

Session SBI50 (2019)

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A compilation of questions to –
and answers by – Romania
exported 11 June 2019 by
the UNFCCC secretariat

Question by China at Wednesday, 10 April 2019

Category: Progress towards the achievement of its quantified economy-wide emission reduction target

Type: Before 12 April

Title: projection

During 1990 to 2016, the GHG emission of Romania has shown a decreasing trend, but in the projections, increasing trends have been presented under WOM and WEM scenario for the period of 2016 to 2020. Could Romania illustrate the major drivers and corresponding justifications for the increase in GHG emission in the coming years?

Answer by Romania, Friday, 07 June 2019

Thank you for the question!

Indeed, the explanation of the reported projections is in tight relation with the trend of emissions.

The Romanian GHG Inventory emissions trend on the 1989-2015 period reflects the changes characterized by a process of transition to a market economy. It can be splitted in three parts:

- **The period 1989-1999.** The decline of economic activities and energy consumption in the period 1989-1992 caused the decrease of the total emissions in that period. With the entire economy in transition, some energy intensive industries reduced their activities and this is reflected in the GHG emissions decreasing. Emissions have started to increase until 1996, due to the economy revitalization. Considering the starting of the operation of the first reactor at the Cernavoda nuclear power plant (1996), the emissions decreased again in 1997. The decrease continued until 1999.

- **The period 2000-2007.** The increased trend after 1999 reflects the economic development in the period 2000-2007. The limited decreasing of GHG emissions in 2005, compared with 2004 and 2006 levels was caused by the record-breaking hydrological year, positively influencing the energy produced in hydropower plants.

- **The period 2008-2015.** Due to the economic crisis, the emissions have significantly decreased in 2010 comparing with 2008; the trend of GHG emissions during the period 2010-2015 was relative constant.

The GHG emission projections has been carried out for 3 scenarios, respectively:

- A "business as usual" (BAU) reference scenario – ***the scenario without measures*** (WOM), reference year - 2005;

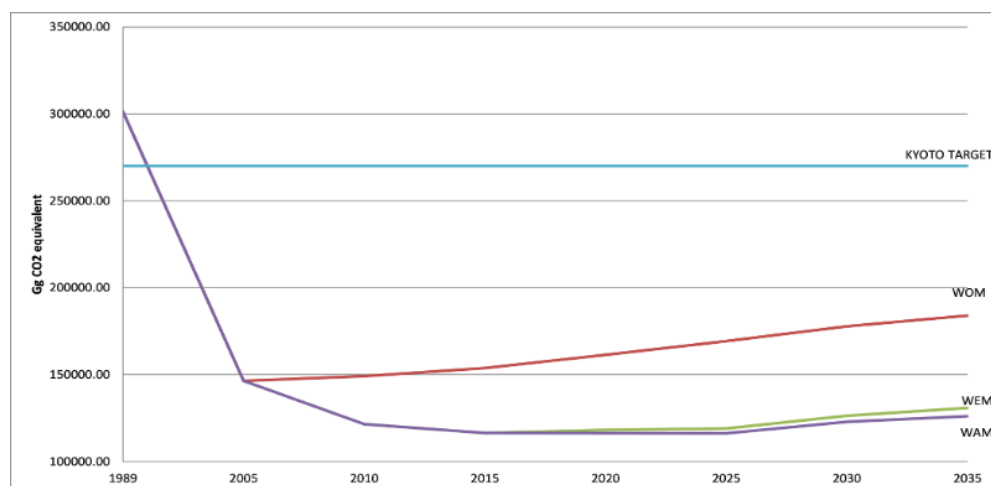
- A mitigation scenario, similar to the reference scenario in terms of the evolution of the economic-social and demographic indicators, containing mitigation policies and programs - ***the scenario with measures*** (WEM), reference year - 2015;
- A mitigation scenario with additional measures, similar to the mitigation scenario, containing additional emission mitigation measures - ***the scenario with additional measures*** (WAM), reference year - 2015.

The reference scenario, in terms of the evolution of the economic-social and demographic indicators, considered the impact of the 2009-2011 economic crisis on the development of Romania.

