

Bucharest, Romania, 1 Oct 2011

**Potential Problems and Further Questions from the ERT formulated  
in the course of the 2011 review of the greenhouse gas inventories of  
Romania submitted in 2011**

**For the ERT**



**Mr. Leif Hockstad,  
Lead Reviewer**



**Mr. Mauro Santos,  
Lead Reviewer**

## **Inventory related potential problems**

With reference to the Guidelines for review under Article 8 of the Kyoto Protocol, the ERT requests that additional information and/or revised estimates for the 2009 greenhouse gas (GHG) inventory corresponding to the potential problems identified in this paper (see attached tables) be forwarded to the ERT, through the UNFCCC secretariat, not later than by 14 Nov 2011.

Should Romania decide to submit by 14 Nov 2011, in response to some or all potential problems, revised estimates of its GHG emissions, the ERT requests that the revised estimates contain the following:

- Relevant background information and a descriptive summary of the revisions made by Romania in its 2011 inventory submission, in particular in the year 2009 with respect to:
  - (a) CO<sub>2</sub>, CH<sub>4</sub>, N<sub>2</sub>O emissions from “other fuels” under 1.A Fuel combustion (energy)
  - (b) CO<sub>2</sub>, CH<sub>4</sub>, N<sub>2</sub>O emissions from 1.B Oil and Natural Gas, 1.B.2.c.i Flaring Oil, 1.B.2.c.ii Venting Gas, 1.B.2.c.ii Flaring Gas (energy)
  - (c) CO<sub>2</sub> emissions from 2.B.4 Calcium Carbide Production (industrial processes)
  - (d) HFCs emissions from 2.F.1 Refrigeration and Air Conditioning Equipment, 2.F.2 Foam Blowing, 2.F.3 Fire Extinguishers, 2.F.4 Aerosols/Metered Dose Inhalers (industrial processes)
  - (e) N<sub>2</sub>O emissions from 6.B.2. Domestic and Commercial Waste Water (waste)
- A complete resubmission of the 2011 CRF tables, reflecting the revised estimates for the whole time series;
- Party’s revision of the calculation of the commitment period reserve, based on the recalculated emissions reported for 2009, if the calculation of the commitment period reserve is based on the inventory and not the assigned amount.

## **Activities under Article 3, paragraphs 3 and 4, of the Kyoto Protocol**

### **Afforestation and reforestation**

#### Potential problem/question:

The ERT noted that the reporting of emissions from reforestation is not complete. Romania reports CO<sub>2</sub> emissions from several carbon pools under reforestation as not occurring (mineral soil) or included elsewhere (belowground biomass, litter).

The ERT notes that Romania is required to account for all changes in the following carbon pools: above-ground biomass, below-ground biomass, litter, dead wood, and soil organic carbon unless transparent and verifiable information is provided that the pool is not a net source (paragraph 6(e) of annex to decision 15/CMP.1, and paragraph 21 of annex to decision 16/CMP.1).

The ERT notes that methodologies do exist in the IPCC good practice guidance for LULUCF to estimate change in mineral soil carbon stocks following reforestation (see section 3.2.1.3). The ERT also notes that Romania has some country specific data, in particular for root to shoot ratios (to allow estimation of belowground biomass as per section 3.2.1.1.1.2 of the GPG for LULUCF), average soil carbon stocks of forest soil and other land uses (as documented in the 2011 NIR submission) and carbon stocks of litter and deadwood pools (to allow estimate of change in stocks as per section 3.2.1.2.1 of the GPG for LULUCF) that can be used to estimate emissions from reforestation for all pools.

#### Recommendation by the ERT:

The ERT recommends that Romania develop estimates for 2008 and 2009 changes in litter, deadwood and soil carbon for lands subject to reforestation. These estimates should be made using the methods agreed to during the review week:

- For mineral soil carbon apply the method used to develop the estimate of emissions from this pool as provided to the 2010 and 2011 expert review teams. The method provided uses a combination of tier 1 data from the GPG for LULUCF (for the initial soil carbon levels for cropland and grassland as reported in the 2011 NIR) and a country-specific value for forests.

