



EU agricultural and biofuels policies

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RES-Directive

- 20% RE share
- 10% RE in transport
- No specific target for bioenergy
- Ensure sustainability





Where are we with biofuels?

- 3.3% of fuels consumed in the EU are biofuels
- 10.0 Mtoe in 2008
- compared to 7.8 Mtoe in 2007





Where are we with bioenergy?

- 88 Mtoe of biomass was consumed for energy purposes (primary energy consumption) within the EU-27 in 2006, representing an 8% increase from 2005
- In terms of final energy consumption, bioenergy accounted for about 7-8 % in 2008





Where could we be in future?

- Projections using modelling by PRIMES and GreenX estimate that around 165-195 Mtoe of biomass would be used in 2020 to achieve the 20% renewables in primary energy target.
- The Environment Energy Agency (EEA) report of 2006 concluded that significant amounts of biomass can be theoretically available to support ambitious renewable energy targets: 235 Mtoe in 2020 is deemed feasible even if strict environmental constraints are applied





Where could we be in future?

- The RE energy target for 2020 could be equivalent to about a 7% share of biofuels in total fuel consumption
- role of electricity and non land-based biofuels (counting rules in the RE Directive)
- in absolute terms: 23 Mtoe





Non land-based feedstocks

- Recycled cooking oil and animal fats accounted for about 5% of EU biodiesel production in 2008 (more than palm oil)
- Share is still low but expanding
- Use of non-land based feedstocks (waste, residues) is encouraged by the double-counting rule in the Renewable Energy Directive
- Other non land-based biofuels (ethanol from cellulose, synfuel diesel etc) will become available
- Biogas from manure is also expected to play an increasing role as transport fuel
- But there is a sustainability issue! (Soil organic matter, nutrients blance, biodiversity, carbon stocks)





The real challenge

- for EU agriculture and forestry is thus the renewable energy target, not the renewable fuel target
- there is an order of magnitude between these two (10:1) in terms of projected importance in 2020





Concerns about increased use of biomass

- Forests: risks of overuse should be assured, all EU Member States have signed up to the Ministerial Conference on the Protection of Forests in Europe (MCPFE)
- Sustainability criteria in the RES-Directive and the Fuel Quality Directive (biofuels and bioliquids)
- Sustainability criteria for biomass for other energy?
- Competition with food production





The Common Agricultural Policy

- Since 1992 in a continued reform process
- European farmers are free to decide what and how much to grow – and for what purpose
- Farmers react to market signals
- Prices in the EU are close to world market level (grains, oilseeds), except for sugar





Health Check of the CAP

Main policy questions:

- How to adjust to new market opportunities?
- How to simplify the policy?
- How to respond to new challenges?





Health Check – Market orientation

- Examination whether/to what extent production-based (coupled) instruments still needed
- Energy crop scheme: Mandatory targets will stimulate demand and high prices encourage production
- Obligatory set-a-side: A tool for managing (limiting) supply, original purpose has lost its relevance



EU: Non-food cropland



(Mio ha)	2004 (EU-25)	2005 (EU-25)	2006 (EU-25)	2007 (EU-27)
Non-food crops on set- aside land	0,5	0,9	1,0	1,0
Energy premium	0,3	0,6	1,3	1,9
Without specific support	0,8	1,6	1,4	1,7
Total	1,6	3,1	3,7	4,6



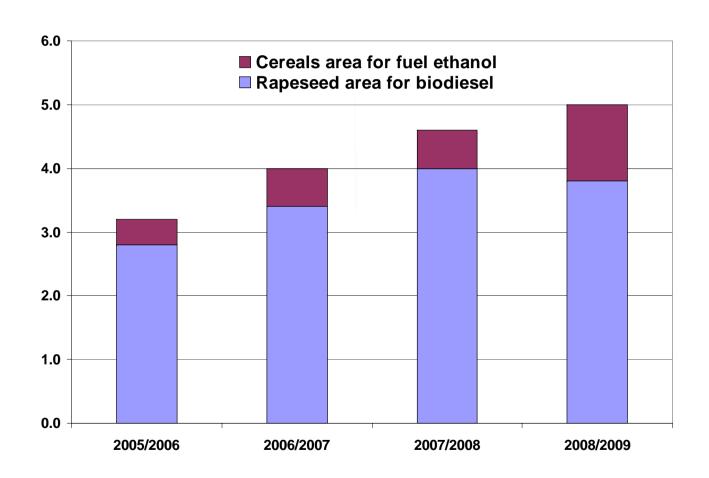


EU land use for biofuels 2008/2009

- 1.2 mln ha for fuel ethanol from cereals
- 3.8 mln ha for RME biodiesel
- plus oilseeds for PPO, sunflower seed for biodiesel, sugarbeet, potatoes etc
- Total about 5.5 mln ha?