The GHG emission projections were elaborated considering the trends of key macro-economic, technological, demographic and other indicators related to the social-economic development of Romania. The main policies and measures that were taken into consideration for developing of the WEM projections scenario are, as follows:

- National Strategy for Climate Change and increase of economy based on reducing the carbon emissions corresponding to 2016-2030 period and its National Action Plan for 2016-2020 period;
- National Allocation Plan for participation in EU ETS;
- The data and information related to GHG trend during the 1989 - 2015 period, included in the Romanian National inventory;
- The planning and development strategies at national and sectoral level;
- The forecasts of the macroeconomic indicators elaborated by the National Prognosis Commission in 2017 year.

In the below graph the evolution of the GHG emissions is presented for the period 1989-2035 for all scenarios (WOM, WEM, WAM).



In the WOM scenario, the GHG emissions have changed on 2005-2015 period from 146,438.74 Gg CO_{2 eq} to 155,447.15 Gg CO_{2 eq}, being with aprox. 33.5% higher in comparison with the real value determined in the National Inventory of Greenhouse Gas Emissions for 2015.

In the WEM scenario, GHG emissions are expected to increase between 2015 and 2020 with an average rate of 1.45%. The total GHG emissions in 2020 will be lower by about 26.75% compared to the emissions from WOM scenario.

In the WAM scenario, the GHG emissions are expected to decrease between 2015 and 2020 with an average rate of 0.003%. GHG emissions in 2020 will be lower by 27.95% compared to the emissions from WOM scenario.

The key underlying variables for the GHG emissions projections on the 2016 ÷ 2035 period are based on common assumptions of the main parameters, such as the population and economy growth. Furthermore, there were also considered the interaction between different economic sectors concerning the demand of energy, the demand for transport, etc.

To establish the assumptions regarding the evolution of Romania within the 2016 - 2035 period, an analysis of the 1989 - 2015 period was performed by considering the economic, demographic and social development, the structural adjustment of the industry, including the technological upgrade and decreasing of the energy intensity in industry, agriculture, constructions. The developing and upgrading of the transport, residential and services sectors were taken also into consideration.

The emission projections are based on the economic scenario according to which the financial and economic crisis of the 2009-2011 period, that had significant impact on the Romanian economy, is followed by a period of economic revival. Thus, Romania had a GDP growth of about 4.8% in 2016 and 7% in 2017, one of the largest in the EU.

In the WEM scenario, for 2016-2020 period, the main contributor sectors to the GHG emissions increasing are the transport subsector (12.6%), Commercial/Institutional subsector (11.61%), Residential (5%), Industrial Processes will increase (7.1%), Agriculture (15.9%), Waste (11.9%). However, the decoupling of economic activity from GHG emissions continued as the growth in emissions was significantly lower than the economic growth.

Question by China at Wednesday, 10 April 2019

Category: All emissions and removals related to its quantified economy-wide emission reduction target

Type: Before 12 April

Title: conditional target

As a member state of European Union whose conditional 2020 target is 30% emission reduction comparing with 1990 level, what is the plan to further strength your mitigation actions and to enhance its pre-2020 ambition?

Answer by Romania, Friday, 07 June 2019

Thank you! Please find below our response to your question.

In addition to its unilateral 20% reduction commitment, the EU made a conditional offer to move to a 30% reduction by 2020 compared to 1990 levels, as part of a global and comprehensive agreement for the period beyond 2012, provided that other developed countries commit themselves to comparable emission reductions and that more advanced developing countries contribute adequately according to their responsibilities and respective capabilities. Raising the target was conditional on other developed countries taking similarly ambitious action, which has not happened.

The EU is on track to meet its 2020 objective of a 20% economy-wide reduction below 1990 levels. According to latest projections, the reduction would be around 26% with existing measures and without the use of international credits (JI and CDM). Falling energy intensity (lower energy use per unit of GDP) and increased penetration of renewables have been identified as the main drivers of this trend.

EU has put in place legally binding framework of policies & measures necessary to implement our NDC, which builds on this 2020 progress and increases ambition to an at least 40% reduction below 1990 by 2030: ETS phase 4, ESR, LULUCF regulation; legislation for energy efficiency and renewables targets and governance regulation with robust integrated monitoring and reporting mechanism for ensuring climate and energy targets are met.

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