The ERT recommends that Romania provide estimates for above- and belowground living biomass using the root to shoot ratios used to estimate total living biomass, and document the data and methods used.

## **Deforestation**

#### Potential problem/question:

The ERT noted that the reporting of emissions from deforestation is not complete. Romania reports CO<sub>2</sub> emissions from several carbon pools under deforestation as not occurring (“NO”) (mineral soil) or included elsewhere (“IE”) (belowground biomass, litter).

The ERT notes that Romania is required to account for all changes in the following carbon pools: above-ground biomass, below-ground biomass, litter, dead wood, and soil organic carbon unless transparent and verifiable information is provided that the pool is not a net source (paragraph 6(e) of annex to decision 15/CMP.1, and paragraph 21 of annex to decision 16/CMP.1).

The ERT notes that methodologies do exist in the IPCC good practice guidance for LULUCF to estimate change in mineral soil carbon stocks following deforestation. The ERT also notes that Romania has some country specific data, in particular for root to shoot ratios (to allow estimation of belowground biomass), average soil carbon stocks of forest soil and carbon stocks of litter and deadwood pools that can be used to estimate emissions from deforestation.

#### Recommendation by the ERT:

The ERT recommends that Romania develop estimates for changes in litter, deadwood and soil carbon for lands subject to deforestation. These estimates should be made using the methods agreed with the ERT during the review week.

The ERT recommends that Romania:

- Use the country-specific average for mineral soil carbon under forest (as already noted in the NIR) and estimate emissions consistent with the reporting of forest land converted to settlements and other land as specified in the GPG LULUCF (see sections 3.6 and 3.7 of the IPCC Good practice guidance for LULUCF).
- Develop estimates for deadwood based on methods applied for forest management for 2008 and 2009.
- Provide estimates for above- and belowground living biomass using the root to shoot ratios used to estimate total living biomass.
- Document the data and methods used.

## **Revegetation**

### Potential problem/question:

The ERT notes that Romania has elected revegetation as an activity under Article 3, paragraph 4 of the Kyoto Protocol. Revegetation is subject to net-net accounting and, therefore, an emissions estimate for the base year (1989) is required (as per paragraph 9(b) and 6(b(iii)) of the annex to decision 15/CMP.1).

In developing the estimate of emissions for the base year Romania has only included emissions for the area of revegetation established in the base year. This is not in line with the GPG for LULUCF which states that the calculation of emissions for the base year should include all lands that have been subject to revegetation since 1970 (see section 4.2.10.2). The use of a single year of revegetation activity to estimate the base year emissions will lead to the underestimation of removals in the base year (1989). This will lead to an overestimation of the accountable removals for revegetation over the commitment period.

### Recommendation by the ERT:

The ERT recommends that Romania develop an emissions estimate for the base year that includes all areas of lands that have been subject to revegetation since 1970.

The ERT notes that the rate of revegetation decreased significantly since 1990 and that limited data is available prior to 1985. The ERT recommends that Romania extrapolate the 1990 data back to 1970. This area data should be used in the existing models to estimate total removals in the base year.

The ERT also recommends that Romania document the data and methods used.

