



Article 3.14: The EU's implementation and reporting Part I: Domestic Action

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Outline

- **EU's implementation of Article 3.14**
- **Part I: Domestic Action**
 - EU emissions thus far
 - **European Climate Change Programme (ECCP)**
 - Review implementation phase I
 - CO₂ and cars
 - Carbon Capture and Geological Storage
 - Aviation
 - Adaptation
- **Part II: Emissions trading and relations with 3rd countries**
 - **EU emissions trading scheme**
 - **Relations with 3rd countries**
- **Reporting methodologies**



EU's implementation of Article 3.14

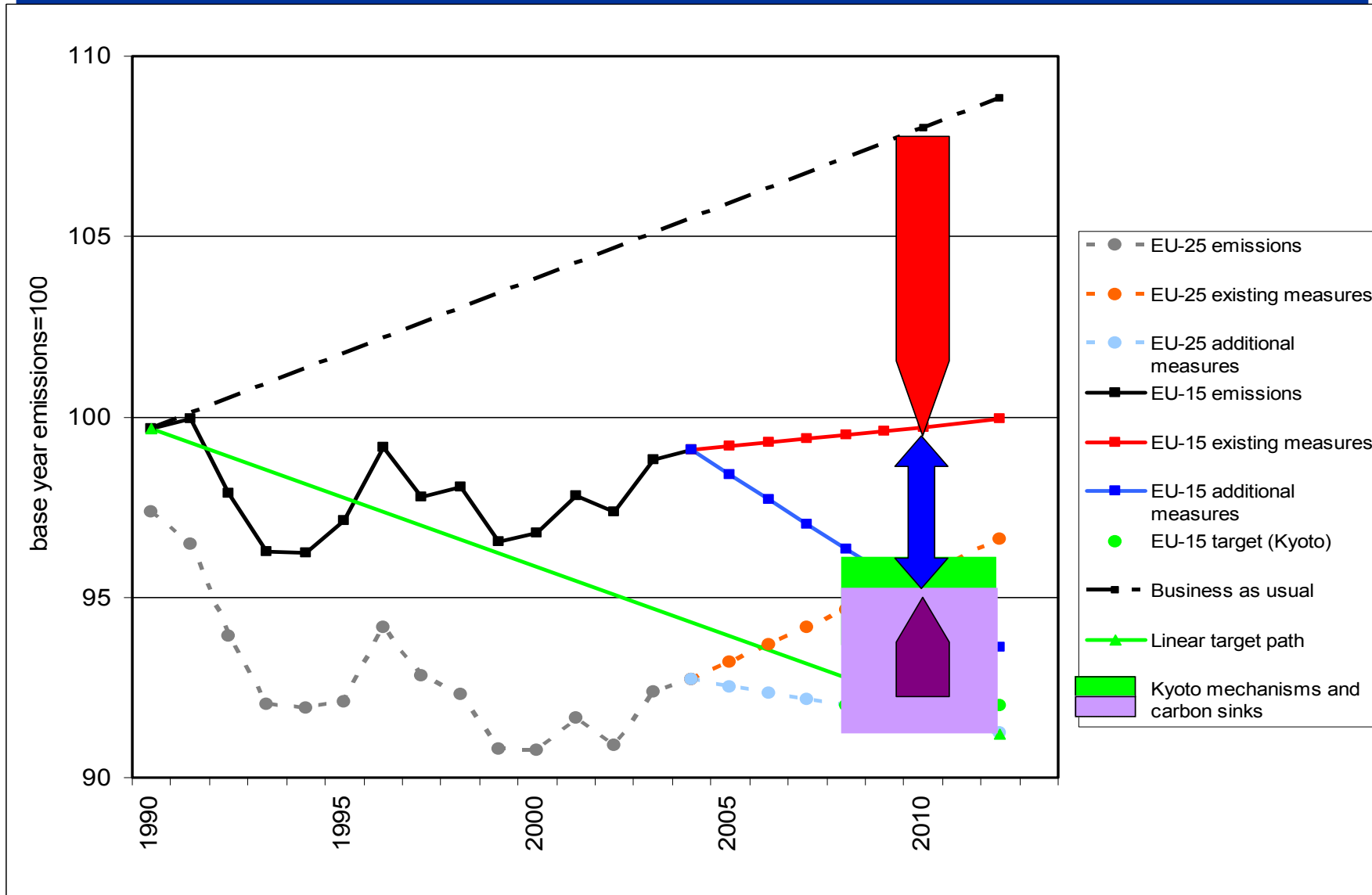
“Each Party included in Annex I shall *strive to* implement the commitments [...] in such a way as to *minimize adverse social, environmental and economic impacts on developing country Parties*, particularly those identified in Article 4, paragraphs 8 and 9, of the Convention”.

