.

Facilitator: do you favour the proposal suggesting that part of the 2020 renewable energy target can be met in other ways - for example more biomass for electricity? Are there other smart ways of using biomass for energy?

COPA-COGECA: To get progress we need mandatory targets. Then the market will make sure that farmers set up production and that there is investment in R&D. It distorts competition that 2nd generation biofuels are very capital intensive and there is no co-product that reduces the dependency of protein from elsewhere. See for example the report from the IFO institute. 1st generation biofuels should not be excluded, and the policy should not distinguish between 1st and 2nd generation. As it is now, 2nd generation is favoured. This is not right.

Facilitator: how can we deal with the public's perception of the merits of biofuels, and who should be dealing with it?

A discussion emerges where OMV suggests that the scientist should bring the right information to the debate, but Fact Foundation retorts that the scientists are not always right – this is seen i.a. from the reports on biofuels. Instead journalists should do their job and provide correct information. OMV then suggests that this should be the job of the Commission. DG AGRI then states that the sustainability criteria on an international level lead to a positive image. It provides positive examples such as in Sweden, where the social dimension is included. And in Finland there are positive examples where market niches are found. This should be communicated by the relevant public administrations.

Facilitator: How should we cope with the bad harvest years that exert more pressure on the system?

A discussion emerges where MVO points out that we need more weather resistant crops. It is also emphasised that farmers will eventually produce more as demand increases and then we must build up stocks over time. To cope with the years of exceptional situations we need special arrangements. We cannot put the food supply in danger. Fact Foundation suggests that food crops used for biofuels should be used for food in years of low supplies and high food prices.

Key messages from Group 1:

- We need to stick to basis – why the biofuels were in focus in the first place (reducing CO2 emissions, security of energy supply)
- We should see it as a good opportunity for the farmers, albeit crop and livestock producers are not benefitting in the same ways. Biofuels also good for rural development.
- We need to focus on the long term objectives – a firm policy framework is needed
- Biofuels should be seen as part of the new "bio based economy"
- We need more R&D, especially in terms of crop resistance and in terms of biofuels based on inputs other than e.g. food crops
- Food and fuel should complement each other where possible

Group 2: Participants: National Farmers Union (UK), CAOBISCO, Copenhagen University, Oxfam NL, Ebio, DG ENV, ELOBIO team

The session started with an introductory round in which the main impressions and concerns with regard to the development of biofuels were expressed by each stakeholder.

Oxfam is generally concerned with the insecurity caused by the global talk about biofuels at a time where the world is experiencing a global food crisis with heavy price increases on basic foods affecting in particular developing countries. Two key issues in connection with biofuels production are: 1) Land use, especially in developing countries. In itself biofuels production requires vast amounts of land, and increased biofuels production may lead to violations of land rights, which have been fought hard for by local farmers. This may have a huge social impact, especially at the local level with people being stricken even more by poverty; 2) Food vs. fuel. The food issue is very important. With new, ambitious biofuels targets, crops for food are forced out of production, leading to price increases, which affect especially poor countries. However, biofuels can be controlled. It is important to curb insecurity by allowing for a balanced debate on the issue and giving proper political attention to the subject leading to a solid decision basis. The review clause securing investigating among other things the social impacts of biofuels before further increases is very important.

NFU (National Farmers Union/UK, representing farmers in England and Wales) said that basically, in the UK, the use of biofuels has not progressed very far. The target this year is 2.5% of fuel consumption. An important issue is sustainability. It is essential to put in place sustainability standards that work in practice securing that biofuels production does not harm the environment, biodiversity, excessive land use etc. On the food/fuel issue, it is worth mentioning that farmers have always cultivated their land for multiple purposes and markets (food and non-food) so there is nothing new in using agricultural land to provide transport fuels. On the food price increases, it should be noted that food prices are back to the level of three years ago. The UK is a large importer of grain, but there is

lack of infrastructure for mass storage. In terms of biofuels production, storage capacity and infrastructure are also important factors. These are not in place in the UK. It is essential to determine who will bear the burden, especially if locally produced biofuels should play a role in meeting national biofuels targets. Presently, investments into agriculture are almost non-existing. It is a global problem that limited funds presently go into agricultural investments; massive cuts in this area have been seen in recent years.

CAOBISCO (Association of the Chocolate, Biscuits and Confectionery Industries of the European Union) is concerned about the fact that raw materials that are central to their production are increasingly being used for production of biofuels. The present level of insecurity is important to tackle. There are several insecurity factors that contribute to the present situation (environmental impact, impact on food supply, consumers/food prices). Among others, these are development of 2nd generation biofuels, which is still at an early stage. To this end, two aspects are important to consider: Land use - where is the land required to meet biofuels targets? The available land in EU cannot accommodate a high demand for biofuels production, and manufacturers cannot cope with insecurity as it renders it impossible to make any responsible planning. You need to look at the bigger picture, considering aspects such as feedstock constraints, including pesticide regulations, environmentally related regulation, export/import regulations. Specifically on grains, three points are important: 1) Buyers - the grain markets influence one another, one cannot consider them separately; 2) The future of the common agricultural policy (CAP). Stocks are important to ensure the stability of the market and to avoid vulnerability; 3) "Guesstimates". Economic forecasts are uncertain, making it difficult to plan production.

The facilitator (ELOBIO) rounded off the initial presentations by illustrating in two graphs the correlation between food prices and quantity and the impact of biofuels obligations on these. The first round of views was followed by general discussions among stakeholders on two issues: stocks and trade-related issues.

On stocks:

NFU said that inventories of stocks are made on a consumption basis - i.e. how many days' consumption can stocks cover. It is important to identify where stocks are and should be in the future. Should they be on farms (partly the case today) or should they be centralised and would that be practical in terms of infrastructure? Who will bear the cost and is any funding available?

Oxfam said that if stocks are needed, it can lead to political capture. Politicians may use it as an excuse to reinstall previous methods (subsidisation). Originally, it was food scarcity that triggered subsidies. The situation today is not the same in terms of biofuels. However, a market governed by subsidies is fully controlled, and can thus be regulated, which would be the obvious thing to do in terms of biofuels.

On the trade issue:

NFU said that a free market is preferable allowing supply to fit in naturally. A market of no restrictions would provide the opportunity to produce biofuels. Both domestic and imported biofuels should be allowed.

Oxfam said that it is important that trade is made fair taking into account environmental and social aspects. Negotiations on how to develop the sector in a fair way are important. It is necessary to make agreements with producers on the social and environmental concerns. Brazil has bad examples of bio-ethanol producers where employees work under slave-like conditions.

Copenhagen University said that the concept of "fair" is a subjective term. One should ask the question "fair to whom?". Would the conditions for Brazilian labour be better without the biofuels industry? It is important to compare with the alternative.

Oxfam said that the EU should encourage Brazil to come up with a policy response. It is essential to promote fair trade rather than dictate it.

CAOBISCO said that no export restrictions should exist. Free access and free trade are important, however, considering the concept of fairness. It is important to secure supply - with due consideration to sustainability - as this will be the way forward for biofuels.

NFU said that a RES Directive concern is to ensure fair competition for domestic producers.
It is also important that everybody has access to cheap food; the focus should not be on where it comes from but rather on improving production.

Key messages from Group 2:

- Local scale vs. international scale
- Emergency break - realised through the Review Clause
- Insecurity
- Agricultural investments - or lack of same
- Stocks - delegation of responsibility
- Availability of land
- Response time

Group 3: Participants: IMACE, Neste Oil, DG DEV, Swedish Farmers Union, ELOBIO team

The session started with an introductory round in which the main impressions and concerns with regard to the development of biofuels were expressed by each stakeholder.

IMACE (International Margarine Association of the Countries of Europe) is worried that products made from crops used also for biofuels are affected in terms of price increases and availability. Although there is acknowledgement that so far the impact has been negligible, there are real fears of future impacts when the biofuels industry will be claiming more and more feedstock. A further issue is the "image" of the products; you want people to switch their diets from saturated to unsaturated fatty acids and those are being impacted more by biofuels development. By contrast, butter (full of saturated fatty acids) might become cheaper after the CAP reform which would make butter more attractive to consumers than margarine.

