



Procedure file

Basic information	
<p>COD - Ordinary legislative procedure (ex-codecision procedure) Regulation</p> <p>2011/0372(COD)</p>	Procedure completed
<p>Greenhouse gas emissions, climate change: mechanism for monitoring and reporting</p> <p>Repealing Decision No 280/2004/EC 2003/0029(COD) Amended by 2013/0377(COD) Amended by 2016/0230(COD) Amended by 2016/0231(COD) Repealed by 2016/0375(COD)</p> <p>Subject 3.70.02 Atmospheric pollution, motor vehicle pollution 3.70.03 Climate policy, climate change, ozone layer 3.70.18 International and regional environment protection measures and agreements</p>	

Key players			
European Parliament	Committee responsible	Rapporteur	Appointed
	ENVI Environment, Public Health and Food Safety		25/01/2012
		Vers/ALE EICKHOUT Bas	
		Shadow rapporteur	
		PPE GARDINI Elisabetta	
		S&D ULVSKOG Marita	
	ALDE DAVIES Chris		
	ECR OUZKÝ Miroslav		
	Committee for opinion	Rapporteur for opinion	Appointed
	DEVE Development		05/12/2011
		S&D WESTLUND Åsa	
	TRAN Transport and Tourism	The committee decided not to give an opinion.	
	ITRE Industry, Research and Energy		
Council of the European Union	Council configuration	Meeting	Date
	Agriculture and Fisheries	3234	22/04/2013
	Environment	3211	17/12/2012
	Environment	3139	19/12/2011
European Commission	Commission DG	Commissioner	
	Climate Action	HEDEGAARD Connie	
European Economic and Social Committee			
European Committee of the Regions			

Key events			
23/11/2011	Legislative proposal published	COM(2011)0789	Summary

30/11/2011	Committee referral announced in Parliament, 1st reading		
19/12/2011	Debate in Council	3139	Summary
30/05/2012	Vote in committee, 1st reading		
06/06/2012	Committee report tabled for plenary, 1st reading	A7-0191/2012	Summary
17/12/2012	Debate in Council	3211	
11/03/2013	Debate in Parliament		
12/03/2013	Results of vote in Parliament		
12/03/2013	Decision by Parliament, 1st reading	T7-0064/2013	Summary
22/04/2013	Act adopted by Council after Parliament's 1st reading		
21/05/2013	Final act signed		
21/05/2013	End of procedure in Parliament		
18/06/2013	Final act published in Official Journal		

Technical information

Procedure reference	2011/0372(COD)
Procedure type	COD - Ordinary legislative procedure (ex-codecision procedure)
Procedure subtype	Legislation
Legislative instrument	Regulation
	Repealing Decision No 280/2004/EC 2003/0029(COD) Amended by 2013/0377(COD) Amended by 2016/0230(COD) Amended by 2016/0231(COD) Repealed by 2016/0375(COD)
Legal basis	Treaty on the Functioning of the EU TFEU 192-p1
Other legal basis	Rules of Procedure EP 159
Mandatory consultation of other institutions	European Economic and Social Committee European Committee of the Regions
Stage reached in procedure	Procedure completed
Committee dossier	ENVI/7/07873

Documentation gateway

Legislative proposal	COM(2011)0789	23/11/2011	EC	Summary
Document attached to the procedure	SEC(2011)1406	23/11/2011	EC	
Document attached to the procedure	SEC(2011)1407	23/11/2011	EC	
Committee draft report	PE483.710	29/02/2012	EP	
Economic and Social Committee: opinion, report	CES0832/2012	28/03/2012	ESC	

Amendments tabled in committee		PE486.140	30/03/2012	EP	
Committee opinion	DEVE	PE485.849	24/04/2012	EP	
Committee opinion	ITRE	PE486.056	09/05/2012	EP	
Amendments tabled in committee		PE489.631	24/05/2012	EP	
Committee report tabled for plenary, 1st reading/single reading		A7-0191/2012	06/06/2012	EP	Summary
Text adopted by Parliament, 1st reading/single reading		T7-0064/2013	12/03/2013	EP	Summary
Commission response to text adopted in plenary		SP(2013)306	30/04/2013	EC	
Draft final act		00001/2013/LEX	21/05/2013	CSL	
Follow-up document		SWD(2013)0308	13/08/2013	EC	Summary
Follow-up document		COM(2013)0698	09/10/2013	EC	Summary
Follow-up document		SWD(2013)0410	09/10/2013	EC	
Follow-up document		COM(2014)0689	28/10/2014	EC	Summary
Follow-up document		SWD(2014)0336	28/10/2014	EC	
Follow-up document		COM(2015)0576	18/11/2015	EC	Summary
Follow-up document		SWD(2015)0246	18/11/2015	EC	
Follow-up document		COM(2015)0642	15/12/2015	EC	
Follow-up document		COM(2015)0650	15/12/2015	EC	
Follow-up document		SWD(2015)0288	15/12/2015	EC	
Follow-up document		SWD(2015)0282	15/12/2015	EC	
Follow-up document		COM(2016)0707	08/11/2016	EC	Summary
Follow-up document		SWD(2016)0349	08/11/2016	EC	
Follow-up document		COM(2017)0646	07/11/2017	EC	Summary
Follow-up document		SWD(2017)0357	07/11/2017	EC	
Follow-up document		COM(2018)0052	01/02/2018	EC	

Additional information

National parliaments	IPEX
European Commission	EUR-Lex

Final act

[Regulation 2013/525](#)
[OJ L 165 18.06.2013, p. 0013](#) Summary

Final legislative act with provisions for delegated acts

Delegated acts

2014/2659(DEA)	Examination of delegated act
2015/2800(DEA)	Examination of delegated act
2019/2639(DEA)	Examination of delegated act

Greenhouse gas emissions, climate change: mechanism for monitoring and reporting

PURPOSE: the revision of the monitoring mechanism set in place by Decision 280/2004/EC in order to respect the commitments and obligations under current and future international climate change agreements.