**Overview of inventory potential problems identified for 2009**

**Annex A sources**

**2011 GHG inventory review**

**Romania**

**Abbreviations:**

GPG: IPCC good practice guidance

AD: activity data, EF: emission factor, IEF: implied emission factor

KC: key category, ERT: Expert Review Team

Sector, category, sub-category (with code)	Gas	KC / non-KC	Identified inventory problem in terms of:		
			Missing estimate	Estimate provided but not in line with GPG	Estimate provided but lack of transparency
(a) 1. Energy, 1.A Fuel Combustion Activities, "Other Fuels"	CO <sub>2</sub> , CH <sub>4</sub> , N <sub>2</sub> O	Non-KC		X	
<p><b>Description of problem identified:</b></p> <p>The Party has not reported emissions from fuel combustion activities for "other fuels." In response to recommendations in the 2010 annual review report, the Party changed the notation key from not estimated ("NE"), and reports "other fuels" as not occurring ("NO") in the 2011 annual submission. Information in the energy balance compiled by the National Institute of Statistics shows domestic consumption of "other fuels," as provided under the listing of "ALȚI COMBUSTIBILI". Information provided to the ERT during the review week indicated that fuels included under the listing of "ALȚI COMBUSTIBILI" in the energy balance are: peat, biofuels, industrial waste non-regenerative, urban waste regenerative and urban waste non-regenerative. The ERT concluded that not including emissions from fuel combustion from all fuels is not in line with the IPCC GPG and may result in a potential underestimation of the CO<sub>2</sub>, CH<sub>4</sub> and N<sub>2</sub>O emissions.</p>					

**Recommendation by ERT:**

The ERT recommends that the entity designated with overall responsibility for the national inventory consult with the national statistical authorities responsible for the energy balance and the data providers for the listing “ALȚI COMBUSTIBILI” and characterize the fuel types and consumption reported under the listing “ALȚI COMBUSTIBILI”.

Provide revised estimates based on the specific fuel types included under the listing of “ALȚI COMBUSTIBILI” in the energy balance that are combusted for energy purposes, where the Revised 1996 IPCC Guidelines and/or the GPG has provided default EF, including peat, other biomass and wastes (including industrial wastes), municipal solid waste and refuse, sewage-sludge and sludge, clinical waste and hazardous waste.

Estimates should be provided for CO<sub>2</sub> emissions from the combustion of peat, if applicable, using the default EF provided in Table 1-4 of the Revised 1996 IPCC Guidelines (28.9 t C/TJ) and Table 1-6 (0.99 fraction of carbon oxidised for peat).

Estimates should be provided for CH<sub>4</sub> and N<sub>2</sub>O emissions from the combustion of other biomass and wastes (including industrial wastes), if applicable, using the default EFs provided in Table 1-7 of the Revised 1996 IPCC Guidelines (30-300 kg CH<sub>4</sub>/TJ) and in Table 1-8 of the Revised 1996 IPCC Guidelines (4 kg N<sub>2</sub>O/TJ).

Estimates should be provided for CO<sub>2</sub> and N<sub>2</sub>O emissions from the combustion of municipal solid waste and refuse, if applicable, using default EFs provided in Table 5.6 of the GPG (40% C content of waste; 40% fossil carbon as % of total carbon; 95% efficiency of combustion; using equation 5.11) and the appropriate default EF provided in either Table 6-10 of the Revised 1996 IPCC Guidelines (11-43 g N<sub>2</sub>O/tonne waste (municipal refuse) for 780-880 T<sup>o</sup>C stepgrate; 40-220 g N<sub>2</sub>O/tonne waste (municipal refuse) 780-980 T<sup>o</sup>C stepgrate; 11-43 g N<sub>2</sub>O/tonne waste (municipal refuse) for fluidized bed; 26-270 g N<sub>2</sub>O/tonne waste (municipal solid waste) for 5 stokers; 97-293 g N<sub>2</sub>O/tonne waste (municipal solid waste) for 3 fluidized bed; 35-165 g N<sub>2</sub>O/tonne waste (municipal solid waste) for rotatory kin) or Table 5.7 of GPG (400 kg N<sub>2</sub>O/Gg waste (wet) for hearth or grate; 100-1530 kg N<sub>2</sub>O/Gg waste (wet) for fluidized bed).

Estimates should be provided for N<sub>2</sub>O emissions from the combustion of sewage sludge and sludge, if applicable, using default EFs provided in Table 6-10 of the Revised 1996 IPCC Guidelines (227 g N<sub>2</sub>O/tonne waste (sludge) for rotary grate; 580-1528 g N<sub>2</sub>O/tonne waste (sludge) for 770-812 T<sup>o</sup>C fluidized bed; 684-1508 g N<sub>2</sub>O/tonne waste (sludge) for 838-854 T<sup>o</sup>C fluidized bed; 275-886 g N<sub>2</sub>O/tonne waste (sludge) for 834-844 T<sup>o</sup>C fluidized bed; 101-307 g N<sub>2</sub>O/tonne waste (sludge) for 853-887 T<sup>o</sup>C fluidized bed) or Table 5.7 of GPG (400 kg N<sub>2</sub>O/Gg waste (wet) for hearth or grate; 100-1530 kg N<sub>2</sub>O/Gg waste (wet) for fluidized bed).

