

Final report of the 2012 technical
review of the greenhouse gas emission
inventory of Poland
to support the determination of annual emission
allocations under Decision 406/2009/EC

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Introduction

Pursuant to Article 3.2 of Decision 406/2009/EC⁽¹⁾ (the 'Effort Sharing Decision' – ESD), the European Commission shall determine the annual emission allocations (maximum allowed greenhouse gas emissions) of Member States for the period from 2013 to 2020 in tonnes of carbon dioxide equivalent (CO₂ eq.), using reviewed and verified emission data.

Complete sets of greenhouse gas (GHG) emission estimates for the reference years (2005, 2008, 2009 and 2010) were submitted by each Member State by the 15th of May, 2012 as part of the 2012 national inventory submission under Decision 280/2004/EC (the 'Monitoring Mechanism Decision' – MMD). These estimates must have been reviewed to allow the determination in 2012 of the annual emission allocations for the period from 2013 to 2020.

The 'Guidelines for the 2012 technical review of greenhouse gas emission inventories to support the determination of Member States' annual emission allocations under Decision 406/2009/EC' were endorsed by the Climate Change Committee on 19 May 2011 and published as a European Commission Staff Working Document on 26 April 2012⁽²⁾. The 2012 greenhouse gas emission inventory of Poland was reviewed in accordance with these guidelines.

This report presents the findings of the 2012 technical review of the greenhouse gas emission inventory of Poland to support the determination of annual emission allocations under Decision 406/2009/EC.

Review Objectives

The purpose of the technical review of Member States' GHG inventories is to support the determination of the annual emission allocations by:

- a) ensuring that the European Commission has accurate, reliable and verified information on annual GHG emissions for the years 2005, 2008, 2009 and 2010 to determine the annual emission allocations under Decision 280/2004/EC;
- b) providing the European Commission and its Member States with a consistent, transparent, thorough and comprehensive technical assessment of GHG emissions, with a focus on data for the years 2005, 2008, 2009 and 2010 reported in 2012;
- c) examining, in a facilitative and open manner, the reported inventory information for consistency with the 'Revised 1996 IPCC Guidelines for National Greenhouse Gas Inventories', with the 2000 IPCC 'Good Practice Guidance and Uncertainty Management in National Greenhouse Gas Inventories', and with the requirements of Decision 280/2004/EC (the 'Greenhouse Gas Monitoring Mechanism' Decision)⁽³⁾;

⁽¹⁾ Decision No 406/2009/EC of the European Parliament and of the Council of 23 April 2009 on the effort of Member States to reduce their greenhouse gas emissions to meet the Community's greenhouse gas emission reduction commitments up to 2020. OJ L 140, 5.06.2009, p. 136.

⁽²⁾ Commission Staff Working Document of 26 April 2012: Guidelines for the 2012 technical review of greenhouse gas emission inventories to support the determination of Member States' annual emission allocations under Decision 406/2009/EC. SWD(2012) 107 final.

⁽³⁾ Decision No 280/2004/EC of the European Parliament and of the Council of 11 February 2004 concerning a mechanism for monitoring Community greenhouse gas emissions and for implementing the Kyoto protocol. OJ L 140, 5.06.2009, p. 136.

- d) assisting Member States in improving the quality of their GHG inventories.

Review approach and scope

The technical review of the 2012 GHG inventory estimates of Poland for the years 2005, 2008, 2009 and 2010 was performed by a Technical Expert Review Team (TERT) under service contract 2011/S 234-378130 to the Directorate General for Climate Action of the European Commission. The review was conducted by the following experts: Kristien Aernouts & Tomas Gustafson for Stationary combustion (CRF categories 1.A.1, 1.A.2, 1.A.4, 1.A.5) + Reference approach; Maria Liden & Tinus Pulles for CRF categories 1.A.3 Transport + 1.C International bunkers; Ralph Harthan & John Watterson for CRF category 1.B Fugitive; Anke Herold & IIs Moorkens for CRF categories 2.A Mineral products + 2.B Chemical industry + CRF sector 3 Solvents; Kristina Saarinen & Dusan Vacha for CRF categories 2.C Metal production + 2.D Other production + 2.G Other; Maria Jose Lopez & Karin Kindbom for CRF categories 2.E Production of Halocarbons and SF₆ + 2.F Consumption of Halocarbons and SF₆; Michael Anderl & Steen Gyldenkaerne for CRF categories 4.A Enteric fermentation + 4.B Manure management; Sorin Deaconu & Etienne Mathias for CRF categories 4.C Rice cultivation + 4.D Agricultural soils, 4.E Prescribed burning of savannas, 4.F Field burning of agricultural residues; Juraj Farkas & Celine Gueguen for CRF sector 6 Waste. Ole-Kenneth Nielsen, Suvi Monni, Klaus Radunsky and Tatiana Tugui acted as lead reviewers. The review was coordinated by Bernd Gugele and Justin Goodwin. The TERT acknowledges the support of the EEA review secretariat Martin Adams, Francois Dejean and Melanie Sporer.

