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Agenda item 4 (a)

NATIONAL COMMUNICATIONS FROM PARTIES INCLUDED IN ANNEX I TO THE CONVENTION

GUIDELINES FOR THE PREPARATION OF NATIONAL COMMUNICATIONS

Draft conclusions by the Chairman

Addendum

COMMON REPORTING FORMAT

Notes on the common reporting format

1. This common reporting format consists of summary, reporting and overview tables from the Revised 1996 IPCC Guidelines for National Greenhouse Gas Inventories (IPCC Guidelines), plus newly developed sectoral background tables. Users of IPCC software and of the software for converting from CORINAIR to IPCC formats should be aware that a few small additions have been made to the tables taken from the IPCC Guidelines.

2. Some sectoral background tables call for the calculation of *implied emission factors*. These are top-down ratios between the Party's emissions estimate and aggregate activity data. The implied emission factors are intended solely for purposes of comparison. They will not necessarily be the emission factors actually used in the original emissions estimate, unless of course this was a simple multiplication based on the same aggregate activity data used to calculate the implied emission factor.

3. Consistent with the IPCC Guidelines memo items, such as emissions estimates from international marine and aviation bunker fuels, should be reported in the appropriate tables, but not included in national totals.

4. Parties should use the documentation boxes provided at the foot of the sectoral background tables to improve clarity.

5. Parties should complete all cells calling for emissions or removals estimates, activity data or emission factors. The following standard indicators should be used where data are not entered.

(a) "NO" (not occurring) for emissions by sources and removals by sinks of greenhouse gases that do not occur for a particular gas or source/sink category within a country;

(b) "NE" (not estimated) for existing emissions by sources and removal by sinks of greenhouse gases which have not been estimated. Where "NE" is used in an inventory for emissions or removals of CO_2, N_2O, CH_4, HFCs, PFCs, or SF_6, the Party should indicate using the completeness table 9, why emissions could not be estimated;

(c) "NA" (not applicable) for activities in a given source/sink category that do not result in emissions or removals of a specific gas. If categories in the common reporting format for which NA is applicable are shaded, they do not need to be filled in;

(d) "IE" (included elsewhere) for emissions by sources and removals by sinks of greenhouse gases estimated but included elsewhere in the inventory instead of the expected source/sink category. Where "IE" is used in an inventory, the Party should indicate using the completeness table 9, where in the inventory the emissions or removals from the displaced source/sink category have been included and the Party should give the reasons for this inclusion deviating from the expected category;

(e) "C" (confidential) for emissions by sources and removals by sinks of greenhouse gases which could lead to the disclosure of confidential information, given the provisions of paragraph 19 of the UNFCCC reporting guidelines on annual inventories;

(f) "0" for emissions by sources and removals by sinks of greenhouse gases which are estimated to be less than one half the unit being used to record the inventory table, and which would therefore appear as zero after rounding. The amount should still be included in the relevant subtotals. In the sectoral background tables, Parties should provide data as detailed as methods allow.

6. Parties should complete the data in the additional information boxes. Where the information called for is inappropriate because of the methodological tier used by the Party, the corresponding cells should be completed using the indicator NA.

7. Table 5 (the land-use change and forestry sectoral report) should be completed by Parties. The corresponding sectoral background tables 5 A-D follow the IPCC Guidelines and should be completed by Parties that use IPCC default methods. The species and ecosystem types given in the background tables are examples and may be changes by Parties to better describe national circumstances. Parties which do not use the sectoral background tables 5 A-D should complete alternative formats, when they are available.

8. Neither the order nor the notation of columns, rows or cells should be changed in the tables because this will complicate data compilation. Any additions to the existing disaggregation of source and sink categories should be made using the spare rows and columns provided. Additional changes that are made should be clearly indicated both by using a red font and by underlining the information contained in changed cells.

9. Where recalculations of previously submitted data are necessary for the reasons set out in paragraphs 10 and 11 of the UNFCCC reporting guidelines on annual inventories, Parties should complete recalculation table 8a for every year from the base year, and table 8b. Parties should also complete the other tables of the common reporting format for the base year which have changed due to the recalculations.

LIST OF TABLES

Agriculture

Land-use change and forestry

Waste

Other tables

SUMMARY 1.A SUMMARY REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES (IPCC TABLE 7A)

Year :

(Sheet 1 of 3)

SUMMARY REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES														
GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO_2 Emissions	CO_2 Removals	CH_4	N_2O	$HFCs^{(1)}$		$PFCs^{(1)}$		SF_6		NO_x	CO	NMVOC	SO_2
					P	A	P	A	P	A				
	(Gg)				CO_2 equivalent (Gg)				(Gg)		(Gg)			
Total National Emissions and Removals														
1. Energy														
A. Fuel Combustion (Sectoral Approach)														
1. Energy Industries														
2. Manufacturing Industries and Construction														
3. Transport														
4. Other Sectors														
5. Other (please specify)														
B. Fugitive Emissions from Fuels														
1. Solid Fuels														
2. Oil and Natural Gas														
2. Industrial Processes														
A. Mineral Products														
B. Chemical Industry														
C. Metal Production														
D. Other Production														
E. Production of Halocarbons and Sulphur Hexafluoride														
F. Consumption of Halocarbons and Sulphur Hexafluoride														
G. Other (please specify)														

P = Potential emissions based on Tier 1 Approach.

A = Actual emissions based on Tier 2 Approach.

(1) The emissions of HFCs and PFCs are to be expressed as CO_2 equivalent emissions. Data on disaggregated emissions of HFCs and PFCs are to be provided in Table 2(II).

SUMMARY 1.A SUMMARY REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES (IPCC TABLE 7A)

Year :

(Sheet 2 of 3)

SUMMARY REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES CO_2 equivalent emissions (Gg)														
GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO_2 Emissions	CO_2 Removals	CH_4	N_2O	HFCs		PFCs		SF_6		NO_x	CO	NMVOC	SO_2
					P	A	P	A	P	A				
	(Gg)				CO_2-eq. (Gg)		CO_2-eq. (Gg)		(Gg)					
3. Solvent and Other Product Use														
4. Agriculture														
A. Enteric Fermentation														
B. Manure Management														
C. Rice Cultivation														
D. Agricultural Soils	(1)	(1)												
E. Prescribed Burning of Savannas														
F. Field Burning of Agricultural Residues														
G. Other (please specify)														
5. Land-Use Change and Forestry	(1)	(1)												
A. Changes in Forest and Other Woody Biomass Stocks	(1)	(1)												
B. Forest and Grassland Conversion														
C. Abandonment of Managed Lands	(1)	(1)												
D. CO_2 Emissions and Removals from Soil	(1)	(1)												
E. Other (please specify)														
6. Waste														
A. Solid Waste Disposal on Land														
B. Wastewater Handling														
C. Waste Incineration	(2)													
D. Other (please specify)														
7. Other (please specify)														

(1) Please do not provide an estimate of both CO_2 emissions and CO_2 removals. You should estimate "net" emissions of CO_2 and place a single number in either the CO_2 emissions or CO_2 removals column, as appropriate. Please note that for the purposes of reporting, the signs for uptake are always (-) and for emissions (+).

(2) Note that CO2 from waste incineration should only be included if it stems from non-biogenic or inorganic waste streams.

SUMMARY 1.A SUMMARY REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES (IPCC TABLE 7A)
(Sheet 3 of 3)

SUMMARY REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES														
GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO_2 Emissions	CO_2 Removals	CH_4	N_2O	HFCs		PFCs		SF_6		NO_x	CO	NMVOC	SO_2
					P	A	P	A	P	A				
	(Gg)				CO_2 equivalent (Gg)				(Gg)					
Memo Items [1]														
International Bunkers														
Aviation														
Marine														
Multilateral Operations														
CO_2 Emissions from Biomass														

[1] Memo Items are not included in the national totals.

SUMMARY 1.B SHORT SUMMARY REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES (IPCC TABLE 7B)

Year :

(Sheet 1 of 1)

SHORT SUMMARY REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES															
GREENHOUSE GAS SOURCE AND SINK CATEGORIES		CO_2 Emissions	CO_2 Removals	CH_4	N_2O	HFCs[1]		PFCs[1]		SF_6		NO_x	CO	NMVOC	SO_2
						P	A	P	A	P	A				
		(Gg)				CO_2-eq. (Gg)		CO_2-eq. (Gg)		(Gg)					
Total National Emissions and Removals															
1. Energy	Reference Approach[2]														
	Sectoral Approach[2]														
A. Fuel Combustion															
B. Fugitive Emissions from Fuels															
2. Industrial Processes															
3. Solvent and Other Product Use															
4. Agriculture															
5. Land-Use Change and Forestry		[3]	[3]												
6. Waste															
7. Other															
Memo Items:															
International Bunkers															
Aviation															
Marine															
Multilateral Operations															
CO_2 Emissions from Biomass															

P = Potential emissions based on Tier 1 Approach.

A = Actual emissions based on Tier 2 Approach.

[1] The emissions of HFCs and PFCs are to be expressed as CO_2 equivalent emissions. Data on disaggregated emissions of HFCs and PFCs are to be provided in Table 2(II).

[2] For verification purposes, countries are asked to report the results of their calculations using the Reference Approach and to explain any differences with the Sectoral Approach. Calculations using the Sectoral Approach should be used for calculating national totals. Do not include the results of both the Reference Approach and the Sectoral Approach in national totals.

[3] Please do not provide an estimate of both CO_2 emissions and CO_2 removals. You should estimate "net" emissions of CO_2 and place a single number in either the CO_2 emissions or CO_2 removals column, as appropriate. Please note that for the purposes of reporting, the signs for uptake are always (-) and for emissions (+).