EU implementation through:

- Targeting multiple gases
- Targeting multiple sectors
- Use of (Kyoto) market-based mechanisms
- Cooperation on mitigation with key developing countries
- Support for adaptation for most affected developing countries



EU Progress toward Kyoto commitments





European Climate Change Programme (ECCP): Objectives

- Identify and develop main elements of EC strategy to meet its -8% Kyoto objective
- Complementary to Member States' efforts and their Climate Change Action Plans
- Involve stakeholders in policy preparation to build consensus
- Make recommendations to the Commission regarding most interesting and cost-effective measures
- An exercise in integration in other policy areas, cooperation with other services



ECCP Review in 2006

- **ECCP review from 24 January to 2 May 2006 (11 stakeholders meetings)**
- **Draft reports for the 5 working groups:**
 - **Energy Supply**
 - **Energy demand**
 - **Transport**
 - **Non CO2 gases**
 - **Agriculture and Forestry**
- **Final report for all groups published in June**
http://forum.europa.eu.int/Public/irc/env/eccp_2/library
http://ec.europa.eu/environment/climat/eccp_review.htm
- **Work integrated in a Communication about post 2012 policies and measures in 2006**



ECCP Review – Main results

- **Different stages of implementation of the European policies and measures in the Member States ⇒ potential there in many Member States for further reduction of GHG emissions with current policies and measures**
- **Monitoring and reporting concerning policies and measures should be improved (on going work with Öko Institut)**
- **Mixed picture across the sectors (GHG emissions reduction in waste and agriculture but increase in energy and transport sectors)**



Short-term challenge: Review of progress of ECCP I, fine tuning of policies and ideas for the future

Measure	Reduction potential (Mt CO ₂ -eq. p.a.) EU-15, 2010	Entry into force	Starting to deliver
EU emission trading scheme	~ NAP2	2003	2005
Link JI/CDM to emission trading	~ NAP2	2004	2005/2008
F-Gases Regulation and Directive on Mobile Air Conditioning	23	2006	2008
Dir. on the promotion of electricity from renewable energy sources	100-125	2001	2003
Dir. on the promotion of CHP	65	2004	2006
Dir. on energy performance of buildings	35-45	2003	2006
Dir. on the promotion of transport bio-fuels	35-40	2003	2005
Dir. on the promotion of energy efficiency and energy services	40-55	2003	2006
ACEA voluntary agreement	75-80	1998	1999
Energy labeling directives	20	1992	1993



What will ECCP I deliver in the EU-15?

EU-15, ex-ante figures in MT CO ₂ eq.	Estimated potential	State of Play	
		Fully implemented (> 80 % likelihood)	Not yet fully implemented (~ 50 % likelihood)
Energy supply	236-278	0	200-230
Energy demand	194-239	86 – 106	85-110
Transport	152-185	75-80	72-95
Non CO2 gases	59-62	41	18-21
Agriculture & Forestry	133	45	0
TOTAL	774–897	247–272	375-456



ECCP I Review: Agriculture and Forestry

ECCP I working group estimated the following emission reduction potentials:

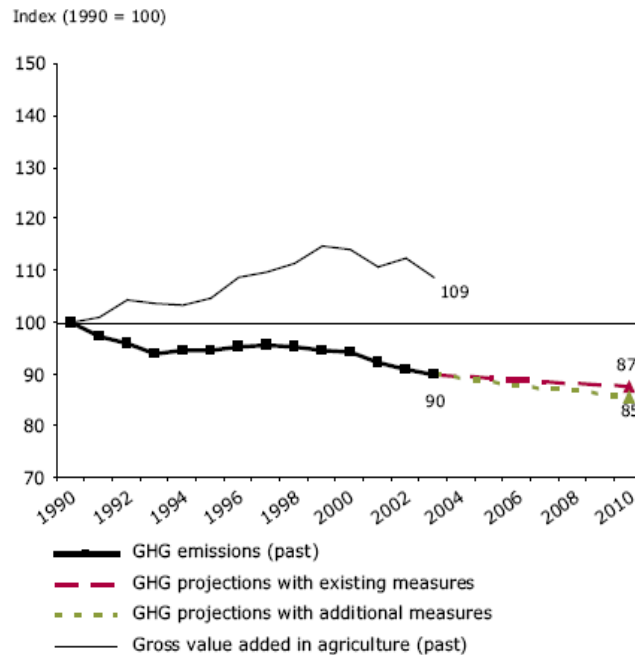
- GHG emissions: **31 Mt CO₂-eq. per year** (CAP reform and additional measures)
- Carbon sequestration: **14 Mt CO₂-eq. by 2012** for afforestation and reforestation
 - 19 Mt CO₂-eq.** for forest management
 - 60-70 Mt Co₂-eq.** for CO₂ sinks in soils for the first commitment period
- Bio-energy: **200-600 Mt CO₂-eq. technical potential** for bio-energy from agriculture, forests and other residues



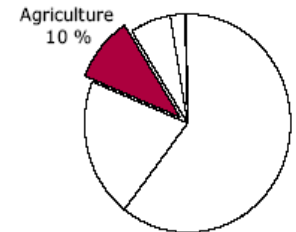
Agriculture and Forestry: GHG Emission Trends

- Decline of GHG emissions by **-14%** between **1990 and 2003** against **-7%** previously estimated in ECCP I
- CAP reforms are the main driver for the emissions trend, as well as the **Nitrates Directives**
- Resulting in:
 - Decreased livestock numbers
 - Decreased fertiliser use
 - Improved manure management

EU-15 Past and Projected GHG Emissions from Agriculture and Gross Value Added:



Share in total GHG emissions in 2003



Note: GHG projections for the EU-15 are calculated on the basis of projections reported by 12 Member States. The percentage change 2003–2010 of the EU-12 is applied to EU-15. Sectoral emission projections with existing measures are missing for Germany, Luxembourg and Spain, sectoral emissions projections with additional measures are missing for Austria, Denmark, Germany, Ireland, Luxembourg, Spain, Sweden and the United Kingdom.

Source: EEA, Eurostat.



Non-CO₂ gases: F-Gases Regulation and Directive

One proposal with two elements agreed on 31 January 2006

- **Regulation** for containment and recovery, use bans and prohibitions
- **Directive** for phase out of HFCs > 150 GWP in mobile air-conditioning systems in motor vehicles



Non-CO₂ gases: Main elements of F-Gases Regulation and Directive

Regulation

1. MS can maintain or introduce stricter national measures, Article 95 or 175 of Treaty apply according to provisions of Regulation in question
2. Containment and recovery measures
3. Training and Certification
4. Data reporting requirements
5. Labelling provisions
6. Marketing prohibitions and use restrictions
7. MS may retain stricter national marketing restrictions existing on 31.12.05 for four years after entry into force

Directive

8. Prohibition on HFCs > 150 GWP in Mobile Air Conditioning in motor vehicles
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Non-CO₂ gases: F-Gases Control of Use

F-GAS	USE	DATE OF USE BAN
SF6	Magnesium die-casting except where use < 850 kg per year	1 January 2008
SF6	Filling vehicle tyres	One year after date of entry into force



Non-CO₂ gases: The main objectives of MACs Directive

- **The control of leakage of certain fluorinated greenhouse gases with a global warming potential (GWP) higher than 150 in MACs**
- **The prohibition of MACs using those gases from a certain date (from 1 January 2011 for new types of vehicles; from 1 January 2017 for all new vehicles)**



Transport Sector: Emission Trends

- GHG emissions are growing rapidly, following the trend of GDP due to increases in (1990-2003):
 - domestic aviation: **+28.9%**
 - road transport: **+25.1%**
 - rail transport: **-40%**
- Transport emissions: **19%** of the EU-25 GHG and **21%** of the EU-15 GHG
- Rise in emissions (1990-2003): **+ 24%** (50% by 2020)
 - N₂O increase: **+135%**
 - CH₄ decrease: **-50%**
 - CO₂ increase: **+22.6%**
- International traffic:
 - Maritime bunkers: **+40%** (a yearly increase rate of about 3%)
 - Aviation: **+80%**



