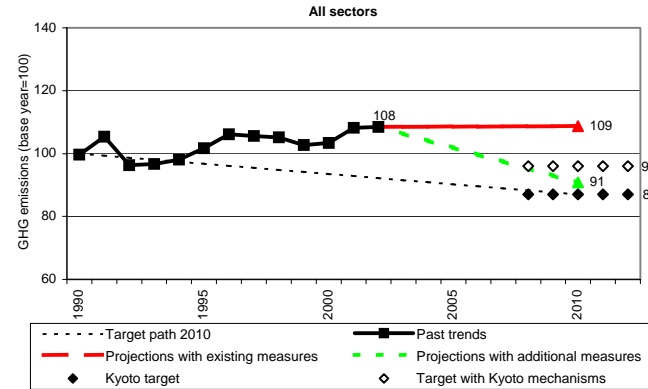


# **Annex 1 Actual and projected greenhouse gas emissions by EU-15 Member States**

# AUSTRIA

Share in total EU-15 GHG emissions 2002	2 %
Emissions base year (latest inventory)	78.0 Mt
Emissions 2002	84.6 Mt
Emissions base year (for projections)	77.6 Mt
Projections 2010 with existing measures	84.4 Mt
Projections 2010 with additional measures	70.5 Mt
Kyoto target (absolute, based on latest inventory)	67.5 Mt
Kyoto target (% from base year)	- 13 %
Change base year to 2002	+ 8.5 %
Change 2001-02	+ 0.3 %
Change base year to 2010 with existing measures	+ 8.7 %
Change base year to 2010 with additional measures	- 9.2 %
Distance to linear target path 2002	+ 16.3 percentage points
Use of Kyoto mechanisms	7.0 Mt

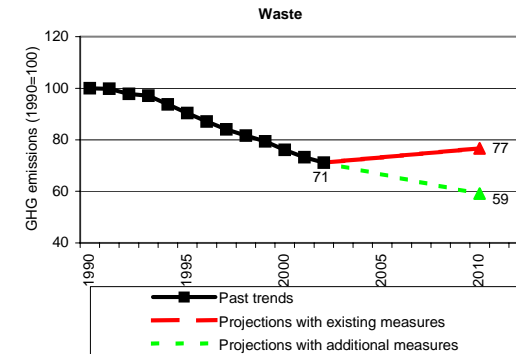
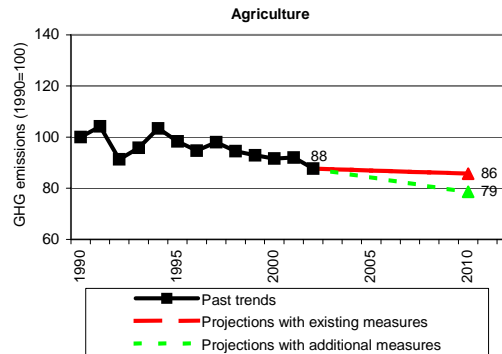
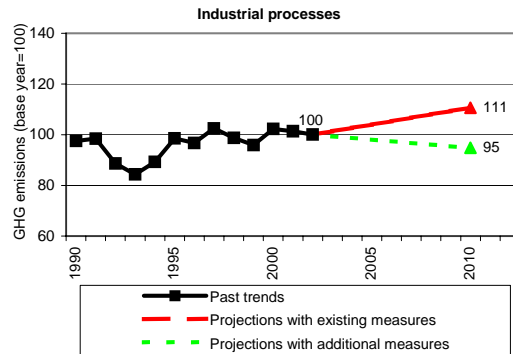
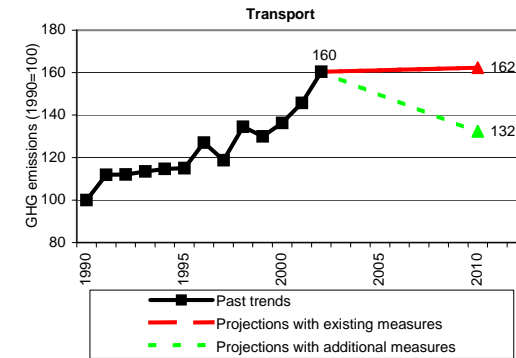
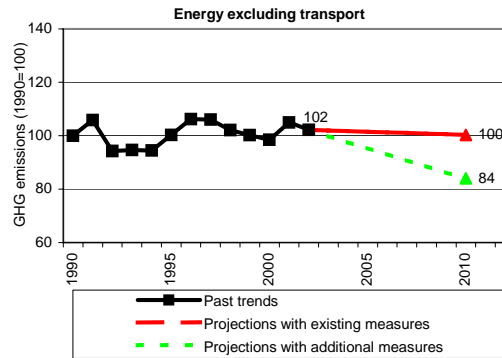
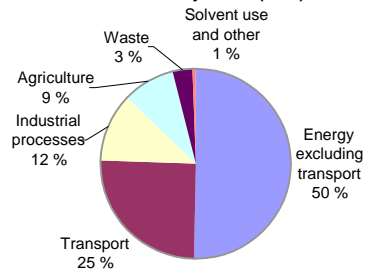


Note: 'Target with Kyoto mechanisms' is calculated by combining the agreed burden-sharing target with Kyoto units from JI and CDM.

**Past emissions:** In 2002 Austria's GHG emissions were 0.3 % above those of 2001 and 8.5 % above base-year levels. Main factors for increasing emissions with regard to the previous year were growing road transport, iron and steel production and public heat and power production. Looking at the change 1990-2002, road transport is by far the largest contributor to emission increases, followed by iron and steel production, public heat and power production and the refinery. One reason for the large increase in transport-related GHG emissions is low road fuel prices in Austria which encourages fuel tourism.

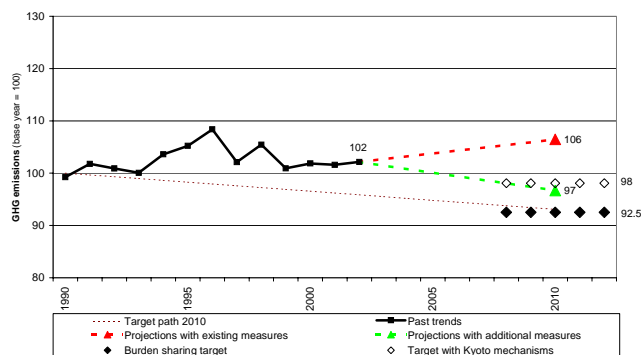
**Emission projections:** Emissions in 2002 were almost at the level projected in the 'with measures' scenario for 2010. This is mainly the result of sharp increases in road transport-related emissions. Austria will not achieve the Kyoto target with additional domestic measures, therefore 7.0 million tonnes of Kyoto units per year of the commitment period will be used.

Emissions by sector (2002)



## BELGIUM

Share in total EU-15 GHG emissions 2002	4 %
Emissions base year (latest inventory)	146.8 Mt
Emissions 2002	150.0 Mt
Emissions base year (for projections)	141.0 Mt
Projections 2010 with existing measures	150.1 Mt
Projections 2010 with additional measures	136.3 Mt
Kyoto target (absolute, based on latest inventory)	135.8 Mt
Kyoto target (% from base year)	- 7.5 %
Change base year to 2002	+ 2.1 %
Change 2001-02	+ 0.5 %
Change base year to 2010 with existing measures	+ 6.5 %
Change base year to 2010 with additional measures	- 3.3 %
Distance to linear target path 2002	+ 6.6 percentage points
Use of Kyoto mechanisms	8.2 Mt

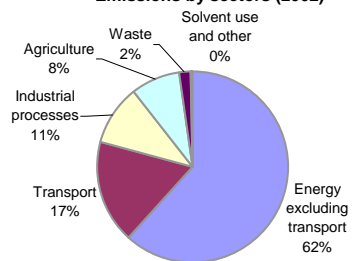


Note: 'Target with Kyoto mechanisms' is calculated by combining the agreed burden-sharing target with Kyoto units from JI and CDM.

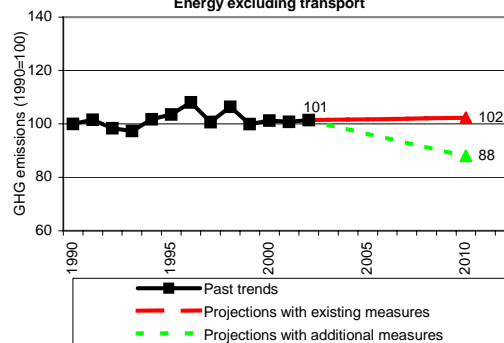
**Past emissions:** Belgium's GHG emissions were 0.5 % above those of 2001 and 2.1 % above base-year levels in 2002. The main factor for increasing emissions with regard to the previous year was fossil fuel combustion in electricity and heat production and in manufacturing industries (especially in iron and steel production). Between 1990 and 2002, transport was the largest contributor to emission increases, followed by the chemical industry and households and services.

**Emission projections:** Emissions in 2002 were below the level projected in the 'with existing measures' scenario for 2010. However, Belgium will not achieve the Kyoto target with additional domestic measures. Including existing and additional measures, Belgium's reduction in emissions is 3 % compared with the target reduction of 7.5 %. However, Belgium's reported gap to the target is smaller than last year as projections are 17 Mt lower, with reductions primarily in the energy and waste sectors. Belgium plans to purchase 8.2 million tonnes of Kyoto units for each year of the commitment period.