Year:

SUMMARY 2 CO_2 EQUIVALENT EMISSIONS SUMMARY REPORT
(Sheet 1 of 1)

GHG Source and Sink Categories	CO_2 equivalent emissions (Gg)						
CO_2 equivalent emissions (Gg)	**CO_2 [(1)]**	**CH_4**	**N_2O**	**HFC**	**PFC**	**SF_6**	**Total**
Total (net emissions) [(1)]							
1. Energy							
A. Fuel Combustion (Sectoral Approach)							
1. Energy Industries							
2. Manufacturing Industries and Construction							
3. Transport							
4. Other Sectors							
5. Other							
B. Fugitive Emissions from Fuels							
1. Solid Fuels							
2. Oil and Natural Gas							
2. Industrial Processes							
A. Mineral Products							
B. Chemical Industry							
C. Metal Production							
D. Other Production							
E. Production of Halocarbons and SF_6							
F. Consumption of Halocarbons and SF_6							
G. Other							
3. Solvent and Other Product Use							
4. Agriculture							
A. Enteric Fermentation							
B. Manure Management							
C. Rice Cultivation							
D. Agricultural Soils							
E. Prescribed Burning of Savannas							
F. Field Burning of Agricultural Residues							
G. Other							
5. Land-Use Change and Forestry [(1)]							
6. Waste							
A. Solid Waste Disposal on Land							
B. Wastewater Handling							
C. Waste Incineration							
D. Other							
7. Other (please specify)							
Memo Items							
International Bunkers							
Aviation							
Marine							
Multilateral Operations							
CO_2 Emissions from Biomass							

[(1)] For CO_2 emissions from Land-Use Change and Forestry (LUCF) the net emissions (emissions - removals) are to be reported. Please note that for the purposes of reporting, the signs for uptake are always (-) and for emissions (+).

GHG Source and Sink Categories	CO_2 equivalent emissions (Gg)					
Land-Use Change and Forestry	CO_2 emissions	CO_2 removals	Net CO_2 emissions / removals	CH_4	N_2O	Total emissions
A. Changes in Forest and Other Woody Biomass Stocks						
B. Forest and Grassland Conversion						
C. Abandonment of Managed Lands						
D. CO_2 Emissions and Removals from Soil						
Total CO_2 equivalent emissions from *LUCF*						

Total CO_2 equivalent emissions without *Land-Use Change and Forestry* [(a)]	
Total CO_2 equivalent emissions with *Land-Use Change and Forestry* [(a)]	

[(a)] The information in these rows is requested to facilitate comparison of data, since Parties differ in the way they report emissions and removals from Land-Use Change and Forestry.

SUMMARY 3 SUMMARY REPORT ON METHODS AND EMISSION FACTORS USED

Year :

(Sheet 1 of 2)

SUMMARY REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES												
GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO_2		CH_4		N_2O		HFCs		PFCs		SF_6	
	Method Applied [1]	Emission Factor [2]	Method Applied [1]	Emission Factor [2]	Method Applied [1]	Emission Factor [2]	Method Applied [1]	Emission Factor [2]	Method Applied [1]	Emission Factor [2]	Method Applied [1]	Emission Factor [2]
1. Energy												
A. Fuel Combustion (Sectoral Approach)												
1. Energy Industries												
2. Manufacturing Industries and Construction												
3. Transport												
4. Other Sectors												
5. Other (please specify)												
B. Fugitive Emissions from Fuels												
1. Solid Fuels												
2. Oil and Natural Gas												
2. Industrial Processes												
A. Mineral Products												
B. Chemical Industry												
C. Metal Production												
D. Other Production												
E. Production of Halocarbons and Sulphur Hexafluoride												
F. Consumption of Halocarbons and Sulphur Hexafluoride												
G. Other (please specify)												

[1] Use the following notation keys to specify the method applied: D (default IPCC), RA (Reference Approach), T1 (IPCC Tier 1), T1a, T1b, T1c (IPCC Tier 1a, Tier 1b and Tier 1c, respectively), T2 (IPCC Tier 2), T3 (IPCC Tier 3), C (CORINAIR), CS (Country Specific), M (Model). If using more than one method, enumerate the relevant methods. Explanations of any modifications to the default IPCC methods, as well as information on the proper use of methods per source category where more than one method is indicated and explanations on the country specific methods, should be provided in the documentation box of the relevant Sectoral Background Data Table.

[2] Use the following notation keys to specify the emission factor used: D (IPCC default), C (CORINAIR), CS (Country Specific), PS (Plant Specific), M (Model). Where a mix of emission factors has been used, use different notations in one and the same cells with further explanation in the documentation box of the relevant Sectoral Background Data Table.

SUMMARY 3 SUMMARY REPORT ON METHODS AND EMISSION FACTORS USED

Year :

(Sheet 2 of 2)

SUMMARY REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES												
GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO_2		CH_4		N_2O		HFCs		PFCs		SF_6	
	Method Applied [1]	Emission Factor [2]	Method Applied [1]	Emission Factor [2]	Method Applied [1]	Emission Factor [2]	Method Applied [1]	Emission Factor [2]	Method Applied [1]	Emission Factor [2]	Method Applied [1]	Emission Factor [2]
3. Solvent and Other Product Use												
4. Agriculture												
A. Enteric Fermentation												
B. Manure Management												
C. Rice Cultivation												
D. Agricultural Soils												
E. Prescribed Burning of Savannas												
F. Field Burning of Agricultural Residues												
G. Other (please specify)												
5. Land-Use Change and Forestry												
A. Changes in Forest and Other Woody Biomass Stocks												
B. Forest and Grassland Conversion												
C. Abandonment of Managed Lands												
D. CO_2 Emissions and Removals from Soil												
E. Other (please specify)												
6. Waste												
A. Solid Waste Disposal on Land												
B. Wastewater Handling												
C. Waste Incineration												
D. Other (please specify)												
7. Other (please specify)												

[1] Use the following notification keys to specify the method applied: D (default IPCC), RA (Reference Approach), T1 (IPCC Tier 1), T1a, T1b, T1c (IPCC Tier 1a, Tier 1b and Tier 1c, respectively), T2 (IPCC Tier 2), T3 (IPCC Tier 3), C (CORINAIR), CS (Country Specific), M (Model). If using more than one method, enumerate the relevant methods. Explanations of any modifications to the default IPCC methods, as well as information on the proper use of methods per source category where more than one method is indicated and explanations on the country specific methods, should be provided in the documentation box of the relevant Sectoral Background Data Table.

[2] Use the following notation keys to specify the emission factor used: D (IPCC default), C (CORINAIR), CS (Country Specific), PS (Plant Specific), M (Model). Where a mix of emission factors has been used, use different notations in one and the same cells with further explanation in the documentation box of the relevant Sectoral Background Data Table.

TABLE 1 SECTORAL REPORT FOR ENERGY

Year :

(Sheet 1 of 2)

SECTORAL REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES (Gg)							
GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO_2	CH_4	N_2O	NO_x	CO	NMVOC	SO_2 [1]
Total Energy							
A. Fuel Combustion Activities (Sectoral Approach)							
1. Energy Industries							
a. Public Electricity and Heat Production							
b. Petroleum Refining							
c. Manufacture of Solid Fuels and Other Energy Industries							
2. Manufacturing Industries and Construction							
a. Iron and Steel							
b. Non-Ferrous Metals							
c. Chemicals							
d. Pulp, Paper and Print							
e. Food Processing, Beverages and Tobacco							
f. Other (please specify)							
3. Transport							
a. Civil Aviation							
b. Road Transportation							
c. Railways							
d. Navigation							
e. Other (please specify)							

TABLE 1 SECTORAL REPORT FOR ENERGY

Year :

(Sheet 2 of 2)

SECTORAL REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES (Gg)							
GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO_2	CH_4	N_2O	NO_x	CO	NMVOC	SO_2
4. Other Sectors							
a. Commercial/Institutional							
b. Residential							
c. Agriculture/Forestry/Fishing							
5. Other (please specify)[1]							
a. Stationary							
b. Mobile							
B. Fugitive Emissions from Fuels							
1. Solid Fuels							
a. Coal Mining							
b. Solid Fuel Transformation							
c. Other (please specify)							
2. Oil and Natural Gas							
a. Oil							
b. Natural Gas							
c. Venting and Flaring							
Venting							
Flaring							
Other (please specify)							
Memo Items [2]							
International Bunkers							
Aviation							
Marine							
Multilateral Operations							
CO_2 Emissions from Biomass							

[1] Include military fuel use under this category.

[2] Please do not include in energy totals.

Year :

TABLE 1.A SECTORAL BACKGROUND DATA FOR ENERGY

Fuel combustion activities (Sectoral approach)

(Sheet 1 of 4)

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	AGGREGATE ACTIVITY DATA		IMPLIED EMISSION FACTORS [1]			EMISSIONS		
	Consumption		CO_2	CH_4	N_2O	CO_2 [2]	CH_4	N_2O
	(TJ)	[3]	(t/TJ)	(kg/TJ)	(kg/TJ)	(Gg)	(Gg)	(Gg)
1.A. FUEL COMBUSTION								
Liquid Fuels								
Solid Fuels								
Gaseous Fuels								
Biomass [2]								
Other fuels								
1.A.1. Energy Industries								
Liquid Fuels								
Solid Fuels								
Gaseous Fuels								
Biomass								
Other fuels								
a. Public Electricity and Heat Production								
Liquid Fuels								
Solid Fuels								
Gaseous Fuels								
Biomass								
Other fuels								
b. Petroleum Refining								
Liquid Fuels								
Solid Fuels								
Gaseous Fuels								
Biomass								
Other fuels								
c. Manufacture of Solid Fuels and Other Energy Industries								
Liquid Fuels								
Solid Fuels								
Gaseous Fuels								
Biomass								
Other fuels								

[1] Accurate estimation of CH_4 and N_2O emissions depends on combustion conditions, technology, and emission control policy, as well as fuel characteristics. Therefore, caution should be used when comparing the implied emission factors.

[2] Carbon dioxide emissions from biomass are reported under memo items.

[3] Activity data should be calculated using net calorific values (NCV) as specified by the Revised 1996 IPCC Guidelines. If gross calorific values (GCV) were used, please indicate this by placing a "G" in this column.

Note: For the coverage of fuel categories, please refer to the Revised 1996 IPCC Guidelines for National Greenhouse Gas Inventories, Volume 1 (Common Reporting Framework, section 1.2, p. 1.19).