Estimates should be provided for CO<sub>2</sub> emissions from the combustion of clinical waste, if applicable, using the default EF provided in Table 5.6 of the GPG (60% C content of waste; 40% fossil carbon as % of total carbon; 95% efficiency of combustion; using equation 5.11). Calculations should also be provided for CO<sub>2</sub> and N<sub>2</sub>O emissions from hazardous waste, if applicable, using default EFs provided in Table 5.6 of the GPG (50% C content of waste; 90% fossil carbon as % of total carbon; 99.5% efficiency of combustion; using equation 5.11) and the appropriate default EF provided in Table 5.7 of GPG (210-240 kg N<sub>2</sub>O/Gg waste (dry) for rotating incinerator).

The ERT recommends that Romania provide justifications for the combustion and/or other use(s) of the fuels included under the listing of “ALȚI COMBUSTIBILI” in the energy balance where the Revised 1996 IPCC Guidelines and/or the GPG has provided default EFs.

The ERT recommends that Romania include estimates for the entire time series with supporting background documentation.

**Response / Information by Party:**

**Potential problem unsolved? Rationale:**

## Overview of inventory potential problems identified for 2009

### Annex A sources

#### 2011 GHG inventory review

#### Romania

**Abbreviations:**

GPG: IPCC good practice guidance

AD: activity data, EF: emission factor, IEF: implied emission factor

KC: key category, ERT: Expert Review Team

Sector, category, sub-category (with code)	Gas	KC / non-KC	Identified inventory problem in terms of:		
			Missing estimate	Estimate provided but not in line with GPG	Estimate provided but lack of transparency
(b) 1. Energy, 1.B Oil and Natural Gas, 1.B.2.c.i Flaring Oil, 1.B.2.c.ii Venting Gas, 1.B.2.c.ii Flaring Gas	CO <sub>2</sub> , CH <sub>4</sub> , N <sub>2</sub> O	<b>Trend</b>	X		
<p><b>Description of problem identified:</b></p> <p>The ERT noted that Romania has reported emissions for CO<sub>2</sub> from venting of gas, CO<sub>2</sub>, CH<sub>4</sub> and N<sub>2</sub>O from flaring of oil, and CO<sub>2</sub>, CH<sub>4</sub> and N<sub>2</sub>O from flaring of gas as not estimated (“NE”).</p> <p>During the review week, the ERT noted that for CH<sub>4</sub> emissions from flaring of gas, the estimates are actually included under venting of gas. However, the ERT concluded that the estimates of CO<sub>2</sub> from venting and CO<sub>2</sub> and N<sub>2</sub>O from flaring of gas, and CO<sub>2</sub>, CH<sub>4</sub> and N<sub>2</sub>O from flaring of oil for which the GPG provides default EFs are missing which results in an underestimation of the emissions from the category.</p>					
<p><b>Recommendation by ERT:</b></p> <p>The ERT recommends that Romania estimate emissions of CO<sub>2</sub>, CH<sub>4</sub>, and N<sub>2</sub>O from venting and flaring of oil and gas that were reported as “NE” in the 2011 inventory submission CRF tables in line with the GPG and inventory reporting guidelines. In line with the GPG, the Party should apply the EFs provided in Table 2-16 of the GPG to calculate these emission estimates.</p> <p>Emissions of CO<sub>2</sub> from venting of gas should be estimated using the EF for gas transmission and storage transmission venting in Table 2-16 of the GPG (0.0000085 Gg CO<sub>2</sub> per km transmission pipeline) and appropriate AD.</p> <p>Emissions of CO<sub>2</sub>, CH<sub>4</sub> and N<sub>2</sub>O from flaring of oil should be estimated using the EFs for flaring of conventional oil production in Table 2-16 of the GPG (0.067 Gg CO<sub>2</sub> per 10<sup>3</sup> m<sup>3</sup> conventional oil production; 0.000005–0.00027 Gg CH<sub>4</sub> per 10<sup>3</sup> m<sup>3</sup> conventional oil production; and 0.00000064 Gg N<sub>2</sub>O per 10<sup>3</sup> m<sup>3</sup> conventional oil production) and AD already reported in the CRF tables for venting of oil.</p> <p>Emissions from CO<sub>2</sub> and N<sub>2</sub>O from flaring of gas should be estimated using the EFs for gas production flaring in Table 2-16 of the GPG (0.0018 Gg CO<sub>2</sub> per 10<sup>6</sup> m<sup>3</sup> gas production; and 0.000000021 Gg N<sub>2</sub>O per 10<sup>6</sup> m<sup>3</sup> gas production) and AD already reported in the CRF tables for venting of gas.</p>					
<p><b>Response / Information by Party:</b></p>					
<p><b>Potential problem unsolved? Rationale:</b></p>					