The LRF (Lantbrukarnas Riksforbund, Sweden) pointed out that farmers have been suffering from low agricultural prices for very long, so the recent price increases are very good even though not all farmers are benefiting (animal breeding farmers are not benefiting as they are faced with higher feed prices), however, on average, the farmers unions see a long run increase in commodity prices as a positive development because it will trigger an increase in production. Farmers do not give biofuel producers any preferential treatment – they are simply interested in selling to the highest bidder. Furthermore, the increased availability of DDGs for animal feed decrease European dependency on soy imports.

DG DEV sees the opportunity for developing countries but small farmers would have to be included. They would like to see some kind of land prioritization: designating land first for food production, then bioenergy for own use, then bioenergy for export.

NESTE OIL's principal question on the issue of feedstock availability (for all industries) is "how to use the available land in the best way?" At the moment, agriculture looks as a very interesting area to invest in but at the same time the credit crisis adds a lot of uncertainty.

A general note (facilitators note) from these discussions was that it seemed that biofuel producers are the most interested in increased agricultural productivity, farmers are interested in prices for their produce, and if those are right they will expand production, while food producers are concerned mostly with the competitiveness of their own products.

In the discussion on trade barriers for biofuels, distinctly different viewpoints emerged:

The LRF is deeply concerned about future opportunities for biofuels production in Sweden. At the moment, the Swedish government is preparing some legislation that would allow Brazilian ethanol to be imported without tariffs (a change of classification for ethanol imports to chemical product), which could also turn Sweden into a major entry point for Brazilian ethanol for the rest of Europe. The LRF is lobbying against it because it would threaten the current Swedish ethanol producers (who are in turn an important buyer for the Swedish farmers). The LRF believes a certain level of import tariffs is necessary to stimulate the development of second generation biofuels.

IMACE supports efforts for the development of second generation (which they would like to see commercialized as quickly as possible) but in the meantime, keeping import tariffs adds pressure to the feedstock supply for their industry. This is a big problem because they cannot simply transfer the price increase to the consumers because of the already mentioned competition with butter but also because there's so much pressure from retailers who have huge buying (and negotiating) power and they simply do not accept price increases.

The LRF agrees that the food supply chain has become very concentrated and the farmers often do not share the gains of higher food prices.

The discussion on sustainability:

Neste Oil confirms that oil companies are also concerned with the sustainability aspect of fuel and wanted to know how much land is available for the expansion of agriculture?

IIASA (ELOBIO team) sees as the fastest way of increasing supply of agro-products by increasing productivity in developing countries. In terms of land availability, there is still a lot of grassland and pastures available that could be used for agricultural production but about half of it would be uneconomical. More research needs to be done to determine the exact amount of land available for expansion of agricultural land. Increase of ethanol production in Brazil so far has come from pastures and in the future it might come from the cerrado area that includes some native forests. But in principle, there should be land available in Brazil to expand sugar cane plantations at no (or low) cost to natural areas.

DG DEV's unit of sustainable management of natural resources is concerned about being able to implement the sustainability criteria in time to meet the 2020 target.

IMACE agrees that sustainability criteria could be applied to all agro production (also for food) and in fact the industry has been exploring options even before biofuels became an important player due to customer demand (e.g. the round table on sustainable palm oil is the result of such industry efforts). However, criteria for biofuels should be stricter because the biofuels market is artificially created.

IIASA sees such differentiation not practically feasible, because you can't differentiate what agro production goes for food and what for biofuels.

Discussion on second generation biofuels:

Neste Oil wanted to know whether there is enough research being conducted into second generation biofuels.

IMACE sees second generation moving into the mind of politicians and their industry is willing to support the development of commercial second generation (not clear what form such support might take, though).

Farmers in Sweden are discussing the prospects for ligno-cellulosic production but they're waiting to see what will happen – they'd like to see a positive stimulus of demand.

Discussion on speed of biofuels introduction (especially with regard to the EU 10% target for 2020):

LRF finds the 10% target by 2020 is good for European farmers but also for developing countries, which require that the EU targets are kept to provide security for investments into production of biofuels.

IMACE completely disagrees about having the 10% target a mandatory one but doesn't know what time framework might be more appropriate.

Neste Oil thinks the 10% target is good.

Key messages from Group 3:

- Local scale vs. international scale
- Price pressure
- Long-term availability and stability of raw material (and land to produce it)
- Nutritional aspect (for vegetable oils)
- Sustainability – differentiation of criteria, is it feasible? Needs to be international (worldwide) exercise
- Tariffs and trade
- Developing countries – have opportunity but not the conditions to realize them
- Support to second generation (farmers don't have experience with second generation crops)
- Uncertainty of future development
- The discrepancy between the pace of increase in demand for biofuels and agro production
- The structure of the food supply chain (especially the concentration of the distribution sector)

3.2. Session 2: Discussing and suggesting policy options that further promote biofuels production, but which does not disturb markets in significant negative ways

Group 1: Participants: FEDIOL, COPA-COGECA, DG AGRICULTURE, Fact Foundation, ELOBIO team

The facilitator asked what could be solutions to more biofuels production without having prices of raw materials increase too much, for example the promise of 2nd generation technology?

MVO: The current goal can be reached but we need investments in agriculture. It will take years to develop 2nd generation. It is for the future. For instance FT is expensive for it will take a long time to obtain economies of scale.

A discussion emerges where it is mentioned that subsidies are needed to support the development of 2nd generation technology. However, COPA-COGECA states that there is still a lot of potential for 1st generation technology, and there should not be a distinction between fuels from 1st or 2nd generation technology. COPA-COGECA then suggests that a research question for ELOBIO could be to analyse the level of investments in agriculture and the productivity increases. If profitable, research in better crops will come. Biofuels policy should be performance oriented and not generation specific. Enzymes require a lot of energy so the question is if 2nd generation technology really is more environmentally friendly?

The facilitator then argues that the idea with 2nd generation technology is to have biofuels made with an improved CO2 balance. The facilitator also mentions that biomass can be used for generating electricity (and could then be used for electric cars), and that this could in some cases have a good CO2 balance compared with 1st generation technology.

A discussion ensues where MVO questions if electric cars are better. Fact Foundation is of the opinion that the assessment of biofuels technologies should be based on a lifecycle analysis rather than anything else. The goal should be to have CO2 emissions reduced. DG AGRI then states that this is already part of the proposed sustainability criteria. Then COPA-COGECA mentions that energy security should not be forgotten. DG AGRI says: Take the transport sector for instance, this is not included under the ETS, it was considered, but it was decided that small scale operators makes it difficult to control. But the problem is that the transport sector is 95% dependent on fossil fuels. The sector should focus more on fuel efficiency.

Fact Foundation: With regard to the developing countries the sustainability criteria are important and if demand from the EU increase, this demand must be met in a sustainable manner. DG AGRI: This is why the energy yield per hectare and the energy saving potential both must increase.

Fediol: Again – it is important not to distinguish between energy and food crops. The mandatory 2020 blend is 10%. Tax exemptions are most likely to be granted at the MS level. This result in a fragmented market where the tax level differs in the MS according to the priorities of the MS, e.g. the MS may chose to adjust the tax according to the availability of food. This creates a fragmented market. It should be 10% for all MS.

Facilitator: How to handle price volatility, what are the differences for Quotas and Taxes? And how do you assess the eastern European potential?

Fediol: Price evolution for 2006 and 2007 increased significantly. Plantings have are already been made. There is a great potential. But the eastern European farmers need to know more efficient

agricultural practices. In Ukraine, for instance, West European companies lease land and grow crops, and they are thus partly transferring know-how and consequently raising yields.

Fact Foundation: again – LIFE cycle analysis is interesting – i.a. with regards to increased use of fertilizers in Eastern Europe. Is Ukraine counted as an EU country in this context?