This technical review was performed on the basis of GHG emission data and the national inventory report (NIR) officially reported by Member States by the 15th of April, 2012 under the MMD. Resubmissions reported by Member States were taken into account until the 15th of May, consistent with the reporting practice for resubmissions under Decision 280/2004/EC. Emissions from international transport and land use, land-use change and forestry (LULUCF) were not reviewed. The review was performed with a focus on data for the years 2005, 2008, 2009 and 2010, reported in 2012.

The technical review process for GHG inventories comprised three stages, each of which considered different aspects of the inventories in such a way that the purposes described above were achieved by the end of the process. The three stages were:

- Stage 1, completed by 15 April 2012 – initial completeness checks of each Member State GHG inventory (submitted by 15 January and by 15 March);
- Stage 2, completed by 15 April 2012 – initial consistency and comparability checks of each Member State GHG inventory (submitted by 15 January and by 15 March);
- Stage 3, to be completed by the end of August 2012 – detailed *technical review* of each Member State GHG inventory (submitted by 15 May).

The detailed timeline of the review, including a summary of the correspondence with Poland, is presented in Annex 4.

ESD 2012 technical review conclusions

Table 1. Main conclusions from the TERT

Findings
1. The TERT considers that the GHG emission inventory estimates of Poland for the years 2005, 2008, 2009 and 2010 submitted in 2012 under the MMD included emission overestimates .
2. The TERT did not identify inconsistency issues between the reported GHG emission inventory estimates and verified emission data under the EU ETS.
3. During the course of the technical review, the TERT received revised GHG emission inventory estimates from Poland in response to its initial findings (see Table 2).
4. The TERT considers that the aggregated revised GHG emission inventory estimates from Poland for the years 2005, 2008, 2009 and 2010 still include emission overestimates .
5. The TERT therefore suggests that it is necessary to implement a technical correction to the GHG emission inventory estimates and to amend the reported GHG total (see Table 2).
6. As stated beneath Table 1, Poland accepts the aggregated GHG emission inventory estimates presented in Table 2 including any revised estimate received from Poland and accepted by the TERT, and the technical correction as proposed by the TERT.
7. The TERT identified non-binding recommendations for future improvements of Poland's GHG inventory (see Table 3 in Annex 1).
8. The TERT considers that it received a response from Poland that was sufficient in order to undertake the review appropriately.
9. The TERT considers that the national system for GHG inventories of Poland is performing all functions required.

Statement from Poland on the conclusions of the TERT

Poland accepts the aggregated GHG emission inventory estimates presented in Table 2 and agrees with the general conclusions of the ESD review and is ready to implement improvements in the process of compiling national inventories.

Table 2. Summary of national totals, including any revised estimates or technical corrections identified during the review

Data / Category	Reference	Status of GHG emission revision or correction	2005 Gg CO ₂ eq.	2008 Gg CO ₂ eq.	2009 Gg CO ₂ eq.	2010 Gg CO ₂ eq.
Total GHG emissions as reported in the 2012 submission under the MMD	15 May 2012, POL-2012-v2.1		388 916.889	401 338.538	381 769.667	400 865.394
Revised estimates provided by Poland ⁽⁴⁾						
2.B.4 Carbide Production, CO ₂	2 July 2012 ESD-2012-Comments_RR-AnnexII-PL - POL response 2.07.2012	Accepted by the TERT			-2.514	-2.514
2.C.3. Aluminium Production, CF ₄	2 July 2012 ESD-2012-Comments_RR-AnnexII-PL - POL response 2.07.2012	Accepted by the TERT	-80.178	-55.284	-25.929	-24.579
2.C.3. Aluminium Production, C ₂ F ₆	2 July 2012 ESD-2012-Comments_RR-AnnexII-PL - POL response 2.07.2012	Accepted by the TERT	-16.546	-12.885	-5.317	-4.997
6.A. Solid Waste Disposal on Land, CH ₄	18 June 2012 PL fraction_of_waste_in_managed_SWDS.xl sx	Accepted by the TERT	-223.505	-126.330	-71.877	163.850
Technical correction proposed by the TERT ⁽⁵⁾						
2.F(a).1. Refrigeration and Air	Technical correction 1, Calculation TC PL-	Accepted	-933.267	-2 566.664	-2 085.124	-1 350.260