Transport Sector: ECCP I identified measures

- **The second ECCP I report of April 2003 identified measures with a CO₂ saving potential of 152-185 Mt. These were:**
 - **Community strategy on CO₂ from passenger cars: 105-117 Mt**
 - **Technological improvements in new cars (voluntary commitment of car manufacturers associations) (75-80Mt)**
 - **Consumer information**
 - **Fiscal measures**
 - **Voluntary commitment on CO₂ light commercial vehicles (N1): 5-10 Mt**
 - **Framework Directive infrastructure use and charging: 40-60Mt**
 - **Shifting the balance of transport modes: Not quantified**
 - **Fuel taxation: Not quantified**
 - **Mobile air conditioning systems, HFCs: Not quantified**
 - **Mobile air conditioning systems, CO₂: Not quantified**



CO₂ and cars

- **Voluntary agreement signed by the European car industry (ACEA) to reduce CO₂ emissions from light duty vehicles to 140g/km for 2008.**
- **In 2005 the average CO₂ emissions from light duty vehicles was about 160g/km.**
- **ECCP II working group created to discuss about further actions to be taken to reduce CO₂ emissions from light duty vehicles**
- **Report published in September 2006**



Carbon Capture and Geological Storage: Towards an enabling policy framework

- Stakeholder consultation, 4 meetings 1st half of 2006
- Explore geological carbon capture and storage as a mitigation option by:
 - reviewing the *potential, economics and risks* of CCS;
 - identifying regulatory needs and barriers and exploring the elements of an *enabling regulatory framework* for the development of environmentally sound CCS;
 - identifying *other barriers* that could impede the development of environmentally sound policies to advance CCS, and policies to enable the development of environmentally sound CCS.
- Final report in June 2006
- Commission Communication in 3rd quarter 2007