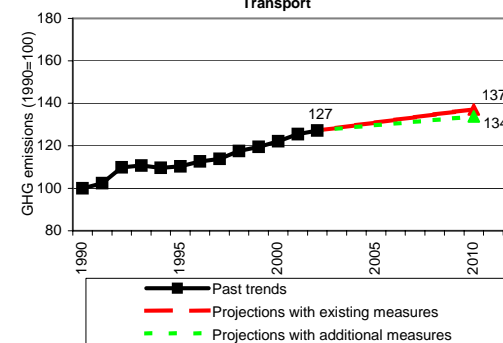
Emissions by sectors (2002)



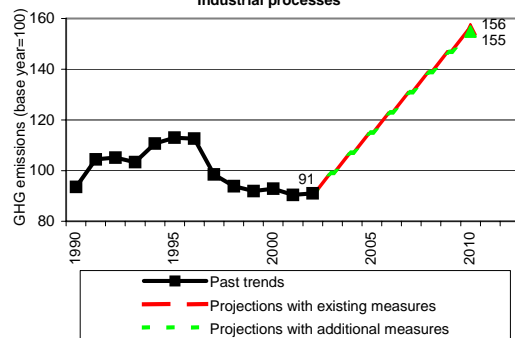
Energy excluding transport



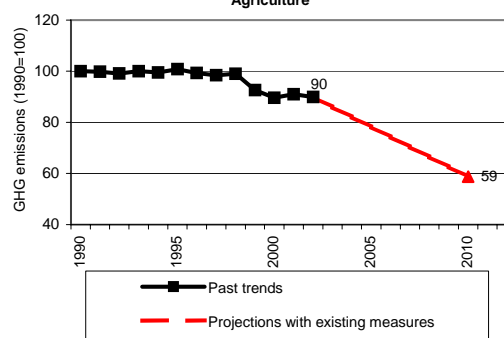
Transport



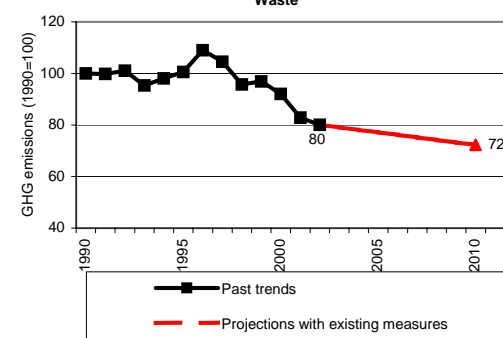
Industrial processes



Agriculture

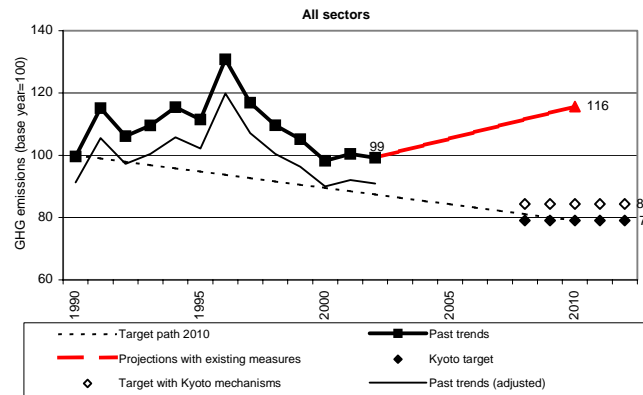


Waste



## DENMARK

Share in total EU-15 GHG emissions 2002	2 %
Emissions base year (latest inventory)	69.0 Mt
Emissions 2002	68.5 Mt
Emissions base year (for projections)	69.0 Mt
Projections 2010 with existing measures	79.8 Mt
No projections with additional measures	n.a.
Kyoto target (absolute, based on latest inventory)	54.5 Mt
Kyoto target (% from base year)	-21.0 %
Change base year to 2002	-0.8 %
Change 2001-02	-1.2 %
Change base year to 2010 with existing measures	+15.7 %
No projections with additional measures	n.a.
Distance to linear target path 2002	+11.8 percentage points
Use of Kyoto mechanisms	3.7 Mt

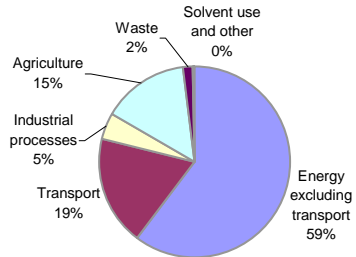


Note: 'Target with Kyoto mechanisms' is calculated by combining the agreed burden-sharing target with Kyoto units from JI and CDM.

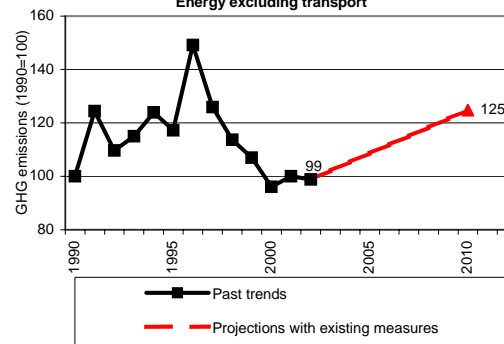
**Past emissions:** Denmark's GHG emissions were 1.2 % below those of 2001 and 0.8 % below base-year levels in 2002. If the base year is adjusted for electricity trade in 1990, GHG emissions were 9 % below base-year level in 2002. Main factors for decreasing emissions with regard to 2001 were decreases of fossil fuel combustion in households and industry and emission decreases from agricultural soils. Between 1990 and 2002, large emission decreases from agricultural soils and from households counterbalanced increasing road transport emissions.

**Emission projections:** Emissions in 2002 were below 'with existing measures' projections for 2010. Denmark will not achieve the Kyoto target based on these projections. Projections with additional measures were not provided. Emission projections are higher than previously reported, due to an expected increase of total energy consumption and the base-year issue. Denmark intends to close the gap between GHG projections and the Kyoto target through Kyoto mechanisms. However, with the budgets allocated so far, only 3.7 million tonnes of Kyoto units can be purchased per year.

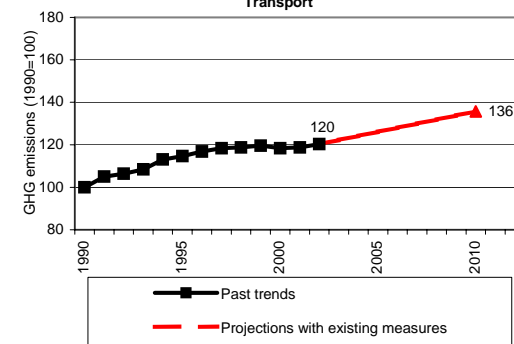
Emissions by sectors (2002)



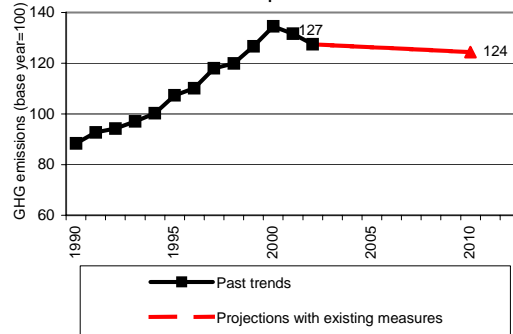
Energy excluding transport



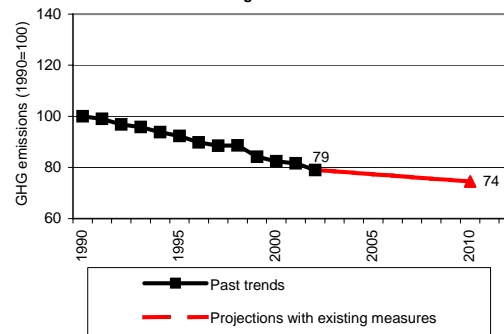
Transport



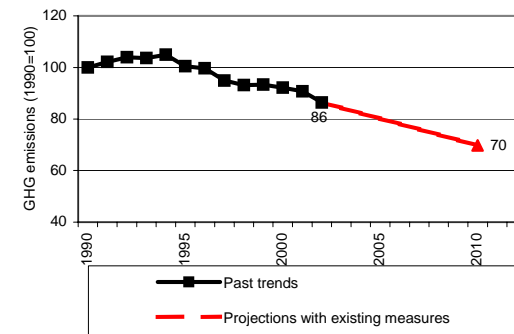
Industrial processes



Agriculture

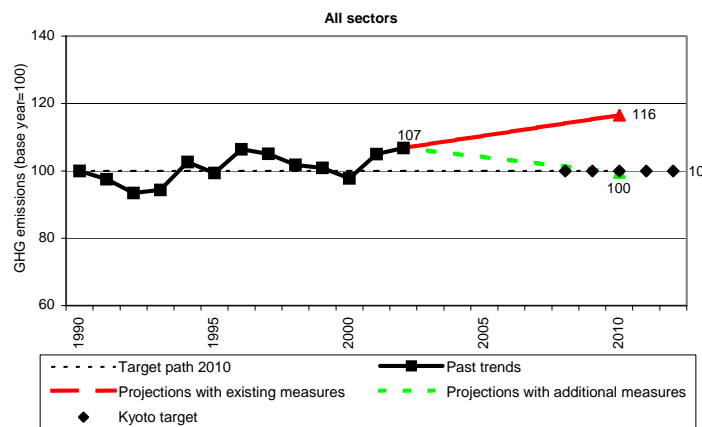


Waste



# FINLAND

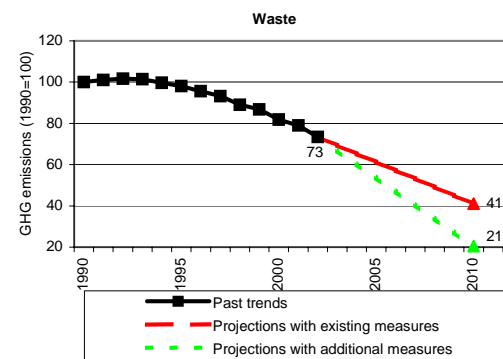
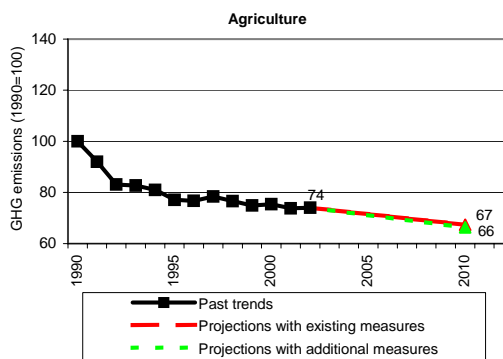
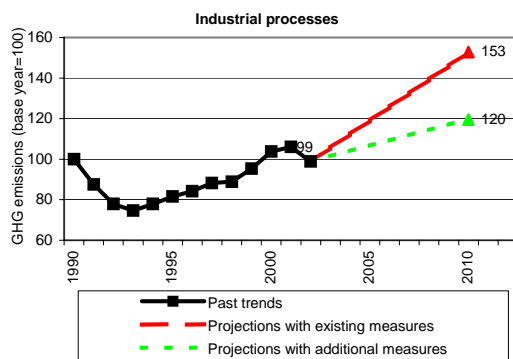
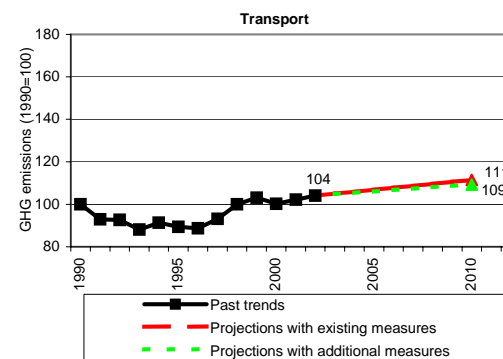
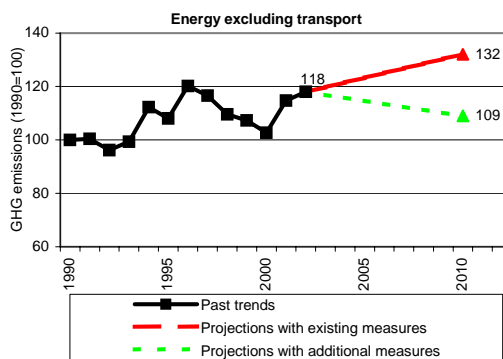
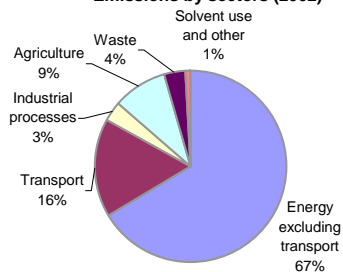
Share in total EU-15 GHG emissions 2002	2 %
Emissions base year (latest inventory)	76.8 Mt
Emissions 2002	82.0 Mt
Emissions base year (for projections)	77.2 Mt
Projections 2010 with existing measures	89.9 Mt
Projections 2010 with additional measures	76.8 Mt
Kyoto target (absolute, based on latest inventory)	76.8 Mt
Kyoto target (% from base year)	0 %
Change base year to 2002	+ 6.8 %
Change 2001–02	+ 1.7 %
Change base year to 2010 with existing measures	+ 16.5 %
Change base year to 2010 with additional measures	- 0.5 %
Distance to linear target path 2002	+ 6.8 percentage points
Use of Kyoto mechanisms	n.a.