⁴ Difference: revised estimates – original estimates. A positive difference indicates an increase compared to reported emissions. A negative difference indicates a decrease compared to reported emissions. For more information on revised estimates, see Annex 1.

⁵ Difference: technical correction – original estimates. A positive difference indicates an increase compared to reported emissions. A negative number indicates a decrease compared to reported emissions. For more information on technical corrections, see Annex 2.

Conditioning Equipment, HFC-23, HFC-32, HFC-125, HFC-143a and HFC-152a	2E+F-Kindbom-20120619.xlsx , PL-2E+F-2	by MS				
Total GHG emissions including any accepted revised estimate received from Poland and/or technical correction as proposed by the TERT			387 663.394	398 577.374	379 578.906	399 646.894
CO₂ emissions from 1.A.3.a Civil aviation	15 May 2012, POL-2012-v2.1		58.500	91.260	86.715	90.652

Note: National totals exclude emissions from LULUCF and emissions reported under memo items (e.g. international aviation and maritime transport).

Annex 1 – Recommendations, revised estimates and technical corrections

Table 3. Recommendations of the TERT

Key category	Gas, fuel, activity	Observation	Recommendation	Revised estimate ⁽⁶⁾	Technical correction ⁽⁷⁾
Yes	1.A. Stationary combustion All 2005–2009	Poland made significant recalculations, which are not fully described in the NIR. Information on how Poland derived its country-specific CO ₂ EF for hard coal and lignite is missing in the NIR. In response to a question raised by the TERT during the technical review, Poland provided detailed information on this.	The TERT recommends that Poland includes in future submissions descriptive information and the magnitude of all significant recalculations for key categories, including a summary of how the country-specific CO ₂ EFs are derived.	No	No
No	1.A.3.a. Civil aviation All gases All years	Poland assumed that 95 % of total jet fuel consumed is for international aviation. As also noted by the UNFCCC ERT, this approach to the split of aviation fuel is not consistent with the 2000 IPCC Good Practice Guidance (GPG).	The TERT recommends that Poland applies the 2000 IPCC GPG in order to ensure that emissions from international aviation are neither systematically over- nor underestimated for the whole time series. In addition, the TERT recommends that Poland collects information on scheduled flights from the national aviation authorities and the European Organisation for the Safety of Air Navigation, along with other international organisations, in order to develop a	No	No

⁶ The GHG emission estimate for this category was revised by Poland during the technical review.

⁷ The GHG emission estimate for this category is subject to a technical correction proposal by the TERT.

Key category	Gas, fuel, activity	Observation	Recommendation	Revised estimate ⁽⁶⁾	Technical correction ⁽⁷⁾
			methodology to split domestic and international aviation bunker fuels as already done for marine bunkers.		
No	Energy: Comparison RA versus SA CO ₂ 2005–2010	The reference approach (RA) and the sectoral approach (SA) differ by more than 2 % for several years. In response to a question raised by the TERT during the technical review, Poland explained that the differences stem from statistical differences in the energy balances.	The TERT recommends that Poland describes in a table or in a graph in the next NIR how the statistical differences correlate with the differences between RA and SA.	No	No
No	2.A.7.a. Glass production CO ₂ 2005–2010	The NIR on page 93 states that CO ₂ emission from glass production was taken from the verified reports for 2010 for installation of glass and glass wool production, which participate in the ETS (KOBIZE, 2011). From the description in the NIR it is not clear whether the methodology used for CO ₂ emissions from glass production took into account that glass makers usually use a certain amount of recycled scrap glass (cullet) which should be subtracted in the emission estimation independent of the methodological tier as this fraction does not cause CO ₂ emissions. It is part of the methodologies under the EU ETS to take cullet into account. As verified ETS emissions are used it is assumed that these are in line with existing methodologies. During the review process Poland explained that cullet use is taken into consideration at plant level in each installation directly in emission	The TERT recommends that Poland provides in the NIR a description on use of recycled glass (cullet) in the emission estimation.	No	No