DG AGRI: EU is EU and goods from non-EU countries count as imports and tariffs are determined by the WTO. For developing countries this is done according to the GSP (generalized system of preferences)

Facilitator: what about trade?

Fact Foundation: There are no trade barriers from the developing countries to Europe today.

Fediol: in some places there is even an incentive to export to Europe e.g. Argentina where there is an export subsidy (for crops).

MVO: There is also the sugar production in Brazil. A research question could be to analyse whether the EU should build up own production or import as cheap as possible

COPA-COGECA: We should keep the protection of the internal market and biofuels should not be classified as an environmental good as the Brazilian wants. Production is needed to build a European production just as the Brazilian's used protection to build their industry. If energy security is a goal a European industry must be build, if not we are just making us dependant on another exporter.
A research question is thus to make an inventory of what research is done and of data and methodology of methods. Who is right?

Fediol: We should have zero duties on oil seed and for crude palm oil it should be some 4%.
If differential import/export taxes are used in other countries, then why should it be zero in the EU. This export incentive from other countries should be cancelled out. Moreover, the distinction should be between oilseed and rape seed oil and not waste product.

Key messages from Group 1:

- Research must determine what is fact and what is fiction
- We need to know more about the effects of obligation vs. tax
- LIFE cycle analysis should be used – based on performance and not generation of technology
- How can policy be as open as possible, independent of future policy – not only fuel but also feedstock for fuel
- How can we find ways to avoid using food staples for biofuels?
- We need to broaden the basis for both food and feed

Group 2: Participants: National Farmers Union (UK), CAOBISCO, Copenhagen University, Oxfam NL, Ebio, DG ENV, ELOBIO team

The facilitator asked what should be the introduction speed/response time for the agricultural sector in terms of biofuels production and does it matter?

NFU said that response time definitely matters from an agricultural point of view. Production capacity and reconversion are easier to adapt in a long-term perspective - 1 year vs. 12 years to 2020. Time and investments are needed as land that has been taken out of production needs to be put back into production again. Investments are needed to optimise production and improve yields.

CAOBISCO said that the impact of a speeded-up or delayed 2nd generation biofuels needs to be considered in this context. If biofuels are to be promoted, it is vital to make a decision on which type of biofuels to invest in - 1st or 2nd generation. However, on this subject, available studies point in different directions. Realistic studies are needed and arguments must be substantiated before they can back any decision on investing in either 1st or 2nd generation.

DG ENV said that it is essential also to consider the environmental aspects and constraints as these are sensitive issues that fall out of classic economic modelling which mainly focuses on intensification and markets. Environmental concerns are important not least with respect to biodiversity. Sadly, these concerns are often bypassed if there is a strong market pressure. Presently, there are serious gaps in knowledge with respect to biofuels production.

Oxfam said that there seems to be a misconception; if you invest in 1st generation, you also invest in 2nd generation biofuels. On the issue of arable land and 2nd generation, it should be mentioned that genetically modified, fast-growing trees are on the verge of being introduced as a means to producing 2nd generation biofuels.

NFU stated that whether we speak about food or fuel or 1st or 2nd generation, the land use is the same. Perhaps we should ask ourselves whether residues are used properly. The UK is heavily reliant on import of protein. Domestically produced animal feed could qualify as carbon-saving use of crop by displacing imported vegetable protein.

Facilitator: Is price volatility interesting?

Oxfam: Studies point in different directions. Theories tend to be very general. Model runs that show extremes could be very useful.

The facilitator: The main importing and exporting countries have clear policies on biofuels targets; the problem is that policies change all the time. Assumptions used for modelling will most reasonably be according to current targets.

Oxfam: One cannot omit Africa. It is important not to underestimate Africa and its energy demand in any modelling exercise.

CAOBISCO: Another point is the grading of land; some land is spoilt and cannot be used for food production but perhaps for biofuels production. In the future, there will be competition for land. Given this, it is imperative not to speak about land in general but about types of land. Further, the impact of liberal trade on regions and blocks should be considered.

Oxfam: It is a point that cannot be ignored. There is a need for models that can translate trade models into sustainable models.

NFU: There is also a reason to look at assumptions in modelling on agricultural productivity increases, and to this end there is a strong demand for R&D. Investments into agriculture have declined worldwide (both public and private). There is a keen interest in case studies rather than general recommendations. Modelling needs to be clear and explain the underlying "whys and whys not".

Key messages from Group 2:

- Research must determine what is fact and what is fiction
- As concluded in session 1, the biofuels introduction rate is relevant as agriculture will need time to respond. It would be interesting to see whether this 'response time' could be estimated and taken into account in policy making.
- In the introduction of 2nd generation biofuels, possible limitations in the availability of (non-food) residues are also a point of attention.
- An often-overlooked advantage of using food crops for biofuels is that these crops can be directed to food consumption in the case of a price crunch. This can not be done with non-edible oils such as Jatropha, or with woody crops for 2nd generation biofuels.
- Co-products are quite a relevant issue. 1st generation biofuels provide substantial amounts of protein feed, a feedstock in which the EU is for ca 80% dependent on imports.
- When comparing tax exemptions versus obligations, research into this field should feed into policies of national governments
- When performing overall analyses, it would be worthwhile also to analyse relatively extreme cases as an illustration. A general model is useful, but it is even better if it is illustrated by specific cases.

Group 3: Participants: IMACE, Neste Oil, DG DEV, Swedish Farmers Union, ELOBIO team

The first question to discuss was how to fight price increases?

IMACE sees having policy makers that are aware of the problem as an important part of the solution. They find the EU doesn't see the problems that biofuels bring, while the parliament is more sensible. They strongly oppose a mandatory target and fear it will bring much greater price increases. They support setting a separate target for second generation biofuels because it will release the pressure on the supply of raw material to the food industry.
Vertical integration has been used by food producers in the past to secure a steady supply of raw material (Unilever used to own several oil palm plantations) but is not the case anymore because it's a very controversial issue.

The LRF is looking at future market developments; farmers accept that the EU CAP reform will bring more role to the market, which is seen as positive, but there shouldn't be complete deregulation because that would mean in some areas of Europe we won't have any more agriculture.
They favor of increasing demand for clean energy by taxing CO2 emissions and support the 10% targets but also think it's important to have the fuel quality directive. Different drivers for the biofuels policy require different policy instruments and sometimes have conflicting outcomes, which makes everything very complicated.

The second question being discussed was the long-term availability and stability of supply of agricultural products

IIASA: By 2040, we'll need to double agricultural production and only 10% will come from land expansion, the rest is from intensification. The global food production should not decrease massively due to climate change in the medium term, but there will be shifts in productivities.

IMACE: The role of biotechnology in increasing food supply – still a pandora's box.

Support for biofuel should not come in the form of incentives for specific crops but rather for R&D.

Sustainability

IMACE agrees with having sustainability criteria, but thinks no premium payments for sustainable products can be expected because increased cost cannot be rolled over to customers. They strongly advocate sustainability criteria for biofuels.

Developing countries

The role of Africa: Africa needs much more investment to deliver significant amounts of agricultural commodities, it needs infrastructure, know-how, etc. It is currently not competitive with Brazilian ethanol and is not likely this will change any time soon.

Key messages from Group 3:

- Different opinions on the differentiated target
- Environmental taxes should be used to increase demand for biofuels
- CAP reform: we still need some level of agricultural policy to maintain a certain level of agro production in Europe
- Support an increase in sustainable agro production
- Vertical integration – not sure it's an option
- Small farmers need to become more organized to benefit from the biofuels opportunities, especially in developing countries,
- Sustainability criteria needed, but in a practical way (should not block developing countries)
- Free(er) trade: balanced approach
- Support for new crops – only temporarily, not for long-term

4. Conclusions

To nobody's surprise, a general note from the discussions at the workshop was that biofuels producers are most interested in increased agricultural productivity, farmers are interested in good prices for their produce, and if those are right they will expand production, while food producers are mostly concerned with the competitiveness of their products in terms of increasing input prices.