BACKGROUND: Decision No 280/2004/EC concerning a mechanism for monitoring Community greenhouse gas emissions and for implementing the Kyoto Protocol and its implementing provisions are the main monitoring, reporting, and verification instruments on GHG emissions. They set out the details for reporting anthropogenic GHG emissions by sources and removals by sinks, for providing information on national programmes to reduce emissions, on GHG emission projections, and on climate change policies and measures in accordance with the UNFCCC.

Six years of experience in implementing these two decisions and experience gained during international negotiations and in implementing various UNFCCC requirements have shown that there are areas where significant improvements could be made. In addition, the need to step up mitigation action at EU and Member State level and to fulfil new and upcoming international and domestic commitments, including the Europe 2020 strategy, requires an improved monitoring and reporting system.

The Commission proposes replacing Decision No 280/2004/EC by a Regulation on account of the broader scope of the legislation, the increased number of addressees, the highly technical and harmonised nature of the monitoring mechanism, and to facilitate its implementation.

IMPACT ASSESSMENT: a number of issues were dealt with in the impact assessment. These include: i) EU review and compliance cycle under the Effort Sharing Decision; ii) reporting requirements for emissions from international maritime transport; iii) reporting requirements related to the non-CO2 impacts of aviation on the global climate; iv) reporting requirements on adaptation; v) additional reporting requirements on LULUCF; v) reporting requirements on financial and technology support provided to developing countries; and vi) consistency with other EU legal instruments targeting air pollutants and improvements based on past experience with implementation.

LEGAL BASIS: Article 192 (1) of the Treaty on the Functioning of the European Union (TFEU).

CONTENT: the main objective of this Regulation is to help the Union and its Member States meet their national, Union, and international commitments and goals and to further develop policy through transparent, accurate, consistent, comparable and complete reporting. It seeks to improve the availability of information for Union policy and decision-making and the coordination and consistency of Union and Member State reporting under the UNFCCC.

This proposal provides for:

- the enhancement of the monitoring, reporting and review framework within the EU thus enabling implementation of domestic and international commitments and enabling implementation of current policies and effective further policy development;
- setting up a Union level review process of the GHG data submitted by the Member States hence ensuring that compliance with the ESD targets is assessed in a comprehensive, transparent, credible and timely manner, as stipulated in the Climate and Energy package;
- a prudent approach to reporting on emissions from international maritime transport and the LULUCF sector where policy discussions, both within the Union and internationally, are ongoing. It ensures that the monitoring mechanism provides an adequate framework for setting detailed reporting requirements at a later stage when a concrete policy outcome is reached, be it at international or Union level;
- ensuring coherence with existing Union policy on the non-CO2 climate impacts of aviation, as it requires for the Commission to assess biennially those impacts on the basis of the latest available emission data and scientific advancements;
- annual reporting so as to enable the annual assessment of the commitments made by the EU at the national and international level but also so as to enable early and effective corrective action;
- enhances, with regard to finance and technology, reporting on the basis of common methods, in line with the Union's obligation to provide transparent and complete information on the financial and technology support it provides to developing countries;
- the improvement of existing national systems in the Member States to address reporting on projections, policies and measures and provides consistency with other legal instruments targeting air pollutants;
- better quality assurance / quality control to increase the quality and completeness of the data provided and to simplify existing reporting requirements without imposing an undue administrative burden.

BUDGETARY IMPACT: the proposal has no impact on the EUs budget.

Greenhouse gas emissions, climate change: mechanism for monitoring and reporting

The Council took note of the presentation by the Commission of its recent proposal for a regulation on a mechanism for monitoring and reporting greenhouse gas emissions and for reporting other information at national and Union level relevant to climate change, which will replace the current monitoring mechanism established under decision 280/2004/EC.

The aim of the proposal is to enhance the monitoring, reporting and review framework within the EU, in the light of lessons learned from implementation of the current decision, to take account of developments at both Union and international level, and to enable further policy development.

In particular, the proposal incorporates new reporting and monitoring requirements arising from the 2009 Climate and Energy Package and the

relevant objectives of the Europe 2020 strategy, as well as requirements arising from recent decisions adopted under the UNFCCC.

Greenhouse gas emissions, climate change: mechanism for monitoring and reporting

The Committee on Environment, Public Health and Food Safety adopted the report by Bas EICKHOUT (Greens/EFA, NL) on the proposal for a regulation of the European Parliament and of the Council on a mechanism for monitoring and reporting greenhouse gas emissions and for reporting other information at national and Union level relevant to climate change.

The parliamentary committee recommends that the position of the European Parliament adopted at first reading under the ordinary legislative procedure should be to amend the Commissions proposal as follows:

Purpose and scope: the mechanism should permit the monitoring and reporting of black carbon emissions, while the Regulation should apply to the Unions and Member States' actions to reduce non-CO2 climate-relevant anthropogenic emissions, taking into account the [European Parliament resolution of 14 September 2011](#) on a comprehensive approach to non-CO2 climate-relevant anthropogenic emissions.

The Unions system for monitoring and reporting emissions: in order to ensure the consistency between the various objectives of climate- and energy-related measures, members propose to extend the provisions relating to reporting and monitoring to also include the share of energy from renewable sources, or reduce the gross final consumption of energy. The reporting under this Regulation should also draw from information received from Member States based on the implementation of Directive 2009/28/EC on the promotion of the use of energy from renewable sources and the Directive 2012/.../EU of the European Parliament and of the Council on energy efficiency.

Low-carbon development strategies: the Cancun Agreements (Decision 1/CP.16) require that developed countries elaborate low-carbon development strategies or plans. This aspect is included in the Commissions proposal which requires Member States that elaborate and implement strategies so as to reach the long-term climate target. According to Members, these strategies should be spatially resolved/specified as well as consistent with a cost-efficient trajectory towards the long-term climate target, i.e. domestic emission reductions of at least 40 % by 2030 and 60 % by 2040 compared to 1990 levels.