Key category	Gas, fuel, activity	Observation	Recommendation	Revised estimate ⁽⁶⁾	Technical correction ⁽⁷⁾
		estimation process.			
No	2.B.4. Carbide production CO ₂ 2009-2010	The TERT noted that CO ₂ emissions from carbide production (2B.4) were kept constant in the years 2009 and 2010. However, in 2009 the lowest production value of the entire time series was reported. During the ESD review, Poland explained that Poland made additional checks of activity data related to carbide production (both statistical data and data directly from the producers) which revealed that no production occurred in 2009 and 2010, which results in zero CO ₂ emissions in this subcategory.	The TERT recommends that Poland includes the revised estimates in future submissions.	Yes	No
No	2.C.2. Ferroalloys production CO ₂ All years	Poland's CO ₂ emission estimates from ferroalloys production is based on the activity data and default/national EF. This approach may lead to double-counting of emissions if the appropriate amount of reducing agents is not subtracted from the activity data relevant for the energy sector. During the review Poland explained in response to a question raised by the TERT that coal consumption used as activity data for the calculation of emissions from ferroalloys production is the amount of coal as available in the national energy statistics as non-energy use of fuel. Therefore, coal consumed as reducing agent in ferroalloys production is not included in energy consumption of coal in 1.A.2.a.	The TERT recommends that Poland includes in future NIRs the explanation provided during the review on how Poland avoids double-counting or emissions from ferroalloys production.	No	No
No	2.C.3. Aluminium Production	Poland reports the highest IEF for CF ₄ emissions from aluminium production among all EU countries for	The TERT recommends that Poland includes the revised estimates in future submissions.	Yes	No

Key category	Gas, fuel, activity	Observation	Recommendation	Revised estimate ⁽⁶⁾	Technical correction ⁽⁷⁾
	CF ₄ All years	2005, 2009 and 2010. During the review week, Poland provided revised estimates from aluminium production. The TERT agreed with the revised estimates.			
No	2.C.3. Aluminium Production C ₂ F ₆ All years	Poland reports the highest IEF for C ₂ F ₆ emissions from aluminium production among all EU countries for 2005, 2009 and 2010. During the review week, Poland provided revised estimates from aluminium production. The TERT agreed with the revised estimates.	The TERT recommends that Poland includes the revised estimates in future submissions.	Yes	No
No	2.D.1. Pulp and paper CO ₂ All years	Poland reports emissions from pulp and paper production, but without any specification of the process, which emits these emissions. The NIR provides only a reference to the EU ETS. During the review, in response to a question raised by the TERT, Poland informed the TERT that these emissions result from limestone use (8.5 Gg) and soda ash use (0.1 Gg) in pulp and paper production.	The TERT recommends that Poland provides a short description of this source category in the NIR.	No	No
No	2.C.4. Magnesium foundries SF ₆ All years	The TERT found the methodological descriptions and that data provided in the Polish NIR and CRF tables not transparent. In response to a question raised by the TERT during the review Poland provided additional explanation as well as a step-by-step description of the calculation of the SF ₆ emission estimates from magnesium production including all assumptions.	The TERT recommends that Poland includes the additional information provided to the TERT in future NIRs including the step-by-step description of the calculation of the SF ₆ emissions.	No	No
Yes	2.F(a).1. Refrigeration and	Please see technical correction reference PL-2.E.+2.F-2. in Annex II.	The TERT recommends that the inventory is revised to address the issues raised in the technical correction.	No	Yes