TABLE 1.A SECTORAL BACKGROUND DATA FOR ENERGY

Year :

Fuel combustion activities (Sectoral approach)

(Sheet 2 of 4)

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	AGGREGATE ACTIVITY DATA		IMPLIED EMISSION FACTORS			EMISSIONS		
	Consumption	[1]	CO_2	CH_4	N_2O	CO_2	CH_4	N_2O
	(TJ)		(t/TJ)	(kg/TJ)	(kg/TJ)	(Gg)	(Gg)	(Gg)
1.A.2 Manufacturing Industries and Construction								
Liquid Fuels								
Solid Fuels								
Gaseous Fuels								
Biomass								
Other fuels								
a. Iron and Steel								
Liquid Fuels								
Solid Fuels								
Gaseous Fuels								
Biomass								
Other fuels								
b. Non-Ferrous Metals								
Liquid Fuels								
Solid Fuels								
Gaseous Fuels								
Biomass								
Other fuels								
c. Chemicals								
Liquid Fuels								
Solid Fuels								
Gaseous Fuels								
Biomass								
Other fuels								
d. Pulp, Paper and Print								
Liquid Fuels								
Solid Fuels								
Gaseous Fuels								
Biomass								
Other fuels								
e. Food Processing, Beverages and Tobacco								
Liquid Fuels								
Solid Fuels								
Gaseous Fuels								
Biomass								
Other fuels								
f. Other (please specify)								
Liquid Fuels								
Solid Fuels								
Gaseous Fuels								
Biomass								
Other fuels								

[1] Activity data should be calculated using net calorific values (NCV) as specified by the Revised 1996 IPCC Guidelines. If gross calorific values (GCV) are used, please indicate this by placing a "G" in this column.

[2] Carbon dioxide emissions from biomass are reported under memo items.

TABLE 1.A SECTORAL BACKGROUND DATA FOR ENERGY

Year :

Fuel combustion activities (Sectoral approach)

(Sheet 3 of 4)

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	AGGREGATE ACTIVITY DATA Consumption		IMPLIED EMISSION FACTORS			EMISSIONS		
			CO_2	CH_4	N_2O	CO_2	CH_4	N_2O
	(TJ)	[1]	(t/TJ)	(kg/TJ)	(kg/TJ)	(Gg)	(Gg)	(Gg)
1.A.3 Transport								
Gasoline								
Diesel								
Natural gas								
Solid Fuels								
Biomass								
Other fuels (please specify)								
a. Civil Aviation								
Gasoline								
Jet Kerosene								
b. Road Transportation								
Gasoline								
Diesel oil								
Natural gas								
Biomass								
Other fuels (please specify)								
c. Railways								
Solid fuels								
Liquid fuels								
d. Navigation								
Coal								
Residual oil								
Other fuels (please specify)								
e. Other Transportation								
Liquid fuels								
Solid fuels								
Gaseous fuels								

[1] Activity data should be calculated using net calorific values (NCV) as specified by the Revised 1996 IPCC Guidelines. If gross calorific values (GCV) are used, please indicate this by placing a "G" in this column.

TABLE 1.A SECTORAL BACKGROUND DATA FOR ENERGY

Year :

Fuel combustion activities (Sectoral approach)

(Sheet 4 of 4)

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	AGGREGATE ACTIVITY DATA Consumption		IMPLIED EMISSION FACTORS			EMISSIONS		
			CO_2	CH_4	N_2O	CO_2	CH_4	N_2O
	(TJ)	(1)	(t/TJ)	(kg/TJ)	(kg/TJ)	(Gg)	(Gg)	(Gg)
1.A.4 Other Sectors								
Liquid Fuels								
Solid Fuels								
Gaseous Fuels								
Biomass								
Other fuels								
a. Commercial/Institutional								
Liquid Fuels								
Solid Fuels								
Gaseous Fuels								
Biomass								
Other fuels								
b. Residential								
Liquid Fuels								
Solid Fuels								
Gaseous Fuels								
Biomass								
Other fuels								
c. Agriculture/Forestry/Fishing								
Liquid Fuels								
Solid Fuels								
Gaseous Fuels								
Biomass								
Other fuels								
1.A.5 Other (Not elsewhere specified)(1)								
Liquid Fuels								
Solid Fuels								
Gaseous Fuels								
Biomass								
Other fuels								

(1) Activity data should be calculated using net calorific values (NCV) as specified by the Revised 1996 IPCC Guidelines. If gross calorific values (GCV) are used, please indicate this by placing a "G" in this column.

(2) Include military fuel use under this category.

Documentation box:

Year :

TABLE 1.B.1 SECTORAL BACKGROUND DATA FOR ENERGY

Fugitive emissions from solid fuels

(Sheet 1 of 1)

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA	IMPLIED EMISSION FACTOR		EMISSIONS	
	Amount of fuel produced [1] (Mt)	CH_4 (kg/t)	CO_2 (kg/t)	CH_4 (Gg)	CO_2 (Gg)
1. B. 1. a. Coal Mining and Handling					
i. Underground Mines[2]					
Mining activities					
Post-Mining activities					
ii. Surface Mines[2]					
Mining activities					
Post-Mining activities					
1. B. 1. b. Solid Fuel Transformation					
1. B. 1. c. Other (please specify)[3]					

Additional Information

Types of coal mined in different type of mines (class/rank of coal)	*Percentage from the given production figure*	
	underground	*surface*
Anthracite		
Coking coal		
Other bituminous coal		
Sub-bituminous coal		
Lignite		

Amount of CH_4 recovered and utilized (Gg)[a]:	
Mines with recovery systems (number)	

[a] for underground mines.

[1] Specify whether the fuel amount is based on the run-of-mine (ROM) production or on the saleable production.

[2] Emissions for "Mining Activities" and "Post-Mining Activities" are calculated with the activity data in lines "Underground Mines" and "Surface Mines" respectively.

[3] Use the "Other" rows to enter any other solid fuel related activities resulting in fugitive emissions.

Note: There are no clear references to the coverage of 1.B.1.b. and 1.B.1.c. in the Revised 1996 IPCC Guidelines. Make sure that the emissions entered here are not reported elsewhere. If they are reported under another source category, give reference in the documentation box.

Documentation box:

Year :

TABLE 1.B.2 SECTORAL BACKGROUND DATA FOR ENERGY
Fugitive emissions from oil and natural gas
(Sheet 1 of 1)

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA		IMPLIED EMISSION FACTORS			EMISSIONS		
	Description [1]	value	CO_2 (kg/PJ) [2]	CH_4 (kg/PJ) [2]	N_2O (kg/PJ) [2]	CO_2 (Gg)	CH_4 (Gg)	N_2O (Gg)
1. B. 2. a. Oil [3]								
i. Exploration	*(e.g. number of wells drilled)*							
ii. Production [4]	*(e.g. PJ of oil produced)*							
iii. Transport	*(e.g. PJ oil loaded in tankers)*							
iv. Refining / Storage	*(e.g. PJ oil refined)*							
v. Distribution of oil products	*(e.g. PJ oil refined)*							
vi. Other								
1. B. 2. b. Natural Gas								
Exploration								
i. Production [4] / Processing	*(e.g. PJ gas produced)*							
ii. Transmission	*(e.g. PJ gas consumed)*							
Distribution	*(e.g. PJ gas consumed)*							
iii. Other Leakage	*(e.g. PJ gas consumed)*							
at industrial plants and power stations								
in residential and commercial sectors								
1. B. 2. c. Venting [5]								
i. Oil	*(e.g. PJ oil produced)*							
ii. Gas	*(e.g. PJ gas produced)*							
iii. Combined								
Flaring								
i. Oil	*(e.g. PJ gas consumption)*							
ii. Gas	*(e.g. PJ gas consumption)*							
iii. Combined								
1.B.2.d. Other (please specify) [6]								

Additional Information

Unit	*value*
Pipelines length (km)	
Number of oil wells	
Other relevant information	
(specify)	

[1] Specify the activity data used and fill in the activity data unit column, as given in the examples in brackets. Specify whether the fuel amount is based on the raw material production or on the saleable production. Note cases where more than one variable is used as activity data.

[2] Specify the unit of the implied emission factor where it is not kg GHG/ PJ.

[3] Use the category also to cover emissions from combined oil and gas production fields. Natural gas processing and distribution from these fields should be included under 1.B.2.b.ii and 1.B.2.b.iii, respectively.

[4] If using default emission factors these categories will include emissions from production other than venting and flaring.

[5] If using default emission factors, emissions from venting and flaring from all oil and gas production should be accounted for here. Parties using the IPCC software could report those emissions together, indicating so in the documentation box.

[6] For example, fugitive CO_2 emissions from production of geothermal power could be reported here.

Documentation box:

Year :

WORKSHEET 1-1

CO_2 from energy sources (Reference approach)

(Sheet 1 of 1)

FUEL TYPES			Production	Imports	Exports	International Bunkers	Stock Change	Apparent Consumption	Conversion Factor [1] (TJ/Unit)	Apparent Consumption (TJ)	Carbon Emission Factor (t C/TJ)	Carbon Content (Gg C)	Carbon Stored (Gg C)	Net Carbon Emissions (Gg C)	Fraction of Carbon Oxidized	Actual CO_2 Emissions (Gg CO_2)
Liquid Fossil	Primary Fuels	Crude Oil														
		Orimulsion														
		Natural Gas Liquids														
	Secondary Fuels	Gasoline														
		Jet Kerosene														
		Other Kerosene														
		Shale Oil														
		Gas / Diesel Oil														
		Residual Fuel Oil														
		LPG														
		Ethane														
		Naphtha														
		Bitumen														
		Lubricants														
		Petroleum Coke														
		Refinery Feedstocks														
		Other Oil														
Liquid Fossil Totals																
Solid Fossil	Primary Fuels	Anthracite [2]														
		Coking Coal														
		Other Bit. Coal														
		Sub-bit. Coal														
		Lignite														
		Oil Shale														
		Peat														
	Secondary Fuels	BKB & Patent Fuel														
		Coke Oven/Gas Coke														
Solid Fuel Totals																
Gaseous Fossil		Natural Gas (Dry)														
Total																
Biomass total																
		Solid Biomass														
		Liquid Biomass														
		Gas Biomass														

[1] To convert quantities expressed in natural units to energy units, use the net calorific values. If gross calorific values (GCV) are used in this table, please indicate this with a footnote.

[2] If anthracite is not separately available, include with Other Bituminous Coal.

Year :

TABLE 1.C SECTORAL BACKGROUND DATA FOR ENERGY

Feedstocks and non-energy use of fuels

(Sheet 1 of 1)

Fuel type [1]	ACTIVITY DATA		IMPLIED EMISSION FAC	ESTIMATES
	Fuel Quantity (TJ)	Fraction of Carbon Stored	Carbon Emission Factor (t C/TJ)	Carbon Stored (Gg C)
Naphtha [2]				
Lubricants				
Bitumen				
Coal Oils and Tars (from Coking Coal)				
Natural Gas[2]				
Gas/Diesel Oil [2]				
Propane [2]				
Butane [2]				
Ethane [2]				
Other (specify)				

[1] Where fuels are used in different industries, please enter in different rows.

[2] Enter these fuels when they are used as feedstocks.