## Overview of inventory potential problems identified for 2009

### Annex A sources

#### 2011 GHG inventory review

#### Romania

**Abbreviations:**

GPG: IPCC good practice guidance

AD: activity data, EF: emission factor, IEF: implied emission factor

KC: key category, ERT: Expert Review Team

Sector, category, sub-category (with code)	Gas	KC / non-KC	Identified inventory problem in terms of:		
			Missing estimate	Estimate provided but not in line with GPG	Estimate provided but lack of transparency
(d-1) 2. Industrial processes, 2.F Consumption of halocarbons and SF <sub>6</sub> , 2.F.1 Refrigeration and Air Conditioning Equipment	HFCs	Non-KC		X	
<p><b>Description of problem identified:</b></p> <p>During the review week, the ERT noted that Romania is not applying the GPG tier 2 methodology (bottom-up approach) correctly to estimate HFC emissions from refrigeration and air conditioning equipment. The GPG section 3.7 provides information on required data collection and some EFs in order to allow calculation of actual emissions from HFC consumption for the specified emission sources following the tier 2 approach.</p> <p>The NIR states that a questionnaire is sent to the regional environmental agencies for distribution to agents which use F-gases, including possible uses of HFCs for refrigeration and air conditioning equipment. However, the questionnaire is not comprehensive enough to gather all the necessary data required for the use of the tier 2 methodology. The questionnaire, distributed annually through the local environmental agencies cannot provide:</p> <ul style="list-style-type: none"> <li>• Information on all refrigeration and air conditioning equipment in use filled with HFCs;</li> <li>• The number of units disposed of each year.</li> </ul> <p>Furthermore, the ERT noted that the coverage of agents to whom the questionnaire was distributed may not be complete. The ERT noted that the estimation of HFCs emissions from this category may be underestimated for whole time series.</p>					
<p><b>Recommendation by ERT:</b></p> <p>The ERT recommends that Romania collect the missing activity data and estimate HFC emissions from refrigeration and air conditioning equipment, in accordance with the GPG tier 2 approach (i.e. top-down approach, which requires less data from extensive surveys, although still requiring data on annual sales of new gases). In cases where the data cannot be collected in the specified time frame following the Article 8 guidelines, the Party may provide estimates using a proxy, such as an average emissions rate from a cluster of countries based on a driver such as population as an interim solution until AD are collected.</p>					
<p><b>Response / Information by Party:</b></p>					
<p><b>Potential problem unsolved? Rationale:</b></p>					