**Past emissions:** Finland's GHG emissions were 1.7 % above those of 2001 and 6.8 % above base-year levels in 2002. The main factor for increasing emissions with regard to the previous year was electricity and heat production and the same is true for the change 1990–2002. This was driven by a strong increase in thermal power production partly due to low hydro power production in 2002. Compared with most other EU Member States, Finnish transport emissions have increased only moderately since 1990.

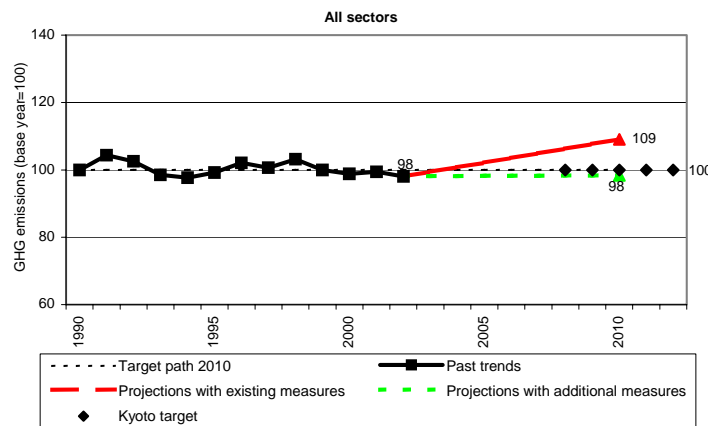
**Emission projections:** Emissions in 2002 were below the level projected in the 'with measures' scenario for 2010. Based on the 'with existing measures' scenario, Finland will be 16.5 % above base-year levels and thus exceeds its target of 0 % increase in emissions. The effect of additional measures will enable Finland to achieve its Kyoto target by 2010. Finland has not yet decided on the use of Kyoto mechanisms although JI activities have already been started. In addition, Finland has allocated a small budget for the purchase of Kyoto units.

**Emissions by sectors (2002)**



## FRANCE

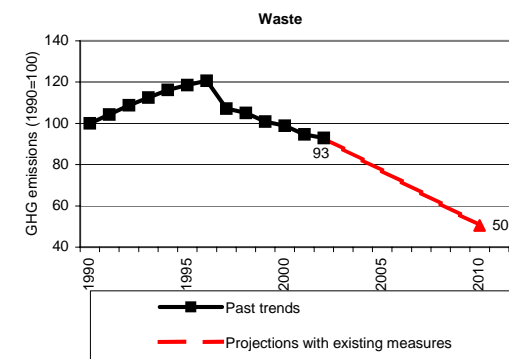
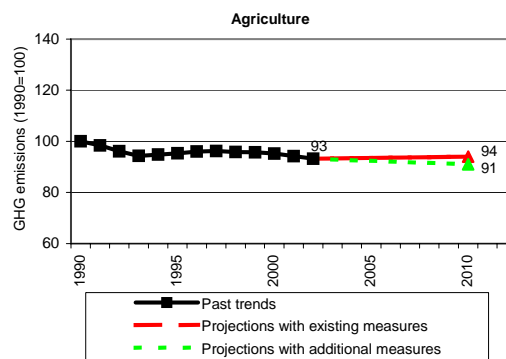
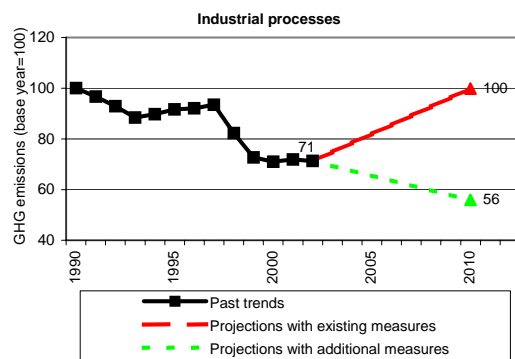
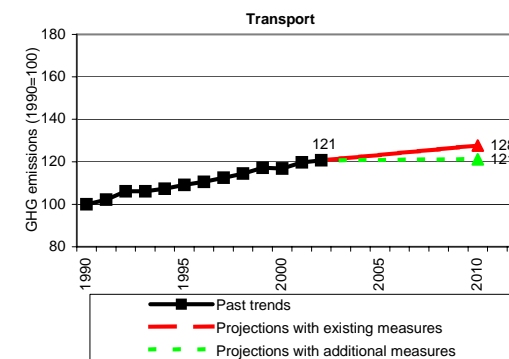
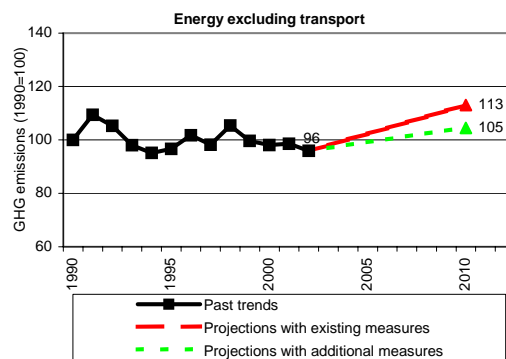
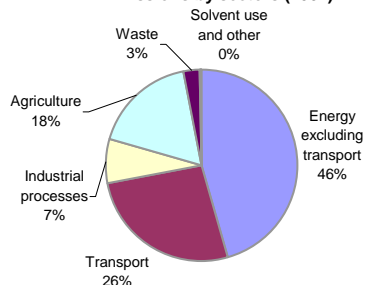
Share in total EU-15 GHG emissions 2002	13 %
Emissions base year	564.7 Mt
Emissions 2002	553.9 Mt
Emissions base year (for projections)	545.0 Mt
Projections 2010 with existing measures	594.3 Mt
Projections 2010 with additional measures	536.0 Mt
Kyoto target (absolute, based on latest inventory)	564.7 Mt
Kyoto target (% from base year)	0 %
Change base year to 2002	- 1.9 %
Change 2001-02	- 1.4 %
Change base year to 2010 with existing measures	+ 9.0 %
Change base year to 2010 with additional measures	- 1.7 %
Distance to linear target path 2002	- 1.9 percentage points
Use of Kyoto mechanisms	n.a.



**Past emissions:** France's GHG emissions were 1.4 % below those of 2001 and 1.9 % below base-year levels in 2002. Main factors for decreasing emissions with regard to the previous year were a decrease in households' fossil fuel combustion and emission reductions from the chemical industry. Between 1990 and 2002, road transport was by far the largest contributor to emission increases, followed by consumption of halocarbons mainly in refrigeration and air conditioning. These increases were offset by, among others, reduction measures in adipic acid production and by a decline of fossil fuel combustion and a shift from coal to gas in thermal electricity production.

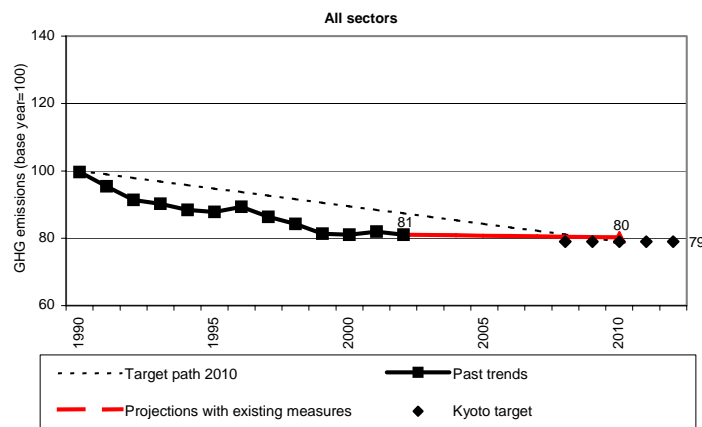
**Emission projections:** Emissions in 2002 were below the level projected in the 'with measures' scenario for 2010. France will achieve its Kyoto target with additional domestic measures. No information on the potential use of Kyoto mechanisms has been provided so far.