Furthermore, it was clear that stakeholders were well informed about biofuels and biofuels issues. There was a fairly general agreement that biofuels could only to a limited extend be blamed for the recent price spikes in food markets (only for a few crops were this was more marked, e.g. maize). A range of other important factors are also contributing to the situation of recent price spikes. The overall picture of the different studies now available is that the future impacts of biofuels targets on agricultural commodity markets are still difficult to assess: impacts on food prices, effectiveness of sustainability safeguards, and impacts on developing countries depend on numerous complex factors that are still not well-understood. In any strategy, this should be taken into account.

It also emerged from the workshop that stakeholders were quite capable of pointing out problems and opportunities, but it was more difficult for them to come up with ideas for new less disturbing biofuels policies. They did, however, provide useful feedback to the policies suggested by the Elobio team. Furthermore, it is believed that the stakeholders can play a strong role in assessing the results of the analyses and model runs later in the project, during the planned 2nd and 3rd consultation rounds. The more precise specifications of the policy options feeding into the models will be done by the ELOBIO team by taking into account the relevant comments and suggestions.

1 Key research questions that emerged from the workshop:

- Agricultural development and productivity increases are a vital precondition for responsible biofuels development. The extent to which this will happen, partly in response to additional policies or higher feedstock prices, is a highly relevant question
- The biofuels introduction rate is relevant as agriculture will need time to respond to this. It could be interesting to see whether this "response time" could be estimated and taken into account in policy making
- Trade policies will also be a critical factor for the extent to which price signals will influence farmers in different regions. This is a point worth attention in the modelling activities.
- An accelerated introduction of 2nd generation biofuels is expected to reduce impacts on food and feed markets. It would be useful to obtain more quantitative insights into this effect. However, impacts on affected lignocellulosic markets would also be worth noting.
- For the introduction of 2nd generation biofuels (and for investments in biofuels in general), volatilities in feedstock and biofuels markets can strongly influence investment risks. It will be relevant to see how these volatilities affect investments in 1st and 2nd generation technologies, and how policies may be developed to reduce these risks, particularly for the 2nd generation.
- When performing overall analyses, it would be worthwhile also to analyse relatively extreme cases as an illustration.

Other concerns raised:

- An often overlooked advantage of using food crops for biofuels is that these crops can be directed to food consumption in the case of "price crisis". This cannot be done for non-edible oils such as Jatropha, or with woody crops for 2nd generation biofuels

- Co-products are quite a relevant issue. 1st generation biofuels provide substantial amounts of protein feed, a feedstock in which the EU is for ca. 80% dependent on imports.

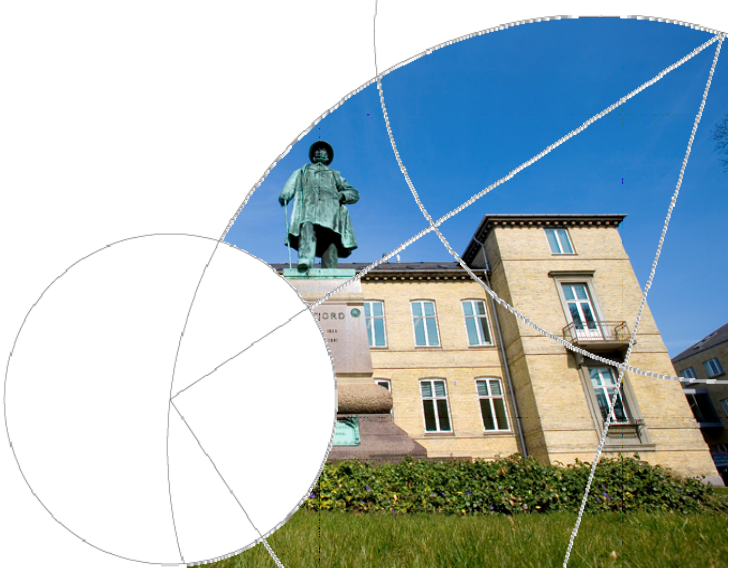
- How do we communicate better the facts (pros and cons) of biofuels to a non-expert audience (the public in general), so that non-experts are better informed about the merits of biofuels

Appendix 1

Trends in key agricultural commodity markets

- What and why?