Additional Information [a]

CO_2 not emitted ($Gg\ CO_2$)	Subtracted from (specify source category)

(a) The fuel lines continue from the left side table

Note: The table is consistent with the IPCC Guidelines. Parties that take into account the emissions associated with the use and disposal of these feedstocks could continue to use their methodologies, and provide explanation notes in the documentation box below.

Documentation box: A fraction of energy carriers is stored in such products as plastics or asphalt. The non-stored fraction of the carbon in the energy carrier or product is oxidized, resulting in carbon dioxide emissions, either during the use of the energy carriers in the industrial production (e.g. fertilizer production), or during use of the products (e.g. solvents, lubricants), or in both (e.g. monomers). To report associated emissions use the above table, filling an extra "Additional Information" table, as shown below:

Associated CO_2 emissions (Gg)	Allocated under (Specify source category)[a]

[a] e.g. industrial processes, waste incineration, etc.

TABLE 1.D SECTORAL BACKGROUND DATA FOR ENERGY

Year :

International bunkers and multilateral operations

(Sheet 1 of 1)

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA	IMPLIED EMISSION FACTORS			EMISSIONS		
	Consumption (TJ)	CO_2 (t/TJ)	CH_4 (kg/TJ)	N_2O (kg/TJ)	CO_2 (Gg)	CH_4 (Gg)	N_2O (Gg)
Marine Bunkers							
Gasoline							
Gas/Diesel Oil							
Residual Fuel Oil							
Lubricants							
Coal							
Other (specify)							
Aviation Bunkers							
Jet Kerosene							
Gasoline							
Multilateral Operations [1]							

Additional Information

Fuel consumption	Allocation (percent)	
	Domestic	International
Marine		
Aviation		

For calculating the allocation of fuel consumption, use the sums of fuel consumption by domestic navigation and aviation (Table 1.A) and by international bunkers (Table 1.D).

[1] Parties may choose to report or not report the activity data and emission factors for multilateral operation consistent with the principle of confidentiality stated in the UNFCCC reporting guidelines on inventories. In any case, Parties should report the emissions from multilateral operations, where available, under the memo items section of the Summary tables and in the Sectoral Report table for energy.

Note: In accordance with the Revised 1996 IPCC Guidelines, international aviation and marine bunker fuel emissions from fuel sold to ships or aircraft engaged in international transport should be excluded from national totals and reported separately for informational purposes only.

Documentation box: Please explain how the consumption of international marine and aviation bunkers fuels was estimated and separated from the domestic consumption.

TABLE 1.E COMPARISON OF CO_2 EMISSIONS FROM FUEL COMBUSTION
(Sheet 1 of 1)

Year :

Fuel types	Reference Approach		National Approach [1]		Difference [2]	
	Energy consumption (PJ)	CO_2 emissions (Gg)	Energy consumption (PJ)	CO_2 emissions (Gg)	Energy consumption (%)	CO_2 emissions (%)
Liquid fuels (excluding international bunkers)						
Solid fuels (excluding international bunkers)						
Gaseous fuels						
Other (specify)						
Total						

[1] "National Approach" is used to indicate the approach (different from the Reference Approach) followed by the Party to estimate its CO_2 emissions from fuel combustion reported in the national GHG inventory.

[2] Difference of the Reference Approach over the National Approach i.e. difference = 100x((RA-NA)/NA), where NA = National Approach and RA = Reference Approach.

Note: In addition to estimating CO_2 emissions from fuel combustion by sector, Parties should also estimate these emissions using the IPCC Reference Approach, as found in volume 2 of the IPCC Guidelines (Worksheet 1-1). The Reference Approach is to assist in verifying the sectoral data. Parties should also complete the above tables to compare the alternative estimates, and if the estimates lie more than 2 percent apart, should explain the source of this difference in the documentation box provided.

Documentation box: Please explain the source of any difference greater than 2 percent.

TABLE 2(I) SECTORAL REPORT FOR INDUSTRIAL PROCESSES
(Sheet 1 of 2)

Year :

SECTORAL REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES													
GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO_2	CH_4	N_2O	HFCs[(1)]		PFCs[(1)]		SF_6		NO_x	CO	NMVOC	SO_2
				P	A	P	A	P	A				
	(Gg)	(Gg)	(Gg)	CO_2 equivalent (Gg)		CO_2 equivalent (Gg)		(Gg)	(Gg)	(Gg)	(Gg)	(Gg)	(Gg)
Total Industrial Processes													
A. Mineral Products													
1. Cement Production													
2. Lime Production													
3. Limestone and Dolomite Use													
4. Soda Ash Production and Use													
5. Asphalt Roofing													
6. Road Paving with Asphalt													
7. Other (please specify)													
B. Chemical Industry													
1. Ammonia Production													
2. Nitric Acid Production													
3. Adipic Acid Production													
4. Carbide Production													
5. Other (please specify)													
C. Metal Production													
1. Iron and Steel Production													
2. Ferroalloys Production													
3. Aluminium Production													
4. SF_6 Used in Aluminium and Magnesium Foundries													
5. Other (please specify)													

P = Potential emissions based on Tier 1 Approach. A = Actual emissions based on Tier 2 Approach. This only applies in sectors where methods exist for both tiers.

(1) The emissions of HFCs and PFCs are to be expressed as CO_2 equivalent emissions. Data on disaggregated emissions of HFCs and PFCs are to be provided in Table 2(II).

TABLE 2(I) SECTORAL REPORT FOR INDUSTRIAL PROCESSES
(Sheet 2 of 2)

Year :

SECTORAL REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES (Gg)														
GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO_2	CH_4	N_2O	$HFCs^{(1)}$		$PFCs^{(1)}$		SF_6		NO_x	CO	NMVOC	SO_2
				P	A	P	A	P	A				
	(Gg)			CO_2 equivalent (Gg)				(Gg)					
D. Other Production													
1. Pulp and Paper													
2. Food and Drink[2]													
E. Production of Halocarbons and Sulphur Hexafluoride													
1. By-product Emissions[3]													
2. Fugitive Emissions													
3. Other (please specify)													
F. Consumption of Halocarbons and Sulphur Hexafluoride													
1. Refrigeration and Air Conditioning Equipment													
2. Foam Blowing													
3. Fire Extinguishers													
4. Aerosols/ Metered Dose Inhalers													
5. Solvents													
6. Other (please specify)													
Semiconductor manufacture													
Electrical equipment													
G. Other (please specify)													

P = Potential emissions based on Tier 1 Approach. A= Actual emissions based on Tier 2 Approach. This only applies in sectors where methods exist for both tiers.

(1) The emissions of HFCs and PFCs are to be expressed as CO_2 equivalent emissions. Data on disaggregated emissions of HFCs and PFCs are to be provided in Table 2(II).

(2) CO_2 from food and drink production (e.g. gasification of water) can be of biological or non-biological origin. Only information on CO_2 emissions of non-biological origin should be reported.

(3) Include production of HCFC-22 and other.

TABLE 2(I).A-G SECTORAL BACKGROUND DATA FOR INDUSTRIAL PROCESSES

Year :

CO_2, CH_4 and N_2O emissions

(Sheet 1 of 2)

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA Production/Consumption Quantity		IMPLIED EMISSION FACTORS						EMISSIONS		
			CO_2		CH_4		N_2O		CO_2	CH_4	N_2O
	Description [1]	(kt)	(t/t)	[2]	(t/t)	[2]	(t/t)	[2]	(t/t)	(t/t)	(t/t)
A. Mineral Products											
1. Cement Production	*(e.g. cement or clinker production)*										
2. Lime Production											
3. Limestone and Dolomite Use											
4. Soda Ash Production and Use											
5. Asphalt Roofing											
6. Road Paving with Asphalt											
7. Other (please specify) Glass Production											
B. Chemical Industry											
1. Ammonia Production [3]											
2. Nitric Acid Production											
3. Adipic Acid Production											
4. Carbide Production											
silicon carbide											
calcium carbide											
5. Other (please specify)											
carbon black											
ethylene											
dichloroethylene											
styrene											
methanol											
other (please specify)											

[1] Where the IPCC Guidelines provide options for activity data, e.g. cement or clinker for estimating the emissions from cement production, specify the activity data used (as shown in the example in brackets) in order to make the choice of emission factor more transparent.

[2] Enter "R" to specify cases in which the final emissions reported in the Sectoral Report tables are reduced with the quantities of emission recovery, oxidation, destruction, transformation. The emissions factors before such adjustments should be entered. Parties should include quantitative information on recovery, oxidation, destruction, and transformation in inventory documentation.

[3] To avoid double counting make offsetting deductions from fuel consumption (e.g. natural gas) in ammonia production, first for feedstock use of the fuel, and then to a sequestering use of the feedstock.

Year :

TABLE 2(I).A-G SECTORAL BACKGROUND DATA FOR INDUSTRIAL PROCESSES
CO_2, CH_4 and N_2O emissions
(Sheet 2 of 2)

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA Production/Consumption Quantity		IMPLIED EMISSION FACTORS						EMISSIONS		
			CO_2		CH_4		N_2O		CO_2	CH_4	N_2O
	Description [1]	(kt)	(t/t)	[2]	(t/t)	[2]	(t/t)	[2]	(t/t)	(t/t)	(t/t)
C. Metal Production [3]											
1. Iron and Steel Production											
steel											
pig iron											
sinter											
coke											
2. Ferroalloys Production											
3. Aluminium Production											
5. Other (please specify)											
D. Other Production											
1. Pulp and Paper											
2. Food and Drink											
G. Other (please specify)											

[1] Where the IPCC Guidelines provide options for activity data, e.g. cement or clinker for estimating the emissions from cement production, specify the activity data used (as shown in the example in brackets) in order to make the choice of emission factor more transparent.

[2] Enter "R" to specify cases in which the final emissions reported in the Sectoral Report tables are reduced, with the quantities of emission recovery, oxidation, destruction or transformation. The emission factors before such adjustments should be entered. Parties should include quantitative information on recovery, oxidation, destruction, and transformation in inventory documentation.

[3] More specific information (e.g. data on virgin and recycled steel production) could be provided in the documentation box.

Note: In case of confidentiality of the activity data information, the entries should provide aggregate figures but there should be a note indicating this.

