

## Session SBI45 (2016)

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Session ends: 28-10-2016 23:59:59 [GMT+1]



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Question by United States of America at Wednesday, 31 August 2016

Category: Assumptions, conditions and methodologies related to the attainment of its quantified economy-wide emission reduction target

Type: Before 31 August

Title: Rationalization of fertilizer use

The BR speaks of rationalization of fertilizer use on page 8, but Table 4.5 shows increasing fertilizer use on a declining area of farmland. What is meant by rationalization (or the appropriate intended term)?

Answer by Poland, Tuesday, 25 October 2016

Rationalization of fertilizer use does not equal the reduction of fertilizer dose. It aims, above all, at more precise adjustment of fertilizer dose to soil habitat, as well as yield potential, in order to increase efficiency of fertilizer use and eliminate most of common practical mistakes in fertilizing.

Due to the fact, that area of farmland is declining (table 4.5), in order to prevent a decrease in production, there is a need to increase the level of fertilizing. Currently in Poland, the majority of extensive farms does not use mineral fertilizers at all. According to statistical data, mineral fertilizers are being used in ca. 83% of farms, of which 84% use nitrogen fertilizers. It is predicted, that structural changes in agricultural sector will lead to acquisition of farmland of subsistence farms, which do not use fertilizers, by bigger farms using more developed farming techniques. As a result, a part of farmland, previously not being a subject to fertilizing, will become one in future. This will eventually lead to an increase of fertilizers use, which has been reflected in the respective table.

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Question by United States of America at Wednesday, 31 August 2016

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

Type: Before 31 August

Title: Planned power sector measures

What are the central measures Poland intends to take to reduce emissions from its relatively high-emitting power sector?

Answer by Poland, Tuesday, 25 October 2016

Since hard coal and lignite will remain basic fuels in the energy sector (power & heat production) of Poland for the foreseeable future, in order to decrease the environmental impact of such energy mix, old and low

efficient coal-fired generation units will be replaced by new, highly efficient plants. Additionally, Poland is going to increase the share of RES sources in the energy balance and introduce the nuclear energy.

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[Question by United States of America](#) at Wednesday, 31 August 2016

[Category:](#) Progress towards the achievement of its quantified economy-wide emission reduction target

[Type:](#) Before 31 August

[Title:](#) Mode of achieving mean annual emission reductions

Can you clarify how Poland will meet the 2020 mean annual emission reductions of 20% with respect to 1990, as a Member State of the EU, while relying on the 21% decrease in covered EU ETS emissions, and allowing sectors not covered in the ETS to increase emissions by 14% as allowed under the Effort Sharing Decision (ESD)?

[Answer by Poland](#), Tuesday, 25 October 2016

The GHG emission reduction established for entire EU up to 2020 does not mean that Poland is obliged to decrease its emissions by 20% between 1990-2020.

Nevertheless, based on emission trend since the base year up to 2020 in Poland within the second commitment period of the Kyoto Protocol there is expected reduction of GHG emissions by more than 31%. Significant reductions are expected in stationary fuel combustion, emission drop is also projected in the waste sector. Certain increase in GHG emissions is expected in road transport, industrial processes and agriculture. When considering the split in GHG emissions into EU ETS sectors and EU ESD ones, no specific reduction target is defined for the Polish installations covered by ETS although the biggest part of future reduction relates to EU ETS sectors covering electricity and heat production. Projected emissions from non-ETS sectors are expected to drop from 193.7 Mt CO<sub>2</sub> in 2005 to 190.2 Mt CO<sub>2</sub> in 2020 while Poland can increase its emissions in these sectors in 2005-2020 by +14%.

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[Question by Brazil](#) at Wednesday, 31 August 2016

[Category:](#) Progress towards the achievement of its quantified economy-wide emission reduction target

[Type:](#) Before 31 August

[Title:](#) Estimates of mitigation impacts

Regarding "Estimate of mitigation impact" in "CTF Table 3 Progress in achievement of the quantified economy-wide emission reduction target: information on mitigation actions and

their effects”, some mitigation actions were not estimated.

Please explain how the other quantified estimates have been made as well as the difficulties to estimate some of the mitigation actions.