Key category	Gas, fuel, activity	Observation	Recommendation	Revised estimate ⁽⁶⁾	Technical correction ⁽⁷⁾
	air conditioning equipment HFC-125, HFC-32, HFC-23, HFC-152a, HFC-143a 2005–2010		Furthermore, the TERT recommends that time series consistency is ensured by implementing the revision for all relevant years of the time series. Poland accepts the Technical Correction proposed by TERT		
No	2.G. Other (industrial processes) CH ₄ , N ₂ O 2010	Poland reports CO ₂ emissions from gas flared in refineries under category 2.G. CH ₄ and N ₂ O emissions are not estimated. This means that national total GHG emissions are slightly underestimated. In response to a question raised by the TERT during the technical review, Poland provided the information that a reallocation of the emissions connected with gas flared in refineries from CRF sector 2 Industrial Processes to CRF sector 1. Energy is planned.	The TERT recommends that Poland estimates CH ₄ and N ₂ O emissions from gas flared in refineries, provides its estimates in the next GHG inventory and reallocates the emissions connected with gas flared in refineries from CRF sector 2 Industrial Processes to CRF sector 1. Energy.	No	No
Yes	4.B. Manure management CH ₄ 2005	Emissions of CH ₄ and N ₂ O related to livestock manure management were recalculated due to the inclusion of new specific data on animal waste systems in 2004–2009. This change covered all categories of livestock in selected years in 1988–2009. However, no detailed description of the AWMS is provided in the NIR.	The TERT recommends that Poland provides a more detailed description of its AWMS in its NIR.	No	No
No	4.D.2. Pasture, range and paddock manure N ₂ O 1990–2003	The TERT identified an inconsistency between N-excretion reported on Pasture range and paddock (Table 4.B(b)s1) and N reported as AD in '2. Pasture, Range and Paddock Manure' (Table 4.Ds1). This inconsistency only concerns the years before 2003.	The TERT recommends that Poland corrects the activity data reported in Table 4.Ds1 to make them consistent with the values provided in Table 4.B(b).	No	No

Key category	Gas, fuel, activity	Observation	Recommendation	Revised estimate ⁽⁶⁾	Technical correction ⁽⁷⁾
		In response to a question raised by the TERT during the technical review, Poland explained that the activity data reported in '2. Pasture, Range and Paddock Manure' (Table 4.Ds1) for the years 1990–2003 were not updated correctly while N-excretions reported in Table 4.B(b) were updated. This inconsistency does not affect the emissions. Poland also indicated it would update the activity data in the next inventory. The TERT considers this answer to be satisfactory.			
No	4.D.3.1. Atmospheric deposition AD All years	<p>The TERT was not able to recalculate the reported AD for indirect atmospheric deposition using data provided in Table 4.Ds1 and the parameters $Frac_{GASF}$ and $Frac_{GASM}$.</p> <p>In response to questions raised by the TERT during the technical review, Poland explained that it corrects the activity data following equation 4.34 of the 2000 IPCC Good Practice Guidance (GPG) in order to take into account only the amount of N directly applied on soils. The TERT believes that according to the 2000 IPCC GPG a correction should only be made for manure used for fuel, construction or feed. The correct equation is presented in the 2000 IPCC GPG in equation 4.35. The TERT concludes that this leads to an underestimation of N₂O emissions.</p>	The TERT recommends that Poland strictly applies the 2000 IPCC GPG by using the equation 4.35 and considers indirect emissions on the basis of N-excretion only corrected by the amount of manure burnt, used in construction or in feed.	No	No
Yes	4.D.3.2. Nitrogen leaching and run-off	The TERT was not able to recalculate the reported AD for indirect atmospheric deposition using data provided in Table 4.Ds1 and the parameters $Frac_{GASF}$,	The TERT recommends that Poland strictly applies the 2000 IPCC GPG by using the equation 4.35 and considers indirect emissions on the basis of N-	No	No

Key category	Gas, fuel, activity	Observation	Recommendation	Revised estimate ⁽⁶⁾	Technical correction ⁽⁷⁾
	AD All years	Frac _{GASM} and Frac _{LEACH} . In response to questions raised by the TERT during the review, Poland explained that it corrects the activity data following equation 4.34 of the 2000 IPCC GPG in order to take into account only the amount of N directly applied on soils. The TERT believes that according to the 2000 IPCC GPG this correction should only be made for manure used for fuel, construction or feed. The correct equation is presented in the 2000 IPCC GPG in equation 4.35. The TERT concludes that this leads to an underestimation of N ₂ O emissions.	excretion only corrected by the amount of manure burnt, used in construction or in feed.		
Yes	6.A.1. Managed waste disposal on land Oxidation factor All years	Poland applied the methodology and parameters from the 2006 IPCC Guidelines in its inventory. Activity data (municipal solid waste composition and amount disposed) are country specific but the fraction of waste disposed in managed solid waste disposal sites is considered to be constant over the 1970–2010 time series. During the technical review, Poland provided a new estimate for emissions from CRF category 6.A. based on updated data concerning the fraction of landfilled waste disposed in managed solid waste disposal sites. This new estimate was calculated using an oxidation factor of 0.1 for managed SWDS and of 0.0 for unmanaged landfills.	The TERT recommends that Poland uses these updated data and parameters in its next inventory.	Yes	No
Yes	6.A.1. Managed waste disposal on	The TERT noted that there is only little information concerning the estimation of CH ₄ recovered (GUZ OZE,	The TERT encourages Poland to improve the transparency of the NIR concerning the estimation of	No	No