Kenneth Baltzer

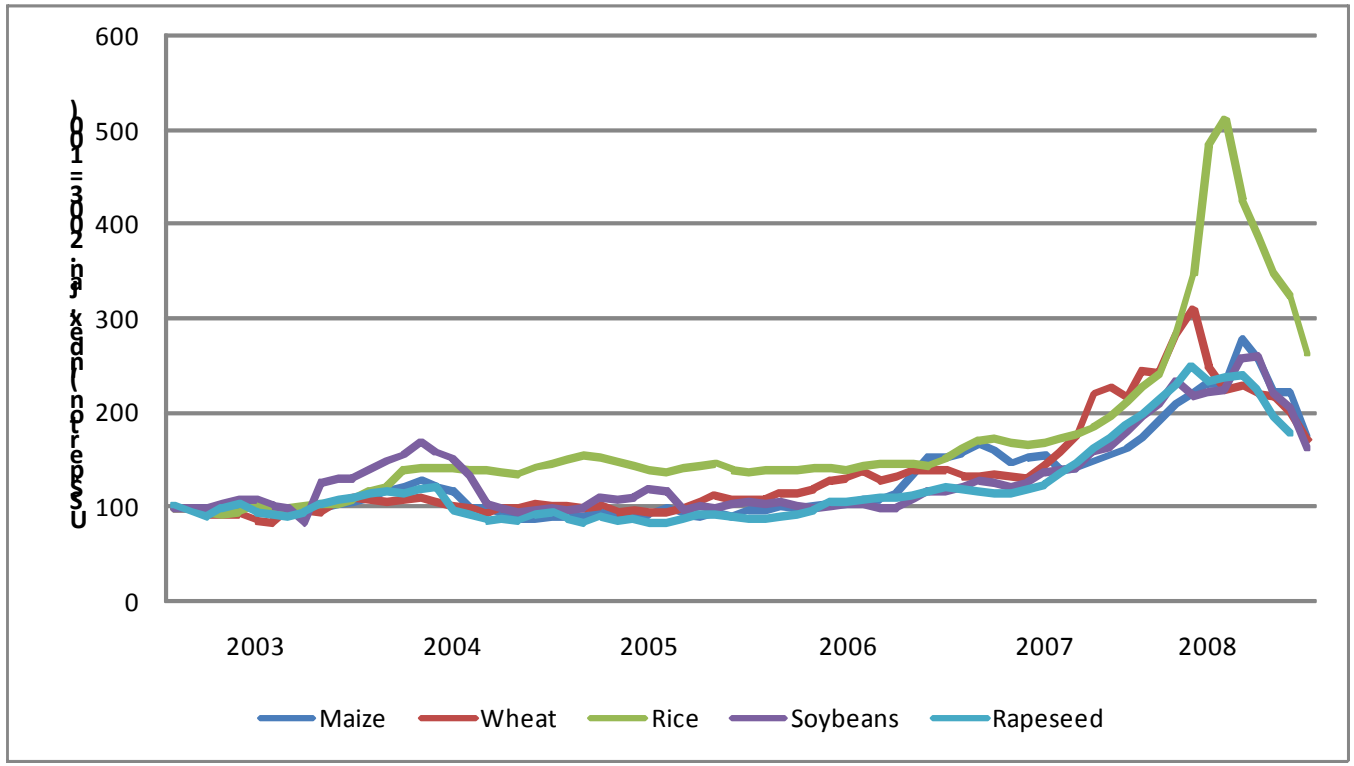


The World Food Crisis

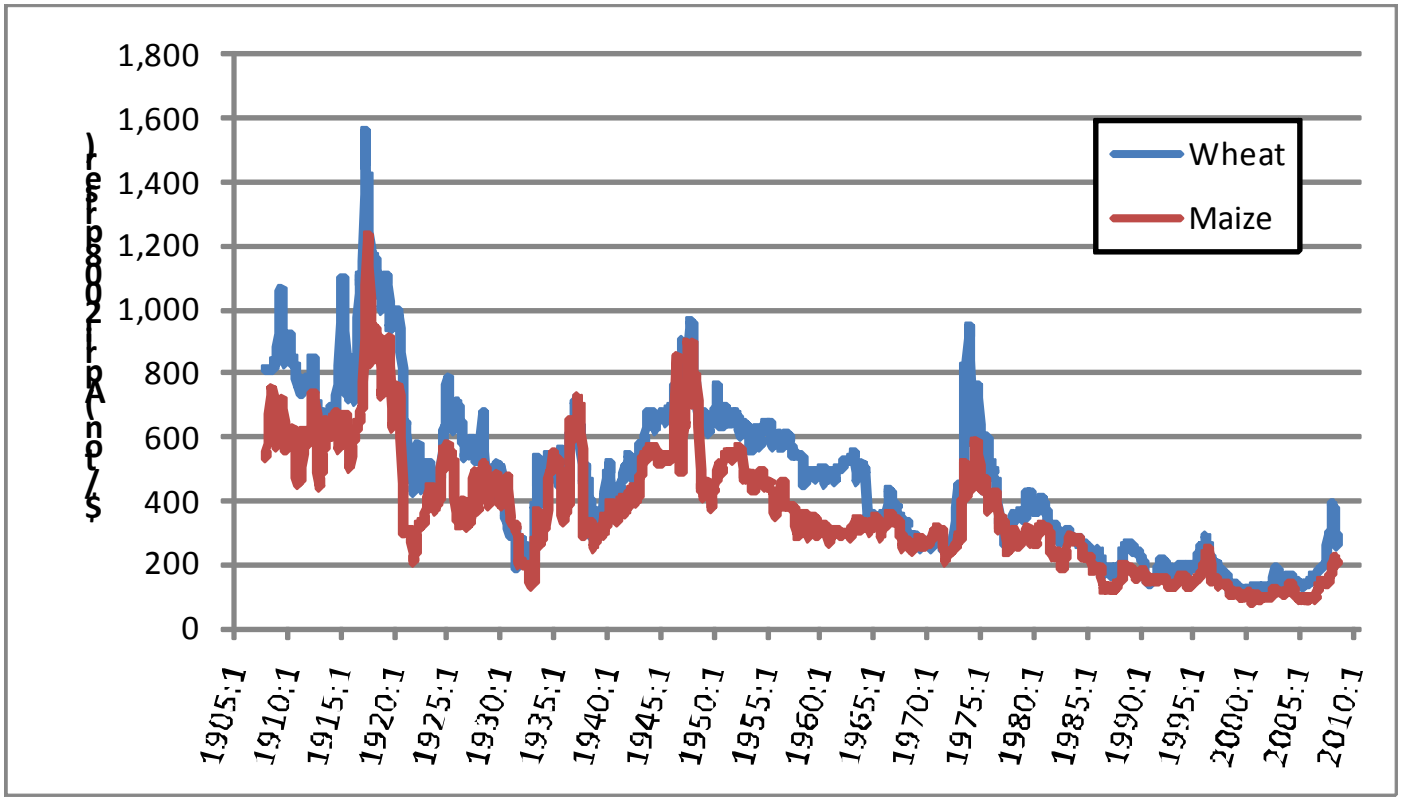
”Bad weather started to plague so much of the world’s crop land that many experts conclude that the climate itself is changing.”

Time Magazine,
”The World Food Crisis”
November 11, 1974

Latest price developments



Historical price developments



The Usual Suspects

2008	1974
Low stocks	Low stocks
Poor harvests	Poor harvests
Exchange rate	?
High input prices	High input prices
Rising incomes in China and India	Population growth
Biofuels	-
Export restrictions	Export restrictions
Speculation	?

Main message

These all sound reasonable, but

- We don't know the relative magnitudes of the effects
- The literature provides some suggestions
- These are essentially "guestimates" (albeit often informed ones)
- Nothing is proven yet!

But maybe

- there is nothing exceptional about periodical price spikes?
- most of these factors are relatively insignificant?

Maybe it all comes down to poor harvests due to bad weather?

Hypothesis

Price spikes are a natural part of grain markets

- periods with relatively stable prices will occasionally be broken by sudden price increases

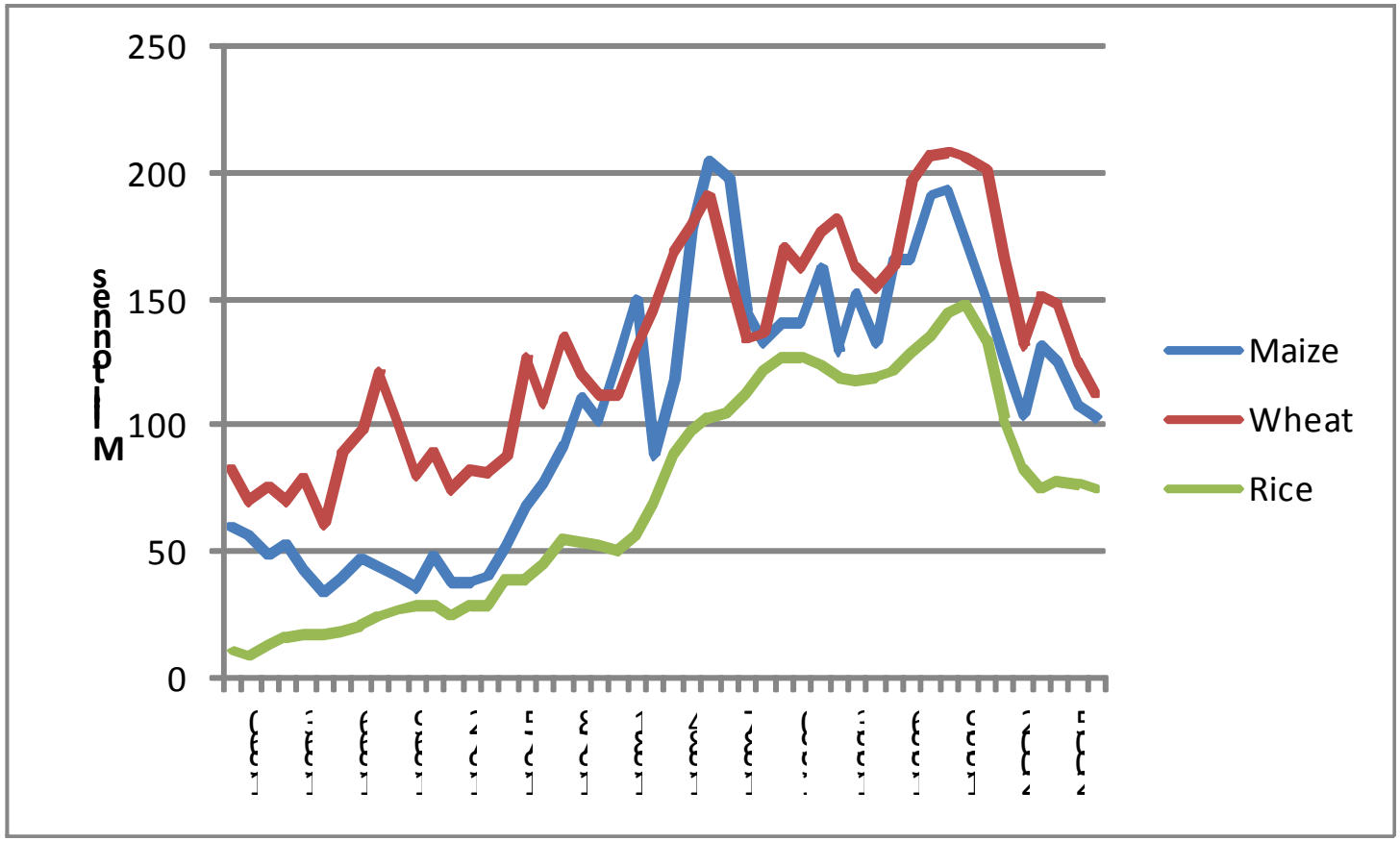
Three characteristics of grain markets:

- Demand is inelastic
- Supply is subject to unforeseen events (weather)
- You cannot eat grain that has not been produced

Need for grain stocks

- Without stocks prices will be highly volatile
- With stocks, we can store grains from good years and use it in bad years – stabilise prices
- However, once in a while 2-3 bad years will deplete stocks and create price spikes

Stocks



Poor harvests?