Documentation box:

TABLE 2(II) SECTORAL REPORT FOR INDUSTRIAL PROCESSES

Year :

Emissions of HFCs, PFCs and SF_6

(Sheet 1 of 2)

SECTORAL REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES (t)																							
GREENHOUSE GAS SOURCE AND SINK CATEGORIES	HFC-23	HFC-32	HFC-41	HFC-43-10mee	HFC-125	HFC-134	HFC-134a	HFC-152a	HFC-143	HFC-143a	HFC-227ea	HFC-236fa	HFC-245ca	Total HFCs	CF_4	C_2F_6	C_3F_8	C_4F_{10}	c-C_4F_8	C_5F_{12}	C_6F_{14}	Total PFCs	SF_6
C. Metal Production																							
Aluminium Production																							
SF_6 Used in Aluminium Foundries																							
SF_6 Used in Magnesium Foundries																							
E. Production of Halocarbons and SF_6																							
1. By-product Emissions (Specify production)																							
Production of HCFC-22																							
Other																							
2. Fugitive Emissions																							
3. Other (please specify)																							
F. Consumption of Halocarbons and SF_6 (actual emissions)																							
1. Refrigeration and Air Conditioning Equipment																							
2. Foam Blowing																							
3. Fire Extinguishers																							
4. Aerosols/Metered Dose Inhalers																							
5. Solvents																							
6. Semiconductor manufacture																							
7. Electrical equipment																							
8. Other (please specify)																							
Total																							

Note: Where information is confidential the entries should provide aggregate figures but there should be a note indicating this. Other gases with GWP not yet agreed upon by the COP, should be reported in Table 9 (Completeness), sheet 2.

TABLE 2(II) SECTORAL REPORT FOR INDUSTRIAL PROCESSES
Emissions of HFCs, PFCs and SF_6
(Sheet 2 of 2)

Year :

SECTORAL REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES (t)																							
GREENHOUSE GAS SOURCE AND SINK CATEGORIES	HFC-23	HFC-32	HFC-41	HFC-43-10mee	HFC-125	HFC-134	HFC-134a	HFC-152a	HFC-143	HFC-143a	HFC-227ea	HFC-236fa	HFC-245ca	Total HFCs	CF_4	C_2F_6	C_3F_8	C_4F_{10}	c-C_4F_8	C_5F_{12}	C_6F_{14}	Total PFCs	SF_6
Consumption of Halocarbons and SF_6 (potential emissions) [1]																							
production																							
production of new substance																							
recycled substance																							
import: in bulk																							
in products [2]																							
export: in bulk																							
in products [2]																							
destroyed amount																							
GWP values used	11700	650	150	1300	2800	1000	1300	140	300	3800	2900	6300	560		6500	9200	7000	7000	8700	7500	7400		23900
Actual emissions (Gg CO_2 eq.)																							
C Metal Production																							
E Production of Halocarbons and SF_6																							
F Consumption of Halocarbons and SF_6																							
Potential emissions from consumption of halocarbons and SF_6 (Gg CO_2 eq.)																							
Consumption of halocarbons and SF_6 Potential/Actual Emissions Ratio [3]																							

[1] When potential emissions estimates are available in a disaggregated manner corresponding to the subsectors for actual emissions defined on sheet 1 of this table, these should be reported in an annex to sheet 2, using the format of sheet 1, sector F.

[2] Relevant just for Tier 1b.

[3] This ratio of potential to actual emissions applies only to emissions from the consumption of halocarbons and SF_6. Emissions from metal production and from the production of halocarbons and SF_6 should not be included in this ratio.

Note: As stated in the revised UNFCCC guidelines, Parties should report actual emissions of HFCs, PFCs and SF_6, where data are available, providing disaggregated data by chemical and source category in units of mass and in CO_2 equivalents. Parties reporting actual emissions should also report potential emissions for the sources where the concept of potential emissions applies, for reasons of transparency and comparability.

Year:

TABLE 2(II). C, E SECTORAL BACKGROUND DATA FOR INDUSTRIAL PROCESSES
Metal production; Production of Halocarbons and SF_6
(Sheet 1 of 1)

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA[1]		IMPLIED EMISSION FACTORS[3]	
	Description[2]	(t)	(kg/t)	[4]
C. PFCs and SF_6 from metal production				
PFC				
CF_4				
C_2F_6				
SF_6				
Aluminium foundries	*(SF_6 consumption)*			
Magnesium foundries				
E. Production of Halocarbons and SF_6				
1. By-product emissions				
Production of HCFC-22				
HFC-23				
Other				
(specify chemical)				
2. Fugitive emissions				
HFC *(specify chemical)*				
PFC *(specify chemical)*				
SF_6				
3. Other				

[1] Where applying Tier 1b (for C), Tier 2 (for E) and country specific methods, specify any other relevant activity data used in the documentation box below.

[2] Specify the activity data used as shown in the examples within brackets.

[3] Aggregate emission factors before recovery.

[4] Enter "R" to specify cases in which the final emissions reported in the Sectoral Report table are reported after substracting the quantities of emission recovery, oxidation, destruction, transformation. Use the documentation box for further explanations.

Note: Where the activity data are confidential, the entries should provide aggregate figures, but there should be a note indicating this.

Documentation box:

Year :

TABLE 2(II).F SECTORAL BACKGROUND DATA FOR INDUSTRIAL PROCESSES

Consumption of Halocarbons and SF_6 [1]

(Sheet 1 of 2)

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA *Amount of fluid*			IMPLIED EMISSION FACTORS			EMISSIONS		
	filled in new manufactured products	in operating systems (average annual stocks)	remained in products at decommissioning	Product manufacturing factor	Product life factor	Disposal loss factor	from manufacturing	from stocks	from disposal
	(t)	(t)	(t)	(%)	(%)	(%)	(t)	(t)	(t)
1 Refrigeration									
Air Conditioning Equipment									
Domestic refrigeration									
HFC/PFC/SF_6 *(specify chemical)*[2]									
Commercial refrigeration									
Transport refrigeration									
Industrial refrigeration									
Stationary air-conditioning									
Mobile air-conditioning									
2 Foam Blowing									
Hard foam									
Soft foam									
3 Fire Extinguishers									

[1] Indicate with a footnote or in the documentation box whether a "Bottom-up Approach" or a "Sales-Based Approach" is used.

[2] Use the rows left empty to specify the chemical consumed

Note: Where the activity data are confidential, the entries should provide aggregate figures, but there should be a note indicating this.

Year :

TABLE 2(II).F SECTORAL BACKGROUND DATA FOR INDUSTRIAL PROCESSES

Consumption of Halocarbons and SF_6 [1]

(Sheet 2 of 2)

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA *Amount of fluid*			AGGREGATE EMISSION FACTORS			EMISSIONS		
	filled in new manufactured	in operating systems (average annual stocks)	remained in products at decommissioning	Product manufacturing factor	Product life factor	Disposal loss factor	from manufacturing	from stocks	from disposal
	(t)	(t)	(t)	(%)	(%)	(%)	(t)	(t)	(t)
4 Aerosols									
Metered Dose Inhalers									
Other									
5 Solvents									
6 Semiconductors									
7 Electric equipment									
8 Other (please specify)									

[1] Indicate as a footnote or in the documentation box whether a "Bottom-up Approach" or a "Sales-Based Approach" is used.

[2] Use the rows left empty to specify the chemical consumed.

Note: Where the activity data are confidential, the entries should provide aggregate figures, but there should be a note indicating this.

Documentation box:

TABLE 3 SECTORAL REPORT FOR SOLVENT AND OTHER PRODUCT USE

Year :

(Sheet 1 of 1)

SECTORAL REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES (Gg)			
GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO_2	N_2O	NMVOC
Total Solvent and Other Product Use			
A. Paint Application			
B. Degreasing and Dry Cleaning			
C. Chemical Products, Manufacture and Processing			
D. Other (please specify)			
(Use of N_2O for anesthesia)			
(N_2O from fire extinguishers)			
(N_2O from aerosol cans)			
(Other use of N_2O)			

Please account for the quantity of carbon released in the form of NMVOC in both the NMVOC and the CO_2 columns.

Note: The IPCC Guidelines do not provide methodologies for the calculation of emissions of N_2O from solvent and other product use. If you have reported such data, you should provide additional information (activity data and emission factors) used to make these estimates.

Year :

TABLE 3.A-D SECTORAL BACKGROUND DATA FOR SOLVENT AND OTHER PRODUCT USE
(Sheet 1 of 1)

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA		IMPLIED EMISSION FACTORS	
	Description	(kt)	CO_2 (kg/t)	N_2O (kg/t)
A. Paint Application				
B. Degreasing and Dry Cleaning				
C. Chemical Products, Manufacture and Processing				
D. Other (please specify)[1]				
(Use of N_2O for anesthesia)				
(N_2O from fire extinguishers)				
(N_2O from aerosol cans)				
(Other use of N_2O)				

[1] Some probable sources are provided in brackets. Complement the list with other relevant sources.

Note: The table follows the format of the IPCC Sectoral Report for Solvent and Other Product Use, although some of the source categories are not relevant to the direct GHG emissions.

Documentation box:

Year :

TABLE 4 SECTORAL REPORT FOR AGRICULTURE
(Sheet 1 of 2)

SECTORAL REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES (Gg)					
GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CH_4	N_2O	NO_x	CO	NMVOC
Total Agriculture					
A. Enteric Fermentation					
1. Cattle					
2. Buffalo					
3. Sheep					
4. Goats					
5. Camels and Llamas					
6. Horses					
7. Mules and Asses					
8. Swine					
9. Poultry					
10. Other (please specify)					
B. Manure Management					
1. Cattle					
2. Buffalo					
3. Sheep					
4. Goats					
5. Camels and Llamas					
6. Horses					
7. Mules and Asses					
8. Swine					
9. Poultry					

Year :

TABLE 4 SECTORAL REPORT FOR AGRICULTURE
(Sheet 2 of 2)

SECTORAL REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES (Gg)					
GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CH_4	N_2O	NO_x	CO	NMVOC
B. Manure Management (continued)					
10. Anaerobic Lagoons					
11. Liquid Systems					
12. Solid Storage and Dry Lot					
13. Other (please specify)					
C. Rice Cultivation					
1. Irrigated					
2. Rainfed					
3. Deep Water					
4. Other (please specify)					
D. Agricultural Soils					
1. Direct Soil Emissions					
2. Animal Production					
3. Indirect Emissions					
4. Other (please specify)					
E. Prescribed Burning of Savannas					
F. Field Burning of Agricultural Residues [1]					
1 . Cereals					
2. Pulse					
3 . Tuber and Root					
4 . Sugar Cane					
5 . Other (please specify)					
G. Other (please specify)					

Note: The IPCC Guidelines do not provide methodologies for the calculation of CH_4 emissions, CH_4 and N_2O removals from agricultural soils, or CO_2 emissions from savanna burning or agricultural residues burning. If you have reported such data, you should provide additional information (activity data and emissions factors) used to make these estimates.