Answer by Poland, Tuesday, 25 October 2016

Various approaches were applied to estimate P&Ms effects.

In case of packages for other than road transport modes i.e. rail transport, domestic and international air transport, inland navigation and maritime shipping, the difficulties in estimation of the reduction for the given mitigation action arises from the fact that the emission effect is the result of many factors functioning simultaneously, and it is virtually impossible to assign the effect to only one of them.

Therefore, in the CTF table for each above package, the values of emission level were adopted from national projections (the values represent *business as usual with mitigation measures* scenario). These values, when related to the information on the assumed significant increase in traffic, could illustrate the lack of a significant increase in emissions in the situation of rapidly growing transport activity (case of decoupling). The fast mobility growth will cause greater transport volume so in the area of transport even the substantial efforts taken to reduce greenhouse gas emissions, in the mid-term perspective can only mitigate the overall emissions rise.

Realization of tasks within the scope of National Green Investment Scheme by the National Fund for Environmental Protection and Water Management has been initiated in 2009 and is a result of allocating proceeds acquired through sale of AAUs to support investments that reduce emission of greenhouse gases. The planned ecological effect in the form of reduced emission of carbon dioxide will be achieved systematically, until completion and settlement of all projects financed with GIS funds. Due to the above, data presented in the report concerning the expected reduction of emission of carbon dioxide does not exceed year 2020. Confirmation of achievement of ecological effects is subject to planning within that timeframe.

Estimated reduction of emission in the given period stems from the National Fund's forecast regarding the pace of resource spending and the amount of effect acquired from a unit of outlay. Both, contracts that had already been signed with the beneficiaries as well as those expected to be signed in the future are taken into consideration. Regarding the latter, the National Fund bases its assumptions on knowledge gained during the implementation of the program, expected market trends, technological changes etc.

Determining the effect achieved from investments that are being realised is dependent on the wording of the signed contracts. Contracts oblige the beneficiaries to achieve a specified ecological effect, in this case reduction or avoidance of emission of carbon dioxide. The value is calculated by the beneficiaries

using uniform methodologies for given parts of the program. Additionally the contract determines reporting demands and documents required for confirmation of the effect's achievement (this is done most frequently, among others, on the basis of purchase invoices for energy). Confirmation of the achievement of ecological effect takes place at the earliest after a full calendar year from the date of achieving the material effect, i. e. finishing the project. The contract also obliges the beneficiary to ensure a 5 year period of sustainability (during this period reports showing the reduction of emission for the given year have to be presented).

Difficulties with estimating the quantity of reduction of emission for given parts of the program result mainly from unpredictability of the market, i.e. legislative changes (f.e. changes in the support system), changes in the cost of project realization as well as technological problems and also lack of interest or preparedness among beneficiaries in relation to the process of acquiring funds. Furthermore, actually achieved ecological effects may differ from planned.

In case of estimation of CO<sub>2</sub> removals related to afforestation of agricultural and non-agricultural lands there was applied CO<sub>2</sub> removal factor amounting to 3.44 t CO<sub>2</sub>/ha established based on data reported within the National Inventory Report 2015 for category 4.A.2.

Also in case of calculation of CO<sub>2</sub> emission avoided due to increase in biomass and biofuels use the emission factors from National Inventory 2015 were applied.

In case of estimation of avoided CO<sub>2</sub> emissions resulted from National Action Plan for Energy Efficiency for Poland 2014 the emission factor amounting to 81.44 ktCO<sub>2</sub>/PJ for fuel combustion (including biomass) established based on data reported within the National Inventory Report 2013 for category 1.A.

Similarly to other AI countries not all policies and measures are evaluated individually in regard of mitigation effect because of the complexity of such assessment. Emission reduction depends not only on a single policy, but on a whole complex of implemented P&Ms, which stimulate mutually achieving the effect. Then it is difficult to indicate which element was decisive in reducing emission.

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[Question by Brazil](#) at Wednesday, 31 August 2016

[Category:](#) Progress towards the achievement of its quantified economy-wide emission reduction target

[Type:](#) Before 31 August

[Title:](#) CTF Table 3

Regarding mitigation actions referred to in "CTF Table 3 Progress in achievement of the

quantified economy-wide emission reduction target: information on mitigation actions and their effects”, are there any current estimates of mitigation impacts since the respective years of implementation?