Member States and the Commission should review and, if appropriate, update their respective low-carbon development strategies at least every five years.

Reporting climate-relevant emissions from maritime transport: maritime transport is a sector of crucial importance at a global level in terms of greenhouse gas emissions. Given the lack of data currently available, Members consider that the Regulation should apply to climate-relevant information relating to marine vessels calling at Member States' seaports.

Requirements for monitoring and reporting should be adopted in a manner which is complementary and consistent with any requirements agreed at the United Nations Framework Convention on Climate Change (UNFCCC) or with requirements applied to vessels as determined in the context of the International Maritime Organisation (IMO) or through a Union measure addressing GHG emissions from maritime transport.

These requirements should cover ships responsible for significant emissions, including at least tankers, bulker, general cargo and container ships, subject to appropriate de minimis size and traffic.

Use of satellite data: space-based data should be considered as essential monitoring tools for the Union and the Member States due to their capacity to improve the overall picture of CO2 and CH4 emissions, as well as land use, land use change and forestry (LULUCF).

To that end, the report recommends that the Global Monitoring for Environment and Security (GMES) programme and other satellite systems be used to the maximum extent to provide timely emission reporting (global daily measurement of CO2 and CH4 man-made and rural emissions as well as of CO2 sinks) and independent verifications of the calculated emission reports. This Regulation should enable such estimates to be prepared in the shortest timeframes possible by using statistical and other information.

Commission reporting on financial support and technology transfer to developing countries: the Commission should report to the European Parliament and to the Council, by 15 March each year, on financial support and technology transfer to developing countries through the Union budget, instruments and funds, in particular the Climate and Biodiversity Fund.

Members also emphasise the importance of communicating information on the sources of private sector funding for climate in developing countries.

Greenhouse gas emissions, climate change: mechanism for monitoring and reporting

The European Parliament adopted by 634 votes to 42, with 5 abstentions, a legislative resolution on the proposal for a Regulation of the European Parliament and of the Council on a mechanism for monitoring and reporting greenhouse gas emissions and for reporting other information at national and Union level relevant to climate change.

Parliament reached its position at first reading under the ordinary legislative procedure. The amendments adopted in plenary are the result of a compromise reached between the European Parliament and the Council. They amend the proposal as follows:

Purpose and scope: it is stipulated that the mechanism should monitor and report on the actions taken by Member States to adapt to the inevitable consequences of climate change in a cost-effective manner.

This Regulation will apply among other things to: (i) reporting and verifying information relating to commitments of the Union and its Member States; (ii) the Union's and its Member States' projections of anthropogenic emissions by sources and removals by sinks of greenhouse gases not controlled by the Montreal Protocol; and (iii) Member States' actions to adapt to climate change.

Low-carbon development strategies: according to the amended text, the Member States and the Commission shall prepare their low-carbon development strategies in accordance with any reporting provisions agreed internationally in the context of the United Nations Framework Convention on Climate Change (UNFCCC) process.

These strategies shall contribute to meeting the greenhouse gas emission reduction commitments of Member States and achieving long-term

emission reductions and enhancements of removals by sinks in all sectors in line with the Union's objective, in the context of necessary reductions according to the IPCC by developed countries as a group, to reduce emissions by 80 to 95 % by 2050 compared to 1990 levels in a cost-effective manner.

Member States shall report to the Commission on the status of implementation of their low-carbon development strategy no later than 18 months after the entry into force of the Regulation.

Systems of national inventories: the Union and the Member States should apply the guidelines for national systems set out in the Annex to Decision 19/CMP.1 of the Conference of the Parties to the UNFCCC serving as the meeting of the Parties to the Kyoto Protocol.

Inventories of greenhouse gases: the amended text strengthens and lays down Member States reporting obligations as regards their anthropogenic greenhouse gas emissions and CO₂ removals by sinks relating to land use, land use change and forestry (LULUCF) activities. Member States shall submit to the Commission the information placed in their national registry on the issue, holding, transfer, acquisition, cancellation, retirement, carry-over of temporary certified emission reductions (tCERs) and long-term certified emission reductions (ICERs).

To enable the Union and the Member States to prepare information that is as up to date as possible on their greenhouse gas emissions, the Regulation should make use of statistical and other information, such as, where appropriate, space-based data provided by the Global Monitoring for Environment and Security programme and other satellite systems.

In order to ensure the effectiveness of the arrangements for monitoring and reporting greenhouse gas emissions, it is necessary to avoid further adding to the financial and administrative burden already being borne by the Member States.

Confidentiality: all requirements concerning the provision of information and data under this Regulation should be subject to Union rules on data protection and commercial confidentiality.

Implementing acts: to ensure uniform implementation conditions, the Regulation stipulates that the Commission shall adopt implementing acts to set out rules on the structure, format and submission process:

- of the information relating to national inventory systems and to requirements on the establishment, operation and functioning of national inventory systems and to requirements on the establishment, operation and functioning of national inventory systems in accordance with relevant decisions adopted by the bodies of the UNFCCC or the Kyoto Protocol or of agreements deriving from them or succeeding them;
- of information relating to greenhouse gas emissions and removals;
- of Member States approximated greenhouse gas inventories;
- of information on national and Union systems for policies and measures and projections;
- of information supplied by Member States in application of the provisions concerning the reporting on the use of auctioning revenue and project credits.

Maritime transport: since the Commission has announced that it intends to propose new monitoring and reporting requirements for emissions from maritime transport, a recital underlines that such provisions should not be included in this Regulation at this time.

Review: the Commission shall regularly review the conformity of the monitoring and reporting provisions under this Regulation with future decisions relating to the UNFCCC and the Kyoto Protocol or other Union legislation.