## Overview of inventory potential problems identified for 2009

### Annex A sources

### 2011 GHG inventory review

#### Romania

Sector, category, sub-category (with code)	Gas	KC / non-KC	Identified inventory problem in terms of:		
			Missing estimate	Estimate provided but not in line with GPG	Estimate provided but lack of transparency
(d-2) 2. Industrial processes, 2.F Consumption of halocarbons and SF <sub>6</sub> , 2.F.2 Foam Blowing	HFCs	Non-KC	X		
<p><b>Description of problem identified:</b></p> <p>The ERT noted that the HFC emissions from foam blowing are reported as not occurring (“NO”) both in the CRF tables and the NIR. The ERT noted that the underlying assumption to estimate HFC emissions from this category is based on a questionnaire sent to agents that use F-gases, including possible uses of HFCs for foam blowing. The questionnaire responses do not include any information on HFC emissions from foam blowing. Nevertheless, there are a number of applications/products that possibly contain HFCs in closed-cell foams. These are likely imported and could lead to emissions during the lifetime of these application/products. According to the latest updated scientific knowledge, the following products may be investigated, as they are made of closed type cell foams:</p> <ul style="list-style-type: none"> <li>• Polyurethane (PU) Continuous Panel</li> <li>• PU Discontinuous Panel</li> <li>• PU Appliance Foam</li> <li>• PU Injected Foam</li> <li>• PU Continuous Block</li> <li>• PU Discontinuous Block</li> <li>• PU Spray Foam</li> <li>• PU Spray Foam</li> <li>• PU Pipe-in-Pipe</li> <li>• Extruded Polystyrene</li> <li>• Phenolic Block</li> <li>• Phenolic Laminate</li> </ul> <p>Emissions may also arise from open cell foam production if producers are not been covered by the yearly survey.</p> <p>The ERT concluded the reporting of the HFCs emissions as “NO” may result in an underestimation of the emissions.</p>					
<p><b>Recommendation by ERT:</b></p> <p>The ERT recommends that Romania:</p> <ol style="list-style-type: none"> <li>1) Identify if foam blowing does occur in the country. If not, Romania must provide information to justify that it does not occur.</li> <li>2) Make sure that the emissions are not already included under any other category in the inventory. If so, change the notation key to included elsewhere (“IE”) and provide information justifying that it is included elsewhere.</li> <li>3) Estimate emissions of HFCs from foam blowing for the time series using the available methodology after collection of the missing data. In cases where the data cannot be collected in the specified time frame following the Article 8 guidelines, the Party could provide estimates using a proxy, such as an average emissions rate from a cluster of countries based on a driver such as population as an interim solution until AD are collected.</li> </ol>					
<p><b>Response / Information by Party:</b></p>					
<p><b>Potential problem unsolved? Rationale:</b></p>					

## Overview of inventory potential problems identified for 2009

### Annex A sources

#### 2011 GHG inventory review

#### Romania

Sector, category, sub-category (with code)	Gas	KC / non-KC	Identified inventory problem in terms of:		
			Missing estimate	Estimate provided but not in line with GPG	Estimate provided but lack of transparency
(d-3) 2. Industrial processes, 2.F Consumption of halocarbons and SF <sub>6</sub> , 2.F.3 Fire Extinguishers	HFCs	Non-KC		X	
<p><b>Description of problem identified:</b></p> <p>The ERT noted that the per capita HFC emissions from fire extinguishers in Romania (in 2009, 0.11 kg/capita) are lower than for other Annex I Parties that are undergoing the process of transition to a market economy (in 2009, Bulgaria 0.37 kg/capita, Hungary 4.93 kg/capita, Ukraine 0.62 kg/capita). The ERT noted that the underlying assumption to estimate HFC emissions from fire extinguishers is based on the questionnaires sent to the agents that use F-gases, including possible uses of HFCs for fire extinguishers. The reported HFC emission estimate is based on the aggregation of the answers to the questionnaire. Furthermore, the ERT noted that the coverage of agents to whom the questionnaire was distributed may not be complete. Therefore, the ERT considers that HFC emissions from fire extinguishers may be underestimated.</p>					
<p><b>Recommendation by ERT:</b></p> <p>The ERT recommends that Romania identify if there is a possible underestimate of HFC emissions from fire extinguishers. If not, Romania must justify and document its finding. If HFC emissions are considered to be underestimated Romania should collect the missing activity data, and estimate the HFC emissions from this category according to the GPG for the entire time series. In cases where the data cannot be collected in the specified time frame following the Article 8 guidelines, the Party could provide estimates using a proxy, such as an average emissions rate from a cluster of countries based on a driver such as population as an interim solution until AD are collected.</p>					
<p><b>Response / Information by Party:</b></p>					
<p><b>Potential problem unsolved? Rationale:</b></p>					