**Emissions by sectors (2002)**



## GERMANY

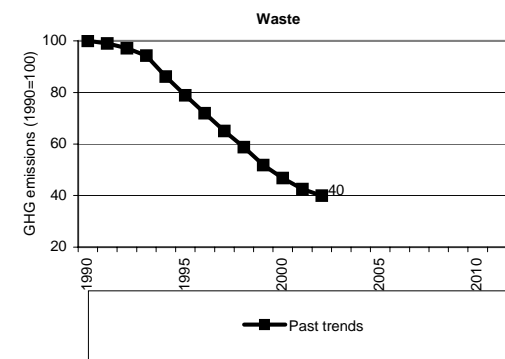
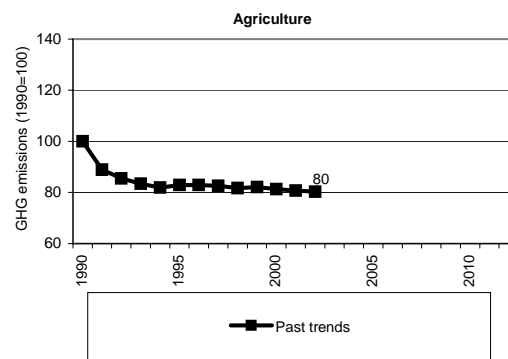
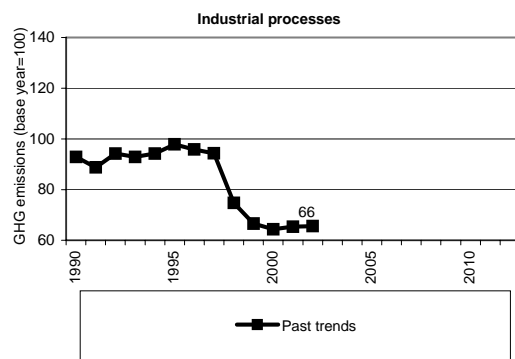
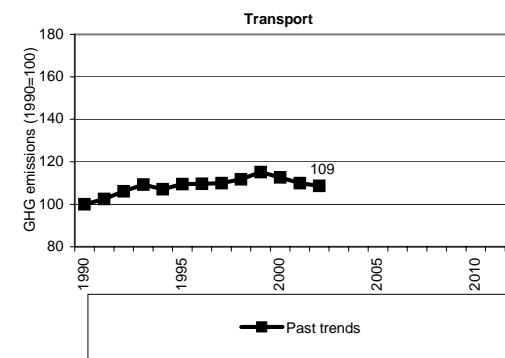
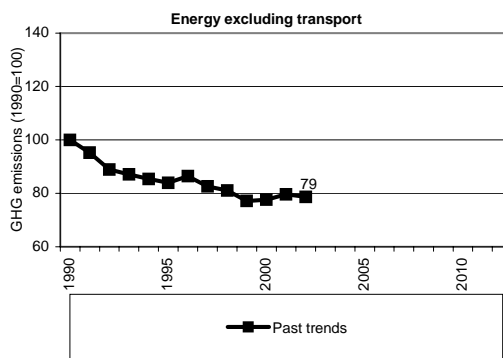
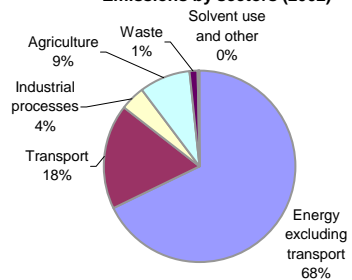
Share in total EU-15 GHG emissions 2002	25 %
Emissions base year (latest inventory)	1 253.3 Mt
Emissions 2002	1 016.0 Mt
Emissions base year (for projections)	1 218.2 Mt
Projections 2010 with existing measures	977.8 Mt
No projections with additional measures	n.a.
Kyoto target (absolute, based on latest inventory)	990.1 Mt
Kyoto target (% from base year)	- 21.0 %
Change base year to 2002	- 18.9 %
Change 2001-02	- 1.1 %
Change base year to 2010 with existing measures	- 19.7 %
No projections with additional measures	n.a.
Distance to linear target path 2002	- 6.3 percentage points
Use of Kyoto mechanisms	n.a.



**Past emissions:** Germany's GHG emissions were 1.1 % below those of 2001 and 18.9 % below base-year levels in 2002. The main factor for decreasing emissions with regard to 2001 was decreasing fossil fuel combustion in households and services, partly due to a warm winter. Emissions from road transport decreased for the third consecutive year. The main reasons for the decreases since 1990 are efficiency increases in power and heating plants and the economic restructuring in the new federal states after German unification. Other important factors were emission reductions in eastern German households and services, abatement measures in adipic acid production, the decline of coal mining, and emission reductions from landfills.

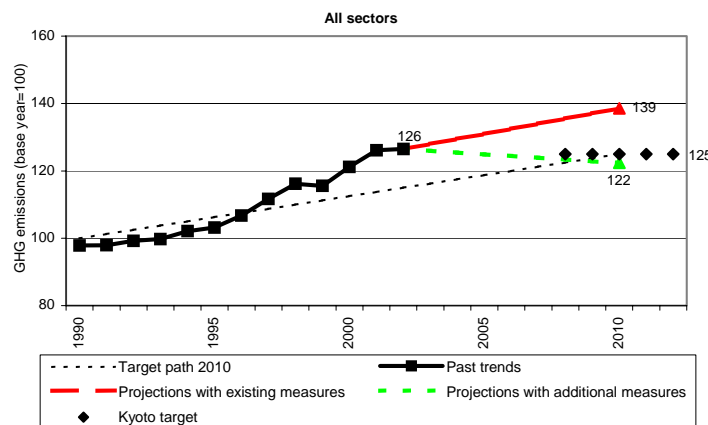
**Emission projections:** Emissions in 2002 were almost at the level projected with existing measures for 2010. Germany projects that it will almost reach the Kyoto target with existing domestic measures. Germany provided neither a sectoral breakdown of emission projections nor projections with additional measures. Information on the potential use of Kyoto mechanisms has not been provided so far.

**Emissions by sectors (2002)**



## GREECE

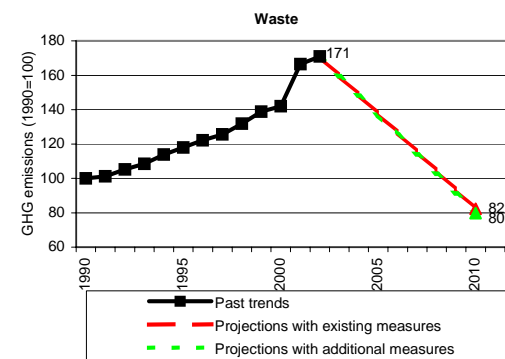
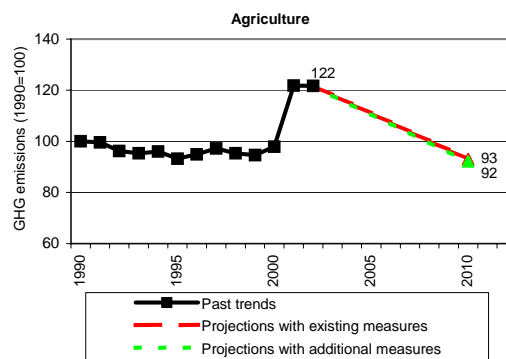
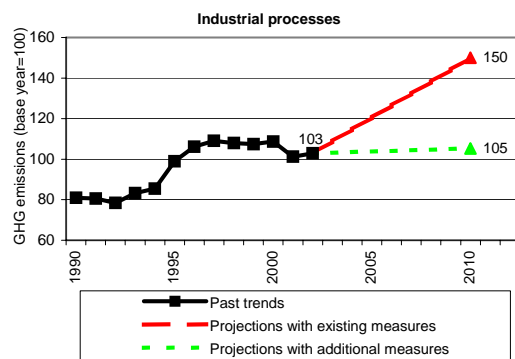
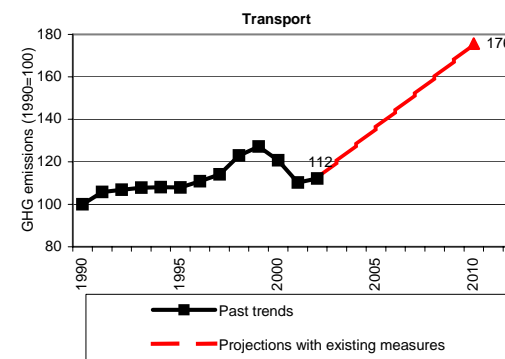
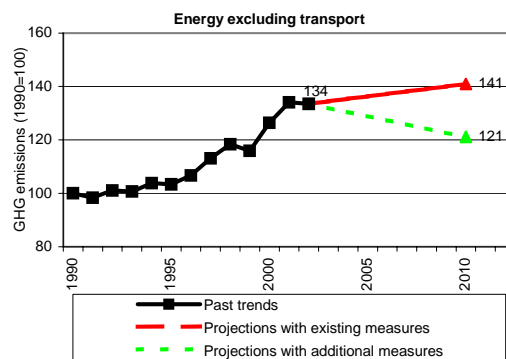
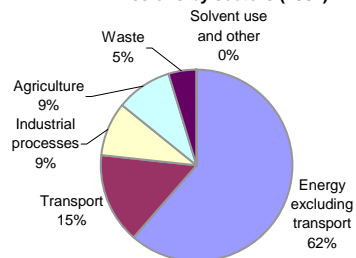
Share in total EU-15 GHG emissions 2002	3 %
Emissions base year (latest inventory)	107.0 Mt
Emissions 2002	135.4 Mt
Emissions base year (for projections)	109.3 Mt
Projections 2010 with existing measures	151.4 Mt
Projections 2010 with additional measures	133.7 Mt
Kyoto target (absolute, based on latest inventory)	133.8 Mt
Kyoto target (% from base year)	+ 25.0 %
Change base year to 2002	+ 26.5 %
Change 2001–02	+ 0.3 %
Change base year to 2010 with existing measures	+ 38.6 %
Change base year to 2010 with additional measures	+ 22.4 %
Distance to linear target path 2002	+ 11.5 percentage points
Use of Kyoto mechanisms	n.a.



**Past emissions:** Greek GHG emissions were 0.3 % above those of 2001 and 26.5 % above base-year levels in 2002. Main factors for increasing emissions with regard to 2001 were growing road transport and fossil fuel combustion in households. From 1990 to 2002, electricity and heat production was by far the largest contributor to emission increases, mainly due to a strong increase in lignite-fired power production. The Greek emission trends have to be interpreted with care because of inconsistent time series. After the data deadline for this report, Greece provided more recent data that eliminate time series inconsistencies in several sectors but do not substantially change overall trends.

**Emission projections:** Emissions in 2002 were below the level projected with existing measures for 2010. This year, Greece reported higher 'with measures' projections for energy use and agriculture than for last year. Greece exceeds the target of a 25 % increase on base-year emissions with existing domestic measures, but will achieve its Kyoto target with additional domestic measures. No information on the potential use of the Kyoto mechanism has been provided so far.

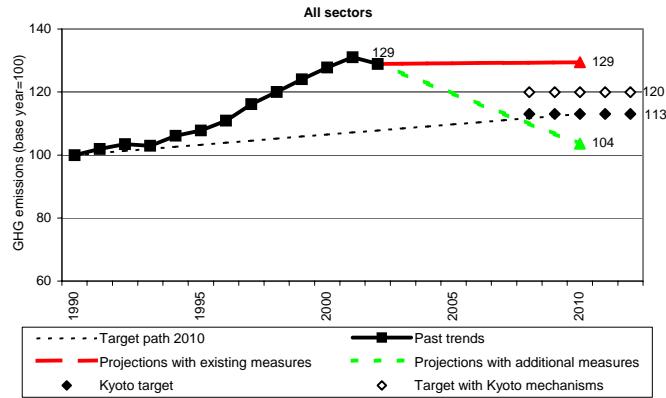
**Emissions by sectors (2002)**





# IRELAND

Share in total EU-15 GHG emissions 2002	2 %
Emissions base year (latest inventory)	53.4 Mt
Emissions 2002	68.9 Mt
Emissions base year (for projections)	53.4 Mt
Projections 2010 with existing measures	69.1 Mt
Projections 2010 with additional measures	55.3 Mt
Kyoto target (absolute, based on latest inventory)	60.4 Mt
Kyoto target (% from base year)	+ 13.0 %
Change base year to 2002	+ 28.9 %
Change 2001–02	- 1.6 %
Change base year to 2010 with existing measures	+ 29.4 %
Change base year to 2010 with additional measures	+ 3.6 %
Distance to linear target path 2002	+ 21.1 percentage points
Use of Kyoto mechanisms	3.7 Mt