Greenhouse gas emissions, climate change: mechanism for monitoring and reporting

PURPOSE: to establish a mechanism for the monitoring and reporting on greenhouse gas emissions and for reporting other information at national and Union level relevant to climate change.

LEGISLATIVE ACT: Regulation (EU) No 525/2013 of the European Parliament and of the Council on a mechanism for monitoring and reporting greenhouse gas emissions and for reporting other information at national and Union level relevant to climate change and repealing Decision No 280/2004/EC

CONTENT: the new Regulation strengthens the EU's monitoring and reporting framework in light of lessons learnt from the implementation of the current monitoring system, as well as to take into account developments both at Union and international level.

In particular, the Regulation incorporates new requirements for monitoring and reporting resulting from the Climate and Energy package, adopted in 2009, and decisions recently adopted within the framework of the United Nations Framework Convention on Climate Change (UNFCCC).

Subject matter and scope: it is stipulated that the new mechanism should facilitate the monitoring and reporting on the actions taken by Member States to adapt to the inevitable consequences of climate change in a cost-effective manner.

Low-carbon development strategies: Member States and the Commission shall prepare their low-carbon development strategies in accordance with any reporting provisions agreed internationally in the context of the UNFCCC process.

Member States shall report to the Commission on the status of implementation of their low-carbon development strategy by 9 January 2015 or in accordance with any timetable agreed internationally in the context of the UNFCCC process.

Inventory systems: Member States shall establish, operate and seek to continuously improve national inventory systems, to estimate anthropogenic emissions by sources and removals by sinks of greenhouse and to ensure the transparency and completeness of their greenhouse gas inventories. A Union inventory system shall be established to ensure the comparability of national inventories with regard to the Union greenhouse gas inventory.

The European Environment Agency shall assist the Commission with monitoring and reporting work, especially in the context of the Union's inventory system and its system for policies and measures and projections.

Greenhouse gas inventories: the new mechanism strengthens and stipulates the reporting requirements of Member States in regard to their anthropogenic emissions of greenhouse gases and removals of CO₂ by sinks resulting from land use, land-use change and forestry (LULUCF) activities.

To enable the Union and the Member States to provide the most up-to-date information on their greenhouse gas emissions, the Regulation enables such estimates to be prepared by using statistical and other information, such as, where appropriate, space-based data provided by the Global Monitoring for Environment and Security programme and other satellite systems.

Reporting on the provision of financial, technological and capacity-building support to developing countries: Member States shall cooperate with the Commission to allow timely coherent reporting by the Union and its Member States on support provided to developing countries in accordance with the relevant provisions of the UNFCCC.

Confidentiality: all requirements concerning the provision of information and data under this Regulation should be subject to Union rules on data protection and commercial confidentiality.

Implementing acts: in order to ensure uniform conditions for implementation, the Commission shall adopt implementing acts on the structure, format and submission process of information on greenhouse gas emissions and removal in respect of national and Union systems for policies and measures and projections.

Maritime transport: since the Commission has announced that it intends to propose new monitoring and reporting requirements for emissions from maritime transport, a new recital has been added underlining that such requirements should not be included in this Regulation at this time

Review: the Commission shall regularly review the conformity of the monitoring and reporting provisions under this Regulation with future decisions relating to the UNFCCC and the Kyoto Protocol or other Union legislation.

Information and data gathered under this Regulation may also contribute to future Union climate change policy formulation and assessment.

Lastly, taking into consideration the [European Parliament resolution of 14 September 2011](#) on a comprehensive approach to non-CO₂ climate-relevant anthropogenic emissions and once there is agreement under the UNFCCC to use agreed and published IPCC guidelines on monitoring and reporting of black carbon emissions, the Commission should analyse the implications for policies and measures and, if appropriate, amend Annex I to this Regulation.

ENTRY INTO FORCE: 08/07/2013.

DELEGATED ACTS: the Commission is empowered to adopt delegated acts in order to lay down harmonised requirements in relation to reporting the monitoring of greenhouse emissions, as well as other information relevant to the field of climate change. The power to adopt such acts is conferred on the Commission for a period of five years starting on 8 July 2013. The delegation of power shall be tacitly extended for periods of an identical duration unless the European Parliament or the Council opposes such extension not later than three months before the end of each period. Should the European Parliament or the Council object to it, the delegated act does not enter into force.

Greenhouse gas emissions, climate change: mechanism for monitoring and reporting

This Commission Staff Working Document relates to Elements of the Union greenhouse gas inventory system and the Quality Assurance and Control (QA/QC) programme.

The document consists of four chapters and two annexes. It covers the European Unions reporting of greenhouse gas emissions by sources and removals by sinks. It describes the Union inventory system, the QA/QC programme, and progress made. It also provides background information on Commission Decision 2005/166/EC (Implementing Provisions) and adapts some articles where necessary to take into account the specific circumstances of reporting by the Union. These adaptations do not introduce additional reporting obligations for Member States. In 2013, Regulation (EU) No 525/2013 amended and replaced Decision No 280/2004/EC. Commission Decision 2005/166/EC, implementing Decision No 280/2004/EC, will be replaced by delegated and implementing acts adopted under Regulation (EU) No 525/2013.

Greenhouse gas emissions, climate change: mechanism for monitoring and reporting

In accordance with the requirements of Article 21 of Regulation (EU) No 525/2013, the Commission presents a report on the progress made towards achieving the Kyoto and the EU 2020 objectives.

The Kyoto target, 2008-2012: the report states that emissions in 2011 reached their lowest levels since 1990. Total EU-28 greenhouse gas (GHG) emissions without emissions and removals from Land Use, Land Use Change and Forestry (LULUCF) and excluding emissions from international aviation were 18.3 % lower compared to 1990 levels.