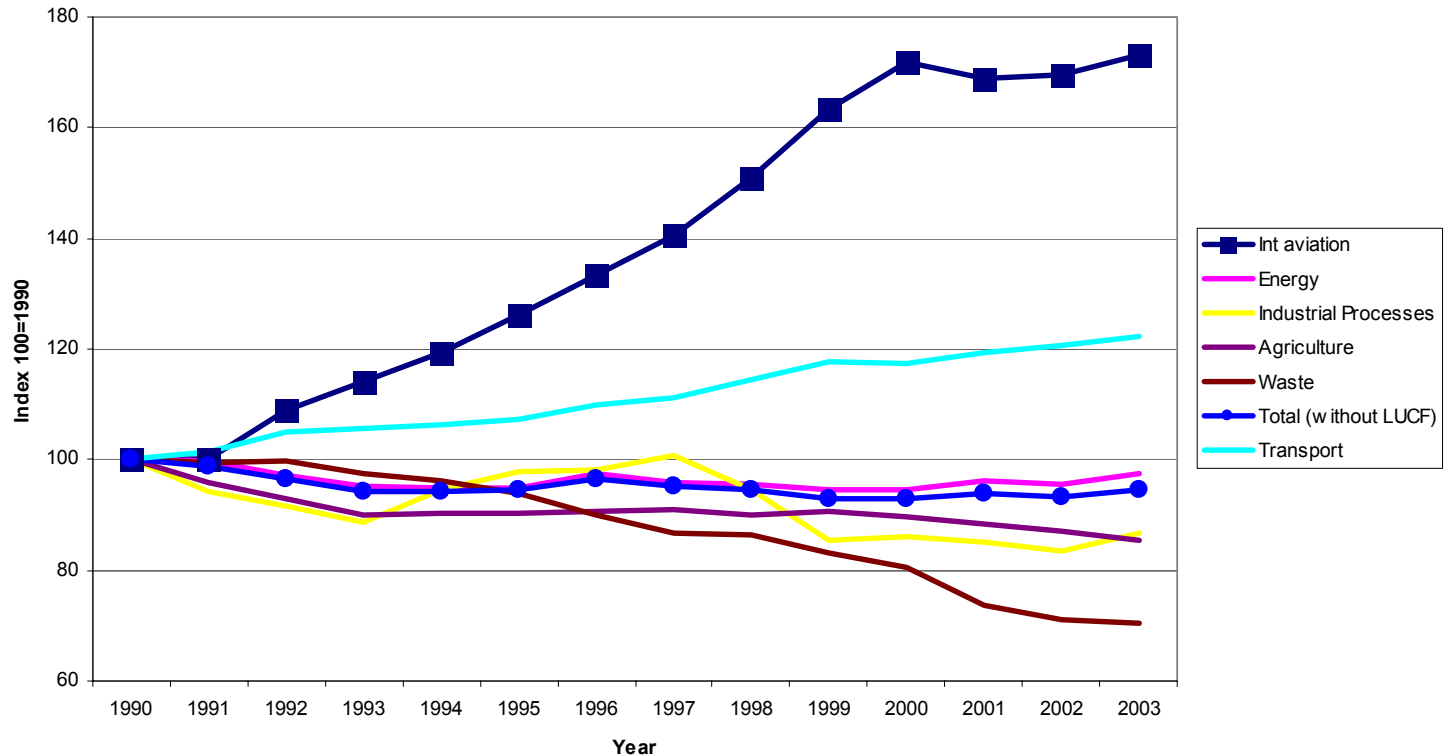
Impacts and adaptation

- **10 stakeholders meeting held between March and June 2006.**
 - **Reports published until end of September on the European Commission web site.**
 - **Green paper on impacts and adaptation to be published in November 2006.**
 - **Stakeholders' conference to launch the Green Paper on the 1st of December 2006 in Brussels**
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Aviation: Rapid growth in GHG emissions

EU GHG emissions by sector as an index of 1990 levels





Aviation: Adoption of Communication

- **Communication adopted 27 September 2005**
- **Informed by :**
 - **Study on aviation and emissions trading (July 2005)**
 - **Web consultation 11 March – 6 May 2005**
 - **Stakeholder meeting in GreenWeek 1 June 2005**



Aviation: Recommendations

- **Comprehensive approach**
- **Proposes to take steps towards including aviation in the EU ETS as soon as feasible**
 - Aircraft operators
 - CO₂ and non-CO₂ impacts should be addressed to the extent possible
 - Cover all flights departing from EU airports
 - Harmonised allocation methodology
- **Alongside continuing work on:**
 - research into greener air transport
 - improvements in air traffic management
 - removing legal barriers for taxing aircraft fuel
 - improvements in technical design standards



Aviation: ECCP Working Group

- **Report published on 28 April**
- **Commission in "listening and thinking" mode:**
 - welcome views and contributions from all stakeholders
 - Impact assessment ongoing
- **Report on review of ETS by end Sept 2006**
- **Contribute to ICAO efforts to develop guidance on emissions trading**
- **Aim for legislative proposal end of 2006**
- **EU institutions likely to take 1-3 years to adopt the proposal**



Conclusions

To be continued.....

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 - **EU emissions trading scheme**
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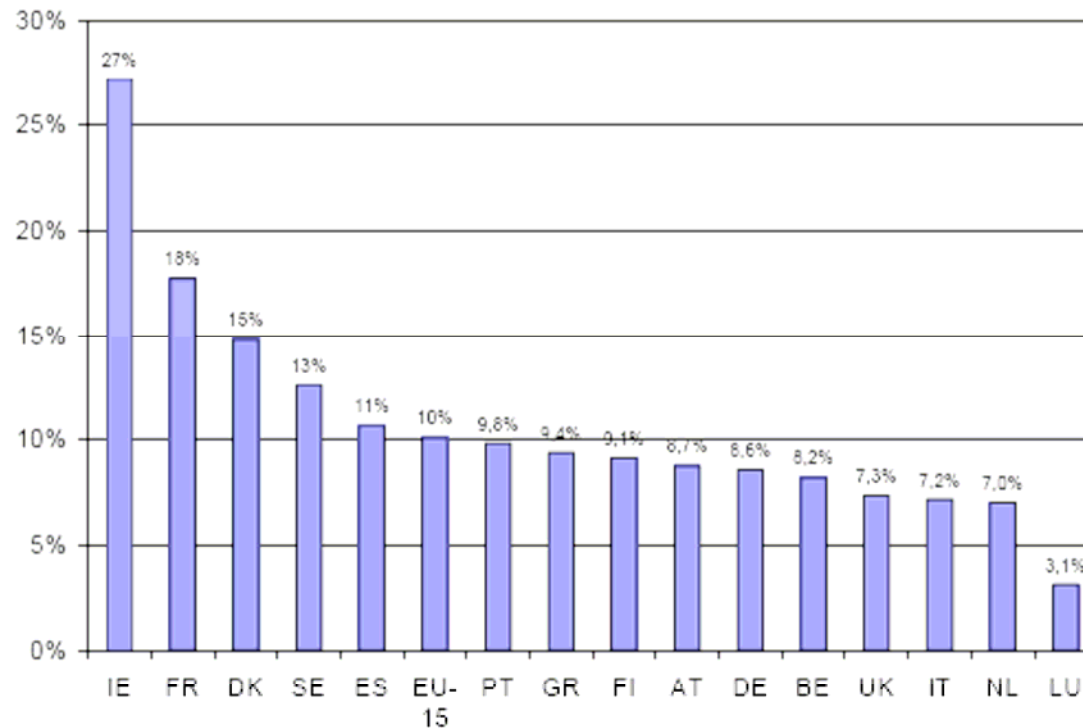
Back Up