We need to look at 2000-2003 as well as 2005-2007

2005 – 2007:

- Maize: USA (2005, 2006)
- Wheat: Australia, USA, EU, Ukraine
- Rice: no decline in production

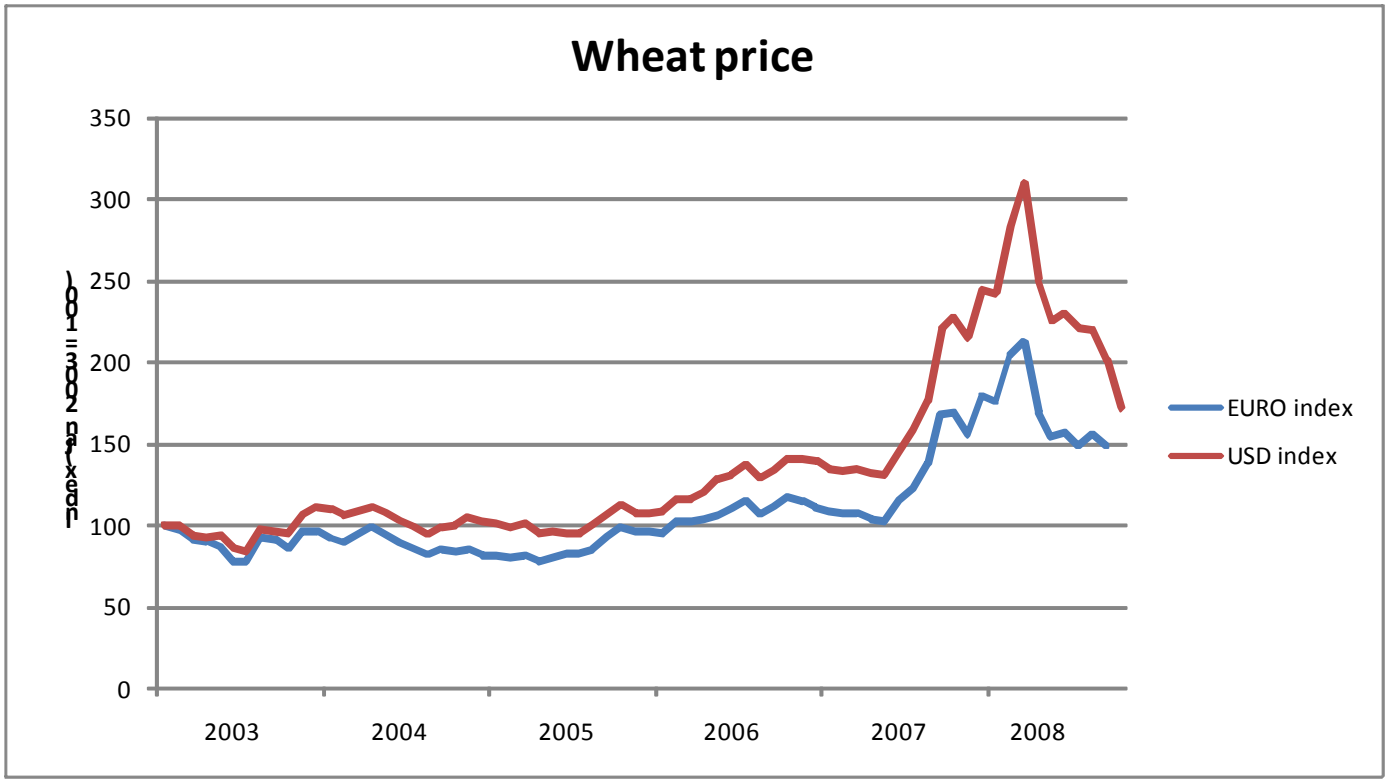
2000 – 2003:

- Maize: China, USA and Brazil (2002)
- Wheat: China, Australia (2002), Russia (2003), Ukraine(2003), USA, Canada, EU (2001)
- Rice: China, India (2002)

Alternatively:

- Depletion of public stocks by policy decision
- EU agricultural policy reform?
- Chinas WTO accession (EU Commission, 2008)?

Exchange rate



Input prices

Oil is an important agricultural input

- Fertilizers
- Farm machinery operation
- Transport costs

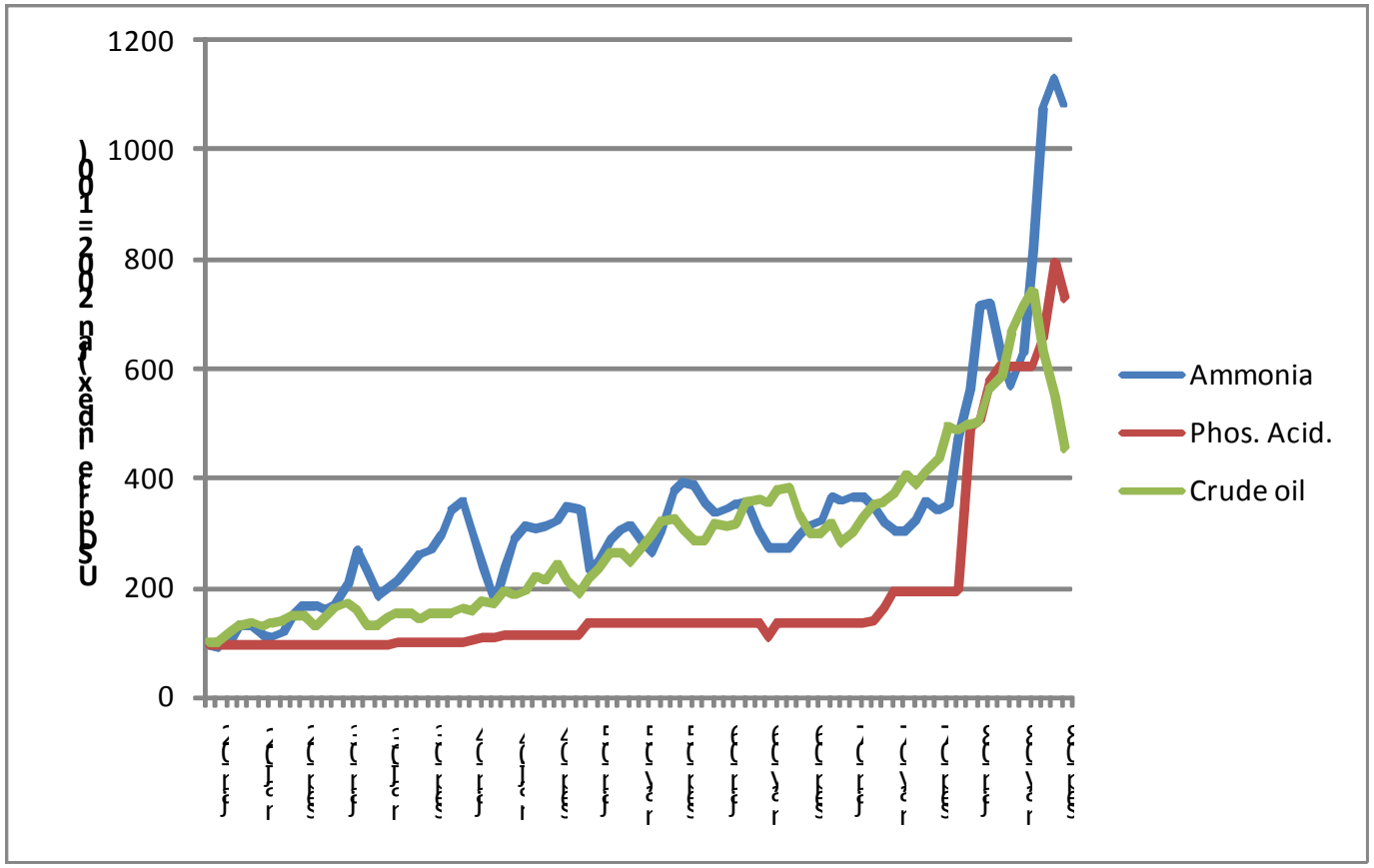
US cost share of fertilizer, chemicals and fuel in 2006:

- Maize: 32%
- Soybeans: 14%
- Wheat: 25%

Mitchell (2008) estimates that oil prices may have increased US grain prices by15% -20% between 2002 and 2007

- Grain prices grew by 75% – 150% -> input prices may explain about 10 – 20 percent of the price increases
- However, input prices rose further in 2008!