EU land use for two key biofuel feedstocks (mln ha) European Commission biofuel feedstocks (mln ha) Lure and Rural Development







Impacts on food production and land use

- EU agriculture's first role is and will remain to produce food!
- The RE target for transport would require about 10-12 mln ha of EU arable land in 2020, much less than previous projections had expected.
- Recent CAP reforms bolster the impact on EU land use
- By-products soften the impact on third countries' land use
- Share of non land-based biomass sources will increase
- There is at least 4 mln ha of uncultivated arable land in the EU



Biofuel Modelling (12'2009)



	AGLINK	ESIM	CAPRI
EU			
Production Fuels			
Ethanol	↑↑	$\uparrow\uparrow\uparrow\uparrow\uparrow$	↑↑(by assumption)
Biodiesel	1 111	1	11(by assumption)
Production Feedstocks	1		(2) accampacity
Wheat	↑	1 ↑	↑
Coarse grains/maize	↑(< 1 m t)	l `	↑ ↑(small)
Oilseeds	1	`	111
Production livestock products	negligible	Negligible	cattle numbers
. roudollom in obtook products	l logiigiblo	Nogligible	slightly \$\dagger\$
Net trade Fuels		,	
Ethanol	imports ↑↑↑	imports 1	
Biodiesel	imports ↑↑↑	exports ↓	
Net trade Feedstocks		onporto t	
Wheat	exports ↓	exports ↓	
Coarse grains/maize	from exporter to	imports 1	
	small importer		
Oilseeds	imports ↓	imports 1 (small)	
Vegetable oils	imports ↑↑	imports 1	
Land use: EU	+ 1.44 m ha (arable)	+ 0.700 m ha	arable ↑
	- 1.13 m ha (pasture)	(agricultural area)	pasture, fallow 1
World Market		-	parata c, rame tr
Prices Fuels	5,51	***	
Ethanol	↑ (small)	1	
Biodiesel	11.	介	
Prices Feedstocks			
Ethanol feedstocks	ca. zero	↑ (wheat),↑↑ (maize)	
Biodiesel feedstocks	ca. zero (oilseeds)	1	
	↑ (oils)	↑↑ (oils)	
Global land use (cereals,	+ 5.2 mn ha (+ 0.7%)	, , , , , , , , , , , , , , , , , , , ,	
oilseeds, sugar)			

^{1.} Total agricultural area fixed by assumption





Health Check: Energy Crop Premium

- Energy crop premium to be abolished
- very limited efficiency (equivalent to 15 €/t rapeseed, current market value is 250 €/t)
- Red tape = costs incurred by farmers
- Main driver for production is the dynamic market development (due to political targets)





Health Check: Compulsory Set-aside

- Abolish compulsory set-aside
- 3.7 million ha of compulsory set-aside, including about 1 million ha for non-food (2007)
- Half of the area came back into production





Health Check

- Starch production aid abolished, for similar reasons as for the energy crop premium
- Intervention (obligatory purchase of grains to a guaranteed minimum price) has been further restricted





Rural Development Policy

- offers multiple possibilities for supporting the development of bioenergy:
- support to farmers for establishing perennial energy crops as raw material for bio-based products
- support for the development of infrastructures for processing of agricultural or forest biomass
- support for advisory services, training and information actions to disseminate knowledge on the bio-based economy and foster the development of activities
- encourages the cooperation between farmers, the raw materials processing industry and/or other parties through innovative approaches in developing new products, processes and technologies.
- The Health Check and the Recovery Package provide an additional funding of 4,4 billion EUR with which additional support for biomass projects can be financed.





The reformed Common Agricultural Policy

- Provides for low-cost bio-based feedstocks (except sugar, ethanol)
- Increases the land base available
- Supports actions which increase biomass supply and use in rural areas through Rural Development policy
- Promotes innovation and new crops in RD policy





Next steps

- Transposition of RE Directive into national laws by December 2010
- Indirect Land Use Change: Report in 2010
- Communication on implementing the RE Directive
- Report on RE Directive in 2012, plus corrective action