TABLE 4.A SECTORAL BACKGROUND DATA FOR AGRICULTURE

Year :

Enteric fermentation

(Sheet 1 of 1)

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA AND OTHER RELATED INFORMATION			IMPLIED EMISSION FACTORS
	Population size [1] (1000 head)	Average daily feed intake (MJ/day)	CH_4 conversion (%)	CH_4 (kg CH_4/head/yr)
1. Cattle				
Dairy Cattle[2]				
Non-Dairy Cattle				
2. Buffalo				
3. Sheep				
4. Goats				
5. Camels and Llamas				
6. Horses				
7. Mules and Asses				
8. Swine				
9. Poultry				
10. Other (please specify)				

Additional Information (for Tier 2)[a]

Disaggregated list of animals [b] / *Indicators:*		*Dairy Cattle*	*Non-Dairy Cattle*	*Other*		
Weight	*(kg)*					
Weight Gain	*(kg/day)*					
Feeding Situation		*e.g stall*				
Milk yield	*(kg/day)*					
Work	*(hrs/day)*					
Pregnant	*(%)*					
Digestibility of feed	*(%)*					

[a] Compare to Tables A-1 and A-2 of the Revised 1996 IPCC Guidelines for National Greenhouse Gas Inventories: Reference manual (pp. 4.31-4.34).

[b] Disaggregate to the split actually used. Add columns to the table if necessary.

[1] Parties are encouraged to provide detailed livestock population data by animal type and region in a separate table. This consistent set of animal population statistics should be used to estimate CH_4 emissions from enteric fermentation, CH_4 and N_2O from manure management, N_2O direct emissions from soil and N_2O emissions associated with manure production, as well as for emissions from the use of manure as fuel, and sewage-related emissions reported in the waste sector.

[2] Including dairy heifers.

Documentation box:

TABLE 4.B(a) SECTORAL BACKGROUND DATA FOR AGRICULTURE

Year :

CH_4 emissions from manure management

(Sheet 1 of 1)

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA AND OTHER RELATED INFORMATION							IMPLIED EMISSION FACTORS
	Population size [1]	Allocation by climate region [2]			Typical Animal mass	VS[3] daily excretion	CH_4 producing potential (Bo)	CH_4
		cool	temperate	warm				
	(1000 head)	(%)			(kg)	(kg dm/head/yr)	(CH_4 m^3/kg VS)	(kg CH_4/head/yr)
1. Cattle								
Dairy Cattle[4]								
Non-Dairy Cattle								
2. Buffalo								
3. Sheep								
4. Goats								
5. Camels and Llamas								
6. Horses								
7. Mules and Asses								
8. Swine								
9. Poultry								

[1] See footnote 1, Sectoral background data table 4.A.

[2] Climate regions are defined in terms of annual average temperature as follows: Cool = less than 15°C; Temperate = 15°C to 25°C inclusive; and Warm = greater than 25°C.

[3] Volatile Solids (see page 4.23 of the Revised 1996 IPCC Guidelines, Volume 3 (Reference Manual)).

[4] Including dairy heifers.

Additional Information for Tier 2

Animal category[a]	Indicator	Climate region	*Animal Waste Management System*					
			anaerobic lagoon	*liquid system*	*daily spread*	*solid storage and dry lot*	*pasture range paddock*	*other*
Dairy Cattle	Allocation(%)	cool						
		temperate						
		warm						
	MCF[b]	cool						
		temperate						
		warm						
Non-Dairy Cattle	Allocation(%)	cool						
		temperate						
		warm						
	MCF[b]	cool						
		temperate						
		warm						
Swine	Allocation(%)	cool						
		temperate						
		warm						
	MCF[b]	cool						
		temperate						
		warm						

[a] Copy the above table as many times as necessary.

[b] Methane Conversion Factor (see page 4.9 of the Revised 1996 IPCC Guidelines, Volume 3 (Reference Manual). In the case of use of other climate region categorization, please replace the entries in the cells with the climate regions for which the MCFs are specified.

Documentation box:

TABLE 4.B(b) SECTORAL BACKGROUND DATA FOR AGRICULTURE

Year :

N_2O emissions from manure management

(Sheet 1 of 1)

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA AND OTHER RELATED INFORMATION								IMPLIED EMISSION FACTORS	
	Population size [1] (1000s)	Nitrogen excretion (kg N/head/yr)	N excretion per AWMS[2] (kg N/yr)						Emission factor per AWMS (kg N_2O-N/kg N)	
			anaerobic lagoon	liquid system	daily spread[3]	solid storage and dry lot	pasture range and paddock [3]	other		
Non-Dairy Cattle									anaerobic lagoon	
Dairy Cattle									liquid system	
Sheep									solid storage and dry lot	
Swine									other (please specify)	
Poultry										
Other (please specify)										
Total per AWMS										

[1] See footnote 1, Sectoral background data table 4.A.

[2] AWMS - Animal Waste Management System.

[3] Animal waste applied to soils are to be used in Sectoral Background Data Table 4.D.

Documentation box:

Year :

TABLE 4.C SECTORAL BACKGROUND DATA FOR AGRICULTURE
Rice cultivation
(Sheet 1 of 1)

GREENHOUSE GAS SOURCE AND SINK CATEGORIES		ACTIVITY DATA AND OTHER RELATED INFORMATION			IMPLIED EMISSION FACTOR [1]	EMISSIONS
		Harvested area [2]	Organic amendments added[3]:		CH_4	CH_4
		(m^2/yr)	type	(t/ha)	(g/m^2)	(Gg)
1. Irrigated						
Continuously flooded						
Intermittently flooded	Single Aeration					
	Multiple Aeration					
2. Rainfed						
Flood prone						
Drought prone						
3. Deep Water						
Water depth 50-100 cm						
Water depth > 100 cm						
4. Other (please specify)						
Upland rice[4]						
Total [4]						

[1] The aggregate emission should take account of all relevant corrections for continuously flooded fields without organic amendment plus the correction for the organic amendments, if used. Aggregate also the effect of different soil characteristics, if taken into account, on methane emissions.

[2] Harvested area is the cultivated area multiplied by the number of cropping seasons per year.

[3] Specify dry weight or wet weight for organic amendments.

[4] These rows are included to allow comparison with the international statistics. Upland rice emissions are assumed to be zero and are ignored in the emission calculations.

Documentation box:
When dissagregating by more than one region within a country, provide additional information in the documentation box.
Where available, provide activity data and scaling factors by soil type and rice cultivar.

Year :

TABLE 4.D SECTORAL BACKGROUND DATA FOR AGRICULTURE

Agricultural soil

(Sheet 1 of 1)

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA AND OTHER RELATED INFORMATION		IMPLIED EMISSION FACTORS	EMISSIONS
	Description	value	(kg N_2O-N/kg N)[1]	(Gg N_2O) [2]
Direct Soil Emissions				
Synthetic Fertilizers	*Use of synthetic fertilizers (kg N/yr)*			
Animal Wastes Applied to Soils	*Manure from daily spread*[3] *(kg N/yr)*			
N-fixing Crops	*Dry pulses and soybeans produced*[4] *(kg dry biomass/yr)*			
Crop residue	*Dry production of other crops* [4] *(kg dry biomass/yr)*			
Cultivation of Histosols	*Area of cultivated organic soils (ha)*			
Animal Production	*N excretion on pasture range and paddock (kg N/yr)*			
Indirect Emissions				
Atmospheric Deposition	*Volatized N (NH_3 and NOx) from fertilizers and animal wastes (kg N/yr)*			
Nitrogen leaching and Run-off	*N from fertilizers and animal wastes that is lost through leaching and run off (kg N/yr)*			
Other (please specify)				

[1] Note that the dimension of the activity data for cultivation of histosols is [kg N_2O-N/ha].
[2] To convert from N_2O-N to N_2O emissions, multiply by 44/28.
[3] Take the value from the Sectoral background data table 4.B(b).
[4] Take the value from the Sectoral background data table 4.F.

Additional Information

Fraction	Description	Value
$Frac_{BURN}$	Fraction of crop residue burned	
$Frac_{FUEL}$	Fraction of livestock N excretion in excrements burned for fuel	
$Frac_{GASF}$	Fraction of synthetic fertilizer N applied to soils that volatilizes as NH_3 and NOx	
$Frac_{GASM}$	Fraction of livestock N excretion that volatilizes as NH_3 and NOx	
$Frac_{GRAZ}$	Fraction of livestock N excreted and deposited onto soil during grazing	
$Frac_{LEACH}$	Fraction of N input to soils that is lost through leaching and runoff	
$Frac_{NCRBF}$	Fraction of N in non-N-fixing crop	
$Frac_{NCRO}$	Fraction of N in N-fixing crop	
$Frac_{R}$	Fraction or crop residue removed from the field as crop	

[a] Use the fractions as specified on pages 4.92 - 4.113 of the Revised 1996 IPCC Guidelines for National Greenhouse Gas Inventories, Volume 3 (Reference manual).

Documentation box:

Year :

TABLE 4.E SECTORAL BACKGROUND DATA FOR AGRICULTURE
Prescribed burning of savanna
(Sheet 1 of 1)

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA AND OTHER RELATED INFORMATION					IMPLIED EMISSION FACTORS		EMISSIONS	
	Area of Savanna Burned	Average aboveground biomass density	Fraction of savanna burned	Biomass burned	Nitrogen fraction in biomass	(kg/t dm)		(kg/t dm)	
(specify ecological zone)	(k ha/yr)	(t dm/ha)		(Gg dm)		CH_4	N_2O	CH_4	N_2O

Additional Information

	Living	*Dead*
Fraction of aboveground biomass		
Fraction oxidized		
Carbon fraction		

Documentation box:

TABLE 4.F SECTORAL BACKGROUND DATA FOR AGRICULTURE

Year :

Field burning of agricultural residue

(Sheet 1 of 1)

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA AND OTHER RELATED INFORMATION					IMPLIED EMISSION FACTORS		EMISSIONS	
	Crop production (t)	Residue/ Crop ratio	Dry matter fraction	Fraction burned	Nitrogen fraction in biomass	CH_4 (kg/t dm)	N_2O (kg/t dm)	CH_4 (Gg)	N_2O (Gg)
1. Cereals									
Wheat									
Barley									
Maize									
Oats									
Rye									
Rice									
Other (please specify)									
2. Pulse [1]									
Dry bean									
Peas									
Soybeans									
Other (please specify)									
3 Tuber and Root									
Potatoes									
Other (please specify)									
4 Sugar Cane									
5 Other (please specify)									

[1] To be used in Sectoral Background Data Table 4 D: Agricultural Soil.