Under the Kyoto Protocol, the EU-15 has agreed to reduce its GHG emissions by 8 % by 2008-2012 compared to base year levels. Based on the latest available inventory data for 2011, total GHG emissions in the EU-15 were 14.9 % below base year levels (without LULUCF). The EU-15 is therefore not only on track to achieve its Kyoto target for the first commitment period from 2008-2012, but will overachieve it. Over and above the EU-15 Kyoto target, an accumulated amount of 0.9 Gt CO₂ eq. will have been saved during the first commitment period. Despite the fact that emissions were below the EU-15 Assigned Amount, EU-15 Member States and companies located in these Member States offset part of their emissions with emission reduction credits bringing the overachievement to a total of 1.6 Gt CO₂ eq., almost doubling the reduction effort compared to the initial Kyoto target.

GDP growth for the period 1990-2011 was 44 % for the EU-15 and 45 % for the EU-28. While the economy grew significantly emissions decreased demonstrating the decoupling between economic growth and GHG emissions. Accordingly, between 2010 and 2011 the EU-28 GDP increased by 1.4%, while GHG emissions fell by 3.3 %.

The report goes on to compare the figures for 2011 with those in the preceding two years: in 2011 the EU-15 and EU-28 GHG emissions decreased by 4.2 % and 3.3 % respectively compared to 2010. The 2011 emissions decrease was largely due to a milder winter in 2011 compared to 2010, which led to a lower demand for heating. This decline followed a small increase in 2010, partially due to the economic recovery, that came after a sharp drop in 2009 largely due to the effects of the 2008 economic crisis. Preliminary estimates show that EU-15 and EU-28 emissions further decreased by respectively 0.5 % and 1.3 % in 2012.

Europe 2020 target: the Climate and Energy Package of 2009 set a 20% GHG emission reduction target for EU-28 by 2020 compared to 1990, which is equivalent to -14% compared to 2005. This is also the basis for the EU's international obligation under the 2nd commitment period under the Kyoto Protocol from 2013-2020.

This effort will be divided between the EU ETS and non-ETS sectors as follows:

- 21% reduction in EU ETS sector emissions by 2020 compared to 2005 and
- reduction of around 10% by 2020 compared to 2005 under the [Effort Sharing Decision \(ESD\)](#), for the sectors that are not covered by the EU ETS. The ESD mainly covers emissions from transportation, buildings, small businesses and services, agriculture and waste.

While the ETS provides an EU-wide cap, the ESD relies mostly on Member States defining and implementing additional national policies and measures to limit their emissions in the ESD sectors. The ESD sets annual emission allocations from 2013 to 2020.

According to Member States projections submitted in 2013, when international aviation is included, EU emissions are projected to be 21% lower in 2020 than in 1990 and 22 % lower when international aviation is excluded. The EU-28 is currently on track to meet its EU 2020 target. However, 13 Member States will need additional efforts to meet their 2020 targets for the non-ETS sectors while 15 Member States are already projected to reach these commitments with existing policies and measures.

Member States progress: as part of the European Semester, the Commission carries out specific analysis on the situation of individual Member States as regards progress towards their 2020 targets based on projected emissions with existing measures. The most recent analysis leads to certain conclusions:

- GHG emissions in Luxembourg are projected to exceed the national target by a wide margin (gap of 23%). Emissions in 2012 are also above the 2013 targets under the ESD. Significant GHG emission reductions could be achieved by increasing taxation on energy products for transport, as underlined in the Country Specific Recommendation;
- Ireland's GHG emissions are also expected to exceed the target by a wide margin (gap of 18%) due to a large increase of emissions in transport and in agriculture. Ireland however proposed in 2013 a range of initiatives to reduce emissions under the Low-Carbon Development Bill.
- emissions in Belgium are projected to fall short of the national target by 11%;
- projections show also that Lithuania, Spain, Austria, Finland and Italy are expected to miss their target by a gap of more than 3%. For these Member States, current measures are expected not to be sufficient for achieving national targets;
- recent EU baseline projections indicate that Poland could face difficulties in delivering on its commitment. Estonia's emission will exceed in 2012 its 2013 ESD target and could face also difficulties in meeting its commitment.

In the context of the 2013 European Semester, the Council recommended that Belgium, the Czech Republic, France Hungary, Italy, Latvia, Lithuania, Romania and Spain shift the tax burden away from labour to taxes less detrimental to growth, including environmental taxes. It recommended Estonia, Lithuania and Luxembourg enact appropriate fiscal measures to improve the energy efficiency of the transport sector. The Council also recommended Bulgaria, the Czech Republic, Estonia, Latvia, Lithuania, Malta, Poland, Romania and Slovakia to pursue efforts to improve energy efficiency. The UK should stimulate investments in new energy capacity, including in renewable energy.

Greenhouse gas emissions, climate change: mechanism for monitoring and reporting

The Commission presented a report on the progress made towards achieving the Kyoto and EU 2020 objectives.

The main conclusions of the report are as follows:

(1) On track to overachieve the Kyoto targets: according to preliminary estimates, total EU greenhouse gas (GHG) emissions further decreased by 1.8% in 2013 compared to 2012 reaching their lowest levels since 1990.

- Over the first commitment period (2008-2012), EU-28 Member States overachieved their targets by a total of 4.2 Gt CO₂-eq.
- On average over the second commitment period (2013-2020), total emissions (excluding LULUCF and international aviation) are expected to be 23% lower than base year levels according to Member States' projections. The EU is consequently on track to meet its Kyoto target for the second commitment period with a potential overachievement of 1.4 Gt CO₂-eq.

The total potential cumulative overachievement is estimated around 5.6 Gt CO₂ eq. for the 2008-2020 period. This amount represents more than the total EU emissions in 2012.

(2) On track to meet the Europe 2020 GHG target: total EU emissions against the scope of the Climate and Energy Package were already in 2012 18% below 1990 level and are estimated to be around 19% below 1990 level in 2013. According to the projections provided by Member States based on existing measures, emissions will be 21% lower in 2020 than in 1990.

