EU Biomass Action Plan

• Biomass action plan adopted December 7, 2005 … in the form of a communication to the Council and Parliament

• Objectives:

1) security of energy supply
2) reduce greenhouse gas emissions
3) stimulate economic activity in rural areas
Insufficient Growth of Bioenergy in Europe

White Paper target for EU-15: 135 Mtoe biomass use in 2010
Adjusted targets for EU-25: 150 Mtoe biomass use in 2010

Current trend: 75-80 Mtoe in 2010

Source: EUROSTAT
Europe’s Ambitious Targets for Bioenergy

EU25, 1990-2002, biomass & waste only

Targets for 2010 (EU-25):
+62 mtoe for heat/electricity
+18 mtoe biofuels

Source: EUROSTAT
ENERGY USES OF BIOMASS

- **transport biofuels**
  - tackle the most important security of supply problem (oil)
  - employment-intensive
  - most expensive

- **biomass in electricity generation**
  - highest greenhouse gas benefits

- **biomass heating**
  - cheapest (often competitive with fossil fuel)

Conclusion:
biomass should be promoted in all three sectors
MEASURES

• The plan lists 31 measures

• These measures, if implemented, are expected to increase biomass use to 150 mtoe by 2010 or soon after

• This can be done with good agricultural practice and sustainable production of biomass and without significantly affecting domestic food production
BIOMASS FOR HEATING AND ELECTRICITY

• Work towards legislation on renewable energy in heating and cooling. The examination will cover:
  
  - amendment of the buildings directive
  - standards for household biomass boilers
  - new specific legislation (NB: there are good reasons to think that targets may not be the right solution)

• Encourage district heating to modernise and convert to biomass

• Ensure proper implementation of the directive on renewable energy in electricity
TRANSPORT BIOFUELS

• Report on implementation of the biofuels directive. Look at amending the directive with respect to:
  - national targets
  - “biofuels obligations” for fuel suppliers
  - certification of minimum standards of sustainable cultivation

• “Balanced approach” to biofuels trade, respecting interests of domestic producers and trading partners
TRANSPORT BIOFUELS (2)

• Take biofuels into account in reform of fuel quality directive

• Support developing countries by helping them to produce biofuels

• Specific communication on biofuels in early 2006
CROSS-CUTTING ISSUES

• Examine how to improve biomass supply through:
  - Common Agricultura Policy (energy crop scheme)
  - forestry action plan
  - waste framework legislation
  - animal by-products legislation
  - standardising biomass fuels

• Encourage Member States to take biomass into account in operational plans under the structural funds

• Biomass energy research priorities including:
  - bio-refining
  - 2nd-generation transport biofuels from wood and wastes
ESTIMATED COSTS AND BENEFITS (2010)

• **Reliance on imported energy** reduced from 48% to 42%

• **Greenhouse gas emissions** reduced by 209 MT CO$_2$ per year

• Direct **employment** for up to 250-300 000 people, mostly in rural areas

• Potential **downward pressure on the oil price** as a result of reduced demand for oil

• **COST** about €9 billion per year – equivalent to increases of 1.5 cents/litre for petrol and diesel and 0.1 cents/kWh for electricity

*More details (including ranges) are in the impact assessment*
EU Strategy for Biofuels

• Adopted by the Commission 8 February
• Three main aims
  – promote use of biofuels in EU and developing countries
  – prepare for large scale use by improving cost-effectiveness and research into 2\textsuperscript{nd} generation
  – support developing countries