Documentation box:

TABLE 5 SECTORAL REPORT FOR LAND-USE CHANGE AND FORESTRY
(Sheet 1 of 1)

Year :

SECTORAL REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES (Gg)							
GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO_2 Emissions	CO_2 Removals	Net CO_2 Emissions/ Removals	CH_4	N_2O	NO_x	CO
Total Land-Use Change and Forestry							
A. Changes in Forest and Other Woody Biomass Stocks							
1. Tropical Forests							
2. Temperate Forests							
3. Boreal Forests							
4. Grasslands/Tundra							
5. Other (please specify)							
Harvested Wood [1]							
B. Forest and Grassland Conversion [2]							
1. Tropical Forests							
2. Temperate Forests							
3. Boreal Forests							
4. Grasslands/Tundra							
5. Other (please specify)							
C. Abandonment of Managed Lands							
1. Tropical Forests							
2. Temperate Forests							
3. Boreal Forests							
4. Grasslands/Tundra							
5. Other (please specify)							
D. CO_2 Emissions and Removals from Soil							
Cultivation of Mineral Soils							
Cultivation of Organic Soils							
Liming of Agricultural Soils							
Forest Soils							
Other (please specify) [3]							
E. Other (please specify)							

[1] Following the IPCC Guidelines, the harvested wood should be reported under Changes in Forest and Other Woody Biomass Stocks (see page 5.17 of the Revised 1996 IPCC Guidelines for National Greenhouse Gas Inventories, Volume 3 (Reference Manual)).

[2] Include only the emissions of CO_2 from Forest and Grassland Conversion. Associated removals should be reported under section D.

[3] Include emissions from soils not reported under sections A, B and C.

Note: This table should be used by all Parties. Sectoral Background Data Tables on Land-use Change and Forestry should be filled in only by Parties using the IPCC default methodology. Parties that use country specific methods and models should report information on them in a transparent manner, also providing suggestions for a possible Background Table suitable for their calculation method.

TABLE 5.A SECTORAL BACKGROUND DATA TABLE FOR LAND-USE CHANGE AND FORESTRY

Year:

Changes in forest and other woody biomass stocks

(Sheet 1 of 1)

GREENHOUSE GAS SOURCE AND SINK CATEGORIES			ACTIVITY DATA		EMISSION FACTORS	ESTIMATES
			Area of Forest/Biomass Stocks (kha)	Average Annual Growth Rate (t dm/ha)	Implied Carbon Uptake Factor (t C/ha)	Carbon Uptake Increment (Gg C)
Tropical	Plantations	*Acacia spp.*				
		Eucalyptus spp.				
		Tectona grandis				
		Pinus spp				
		Pinus caribaea				
		Mixed Hardwoods				
		Mixed Fast-Growing Hardwoods				
		Mixed Softwoods				
	Other Forests	Moist				
		Seasonal				
		Dry				
	Other (specify)					
Temperate	Plantations					
	Commercial	Evergreen				
		Deciduous				
	Other					
Boreal						

Non-Forest Trees (specify type)	Number of trees (1000s of trees)	Annual Growth Rate (kt dm/1000 trees)	Carbon Uptake Factor (t C/tree)	Carbon Uptake (Gg C)
Total Annual Growth Increment				
Gg CO_2				

	Amount of Biomass Removed (kt dm)	Carbon Emission Factor (t C/t dm)	Carbon Release (Gg C)
Total biomass removed in Commercial Harvest			
Traditional Fuelwood Consumed			
Total Other Wood Use			
Total Biomass Consumption from Stocks [1]			
Annual Fellings (incl. Harvest)			
Other Changes in Carbon Stocks			
Gg CO_2			
Net Annual Carbon Uptake (+) or Release (-) (Gg C)			
Net Annual CO_2 Emissions (+) or Removals (-) (Gg CO_2)			

[1] Make sure that the quantity of biomass burned off-site is subtracted from this total.

Documentation box:

TABLE 5.B SECTORAL BACKGROUND DATA TABLE FOR LAND-USE CHANGE AND FORESTRY

Year :

Forest and grassland conversion

(Sheet 1 of 1)

GREENHOUSE GAS SOURCE AND SINK CATEGORIES		ACTIVITY DATA AND OTHER RELATED INFORMATION							IMPLIED EMISSION FACTORS FACTORS					EMISSIONS				
		On and off site burning				Decay of Above-ground Biomass[1]			Burning				Decay	Burning				Decay
									on site			off site		on site			off site	
		Area Converted Annually	Annual Net Loss of Biomass	Quantity of Biomass Burned		Average Area Converted	Average Annual Net Loss of Biomass	Average Quantity of Biomass Left to Decay	CO_2	CH_4	N_2O	CO_2	CO_2	CO_2	CH_4	N_2O	CO_2	CO_2
				on Site	off Site				(Gg/ha)					(Gg)				
Vegetation types		(kha)	(kt dm)	(kt dm)	(kt dm)	(kha)	(t dm/ha)	(kt dm)										
Tropical	Wet/Very Moist																	
	Moist, short dry season																	
	Moist, long dry season																	
	Dry																	
	Montane Moist																	
	Montane Dry																	
Tropical Savanna/Grasslands																		
Temperate	Coniferous																	
	Broadleaf																	
	Mixed Broadleaf/ Coniferous																	
Grasslands																		
Boreal	Mixed Broadleaf/ Coniferous																	
	Coniferous																	
	Forest																	
Grasslands/Tundra																		
Other																		

[1] Activity data are for default 10-year average. Specify the average decay time which is appropriate for the local conditions, if other than 10 years.

Additional Information

Emissions/Removals (Gg)	on site	off site	*Fractions*	on site	off site
Immediate Carbon Release from Burning			Fraction of biomass burned		
total			Fraction which oxidizes during burning		
Delayed Emissions from Decay			Carbon fraction of aboveground biomass		
Total Annual Carbon Release			Fraction left to decay		
CO_2 emissions			Nitrogen-Carbon Ratio		

Documentation box:

Year :

TABLE 5.C SECTORAL BACKGROUND DATA TABLE FOR LAND-USE CHANGE AND FORESTRY
Abandonment of managed lands
(Sheet 1 of 1)

GREENHOUSE GAS SOURCE AND SINK CATEGORIES		ACTIVITY DATA AND OTHER RELATED INFORMATION						IED EMISSION FAC	ESTIMATES	
		Total Area Abandoned and Regrowing [1]		Annual Rate of Aboveground Biomass Growth		Carbon Fraction of Aboveground Biomass		Rate of Aboveground Biomass Carbon Uptake	Annual Carbon Uptake in Aboveground Biomass	
Original natural ecosystems		first 20 years (kha)	>20 years (kha)	first 20 years (t dm/ha)	>20 years (t dm/ha)	first 20 years	>20 years	(t C/ha/yr)	first 20 years (Gg C/yr)	>20 years (Gg C/yr)
Tropical	Wet/Very Moist									
	Moist, short dry season									
	Moist, long dry season									
	Dry									
	Montane Moist									
	Montane Dry									
Tropical Savanna/Grasslands										
Temperate	Mixed Broadleaf/Coniferous									
	Coniferous									
	Broadleaf									
Grasslands										
Boreal	Mixed Broadleaf/Coniferous									
	Coniferous									
	Forest									
Grasslands/Tundra										
Other										

Total Annual Carbon Uptake (Gg)	
CO_2 removal (Gg)	

[1] If lands are regenerating to grassland, then the default assumption is that no significant changes in above-ground biomass occur.

Documentation box:

Year :

TABLE 5.D SECTORAL BACKGROUND DATA TABLE FOR LAND-USE CHANGE AND FORESTRY

CO_2 emissions and removals from soil

(Sheet 1 of 1)

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA		IMPLIED EMISSION FACTORS				ESTIMATES
	Land Area (year t) (Mha)	Land Area (year t-20) (Mha)	Soil carbon content (t) (Mg C/ha)	(1)	Soil carbon content (t-20) (Mg C/ha)	(1)	Net change in Mineral Soils (Tg C over 20 yr)
Cultivation of mineral soils	Net change in soil carbon in mineral soils						
High activity soils							
Low activity soils							
Sandy							
Volcanic							
Wetland (Aquic)							
Other (specify)							
Total [2]							
	Land Area (ha)		Annual Loss Rate (Mg C/ha/yr)				Carbon Emissions from Organic Soils (Mg/yr)
Cultivation of Organic Soils	Net carbon loss from organic soils						
Cool temperate							
Upland crops							
Pasture/Forest							
Warm temperate							
Upland crops							
Pasture/Forest							
Tropical							
Upland crops							
Pasture/Forest							
	Total Annual Amount of Lime (Mg)		Carbon Conversion Factor				Carbon Emissions from Liming (Mg C)
Liming of agricultural soils	Total carbon emissions form liming						
Limestone $Ca(CO_3)$							
Dolomite $CaMg(CO_3)_2$							

Total annual net carbon emissions from agriculturally impacted soils (Gg)
Total annual net CO_2 emissions from agriculturally impacted soils (Gg)

[1] Ratio of soils under native vegetation to agriculturally impacted soils.

[2] Make sure that the land areas in the activity data columns are equal.

Additional Information

Year	Climate (a)	land-use/ management system	Soil type					
			High activity soils	Low activity soils	Sandy	Volcanic	Wetland (Aquic)	Organic soil
			percent distribution (%)					
20 years prior	*(e.g. tropical, dry)*	*(e.g. savanna)*						
		(e.g. irrigated cropping)						
inventory year								

[a] See Table 5-9 (page 5.26) of the Revised 1996 IPCC Guidelines for National Greenhouse Gas Inventories, Volume 2 (Workbook)

Documentation box:

TABLE 6 SECTORAL REPORT FOR WASTE

Year :

(Sheet 1 of 1)

SECTORAL REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES (Gg)							
GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO_2[(1)]	CH_4	N_2O	NO_x	CO	NMVOC	SO_2
Total Waste							
A. Solid Waste Disposal on Land							
1. Managed Waste Disposal on Land							
2. Unmanaged Waste Disposal Sites							
3. Other (please specify)							
B. Wastewater Handling							
1. Industrial Wastewater							
2. Domestic and Commercial Waste-water							
3. Other (please specify)							
C. Waste Incineration							
D. Other (please specify)							

(1) Note that CO_2 from waste incineration should only be included if it stems from non-biological or inorganic waste sources.