However, 13 Member States still need to implement additional policies and measures to meet their 2020 national emission reduction target in the sectors not covered by the EU ETS. Furthermore, preliminary estimated 2013 emissions data in Germany, Luxembourg and Poland are higher than their respective 2013 targets set under Effort Sharing Decision (ESD).

Successful decoupling between economic activity and GHG emissions: the report notes that during the period 1990-2012, the combined GDP of the EU grew by 45%, while total GHG emissions (excluding LULUCF and international aviation) decreased by 19%. As a result, the greenhouse gas emissions' intensity of the EU was reduced by almost half between 1990 and 2012. Decoupling occurred in all Member States.

The structural policies implemented in the field of climate and energy have contributed significantly to the EU emission reduction observed since 2005. On the other hand, the economic crisis contributed to less than half of the reduction observed during the 2008-2012 period.

(4) Climate Finance: Member States were requested to report for the first time on the amounts and use of the revenues generated by the auctioning of ETS allowances in the year 2013. The total revenues for the EU were EUR 3.6 billion. The EU ETS Directive provides that at

least 50 % of auctioning revenues or the equivalent in financial value of these revenues should be used by Member States for climate and energy related purposes. All Member States have reported to have used or to plan to use 50% or more of these revenues or the equivalent in financial value of these revenues for climate and energy related purposes (representing approximately EUR 3 billion), largely to support domestic investments in climate and energy.

Most countries have used these investments in fields like energy efficiency, renewables or sustainable transport.

For instance:

- France, the Czech Republic and Lithuania use all their auctioning revenues in projects to improve the energy efficiency of buildings;
- Bulgaria, Portugal and Spain use most of their revenues to develop renewable energy;
- Poland uses most of its revenues that are dedicated to climate change in support of energy efficiency and renewable energy;
- in Germany, all auctioning revenues are used for climate and energy related purposes, with most of those revenue directed to a specific climate and energy fund, which supports a wide range of projects;
- Finland channels its auctioning revenues to Official Development Assistance activities, including climate finance;
- the UK uses around 15% of auctioning revenues to provide financial assistance to low income households in relation to energy expenses.

The reported amounts represent only a proportion of total climate and energy related spending in Member States' budgets.

As regards the mainstreaming of climate action into the EU budget, all Institutions have agreed that at least 20% of the overall expenditures under the Multiannual Financial Framework (2014-2020) will be climate-related. The contribution towards climate expenditure in 2014 and in 2015 represents almost 13% of the EU budget for each year.

Greenhouse gas emissions, climate change: mechanism for monitoring and reporting

The Commission adopted the climate action progress report, including the report on the functioning of the European carbon market and the report on the review of Directive 2009/31/EC on the geological storage of carbon dioxide. The report also responds to the requirements of Article 21 of Regulation (EU) No 525/2013 of the European Parliament and of the Council on a mechanism for monitoring and reporting greenhouse gas emissions and for reporting other information at national and Union level relevant to climate change.

The main conclusions of the report are as follows:

Progress towards meeting the Europe 2020 targets and the Kyoto Protocol targets: the report notes that the EU is currently on track towards meeting its Europe 2020 greenhouse gas reduction target as well as its Kyoto Protocol targets:

- according to most recent estimates, in 2014 total EU greenhouse gas (GHG) emissions covered by the 2020 Climate and Energy Package were 23% below the 1990 level and decreased by 4% compared to 2013;
- according to the projections with existing measures provided by Member States in 2015, emissions are estimated to be 24% lower in 2020 than they were in 1990.
- for all but four Member States (Luxembourg, Ireland, Belgium and Austria), projected emissions in 2020 are below the domestic targets set under the [Effort Sharing Decision](#).

Further measures needed: according to the projections with existing measures provided by Member States, total EU GHG emissions in 2030 are estimated to be 27% below 1990 levels. Additional measures are needed for the EU to meet the target of a domestic reduction in greenhouse gas emissions of at least 40 % by 2030 compared to 1990.

To address this, the Commission has proposed a [revision of the EU Emissions Trading System](#) (EU ETS) in July 2015. In the first half of 2016, the Commission will also make proposals on the implementation of the non-ETS emissions reduction target of 30% compared to 2005.

Continued successful decoupling of economic activity and GHG emissions: the EU continues to successfully decouple its economic growth from its GHG emissions. During the 1990-2014 period, the EU's combined GDP grew by 46%, while total GHG emissions (excluding LULUCF and including international aviation) decreased by 23 %. In particular, the implementation of the 2020 Climate and Energy Package has resulted in a significant increase in renewable energy and progress in energy efficiency. Both of these are the key drivers behind the observed reduction in emissions, with the carbon price acting as driving force expected to be progressively stronger in the future.

The report indicates that the Commission is also rolling out the initiatives planned under the Framework strategy for a resilient Energy Union with a forward-looking climate policy. There are upcoming proposals on measures related to areas including renewable energy, energy efficiency, transport, and research and development. Furthermore, the Commission is working on the implementation the [Energy Union](#).