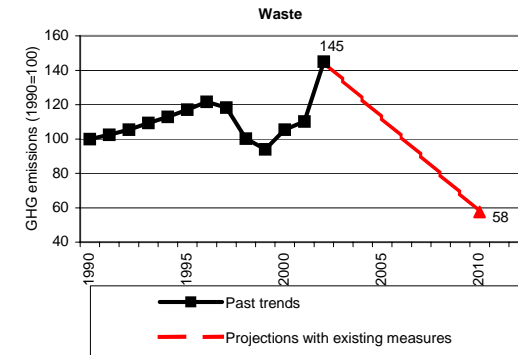
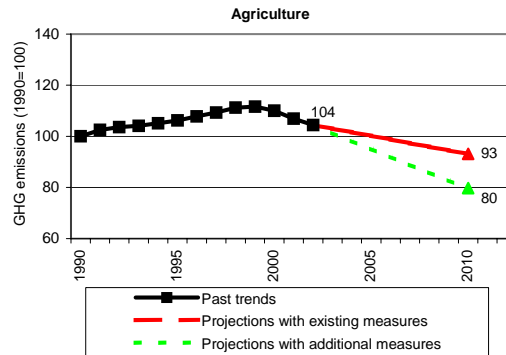
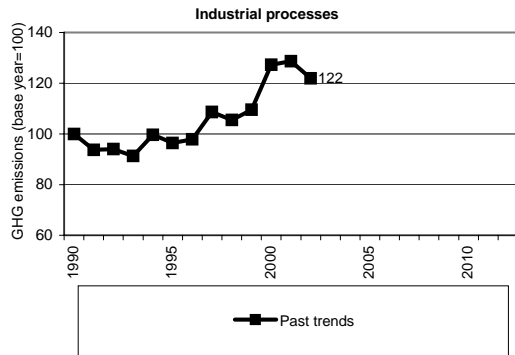
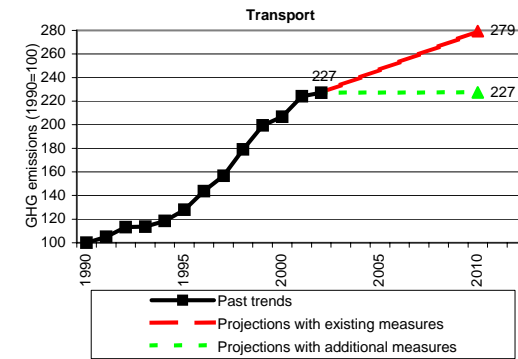
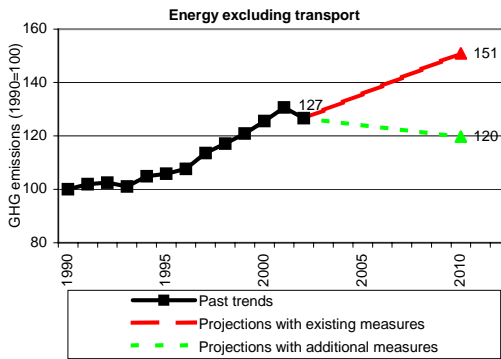
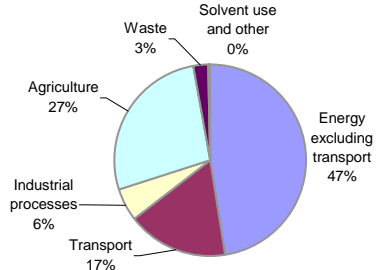


Note: 'Target with Kyoto mechanisms' is calculated by combining the agreed burden-sharing target with Kyoto units from JI and CDM.

**Past emissions:** Ireland's GHG emissions were 1.6 % below those of 2001 and 28.9 % above base-year levels in 2002. In 2002, emissions decreased for the first time since 1993. Thermal electricity production, which accounts for more than 90 % of power production, decreased for the first time since 1990. Between 1990 and 2002, fossil fuel combustion both in road transport and in electricity and heat production was by far the largest contributor to emission increases.

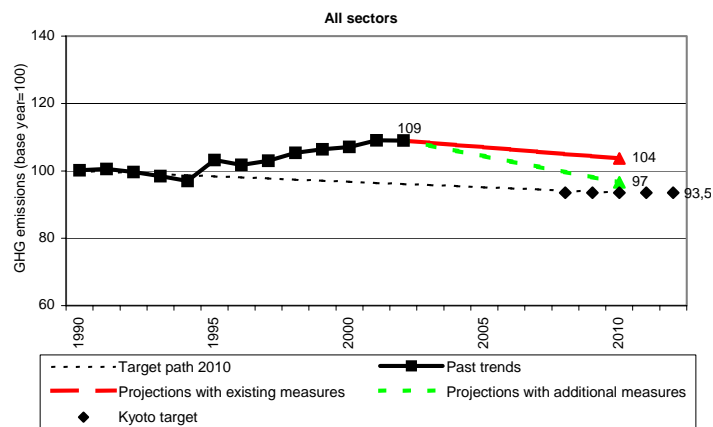
**Emission projections:** Emissions in 2002 were at the level projected in the 'with measures' scenario for 2010. This is mainly the result of sharp increases in road transport-related emissions. This year's projections are lower than those reported last year due to a drop in the projections from energy excluding transport. With existing domestic measures, Ireland exceeds the Kyoto target by 16 percentage points. With additional domestic measures, Ireland will achieve its Kyoto target. In addition, the Irish government plans to purchase 3.7 Mt Kyoto units per year of the commitment period to comply with its Kyoto target.

Emissions by sectors (2002)



# ITALY

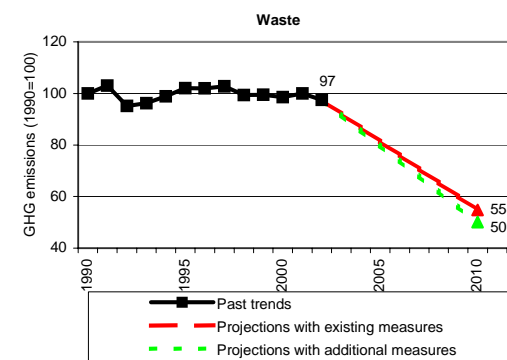
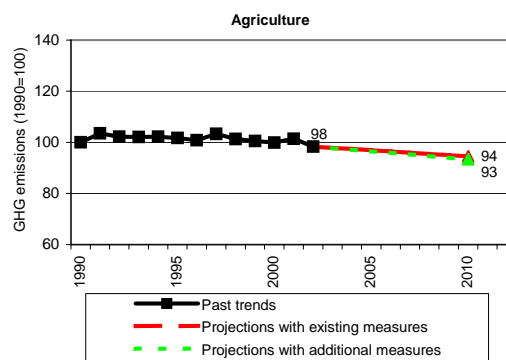
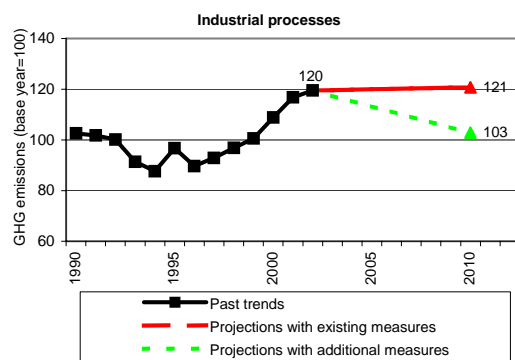
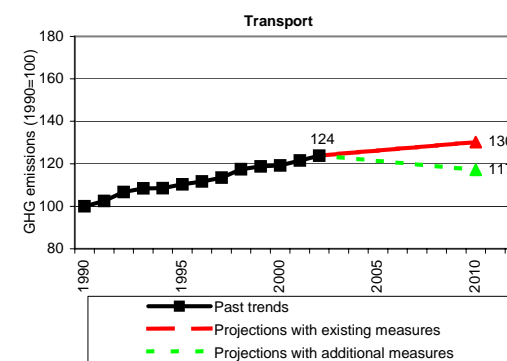
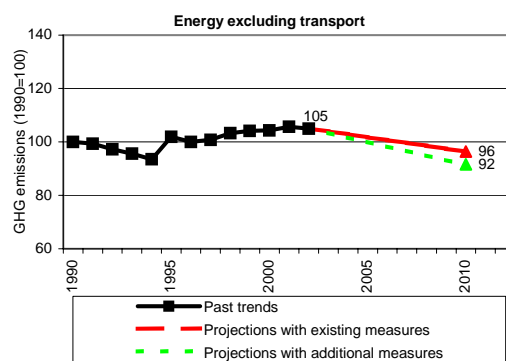
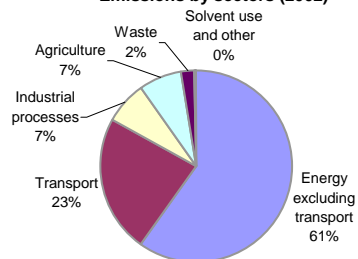
Share in total EU-15 GHG emissions 2002	13 %
Emissions base year (latest inventory)	508.0 Mt
Emissions 2002	553.8 Mt
Emissions base year (for projections)	521.0 Mt
Projections 2010 with existing measures	540.1 Mt
Projections 2010 with additional measures	503.2 Mt
Kyoto target (absolute, based on latest inventory)	475.0 Mt
Kyoto target (% from base year)	- 6.5 %
Change base year to 2002	+ 9.0 %
Change 2001-02	- 0.1 %
Change base year to 2010 with existing measures	+ 3.7 %
Change base year to 2010 with additional measures	- 3.4 %
Distance to linear target path 2002	+ 12.9 percentage points
Use of Kyoto mechanisms	n.a.



**Past emissions:** Italy's GHG emissions were 0.1 % below those of 2001 and 9.0 % above base-year levels in 2002. Compared with 2001, large emission decreases from fossil fuel combustion in iron and steel production and in households and services were offset by emission increases in electricity and heat production, road transport and consumption of halocarbons. Between 1990 and 2002, fossil fuel combustion in road transport, electricity and heat production, oil refining and consumption of halocarbons are the largest contributor to emission increases.

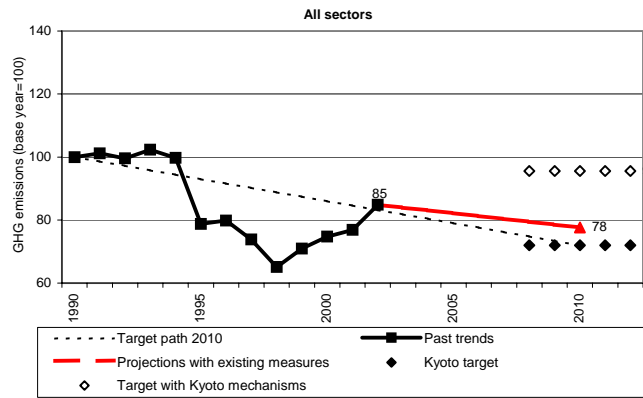
**Emission projections:** Emissions in 2002 were above the level projected in the 'with measures' scenario for 2010. Italy will not achieve its Kyoto target with additional domestic measures. Kyoto mechanisms are expected to contribute 12 to 69.2 million tonnes of CO<sub>2</sub> equivalent per year to Italy's burden-sharing target. However, no budgets for the purchase of Kyoto units are allocated so far.