Key category	Gas, fuel, activity	Observation	Recommendation	Revised estimate ⁽⁶⁾	Technical correction ⁽⁷⁾
	land Recovery All years	2011) in the NIR.	CH ₄ recovered from landfills. If statistical data in energy units are used (e.g. TJ, electricity/heat generation), the parameters used for the conversion of energy data to CH ₄ amounts (e.g. efficiency of the energy plants, NCV, on-site energy use) should be documented and described in the NIR.		
No	6.B.2. Domestic and commercial wastewater CH ₄ All years	The CH ₄ emissions from domestic wastewater decreased significantly in 1995 and in 2000. In response to a question raised by the TERT during the technical review, Poland indicated that these decreases of CH ₄ emissions were caused by changes of IEF taken from expert analyses based on research of wastewater treatment by wastewater treatment plants (questionnaires). Furthermore, Poland indicated that the research is done for specific periods and the EFs can only be used for these specific periods, which causes abrupt changes in IEF from one year to another.	The TERT recommends that Poland improves the transparency of its NIR by providing clarifications on the methodologies and country-specific parameters used for the estimation of CH ₄ emissions from domestic wastewater.	No	No
No	6.B.3.b. N ₂ O from human sewage N ₂ O All years	N ₂ O emissions from human sewage are calculated by applying the Revised 1996 IPCC Guidelines methodology on the basis of the total population as recommended in the Revised 1996 IPCC Guidelines. N ₂ O emissions from sludge incineration and sludge spreading are also estimated on the basis of the Revised 1996 IPCC Guidelines. This leads to a double-counting of emissions, which is also reflected in the guidelines.	The TERT recommends that Poland avoids this double-counting by subtracting the nitrogen content in sludge spread and incinerated from the N content in human sewage.	No	No

Annex 2 – Detailed technical corrections

Name of technical correction	Emissions of HFC-23, HFC-32, HFC-125, HFC-143a and HFC-152a from refrigeration (2.F.1.)				
Reference to transcript finding record	PL-2.F + F-2				
Subsector	2.F(a).1 Refrigeration and air conditioning equipment				
Gas/fuel/activity	HFC-23, HFC-32, HFC-125, HFC-143a and HFC-152a				
	2005	2008	2009	2010	
Original estimate	1 691.36	3 891.63	3 170.46	2 041.71	Gg CO ₂ eq.
Corrected estimate	758.10	1 324.96	1 085.34	691.45	Gg CO ₂ eq.
The underlying problem	Emissions of HFC-23, HFC-32, HFC-125, HFC-143a and HFC-152a from refrigeration (2.F.1) are reported by using potential emissions as a proxy for actual emissions. Potential emissions for F-gases are higher than the actual emissions and the use of those substances is increasing over time. The use of potential emissions as a proxy for actual emissions is thus a potential overestimate of reported emissions.				
The rationale for the technical correction	During the technical review, Poland informed the TERT that institutional arrangements are currently under preparation to improve the collection of activity and emission data on HFCs. First reports containing inventory data are expected in 2012/2013. Poland also informed the TERT that a potential overestimation as a result of applying a simplified methodology seems to be relatively insignificant compared to the national total. The TERT decided to apply a technical correction for the reported potential emissions in 2.F.9. for HFC-23, HFC-32, HFC-125, HFC-143a and HFC-152a from Refrigeration (2.F.1.).				
The assumptions, data and methodology used to calculate the technical correction	The ratio of potential/actual emissions for the individual species was taken from the reports for 2005, 2008, 2009 and 2010 for Croatia, the Czech Republic, Lithuania and Slovakia. The average of those ratios was used to correct the reported potential estimates in 2.F.9 for Poland for HFC-23, HFC-32, HFC-125, HFC-143a and HFC-152a.				

Response from Poland on the technical correction

Poland accepts the technical correction indicated in this subcategory in the light of future improvements planned in these subcategories/gases.

At the same time Poland would like to be sure that proposed correction to the country inventory does improve it - especially in the light of Slovakia's adjustments made to the Submission 2011 as a result of question of implementation with respect to estimates of emissions from consumption of halocarbons and SF₆.