[Answer by Poland](#), Tuesday, 25 October 2016

The mitigation impacts of actions are estimated on a regular basis. Such estimation concerns both – measures undertaken in sectors included in the ETS as well as in non-ETS sectors. Results are being made available publicly in biennial reports and on EIONET-ReportNet website where Member States report effects of mitigation measures under the Monitoring Mechanism Regulation. Such new estimates are now under development for reporting in early 2017 to the EU under MMR.

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[Question by Brazil](#) at Wednesday, 31 August 2016

[Category](#): Progress towards the achievement of its quantified economy-wide emission reduction target

[Type](#): Before 31 August

[Title](#): BR1-BR2 differences

The actions reported in Table 3 as considerably different, considering a comparative analysis between BR1 and BR2.

Are the mitigation actions reported in BR2 CTF new ones? What are the differences between actions reported in BR1 and BR2? Were the actions reported in BR1 revised and renamed in BR2?

Finally, considering the questions above, how can the BR1 CTF report be compared with BR2 CTF report on the differences noted?

[Answer by Poland](#), Tuesday, 25 October 2016

Difference in the number of mitigation actions reported in Table 3 between BR1 and BR2 is related to restructuring and grouping the actions. The list of measures in BR2 also includes new measures. For example, “National Action Plan for Energy Efficiency for Poland 2014” includes efforts to improve efficiency in the areas within the competence of various ministries, which previously were reported separately.

The differences between actions reported in BR1 and BR2 are also caused by the dynamic economy

development. Change in reported policies and measures relies mostly on their aggregation or disaggregation. In effect there are no important differences in comprehensive analysis of mitigation action between BR1 and BR2. Differences appear only in case of single P&Ms.

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Question by Brazil at Wednesday, 31 August 2016

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

Type: Before 31 August

Title: Mitigation actions

It has been noted that the amount of mitigation actions reported in BR2 have decreased in comparison to BR1. Please, explain why.

Answer by Poland, Tuesday, 25 October 2016

Difference in the number of mitigation actions reported in Table 3 between BR1 and BR2 is related to restructuring and grouping the actions. The list of measures in BR2 also includes new measures. For example, "National Action Plan for Energy Efficiency for Poland 2014" includes efforts to improve efficiency in the areas within the competence of various ministries, which previously were reported separately.

The differences between actions reported in BR1 and BR2 are also caused by the dynamic economy development. Change in reported policies and measures relies mostly on their aggregation or disaggregation. In effect there are no important differences in comprehensive analysis of mitigation action between BR1 and BR2. Differences appear only in case of single P&Ms.

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Question by Brazil at Wednesday, 31 August 2016

Category: Assumptions, conditions and methodologies related to the attainment of its quantified economy-wide emission reduction target

Type: Before 31 August

Title: Emission projections

Regarding table 6(a) "Information on updated greenhouse gas projections under a 'with measures' scenario", in BR 1, the GHG emissions projected for 2020 was 362,458.36 kt CO<sub>2</sub> eq (with LULUCF ) and 377,655.28 kt CO<sub>2</sub> eq (without LULUCF ). In regards to the same table in BR2, the GHG emission projected by 2020 was 364,091.47 kt CO<sub>2</sub> eq (with LULUCF

) and 386,407.66 kt CO<sub>2</sub> eq (without LULUCF).

The difference between the projected emissions without LULUCF is 5 times bigger than the difference between the projected emissions with LULUCF, comparing BR1 and BR2.

Could Poland please explain why the projection of GHG emissions with LULUCF is very similar for both BRs (emissions in BR 2 around 1,633 kt CO<sub>2</sub>eq above the projection referred to in BR1), but very different for emissions projected without LULUCF (emissions in BR2 around 8,752 kt CO<sub>2</sub>eq above the projection referred to in BR1)?

[Answer by Poland, Tuesday, 25 October 2016](#)

The GHG emission projections without LULUCF for 2020 increased by about 8.8 Mt CO<sub>2</sub> eq. between BR1 and BR2 mainly due to changed assumptions applied as well as due to updated methodology for GHG calculation according to 2006 IPCC GLs.