**Emissions by sectors (2002)**



# LUXEMBOURG

Share in total EU-15 GHG emissions 2002	0.3 %
Emissions base year (latest inventory)	12.7 Mt
Emissions 2002	10.8 Mt
Emissions base year (for projections)	12.7 Mt
Projections 2010 with existing measures	9.9 Mt
No projections with additional measures	n.a.
Kyoto target (absolute, based on latest inventory)	9.2 Mt
Kyoto target (% from base year)	-28.0 %
Change base year to 2002	-15.1 %
Change 2001-02	+10.4 %
Change base year to 2010 with existing measures	-22.4 %
No projections with additional measures	n.a.
Distance to linear target path 2002	+1.7 percentage points
Use of Kyoto mechanisms	3.0 Mt

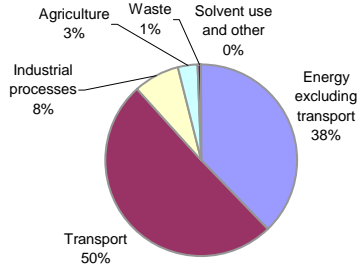


Note: 'Target with Kyoto mechanisms' is calculated by combining the agreed burden-sharing target with Kyoto units from JI and CDM.

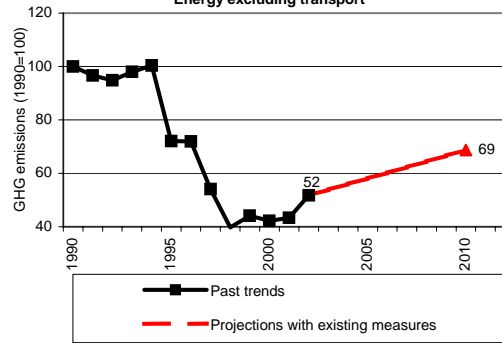
**Past emissions:** Luxembourg's GHG emissions were 10.4 % above those of 2001, but 15.1 % below base-year levels in 2002. Main factors for increasing emissions with regard to 2001 were the introduction of a new co-generation plant and emission increases from road transport. Main factors for emission decreases between 1990 and 2002 were the decline in coke consumption after converting the steel industry to electric arc furnaces, and falling thermal power production. Road transport is by far the largest contributor to emission increases. This year, the time series includes emissions from road fuel sold in Luxembourg, but consumed abroad (fuel tourism). Fuel tourism explains the 50 % share of transport in total GHG emissions.

**Emission projections:** Emissions in 2002 were above the projections with existing measures for 2010, which is mainly because of a sharp increase in road transport-related emissions. Luxembourg is not projected to achieve its Kyoto target with existing measures and no additional measures projection was provided, but projects to close the gap with Kyoto mechanisms.

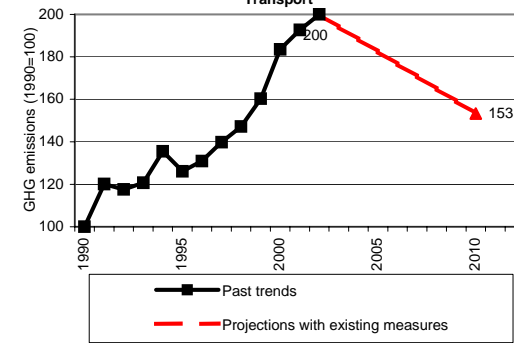
Emissions by sectors (2002)



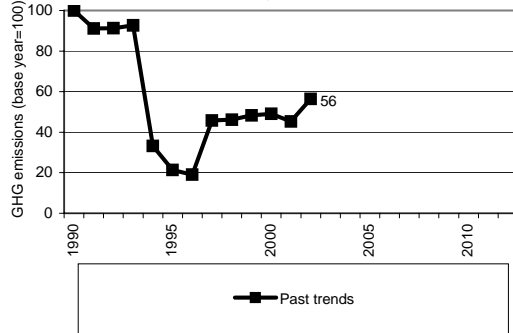
Energy excluding transport



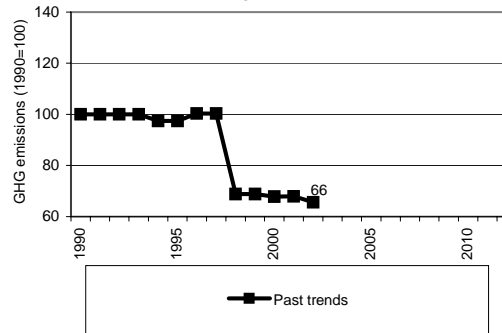
Transport



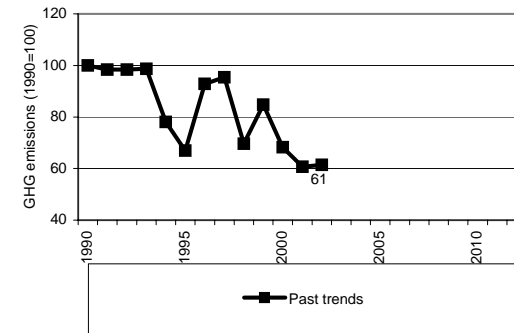
Industrial processes



Agriculture

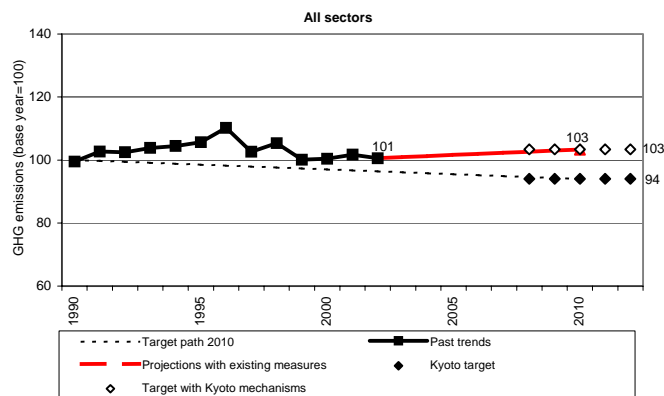


Waste



## NETHERLANDS

Share in total EU-15 GHG emissions 2002	5 %
Emissions base year (latest inventory)	212.5 Mt
Emissions 2002	213.8 Mt
Emissions base year (for projections)	212.0 Mt
Projections 2010 with existing measures	219.0 Mt
No projections with additional measures	n.a.
Kyoto target (absolute, based on latest inventory)	199.7 Mt
Kyoto target (% from base year)	- 6.0 %
Change base year to 2002	+ 0.6 %
Change 2001-02	- 1.1 %
Change base year to 2010 with existing measures	+ 3.3 %
No projections with additional measures	n.a.
Distance to linear target path 2002	+ 4.2 percentage points
Use of Kyoto mechanisms	20 Mt

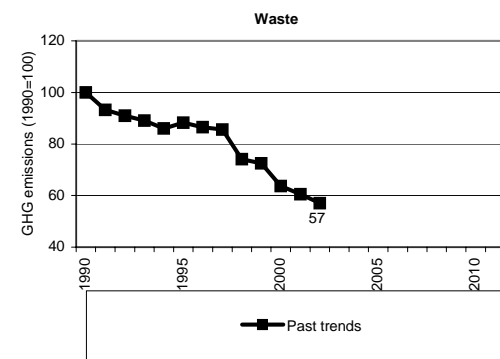
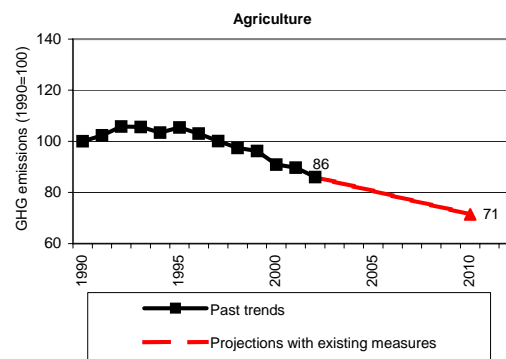
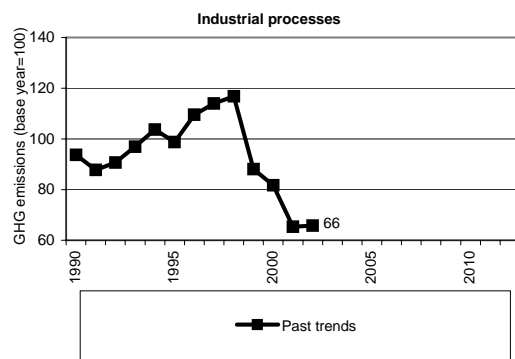
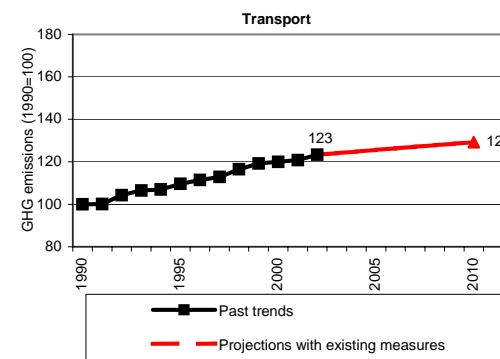
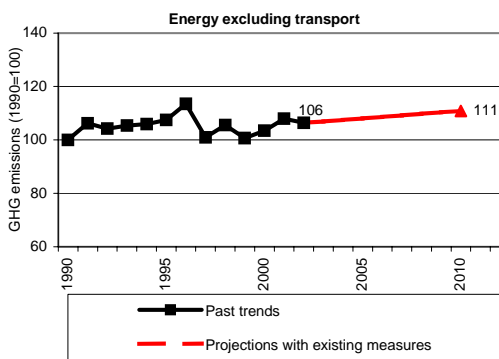
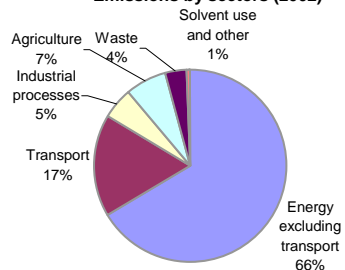


Note: 'Target with Kyoto mechanisms' is calculated by combining the agreed burden-sharing target with Kyoto units from JI and CDM.

**Past emissions:** Dutch GHG emissions were 1.1 % below those of 2001 and 0.6 % above base-year levels in 2002. The main factor for decreasing emissions with regard to the previous year was decreased fossil fuel combustion in refineries and in manufacturing industries. Between 1990 and 2002, emission increases from electricity and heat production and from road transport were partly offset by emission decreases from fossil fuel combustion in industry (in particular chemical industry), abatement measures in HCFC production and emission reductions from solid waste disposal on land.