## Overview of inventory potential problems identified for 2009

### Annex A sources

#### 2011 GHG inventory review

#### Romania

Sector, category, sub-category (with code)	Gas	KC / non-KC	Identified inventory problem in terms of:		
			Missing estimate	Estimate provided but not in line with GPG	Estimate provided but lack of transparency
(d-4) 2. Industrial processes, 2.F Consumption of halocarbons and SF <sub>6</sub> , 2.F.4 Aerosols/Metered Dose Inhalers	HFCs	Non-KC	X		
<p><b>Description of problem identified:</b></p> <p>The ERT noted that the HFC emissions from aerosols/metered dose inhalers are reported as not occurring (“NO”) both in the CRF tables and the NIR. The ERT noted that the underlying assumption to estimate HFC emissions from aerosols/metered dose inhalers is based on the questionnaires sent to the agents that use F-gases, including possible uses of HFCs species for aerosol/ metered dose inhaler applications. No information on HFC emissions use in aerosol/metered dose inhaler applications was provided in the responses. Furthermore, the ERT noted that the coverage of agents to whom the questionnaire was distributed may not be complete.</p> <p>The ERT noted HFCs emissions from this category are reported by other Annex I Parties that are undergoing the process of transition to a market economy. Based on this information, the ERT considers that the HFC emissions from this category may be underestimated.</p>					
<p><b>Recommendation by ERT:</b></p> <p>The ERT recommends that Romania:</p> <ol style="list-style-type: none"> <li>1) Identify if the category occurs in Romania. If not, Romania must provide justification that it does not occur.</li> <li>2) Ensure that the emissions are not already included under any other category in the inventory. If so, change the notation key to included elsewhere (“IE”) and provide justification that it is included elsewhere.</li> <li>3) Estimate emissions of HFCs from aerosols/metered dose inhalers for the entire time series using the available methodology after collection of the missing data. In cases where the data cannot be collected in the specified time frame following the Article 8 guidelines, the Party could provide estimates using a proxy, such as an average emissions rate from a cluster of countries based on a driver such as population as an interim solution until AD are collected.</li> </ol>					
<p><b>Response / Information by Party:</b></p>					
<p><b>Potential problem unsolved? Rationale:</b></p>					

## Overview of inventory potential problems identified for 2009

### Annex A sources

#### 2011 GHG inventory review

#### Romania

**Abbreviations:**

GPG: IPCC good practice guidance

AD: activity data, EF: emission factor, IEF: implied emission factor

KC: key category, ERT: Expert Review Team

Sector, category, sub-category (with code)	Gas	KC / non-KC	Identified inventory problem in terms of:		
			Missing estimate	Estimate provided but not in line with GPG	Estimate provided but lack of transparency
(e) 6. Waste, 6.B. Waste Water Handling, 6.B.2. Domestic and Commercial Waste Water	N <sub>2</sub> O	Non-KC	x		
<p><b>Description of problem identified:</b></p> <p>The ERT noted that Romania estimated N<sub>2</sub>O emissions from human sewage using the method provided in the Revised 1996 IPCC Guidelines. The method estimates the sewage N based on per capita protein consumption, population in the country, and fraction of N in protein. In its estimates Romania used the population connected to sewage systems only and not the population in the country.</p> <p>The ERT concluded that this could lead to a potential underestimation of N<sub>2</sub>O emissions from human sewage disposal.</p>					
<p><b>Recommendation by ERT:</b></p> <p>The ERT recommends that Romania submit the revised estimates and documentation provided to the ERT during the review week.</p>					
<p><b>Response / Information by Party:</b></p>					
<p><b>Potential problem unsolved? Rationale:</b></p>					

-----