Input prices



Rising incomes in China and India

When incomes rise, diets diversify

- Grains -> meat
- Dairy products
- Vegetable oil

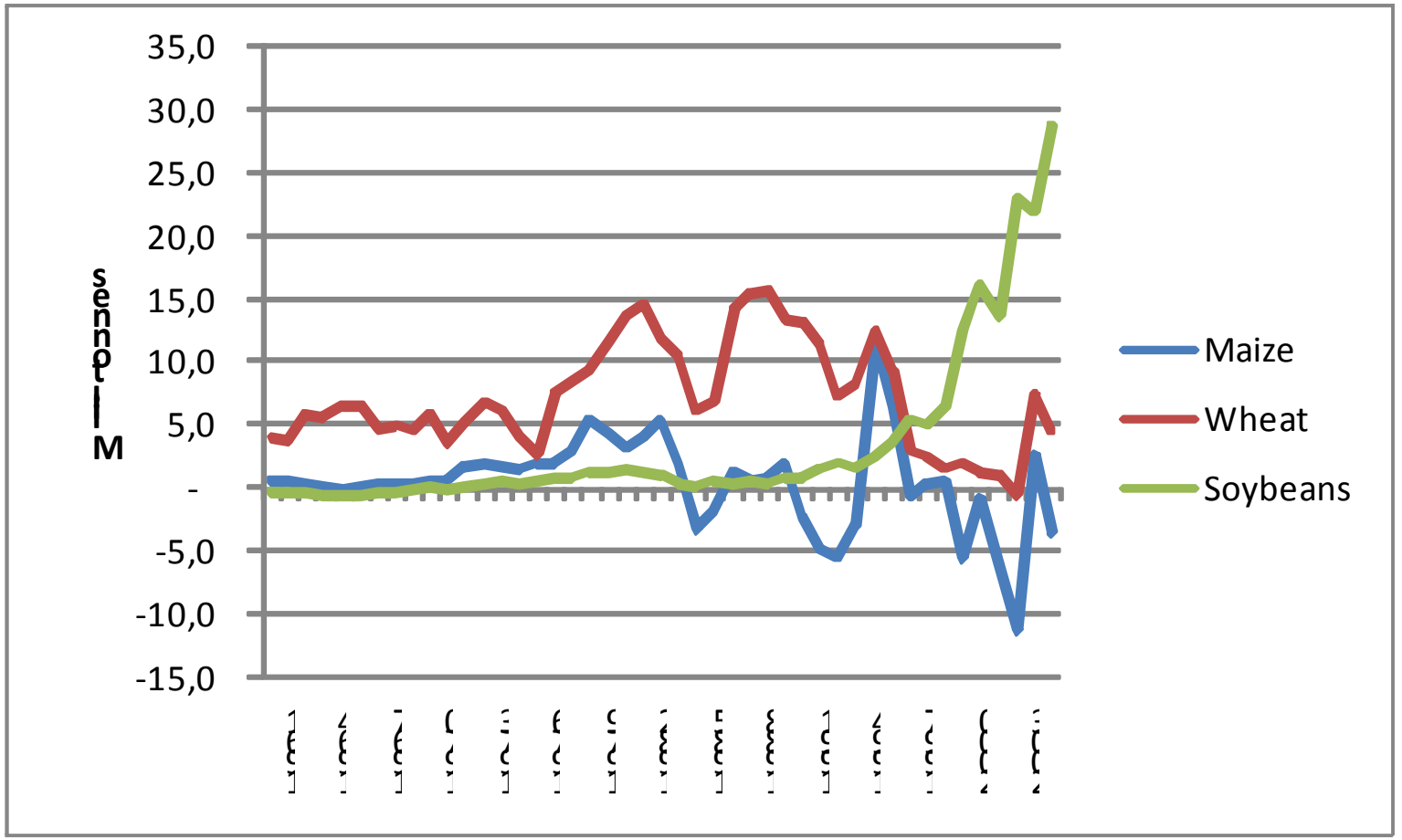
Livestock production is an inefficient way of producing calories

-> significant increase in the demand for feedgrains

Has this contributed to the price spike?

Do we observe a significant increase in Chinese net imports of feed grains?

Chinese net imports



Biofuels

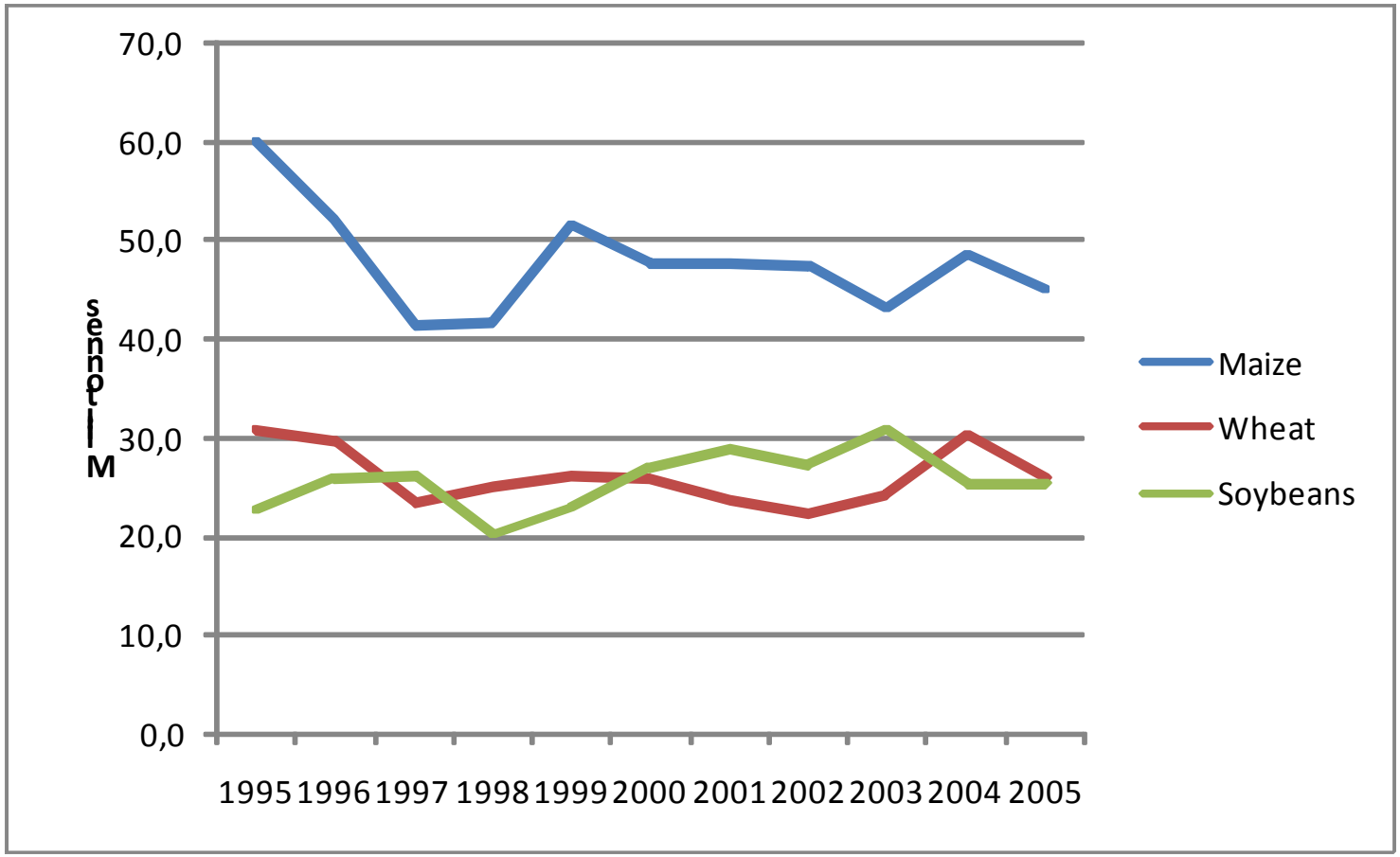
Rapid growth in use of crops for biofuel production (2001 – 2007)

