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EU strategy for biofuels: opportunities for sustainable agriculture

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Outline



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- 1. EU policies for biofuels – targets and support mechanisms**
- 2. Land use for biofuels**
- 3. Environmental integration into the CAP**
- 4. Summary**



■ Energy policy

- ▶ White Paper on renewable energies – November 1997
- ▶ Green Paper on security of energy supply – November 2000

■ Legislation

- ▶ Biofuels Directive – May 2003
- ▶ Energy taxation Directive – October 2003

■ Recent initiatives

- ▶ Biomass Action Plan – December 2005
- ▶ EU Strategy for Biofuels – February 2006

Reasons for promoting biofuels



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- ▶ Reduce **greenhouse gas** emissions from the transport sector
- ▶ Diversify **fuel supply** sources
- ▶ Diversification of **market outlets** for agricultural products
- ▶ Income, employment opportunities in **rural areas**
- ▶ **Technology** and **innovation**: impact on the overall economy



- ▶ Adopted on 8 February 2006: COM(2006) 34 final
- ▶ Main **objectives**:
 - ① Further **promote biofuels**, ensure that their production and use is globally **positive** for the environment
 - ② Prepare for the large-scale use of biofuels
 - improving **cost-competitiveness**,
 - research into “2nd generation” biofuels
 - ③ Explore the **opportunities** for developing countries

Biofuels strategy - seven policy axes



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- 1) Stimulate **demand** for biofuels
- 2) Capture the **environmental** benefits
- 3) Develop the **production** and **distribution** of biofuels
- 4) Expand feedstock **supplies**
- 5) Enhance **trade** opportunities
- 6) Support **developing countries**
- 7) Support **research** and development



CAP support measures



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- **CAP reform (2003)**
 - ▶ Decoupled income support
 - ▶ Non-food (energy) crops on set-aside areas
 - ▶ Energy crop premium
 - ▶ Reduced scope for steering production
- **Sugar reform (2005)**
 - ▶ Sugar beet for ethanol eligible for both regimes exempt from quotas
- **Rural development policy (2007-2013)**
 - ▶ Menu of measures for renewable energies, e.g., biomass supply chains, biofuels processing capacity on/near the farm



Biofuel targets- implications for land use



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- **Target: 5.75% of EU fuel supply by 2010**
- **Biofuels production: 24 million t biofuels to replace 18.6 million t of fossil fuels (lower energy content)**
- **Agricultural land: 15-18 million ha needed if all biofuels crops grown in the EU**
- **Total arable area (EU-25): 103.6 million ha**
- **Obligatory set-aside (EU-15): 4 million ha**
- **Not cultivated land: 3 million ha**

▶ **A balanced approach is needed to imports and domestic production**

Land use for energy crops



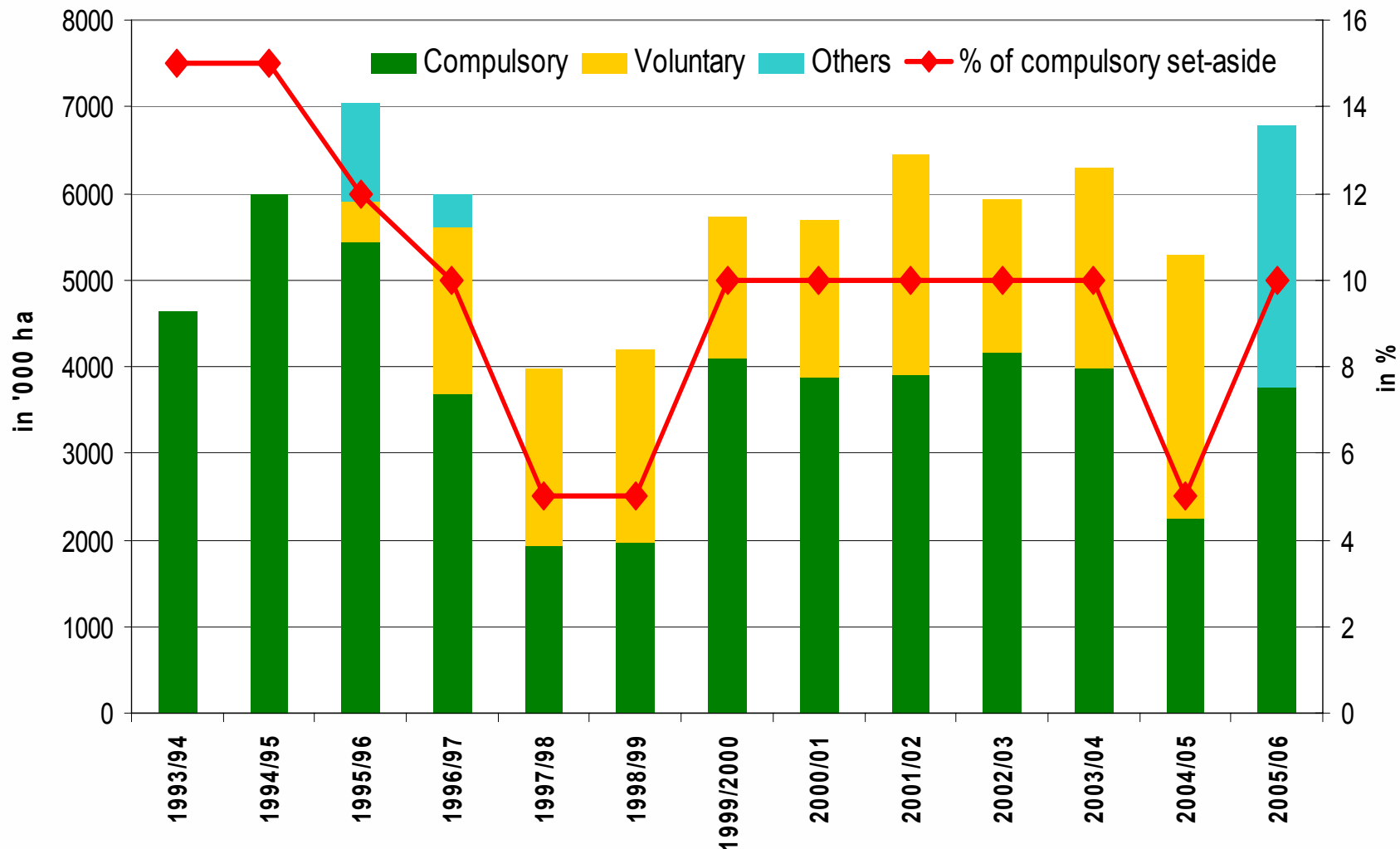
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| | 2003 (EU-15) | 2004 (EU-25) | 2005 (EU-25) |
|--------------------------------------|-------------------------|-------------------------|-------------------------|
| Set aside land | <i>0,9</i> | <i>0,6</i> | <i>0,9</i> |
| Energy crop scheme | | <i>0,3</i> | <i>0,5</i> |
| Without specific support (estimated) | <i>0,3</i> | <i>0,5</i> | <i>0,4</i> |
| Total area | 1,2 | 1,4 | 1,8 |