Other policies and measures: the report discusses the following measures and actions:

- the Commission plans to adopt a legislative proposal on the Effort-Sharing Decision (ESD) in the first half of 2016, with a view to reducing non-ETS emissions by 30% between 2005 and 2030. It will determine the extent to which the ESD is contributing to the overall EU 2020 GHG emissions reduction target;
- the Commission is working on the impact assessment to analyse how LULUCF can be integrated into the EU climate and energy framework for the post-2020 period;
- the Commission will review the [Energy Efficiency Directive](#) and the [Energy Performance of Buildings Directive](#) in 2016. Furthermore, the dedicated Strategy for heating and cooling is planned for early 2016. A proposal for revised legislation on energy labelling has already been presented and is currently under consideration by the co-legislators;
- the Energy Union roadmap includes a proposal for a new Renewable Energy Directive and a bioenergy sustainability policy;
- the Commission has carried out an evaluation on the Carbon Capture Storage (CCS) Directive and concluded that the Directive is fit-for-purpose and sets up the necessary regulatory framework to ensure the safe capture, transport and storage of carbon dioxide while allowing the Member States sufficient flexibility;
- in April 2015, the EU adopted a [Regulation](#) that set up an EU-wide monitoring, reporting and verification system for shipping as the first step in the EU strategy towards cutting emissions in this sector;
- in the area of light-duty vehicles, EU legislation sets binding emissions targets for new car- and van fleets. Manufacturers are well on

- their way to reaching the 2021 target of 95gCO₂/km for cars and the 2020 target of 147gCO₂/km for vans;
- in April 2015, the European Parliament and the Council agreed to amend the Fuel Quality and Renewable Energy Directives to take account of the effects of indirect land-use change caused by growing certain crops for the production of biofuels until 2020;
- lastly, the 2014 [Fluorinated greenhouse gas \(F-gases\) Regulation](#) applies from 1 January 2015.

EU adaptation Policy: in 2017, the Commission will report to the European Parliament and Council on the implementation of the [2013 Adaptation to Climate Change Strategy](#), which aims to ensure that adaptation considerations are addressed in all relevant EU policies.

The report notes that many Member States are addressing adaptation planning and the identification of climate change-related risks and vulnerabilities. National adaptation strategies have been adopted by 20 Member States and are under preparation in most of the remaining ones.

Greenhouse gas emissions, climate change: mechanism for monitoring and reporting

The Commission presented a report on the implementation of the Paris Agreement as required under Regulation (EU) No 525/2013 of the European Parliament and of the Council on a mechanism for monitoring and reporting greenhouse gas emissions and for reporting other information at national and Union level relevant to climate change.

On 4 October 2016, the EU ratified the Paris agreement on climate change, thus enabling its entry into force on 4 November 2016. On 5 October 2015, the EU deposited its ratification instruments together with eight Member States which already completed their national ratification procedures: Hungary, France, Austria, Malta, Germany, Portugal, Poland and Slovakia.

Greece and Sweden deposited their ratification instruments later in October 2016. The remaining Member States will continue their domestic ratification processes.

[The Paris Agreement](#) is a global milestone for enhancing collective action and accelerating the global transformation to a low-carbon and climate resilient society. It shall replace the approach taken under the 1997 Kyoto Protocol, that contains commitments until the end of 2020.

Progress towards the at least -40 % 2030 target: the report noted that the EU greenhouse gas emissions were 22 % below the 1990 level. The EU's share of global emissions has also been declining over time. According to the latest information, this share stood at 8.8 % in 2012.

According to Member States' projections based on existing measures, in 2030, the total EU emissions are estimated to be 26 % below 1990 levels.

New mitigation policies are being put in place so that the EU target at least a 40 % domestic reduction in greenhouse gas emissions by 2030 compared to 1990, agreed in Paris, is reached.

Furthermore, the EU continues to successfully decouple its economic growth from its emissions. During the 1990-2015 period, the EU's combined GDP grew by 50 %, while total emissions (excluding LULUCF but including international aviation) decreased by 22 %.

Progress towards the 2020 targets: as part of its 2020 Strategy, the EU committed to cut greenhouse gas emissions in 2020 by 20 % from 1990 levels. According to the projections based on existing measures provided by Member States in 2015, emissions are expected to be 24 % lower in 2020 compared to 1990. The EU is already delivering results of its 2020 legislation ([Effort Sharing Decision](#), [EU Emission Trading System](#), Monitoring Mechanism Regulation).

The Commission noted that the EU is already delivering results of its 2020 legislation and the EU and its Member States are well on track to jointly meet their target for the second commitment period of the Kyoto Protocol.

Furthermore, in 2020 most Member States are expected to reach their ESD targets, according to national projections based on policies already implemented. According to their own projections, a few Member States (Ireland, Luxembourg, Belgium, Austria, Denmark and Finland) still need to put in place additional measures or make use of flexibilities in 2020.

Action with the EU for the financing of climate change: this is comprised of three axes:

1. Mobilising the revenue from the auctioning of EU ETS allowances: in 2015, the auctioning of ETS allowances generated EUR 4.9 billion of revenues for the Member States, of which 98 % came from fixed installations and 2 % from aviation. According to the information submitted to the Commission, the Member States spent or planned to spend 77 % of these revenues on climate related purposes.

NER 300 is one of the world's largest funding programmes for innovative low-carbon energy demonstration projects funded by the auctioning of 300 million ETS allowances. Total NER 300 funding awarded comes to EUR 2.1 billion, which is expected to leverage an additional EUR 2.7 billion of private investment.

2. Mainstreaming climate policies into the EU budget: on average over the 2014-2020 period, at least 20 % of the EU budget is expected to be climate relevant expenditure. This is expected to be approximately EUR 200 billion. The situation varies across instruments:

- the European structural and investments funds (ESIFs): more than EUR 115 billion will support climate action objectives, corresponding to about 25 % of the total funds;
- the CAP rural development policy: in 2015, it is estimated that EUR 13.6 billion of the CAP budget was climate relevant;
- Horizon 2020: at least 35 % of this funding is expected to be invested in climate-related projects;
- the European fund for strategic investments (EFSI): the EFSI has already financed renewable energy demonstration projects, including RES-related transport, industry and energy storage. On 16 September 2016, the Commission proposed an extension of the fund to focus further on innovative, low-carbon projects for the 2018-2020 period;
- the LIFE sub-programme for climate action: under this heading, the Commission awarded EUR 56 million to 40 projects with European added value in terms of climate mitigation, adaptation or governance & information.

3. Supporting developing countries: at the 2015 Paris Climate Change Conference, developed country parties agreed to continue their existing collective mobilisation goal through to 2025 and set a new collective quantified goal from a floor of USD 100 billion per year. In 2015, the EU, EIB and Member States provided EUR 17.6 billion to help developing countries tackle climate change.