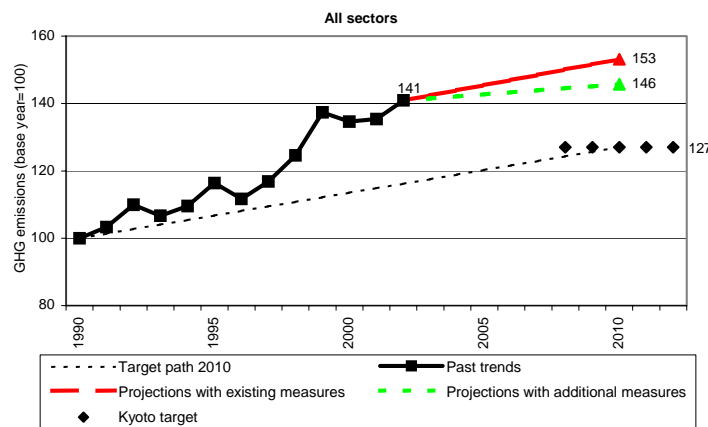
**Emission projections:** Emissions in 2002 were almost at the level projected with existing measures for 2010. The Netherlands will not achieve its Kyoto target with domestic measures according to this projection. No projections with additional domestic measures are available. The Netherlands is currently planning to use Kyoto mechanisms to purchase an average of 20.0 million tonnes of CO<sub>2</sub> equivalent reductions per year during the commitment period. This will entirely close the gap between GHG projections and the Kyoto target.

**Emissions by sectors (2002)**



## PORTUGAL

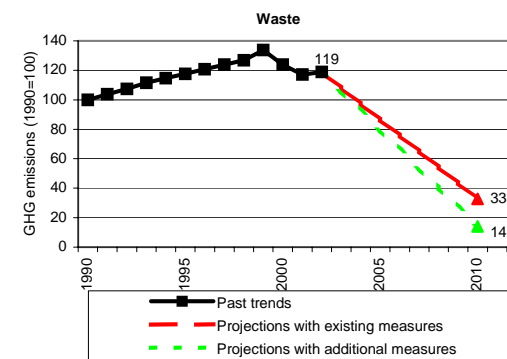
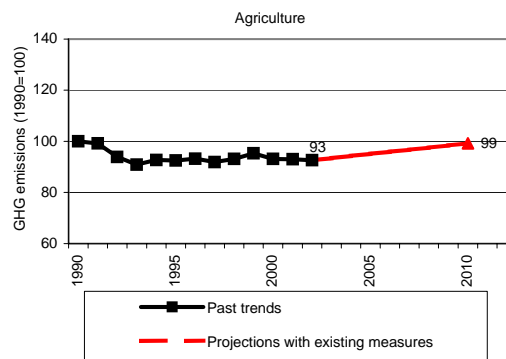
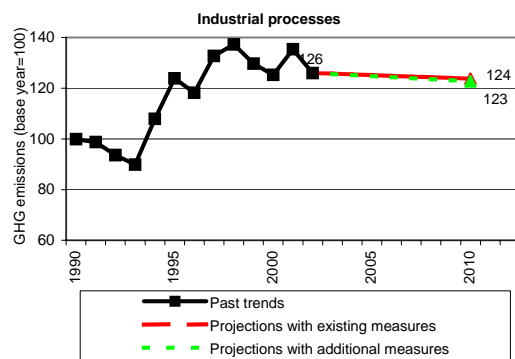
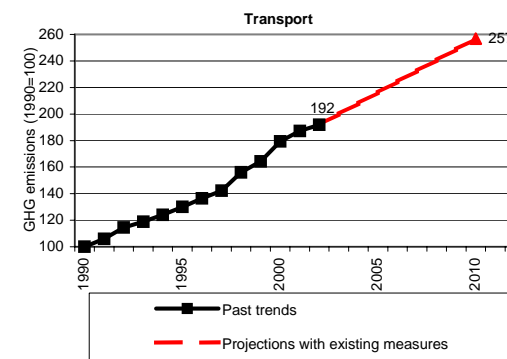
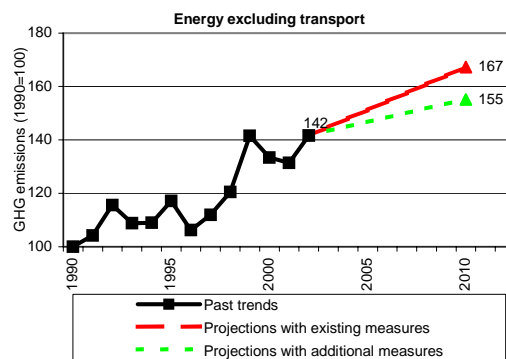
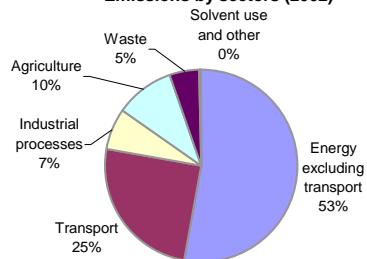
Share in total EU-15 GHG emissions 2002	2 %
Emissions base year (latest inventory)	57.9 Mt
Emissions 2002	81.6 Mt
Emissions base year (for projections)	65.1 Mt
Projections 2010 with existing measures	99.7 Mt
Projections 2010 with additional measures	94.9 Mt
Kyoto target (absolute, based on latest inventory)	73.5 Mt
Kyoto target (% from base year)	+ 27.0 %
Change base year to 2002	+ 41.0 %
Change 2001–02	+ 4.1 %
Change base year to 2010 with existing measures	+ 53.1 %
Change base year to 2010 with additional measures	+ 45.7 %
Distance to linear target path 2002	+ 24.8 percentage points
Use of Kyoto mechanisms	n.a.



**Past emissions:** Portugal's GHG emissions were 4.1 % above those of 2001 and 41.0 % above base-year levels in 2002. The main factor for increasing emissions with regard to the previous year was increased fuel consumption for electricity and heat production, partly due to low hydro power production. Between 1990 and 2002, fuel combustion especially in road transport and electricity and heat production but also in households and services contributed the most to the emission increases.

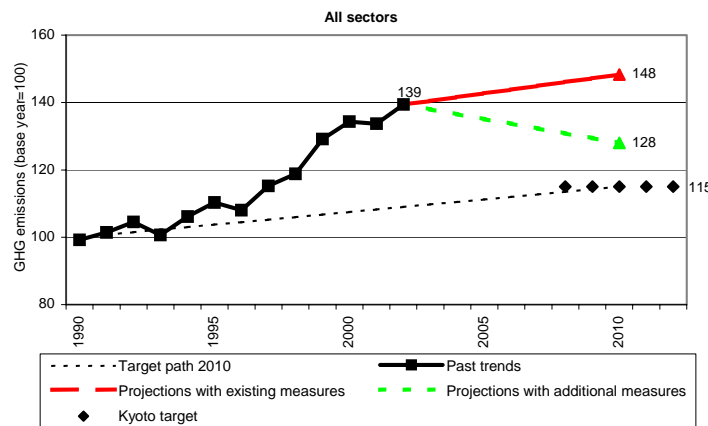
**Emission projections:** Emissions in 2002 were below the level projected in the with measures scenario for 2010. Portugal will not achieve its Kyoto target. The 'with additional domestic measures' projection is 46 % above base-year levels and thus significantly exceeds the target of a 27 % increase. Kyoto mechanisms are projected to close up to 8 % of the gap between 'with existing measures' projections and the Kyoto target but no arrangements have been made yet.

**Emissions by sectors (2002)**



## SPAIN

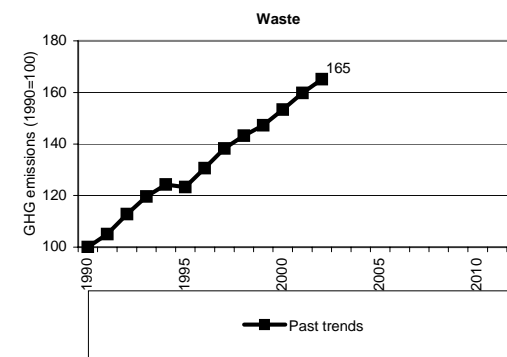
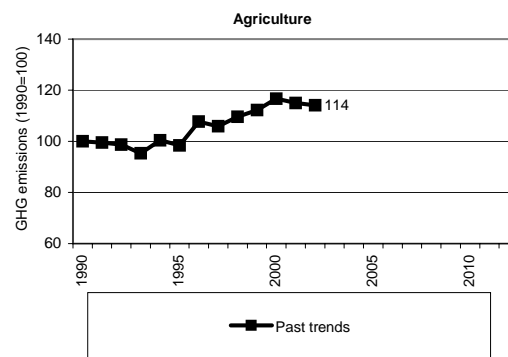
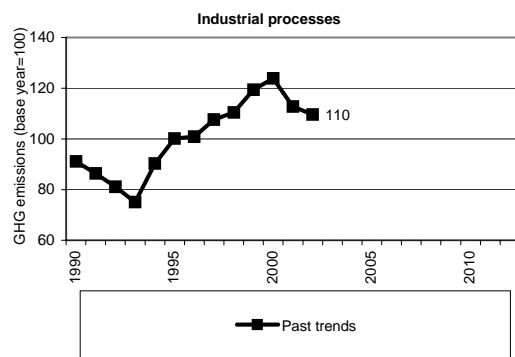
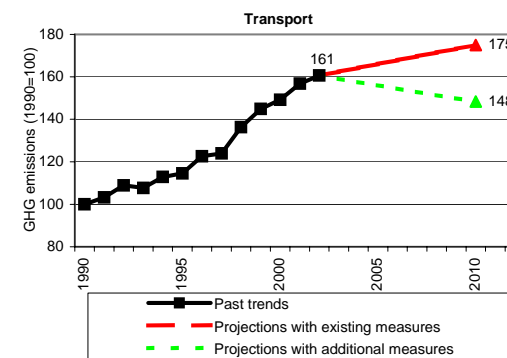
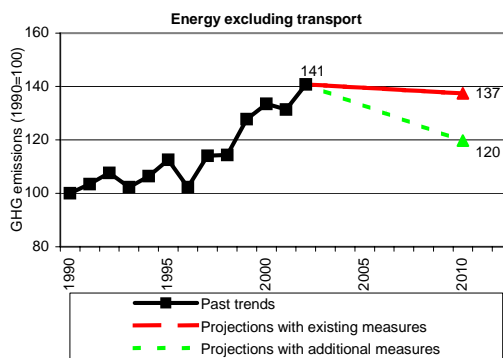
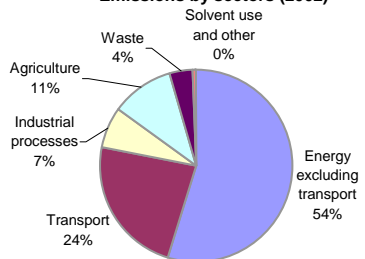
Share in total EU-15 GHG emissions 2002	10 %
Emissions base year (latest inventory)	286.8 Mt
Emissions 2002	399.7 Mt
Emissions base year (for projections) (CO <sub>2</sub> )	207.0 Mt
Projections 2010 with existing measures (CO <sub>2</sub> )	307.0 Mt
Projections 2010 with additional measures (CO <sub>2</sub> )	265.0 Mt
Kyoto target (absolute, based on latest inventory)	329.8 Mt
Kyoto target (% from base year)	+ 15.0 %
Change base year to 2002	+ 39.4 %
Change 2001–02	+ 4.2 %
Change base year to 2010 with existing measures	+ 48.3 %
Change base year to 2010 with additional measures	+ 28.0 %
Distance to linear target path 2002	+ 30.4 percentage points
Use of Kyoto mechanisms	n.a.



