

European GHG Emission Changes, 1990-1999

- 15 EU countries recorded 4.0% reduction in six GHG's covered by Kyoto Protocol.
- Represents half the EU commitment of 8% reduction below 1990 (1995) levels by 2008-2012.
- EU emits 24% of industrialized countries GHG's.
- (U.S. emissions increased by 11%.)
- (U.S. emits 40% of industrialized countries GHG's, 25% of world's GHG's.)



European Climate Change Programme, ECCP

- Established by European Commission in June 2000 to plan for cost effective measures to achieve Kyoto target emission reductions for EU, 8%.
- To report to European Parliament later in 2001.
- Defined 7 economic sectors. Identified possible measures in each sector leading to emission reductions costing less than 20 Euros/mt CO₂ equiv. (63 USD/mt C eq.).
- Identified reductions of 664-765 mt CO₂ eq. Compares to 336 mt CO₂ eq. needed to satisfy Kyoto reductions.



Cost Effective Reduction Potential of GHG for Sectors in EU until 2010.

Actions costing less than 20 euros per ton CO₂ equivalent.

	Emissions 1990 or 95 Mt CO ₂ equivalent	Baseline Emissions For 2010 With existing Measures	Cost-effective Potential beyond Baseline Projected for 2010
Energy Sector	1422	-6%	-13%
Industry	757	-9%	-12%
Transport	753	31%	-4%
Households	447	0%	-6%
Services	176	14%	-15%
Agriculture	417	-5%	-4%
Waste	166	-18%	-13%
Total	4138	1%	-9%



Progress in Meeting Kyoto Emission Limits (zero percent indicates on target)

Spain 1998 data	13.4%
Greece 1998 data	5.0%
Portugal 1998 data	4.8%
Ireland 1998 data	13.9%
Sweden 1998 data	0.1%
Finland 1998 data	1.0%
France 1998 data	1.5%
Luxembourg 1998 data	-47.0%
Austria 1998 data	9.3%
Belgium 1997 data	12.8%
Netherlands 1998 data	10.9%
Denmark 1998 data	16.8%
Italy 1995 data	3.2%
United Kingdom 1998 data	-4.5%
Germany 1998 data	-7.5%
European Union	0.5%



Elements of German GHG Reduction Plan

- Ecological tax on gasoline
- Renewable Energy Act
- Quota for cogeneration
- Subsidy program for solar electricity
- World's largest windpower generation capacity



Elements of U.K. GHG Reduction Plan

- **Imposed Climate Change tax on industrial energy use. To win exemption, firms must take on quantified emission reduction targets and join national emission trading system.**
- **Renewable Portfolio Standard: by 2010, 10% of electricity must come from renewables.**



Britain's Royal Society Report on Carbon Sinks

- Reducing CO₂ from burning fossil fuels should be main way to reduce GCC.
- Forest & farmland carbon sinks are of limited size and will only work for a short duration, a few decades...cannot make major contribution to reducing GCC.
- Prime benefit of land carbon sinks is that they can be effective immediately and can provide financial incentives for preserving forests and agricultural land.