Mitigating EU emissions: the Commission is also rolling out the initiatives foreseen in the context of the framework strategy for a resilient energy Union with a forward-looking climate Policy, to address renewable energy, energy efficiency, transport and research and development and to develop the governance of the Energy Union:

- [the Commission's legislative proposal](#) of July 2015 on revising the EU ETS for phase 4 is now under consideration by the Council and the European Parliament. The proposal aims to achieve a 43 % reduction in EU ETS emissions by 2030, compared to 2005 levels;
- legislative proposals for an effort sharing Regulation and on land use for 2021-2030;
- the adoption of a [European strategy for low-emission mobility](#), as part of a package of measures to accelerate the transition to a low-carbon economy in Europe. The strategy sets a clear ambition: by mid-century greenhouse gas emissions from transport will need to be at least 60 % lower than in 1990 and be firmly on the path towards zero;
- the adoption of a [Regulation](#) that set up an EU-wide monitoring, reporting and verification (MRV) system for shipping as the first step in the EU strategy towards cutting emissions in this sector;
- the Commission's second report on the implementation of the [Directive on the geological storage of carbon dioxide](#) planned to be published later this year. The report will also provide an overview of the latest developments related to the preparation of storage sites.

The EU continues to support the implementation of market based instruments, such as the ETS, as key tools to drive cost effective domestic emission reductions.

The EU has been supporting and involved in the development of a global measure to address CO2 emissions from international aviation.

Greenhouse gas emissions, climate change: mechanism for monitoring and reporting

This Commission report focuses on progress towards meeting the EU's climate commitment, two years after the Paris Agreement on climate change, in accordance with Regulation (EU) No 525/2013 of the European Parliament and of the Council on a mechanism for monitoring and reporting greenhouse gas emissions and for reporting other information at national and Union level relevant to climate change and repealing Decision No 280/2004/EC).

Progress towards the 2020 targets: according to Member States latest projections based on existing measures, emissions are expected to be 26 % lower in 2020 than in 1990. The EU therefore remains on track to meet its domestic emissions reduction target of 20 % by 2020 and consequently its obligations under the second commitment period of the Kyoto Protocol.

Between 2005 and 2016, stationary emissions, e.g. from power plants or refineries, covered by the EU emissions trading system (ETS) fell by 26 %. This is markedly more than the 23 % reduction set as the 2020 target. Total EU emissions fell by 0.7 % from 2015 to 2016, while overall GDP rose by 1.9 %, confirming that emissions and GDP are being decoupled.

Greenhouse gas emissions from fixed installations covered by the EU ETS fell by 2.9 % compared to 2015, according to preliminary data. This marks a decreasing trend in emissions since the start of Phase 3 of the EU ETS. Moreover, the surplus of emission allowances that had built up since 2009 fell significantly, to around 1.69 billion allowances, as fewer allowances were auctioned. The surplus is at its lowest level since 2013.

Emissions not covered by the EU ETS were 11 % lower in 2016 than in 2005, exceeding the 2020 target of a 10 % reduction. However, in 2016 they increased for the second year in a row, by 0.9 %.

Under the Effort Sharing Decision (ESD), Member States must meet binding annual greenhouse gas emission targets for 2013-2020 in sectors not covered by the ETS, including buildings, transport, waste and agriculture. Preliminary estimates for 2016 show that Malta, Belgium, Finland and Ireland will likely fail to meet their non-ETS targets.

As regards LULUCF (land use, land use change and forestry), under the Kyoto Protocol most Member States have a cumulative accounted net removal from 2013 to 2015. Only Latvia, Bulgaria, Finland and the Netherlands have a provisional net emission. As yet, there is no significant compliance risk at EU level.

Financing the fight against climate change: Member States withdrew nearly EUR 15.8 billion from the auctioning of EU ETS allowances over the 2013-2016 period. About 80% of these revenues have been used or are intended to be used for climate and energy related purposes.

In Greece, Malta, Portugal and Spain, the largest share of these revenues is invested in renewable energy. In the Czech Republic, France, Hungary and Slovakia, by contrast, the largest share of auctioning revenues is invested in energy efficiency, e.g. in renovating apartment buildings.

Under the NER 300 programme, EUR 2.1 billion from the auctioning of 300 million ETS allowances has been allocated for the financing of 39 innovative demonstration projects in the field of renewable energy and carbon capture storage, covering 20 EU Member States.

Between 2014 and 2020, at least 20% of the EU budget is expected to be allocated to climate-related expenditure, amounting to approximately EUR 200 billion.

Mitigating EU emissions: under the Paris Agreement, the EU and its Member States collectively committed to decreasing their emissions by at least 40 % by 2030 from 1990 levels. This commitment is linked to a raft of proposed legislation in the area of climate action, energy and transport. The proposals are currently being negotiated with the European Parliament and the Council.

The report mentions in particular:

- the Commission's July 2015 legislative proposal for the EU ETS revision for phase 4, which aims to reduce emissions from energy production and industrial installations by 43% by 2030 from their 2005 levels;
- two proposals presented in 2016 that define the precise way in which EU Member States should meet their commitments to reduce ETS emissions by 30% by 2030 compared to 2005 levels;
- the adoption in July 2016 of an EU strategy for low-emission mobility based on three pillars: higher efficiency of the transport system, low-emission alternative energy for transport, and low- and zero emission vehicles;
- the Commission's proposal to revise the Energy Efficiency Directive to include a binding 30% energy efficiency target;
- the recast proposal for the Renewable Energy Directive, which provides that the share of renewable energy sources must represent at

least 27% of the EU's final energy consumption.

The Commission is also planning the evaluation of the 2013 strategy for adapting to climate change to mid-2018 and is considering revising it, partly in view of the Paris Agreement.