**Past emissions:** Spain's GHG emissions were 4.2 % above those of 2001 and 39.4 % above base-year levels in 2002. The main factor for increasing emissions with regard to the previous year was increased fossil fuel consumption in electricity and heat production partly due to low hydro power production. Between 1990 and 2002, fuel consumption in electricity and heat production and road transport are the largest contributors to emission increases. Also fuel combustion in industry and households and services and emissions from landfills and from agriculture increased substantially.

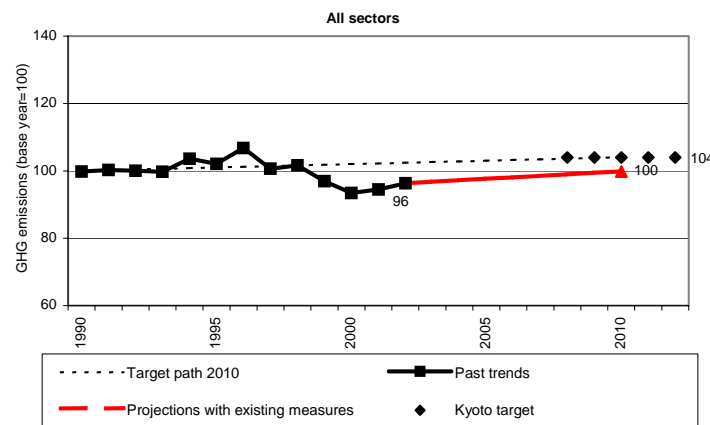
**Emission projections:** Emissions in 2002 were below the level projected in the with measures scenario for 2010. Spain will not achieve the Kyoto target with additional domestic measures. No quantification for the Kyoto mechanism have been provided so far. The projections provided are for CO<sub>2</sub> only. Therefore, the figures on this page which compare GHG past trends with CO<sub>2</sub> projections have to be interpreted with care. Kyoto mechanisms are expected to contribute 20 million tonnes of CO<sub>2</sub> equivalent per year to Spain's burden-sharing target. However, no budgets for the purchase of Kyoto units are allocated so far.

Emissions by sectors (2002)



## SWEDEN

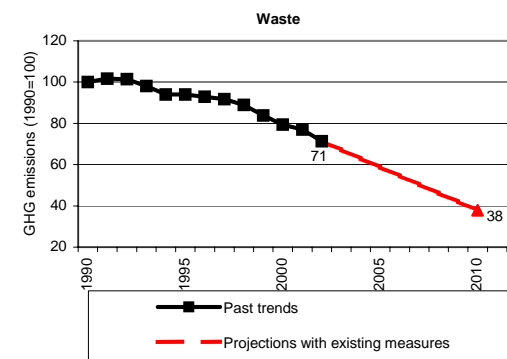
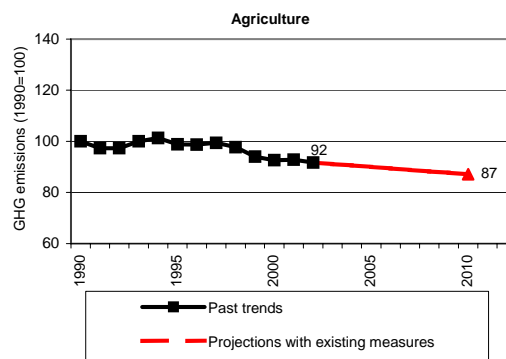
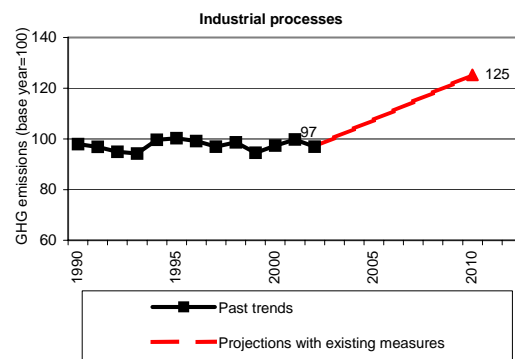
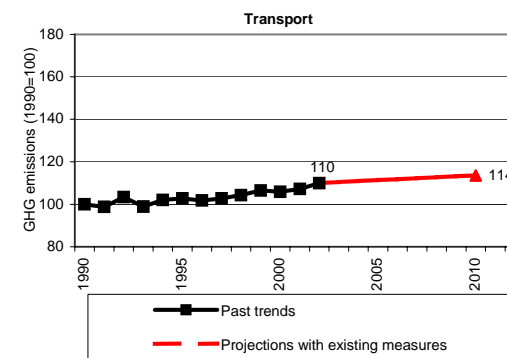
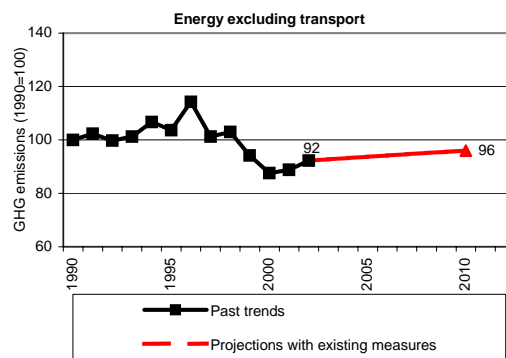
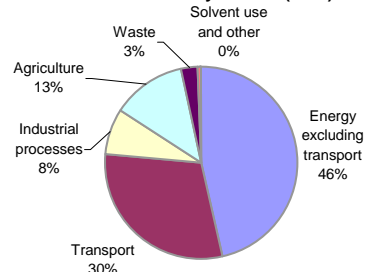
Share in total EU-15 GHG emissions 2002	2 %
Emissions base year (latest inventory)	72.3 Mt
Emissions 2002	69.6 Mt
Emissions base year (for projections)	71.9 Mt
Projections 2010 with existing measures	71.8 Mt
No projections with additional measures	n.a.
Kyoto target (absolute, based on latest inventory)	75.1 Mt
Kyoto target (% from base year)	+ 4.0 %
Change base year to 2002	- 3.7 %
Change 2001-02	+ 2.0 %
Change base year to 2010 with existing measures	- 0.2 %
No projections with additional measures	n.a.
Distance to linear target path 2002	- 6.1 percentage points
Use of Kyoto mechanisms	n.a.



**Past emissions:** Sweden's GHG emissions were 2.0 % above those of 2001 and 3.7 % below base-year levels in 2002. Main factors for increasing emissions with regard to 2001 were growing fossil fuel use in heat and power production, partly due to declines in hydro and nuclear power production. From 1990 to 2002, reductions in fuel use in households and services, partly due to increases in district heating, contributed most to emission decreases. Sweden also managed to limit emission growth from heat and power production despite sharp increases in thermal power production mainly due to increased use of biomass.

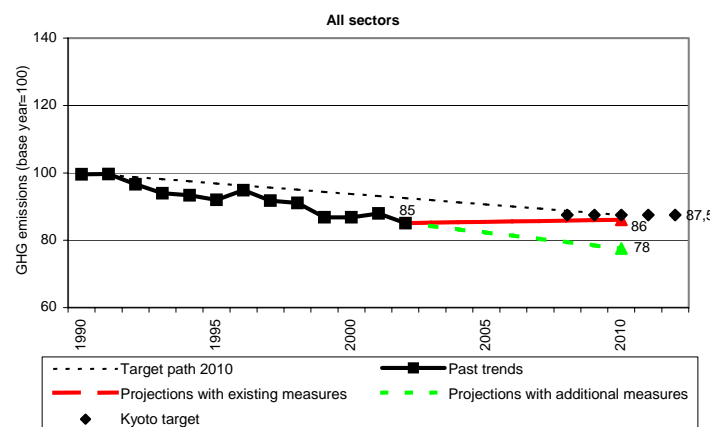
**Emission projections:** Emissions in 2002 were below projections with existing measures for 2010. Sweden's projected emissions from agriculture are slightly higher than reported last year, all other sectors remain unchanged. Sweden will achieve the Kyoto target with existing measures. No additional measures projections are available. Sweden has not yet decided on the use of Kyoto mechanisms although JI activities have already been started. In addition, Sweden has allocated a small budget for the purchase of Kyoto units.

**Emissions by sectors (2002)**



## UNITED KINGDOM

Share in total EU-15 GHG emissions 2002	15 %
Emissions base year (latest inventory)	746.0 Mt
Emissions 2002	634.8 Mt
Emissions base year (for projections)	744.7 Mt
Projections 2010 with existing measures	640.9 Mt
Projections 2010 with additional measures	577.3 Mt
Kyoto target (absolute, based on latest inventory)	652.8 Mt
Kyoto target (% from base year)	- 12.5 %
Change base year to 2002	- 14.9 %
Change 2001-02	- 3.3 %
Change base year to 2010 with existing measures	- 13.9 %
Change base year to 2010 with additional measures	- 22.5 %
Distance to linear target path 2002	- 7.4 percentage points
Use of Kyoto mechanisms	n.a.



**Past emissions:** The UK's GHG emissions were 3.3 % below those of 2001 and 14.9 % below base-year levels in 2002. The main factor for decreasing emissions with regard to 2001 was decreased fossil fuel consumption in industry, electricity and heat production and households and services. From 1990 to 2002, the liberalisation of the energy market and subsequent fuel shifts in electricity production from coal to gas was a major factor for emission reductions. Other important factors were emission abatement in adipic acid and HCFC production, emission reductions from landfills and the decline of coal mining.

**Emission projections:** Emissions in 2002 were below projections with existing measures for 2010. The UK will be below the Kyoto target with existing domestic measures; additional domestic measures increase this over-delivery. The largest savings from existing domestic measures are made in the energy supply sector, whereas savings from additional domestic measures fall in the business energy use and transport sectors. No quantification for Kyoto mechanisms have been provided so far, as the amount will depend on private action.