The biggest change in projected emissions occurred in sector of fuel combustion in stationary sources. In BR1 the *Projection of the demand for fuels and energy until 2030* established in 2009 was used while in BR2 - newer *Forecast of the demand for fuels and energy until 2050* elaborated in December 2013. As a result the input data, especially for energy sector were revised, (for instance higher lignite production and use) what triggered the increase of GHG emissions in 2020 in the BR2 (influencing mostly EU ETS sectors). Also the anticipated share of fuels used in category 1A.4 were updated.

The second important change in projections between BR1/BR2 relates to LULUCF sector. Here, LULUCF sink has increased by 46% (about 7.1 Mt CO<sub>2</sub> eq.) allowing to partially compensate increasing emissions in Energy sector. This change has been partially influenced by the positive changes in terms of the sustainability of forests as well as in a continuous increase in the forest resources reflected in updated forest resources projections contained basically as provided in the study: *Development, structure and the possibility of increasing utilisation of forest resources in Poland in the year 2080* (Zajączkowski S.; Dawidziuk J.; Forest management and Geodesy Bureau; 2014).

In other sectors (Industry, Agriculture, Waste) the changes in projections for 2020 between BR1 and BR2 were much smaller and related to slight update of some input data and applying the 2006 IPCC GLs. Detail input data for GHG projections are given in chapter 4.2 of BR2 report and chapter 5.1 of the Sixth National Communication (NC6) submitted in line with BR1 CTF report.



[Question by China](#) at Monday, 29 August 2016

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

**Type:** Before 31 August

**Title:** projections

Comparing the emission projections under WEM scenario between BR1 and BR2, both using GWP AR4, only due to the update of 2006 IPCC guidelines, the emission projection in 2020 changes from 386.4 Mt CO<sub>2</sub>eq to 377.7 Mt CO<sub>2</sub>eq, which enables Poland to achieve its 2020 target without implementing additional measures. However, changes in historical time series due to such an update in methodologies are negligible. What are the specific sectors that are affected for year 2020? Will this change impact the allocation of member states' AEAs before 2020 among the European Union?

[Answer by Poland](#), Tuesday, 25 October 2016

Comparison of the emission projections under WEM scenario between BR1 and BR2 reveals, that the emission projection presented in BR1 for 2020 (377.7 Mt CO<sub>2</sub>eq.) was **lower** than the projected emission in BR2 in 2020 (386.4 Mt CO<sub>2</sub>eq.) in BR2. The main increase in GHG emissions between BR1/BR2 is related to applying the updated *Forecast of the demand for fuels and energy (December 2013)* for Poland, but the main changes resulting in increase in emissions relates to the Energy sector, mostly covered by EU ETS.

Nevertheless projected non-ETS emissions for 2020 (190.2 Mt CO<sub>2</sub>eq.) do not exceed the Annual Emission Allocations established for Poland for 2020 (202.3 Mt CO<sub>2</sub>eq.) in frames of Effort Sharing Decision without implementing additional reduction measures.

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[Question by China](#) at Monday, 29 August 2016

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

**Type:** Before 31 August

**Title:** emission data

The total GHG emission including LULUCF for base year 1988 in BR2 Table 1.2 (566 454.17 Kt CO<sub>2</sub> eq) is inconsistent with NIR Table S.2 (563 876.21 Kt CO<sub>2</sub>eq). Could Poland provide further clarification on this issue?

[Answer by Poland](#), Tuesday, 25 October 2016

The total GHG emission including LULUCF for base year 1988 in BR2 Table 1.2 (566 454.17 kt CO<sub>2</sub> eq.) **is consistent** with NIR 2015 Table S.2. These reports were Submitted to the UNFCCC in the same year so GHG emissions data are the same.

Indeed in NIR 2016 Table S.2 emissions for the base year 1988 are different (563 876.21 kt CO<sub>2</sub>eq) than those in BR2 and NIR 2015 due to recalculations made. Detail information on recalculations made is given at the end of in each sector (chapters 3-7) in the NIR 2016.



**Session SBI45 (2016)**  
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