The use of potential emissions indicators as a proxy for actual emissions was recommended by UNFCCC ERT in 2011 as a result of the analysis of national circumstances and available references. This technical correction may be in potential collision with ERT recommendation when proposed assumptions don't get approval during next UNFCCC review.

Final remarks by TERT

The TERT takes note of the response of Poland on the technical correction.

Annex 3 – Checks and tests completed

The initial checks (stage 1 and 2 checks), which cover the national inventory submissions, informed the stage 3 technical review with a view to:

- a) assess whether all emission source categories and gases are reported as required under Decision 280/2004/EC;
- b) assess whether sub-category sums are consistent with sectoral and national totals;
- c) assess whether emission data time series are consistent;
- d) assess whether implied emission factors across Member States are comparable;
- e) assess the use of 'Not Estimated' notation keys where IPCC Tier 1 methodologies exist;
- f) compare with the previous year's inventory submission of the Member State;
- g) limited sector-specific checks performed by ETC/ACM sector experts.

The EU initial checks were extended in 2012 to address additional elements needed for the 2012 technical review. The extended checks included:

- a) a detailed analysis of recalculations performed for the 2012 inventory submissions, in particular if recalculations are based on methodological changes.
- b) a comparison of the verified emissions reported under the EU ETS with the greenhouse gas emissions reported in GHG inventories. The verified emissions under the EU ETS are not fully comparable with the emissions reported in the GHG inventories. This comparison may only highlight areas where some Member States' data and trends deviate considerably from those of other Member States.
- c) a comparison of the results from Eurostat's reference and sectoral approach, based on energy data reported under Regulation (EC) No 1099/2008, with the Member States' reference and sectoral approach.

The specific activities of the 2012 technical review included:

- a) an analysis of the Member States' implementation of recommendations related to improving inventory estimates in accordance with the Revised 1996 IPCC Guidelines and the 2000 IPCC good practice guidance (GPG) as listed in the UNFCCC Annual Review Reports from the 2010 and 2011 UNFCCC review processes. Where UNFCCC recommendations have not been implemented, the analysis included an assessment as to whether the Member State provided adequate justification for this;
- b) an assessment of the time series consistency of the greenhouse gas emissions estimates, with a particular focus on the 2005 and 2008-2010 estimates;
- c) checking whether problems identified for one Member State in UNFCCC reviews might also have been a problem for other Member States (whether identified by the UNFCCC expert review team or not);
- d) an assessment of any recalculations made by a Member State in its inventory since the previous submission, and an assessment as to whether these were transparently reported and were in accordance with IPCC good practice guidance;
- e) a follow-up on any outstanding findings from existing and extended stage 1 and 2 checks;
- f) the inclusion of revised estimates as provided by Member States in response to the review, and as accepted by the TERT during the review;
- g) the provision of an estimate for any 'technical correction' to emission estimates reported by a Member State where it is believed that emissions reported by the Member State are

overestimated, and a statement of the significance of these 'technical corrections' in comparison to the overall reported inventory estimates;

- h) the provision of recommendations where problems have been identified that do not require technical corrections.

Material from previous UNFCCC inventory reviews was used to inform the technical review, including the previous years' Annual Review Reports, which provide an indication of the overall quality of the inventory.

The TERT used additional technical information in the review process, such as EU ETS data, information from Eurostat, and F-gas data from the 'Preparatory study for a review of Regulation (EC) No 842/2006 on certain fluorinated greenhouse gases (⁸), as well as data from other international organisations.

⁸ Service contract 070307/2009/548866/SER/C4 to the European Commission

Annex 4 – Correspondence references

Date	Reference
15 May 2012	Final CRF submission under the MMD, version POL-2012-v2.1
21, 23 May 2012	Initial questions raised by the TERT during the desk review
22 May 2012	Final NIR submission under the MMD
7, 11, 13, 14, 15, 16 June 2012	Additional questions raised by the TERT during the centralised review
1, 8, 12, 14, 15, 18, 20 June 2012	Responses from Poland to TERT questions
21 June 2012	Draft technical corrections from TERT to Poland
2 July 2012	Response from Poland to TERT draft technical corrections
13 July 2012	Draft review report from TERT to Poland
19 July, 2 August 2012	Response from Poland to draft review report
13 August 2012	Draft final review report from TERT to Poland
16 August 2012	Response and additional information from Poland to final review report
17 August 2012	Final review report to European Commission