- US use of maize: 16 mill. tonnes -> 79 mill. tonnes (24% of maize crop)
- EU use of vegetable oils: 1 mill. tonnes -> 6 mill. tonnes (Mitchell, 2008)

Impact on prices?

- Rosegrant (2008): around 30 percent of price increases
- Mitchell (2008): up to 75 percent of price increase!
  - Everything except exchange rate and input prices
  - Without biofuels, stocks would have been replenished after 2003

US net exports



Export restrictions and speculation

Export restrictions

- Main factor driving rice prices!
- Only 5% of rice production is traded, compared to 20% of wheat and 30% of soybeans
- Largest exporters, Thailand, India, Vietnam, restricted exports

Speculation

- Non-commercial traders adding to futures demand?
- Share of non-commercial traders on CBOT doubled to more than 40 percent between 2005 and 2008
- Link to the credit crisis?
- IMF (2008) says no – but methodology may be questioned

Overview

	Maize	Wheat	Rice	Rape	Soy
Low stocks	√	√	√	?	?
Poor harvests	√	√	-	?	?
Exchange rate	√	√	√	√	√
High input prices	√	√	√	√	√
Rising incomes	-	-	-	-	(√)
Biofuels	(√)	-	-	(√)	(√)
Export restrictions	-	-	√	-	-
Speculation	?	?	?	?	?

Outlook

Short Term

- Prices are on there way down
- But: Stocks are still low

Medium term

- Strong demand will keep prices relatively high

Long term

- Relatively high prices will induce investment in production
- Prices will come down again
- Until next time...

Appendix 2

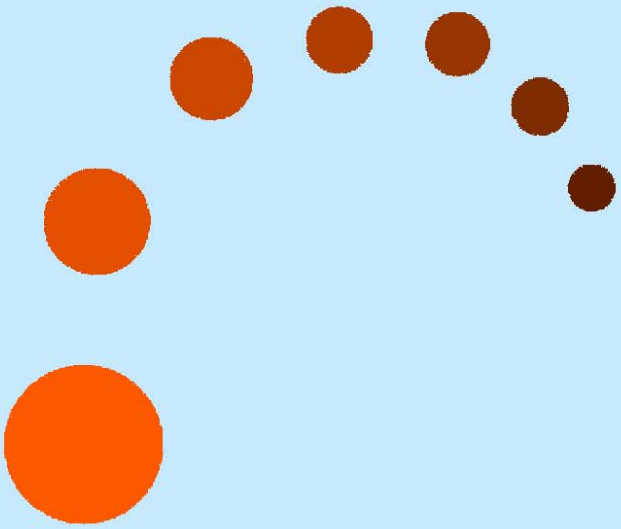
Participants that turned up for the ELOBIO workshop 30 October 2008

#	Name	Company/organisation	E-mail
1	Dominique Dejonckheere	COPA-COGECA	dominique.dejonckheere@copa-cogeca.be
2	Ruth Digby	National Farmers Union/UK	Ruth.Digby@nfu.org.uk
3	Flavia Bernadini	Chocolate, confectionary and biscuits ass.	Flavia.Bernardini@caobisco.be
4	Kenneth Baltzer	Copenhagen University (FOI)	kb@foi.dk
5	Sander Van Bennekom	Oxfam UK (Oxfam NL)	sander.van.bennekom@oxfamnovib.nl
6	Inneke Herreman	IMACE	imace.ifma@imace.org
7	Geert VANMARCKE	FEDIOL	fediol@fediol.be
8	Alessandra Paccamiccio	ebio	paccamiccio@ebio.org
9	Frank Bergmans	MVO	Bergmans@mvo.nl
10	Ingrid Rydberg	LRF	ingrid.rydberg@lrf.se
11	Ywe Jan Franken	Fact Foundation	yj.franken@fact-fuels.org
12	Tiina Tuominen	Neste Oil	tiina.tuominen@nesteoil.com
13	Andreas Pilzecker	DG AGRI	Andreas.PILZECKER@ec.europa.eu
14	Katja Albrecht	DG DEV	Katja.ALBRECHT@ec.europa.eu
15	Mihai Tomescu	DG ENV	mihai.tomescu@ec.europa.eu
16	Jana Polakova	DG ENV	Jana.POLAKOVA@ec.europa.eu
17	Jeppe Lundbæk	ELOBIO	jelk@cowi.dk
18	Sanne Hjulgaard	ELOBIO	shj@cowi.dk
19	Marc Londo	ELOBIO	londo@ecn.nl
20	Tjasa Bole	ELOBIO	bole@ecn.nl
21	Luc Pelkmans	ELOBIO	luc.pelkmans@vito.be
22	Silvia Prieler	ELOBIO	prieler@iiasa.ac.at
23	Gunther Fisher	ELOBIO	fisher@iiasa.ac.at
24	André Wakker	ELOBIO	wakker@ecn.nl
25	Anna Wróbel	ELOBIO	awrobel@ipieo.pl
26	Tine Villadsen Gundersen	ELOBIO	tvgu@cowi.dk
27	Cabal Cuesta Helena	ELOBIO	helena.cabal@ciemat.es

Appendix 3

Evaluation form - ELOBIO workshop 30 October 2008 in Brussels

Item to evaluate	**Relevance (score 1 - 5) (1 = low, 5 = high)**					**Quality (score 1 - 5) (1 = low, 5 = high)**				
	Distribution of scores					**Distribution of scores**				
	1	**2**	**3**	**4**	**5**	**1**	**2**	**3**	**4**	**5**
Presentations:										
Introduction and welcome			2		4			1	1	4
The ELOBIO project			1	7	1			1	7	1
Trends in key agricultural commodity markets			2	4	4			1	6	3
Gathering viewpoints from stakeholders			2	4	3			1	6	2
Group work:										
Group session 1			1	3	6			3	5	2
Group session 2			2	5	3			3	5	2
Other issues:										
Overall impression of the workshop			1	5	3			1	5	3
The venue/facilities	1		1	3	4		1		3	5
Total score	**1**	**0**	**12**	**31**	**28**	**0**	**1**	**11**	**38**	**22**
Comments to the organisers:	• It would be interesting to discuss some concrete examples of publicity of biofuels and special cases where biofuels had an effect (like Brazil) • Very lively and interesting, even though I was reluctant to spend the whole day because of workload in the office - BRAVO • All matters very relevant, however two questions: - how to feed into political process - how to coordinate with other research institutes to avoid duplication Ambitious though! However, without a representative stakeholder group (balanced), we cannot to the work									



Contact Elobio

Energy research Centre of the Netherlands (ECN)
P.O. Box 1
1755 ZG Petten
The Netherlands
info@elobio.eu
www.elobio.eu

Intelligent Energy Europe

elobio
Biofuel policies for dynamic markets