Measures implemented by MS

- Contribution of agriculture to total emissions **mainly around 10% at national level**
- Lack of quantified data **on reduction effects of PAMs in several MS**
- Significant reductions of N₂O from soils **reported by MS**
- Monitoring methodologies and **default parameters for inventories and PAMs need to be improved to generate sound emissions data**

Contribution of Emissions from Agriculture to Total Emissions at Member State Level:



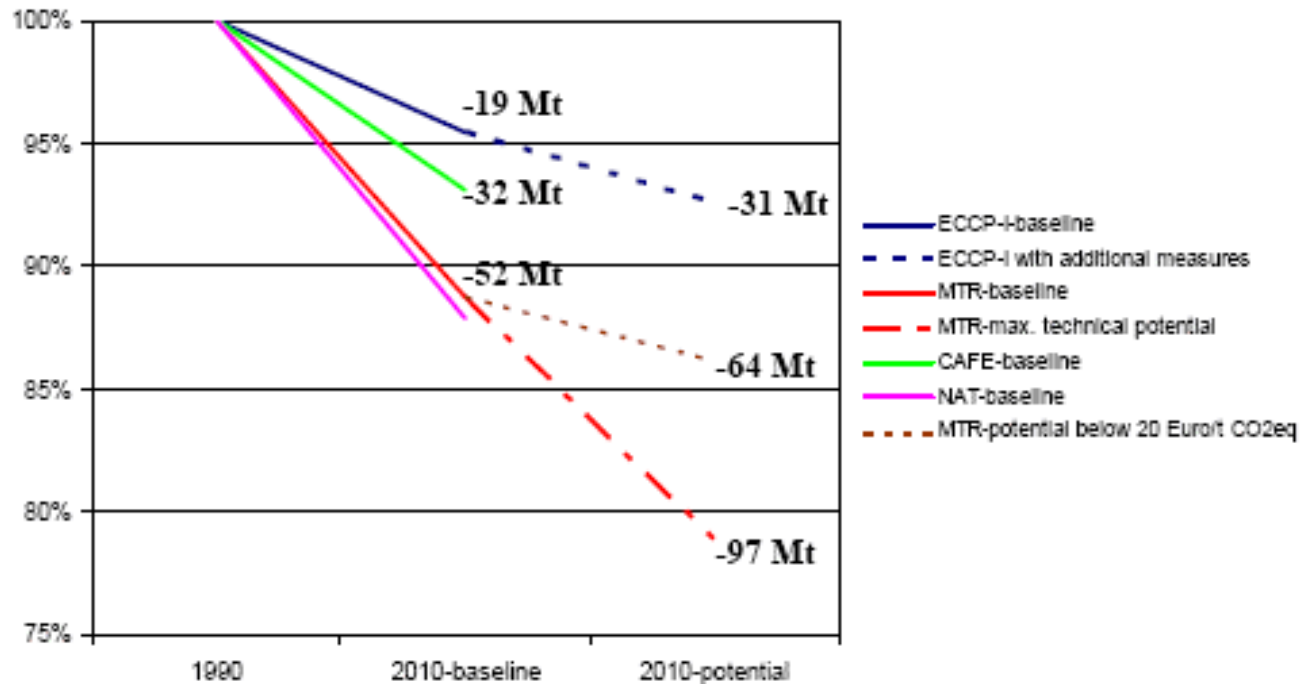
Source: IRENA project



Emissions Outlook and the Role of the CAP

Comparison of the Baselines and Potential Reductions Estimated within ECCP-I and the Current GAINS Scenarios for EU-15:

(Reduction Relative to 1990, MtCO₂-eq.)



Further decline in non-CO₂ emissions of around **-14%** up to expected by several scenarios 2010