Set-aside – trends in areas



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Conference “A sustainable path for biofuels in the EU”, 7 June 2006



Biofuels Strategy – impact on EU land use



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EU-25 land use in 2005 and in 2010 (Option 2)

| | 2005 | | 2010 |
|----------------------------------|-----------------|------------|------------------|
| | Million ha | | Million ha |
| Total arable land | 103.6 | | 103.6 |
| Arable land in production | 96 | | 100.4 |
| Of which biofuels | 1.8 (2%) | | 8.25 (8%) |
| <i>Energy crop scheme</i> | | <i>0.5</i> | |
| <i>Without specific aid</i> | | <i>0.4</i> | |
| Compulsory set aside | 4 | | 3.2 (3%) |
| Of which biofuels | | <i>0.9</i> | |
| Not used arable land | 3 | | |

Conference “A sustainable path for biofuels in the EU”, 7 June 2006



Environmental impacts



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▶ Risks

- Increased use of inputs ?
- Use of current set-aside land ?
- Loss of biodiversity (monocultures) ?

▶ Positive effects

- Overall reduction GHG emissions
- Crop diversity (more balanced rotations)
- Viability of farms – better land management

▶ Environmental impacts depend on: site-specific conditions, farm management practices, and biofuels crops and production pathways

Environmental safeguards



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- ▶ **Cross-compliance:** standards have to be respected to receive full income support
- ▶ **19 Community legislative acts** in the areas of public, animal and plant health, environment, and animal welfare
- ▶ **5 Environmental Directives**

1. Wild Birds Directive
2. Groundwater Directive
3. Sewage Sludge Directive
4. Nitrates Directive
5. Habitats Directive



Environmental safeguards



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- ▶ **Good Agricultural and Environmental Conditions:** requirements to be defined by MS
- ▶ **Common framework** covering:
 1. **Erosion**
 2. **Soil organic matter**
 3. **Soil structure**
 4. **Minimum level maintenance and avoiding deterioration of habitats**
- ▶ **Obligation to maintain** land under permanent pasture



Agri-environmental measures



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- ▶ **Support** for agricultural production methods designed to protect the farmland environment
- ▶ Payments to farmers in return for **environmental services**
- ▶ **Obligatory** for MS in the framework of their RD plans
- ▶ Cross compliance sets the **baseline** (from 2007)
- ▶ **Share** of agricultural area under AEMs (25%) increasing, but variable between (and within) MS
- ▶ **Nearly half** of the expenditure for rural development (EAGGF Guarantee) for the period 2000-05



Imported biofuels



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- ▶ Demand for biofuels is a **global issue** and does not concern the EU alone
- ▶ How to address **environmental concerns** ?
- ▶ Which **sustainability** criteria , which **instruments** ? (regulatory, certificates, voluntary agreements)
- ▶ EU **development policy** aims to help developing countries capture the benefits of biofuels, while addressing these concerns
- ▶ Proposed **actions**:
 - Accompanying measures for Sugar Protocol countries
 - Develop coherent biofuels assistance package
 - Assist national biofuel platforms and action plans

Summary



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- ▶ Biofuels should play a bigger role as **energy source**
- ▶ Significant **opportunities** to reduce **GHG** emissions, and for **rural economies** and rural environment
- ▶ **Concern** about environmental risks, but
 - **Generalisation** about environmental effects difficult
 - In the EU, **cross compliance** gives a baseline guarantee
 - Imported biofuels (or feedstocks): environmental **guarantees** must be explored
- ▶ In the future: more **diversified feedstocks** – better economic and environmental perspectives
- ▶ **Research** and **technological** development are crucial



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Thank you for your attention