TABLE 6.A SECTORAL BACKGROUND DATA FOR WASTE
Solid waste disposal
(Sheet 1 of 1)

Year :

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA AND OTHER RELATED INFORMATION			IMPLIED EMISSION FACTOR		EMISSIONS	
	Annual MSW at the SWDS (t)	MCF	DOC degraded (t)	CH_4 [1] (t /t MSW)	CO_2 (t /t MSW)	CH_4 [1] (Gg)	CO_2 (Gg)
1 Managed Waste Disposal on Land							
2 Unmanaged Waste Disposal Sites							
- deep (>5 m)							
- shallow (<5 m)							
3 Other (please specify)							
(e.g. industrial wastes)							

Additional Information

Total population (1000 inhabitants[a]):	
Urban population (1000 persons)	
Waste generation rate (kg/capita/day):	
Fraction of MSW disposed to SWDS (%):	
Fraction of DOC in MSW:	
Fraction of wastes incinerated:	
Fraction of wastes recycled:	
CH_4 oxidation factor [b]:	
CH_4 fraction in landfill gas:	
Number of SWDS recovering CH_4	
CH_4 recovered and flared or utilized(Gg/yr):	
CH_4 generation rate constant (k): [b]	
Time lag considered (yr): [b]	
Composition of landfilled waste (%):	
Paper and paperboard	
Food and garden waste	
Plastics	
Glass	
Textiles	
Other (specify)	
other - inert	
other - organic	

TABLE 6.C SECTORAL BACKGROUND DATA FOR WASTE
Waste incineration
(Sheet 1 of 1)

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DAT	IMPLIED EMISSION FACTOR				EMISSIONS			
	Amount of incinerated wastes (t)	CO_2 [3] (g / t waste)	CO_2 [4] (g / t waste)	CH_4 (g / t waste)	N_2O (g / t waste)	CO_2 [3] (Gg)	CO_2 [4] (Gg)	CH_4 (Gg)	N_2O (Gg)
Incinerated wastes (please specify)									
(biogenic) [2]									
(plastics) [3]									

MSW - Municipal Solid Waste, SWDS - Solid Waste Disposal Site, MCF - Methane Correction Factor, DOC - Degradable Organic Carbon (see section 6.2.4. of the Revised 1996 IPCC Guidelines for National Greenhouse Gas Inventories, Volume 3 (Reference Manual). MSW includes household waste, yard/garden waste, commercial/market waste, significant quantity of organic industrial solid waste (without industrial and construction waste).

[1] Before recovery.
[2] CO_2 emissions from biogenic wastes are not included in the totals.
[3] CO_2 emissions from non-biogenic wastes are included in the totals.

[a] Specify whether total or urban population is used and the rationale for doing so.
[b] See page 6.9 of the Revised 1996 IPCC Guidelines for National Greenhouse Gas Inventories, Volume 3 (Reference Manual).
[c] For Parties using Tier 2 methods.

Documentation box: Parties that use country specific models should note this with a brief rationale in the documentation box and fill the relevant cells only.

Year :

TABLE 6.B SECTORAL BACKGROUND DATA FOR WASTE
Wastewater handling
(Sheet 1 of 1)

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA[1]			IMPLIED EMISSION FACTOR			EMISSIONS		
	Total organic product		CH_4 recovered	CH_4 [2]		N_2O	CH_4 [2]		N_2O
	Wastewater	Sludge	and/or flared	Wastewater	Sludge		Wastewater	Sludge	
	(kg DC[1]/yr)		(Gg)	(kg/kg DC)	(kg/kg DC)	(kg/kg DC)	(Gg)	(Gg)	(Gg)
Industrial Wastewater									
Domestic and Commercial Wastewater									
Other (please specify)									

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA		IMPLIED EMISSION FACTOR	EMISSIONS
	Protein consumption (protein in kg/person/yr)	N fraction (kg N/kg protein)	N_2O (kg N_2O-N/kg sewage N produced)	N_2O (Gg)
N_2O from human sewage				

[1] DC - degradable organic component. DC indicators are COD (Chemical Oxygen Demand) for industrial wastewater and BOD (Biochemical Oxygen Demand) for Domestic/Commercial wastewater/sludge. See pages 6.14, 6.18 of the Revised 1996 IPCC Guidelines for National Greenhouse Gas Inventories, Volume 3 (Reference Manual).

[2] Before recovery.

Additional Information

Total wastewater (m^3):	
Treated wastewater (%):	

Waste-water streams:	Wastewater output (m^3)	DC ($kgCOD/m^3$)
Industrial wastewater		
iron and steel		
non-ferrous		
fertilizers		
food and beverage		
paper and pulp		
organic chemicals		
other		
	DC (kg BOD/1000 person/yr)	
Domestic		
Other		

Handling systems:	Industrial waste-water treated (%)	Ind. sludge treated (%)	Domestic waste-water treated (%)	Domestic sludge treated (%)
aerobic				
anaerobic				
other (specify)				

[a] Specify whether total or urban population is used in the calculations and the rationale for doing so. Provide both figures.

Documentation box:

TABLE 7 OVERVIEW TABLE FOR NATIONAL GREENHOUSE GAS INVENTORIES (IPCC TABLE 8A)

Year :

(Sheet 1 of 3)

OVERVIEW TABLE																				
GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO_2		CH_4		N_2O		HFCs		PFCs		SF_6		NO_x		CO		NMVOC		SO_2	
	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality
Total National Emissions and Removals																				
1 Energy																				
A Fuel Combustion Activities																				
Reference Approach																				
Sectoral Approach																				
1. Energy Industries																				
2. Manufacturing Industries and Construction																				
3. Transport																				
4. Other Sectors																				
5. Other (please specify)																				
B. Fugitive Emissions from Fuels																				
1. Solid Fuels																				
2. Oil and Natural Gas																				
2 Industrial Processes																				
A Mineral Products																				
B. Chemical Industry																				
C. Metal Production																				
D Other Production																				
E. Production of Halocarbons and Sulphur Hexafluoride																				

Note: To fill in the table use the notation key as given on page Tables.37 of the Revised 1996 IPCC Guidelines for National Greenhouse Gas Inventories, Volume 1.

TABLE 7 OVERVIEW TABLE FOR NATIONAL GREENHOUSE GAS INVENTORIES (IPCC TABLE 8A)
(Sheet 2 of 3)

Year :

OVERVIEW TABLE																				
GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO_2		CH_4		N_2O		HFCs		PFCs		SF_6		NO_x		CO		NMVOC		SO_2	
	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality
2 Industrial Processes (continued)																				
F. Consumption of Halocarbons and Sulphur Hexafluoride																				
Potential [1]																				
Actual [2]																				
G Other (please specify)																				
3 Solvent and Other Product Use																				
4 Agriculture																				
A Enteric Fermentation																				
B Manure Management																				
C Rice Cultivation																				
D Agricultural Soils																				
E. Prescribed Burning of Savannas																				
F. Field Burning of Agricultural Residues																				
G Other (please specify)																				
5 Land-Use Change and Forestry																				
A Changes in Forest and Other Woody Biomass Stocks																				
B Forest and Grassland Conversion																				

[1] Potential emissions based on Tier 1 Approach.

[2] Actual emissions based on Tier 2 Approach.

TABLE 7 OVERVIEW TABLE FOR NATIONAL GREENHOUSE GAS INVENTORIES (IPCC TABLE 8A)
(Sheet 3 of 3)

Year :

OVERVIEW TABLE																				
GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO_2		CH_4		N_2O		HFCs		PFCs		SF_6		NO_x		CO		NMVOC		SO_2	
	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality
5 Land-Use Change and Forestry (continued)																				
C. Abandonment of Managed Lands																				
D. CO_2 Emissions and Removals from Soil																				
E. Other (please specify)																				
6 Waste																				
A. Solid Waste Disposal on Land																				
B. Wastewater Handling																				
C. Waste Incineration																				
D. Other (please specify)																				
7 Other (please specify)																				
Memo Items:																				
International Bunkers																				
Aviation																				
Marine																				
Multilateral Operations																				
CO_2 Emissions from Biomass																				

TABLE 8(a) RECALCULATION

Year :

Recalculated year:

(Sheet 1 of 2)

GREENHOUSE GAS SOURCE AND SINK CATEGORIES		CO_2			CH_4			N_2O		
		previous submission	latest submission	difference[1]	previous submission	latest submission	difference[1]	previous submission	latest submission	difference[1]
		(Gg CO_2 eq.)		(%)	(Gg CO_2 eq.)		(%)	(Gg CO_2 eq.)		(%)
1. Energy										
1.A.	Fuel Combustion Activities									
1.A.1.	Energy Industries									
1.A.2.	Manufacturing Industries and Construction									
1.A.3.	Transport									
1.A.4.	Other Sectors									
1.A.5.	Other									
1.B.	Fugitive Emissions from Fuels									
1.B.1.	Solid fuel									
1.B.2.	Oil and Natural Gas									
2. Industrial Processes										
2.A.	Mineral Products									
2.B.	Chemical Industry									
2.C.	Metal Production									
2.D.	Other Production									
2.G.	Other									
3. Solvent and Other Product Use										
4. Agriculture										
4.A.	Enteric Fermentation									
4.B.	Manure Management									
4.C.	Rice Cultivation									
4.D.	Agricultural Soils									
4.E.	Prescribed Burning of Savannas									
4.F.	Field Burning of Agricultural Residues									
4.G.	Other									
5. Land-Use Change and Forestry (net)										
5.A.	Changes in Forest and Other Woody Biomass Stocks									
5.B.	Forest and Grassland Conversion									
5.C.	Abandonment of Managed Lands									
5.D.	CO_2 Emissions and Removals from Soil									
5.E.	Other									

[1] Estimate the change due to recalculation with respect to the previous submission (previous submission = 100%). All cases of recalculation of the estimate of the source/sink category, should be addressed and explained in Table 8(b).

TABLE 8(a) RECALCULATION

Year :

Recalculated year:

(Sheet 2 of 2)

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO_2			CH_4			N_2O		
	previous submission	latest submission	difference[1]	previous submission	latest submission	difference[1]	previous submission	latest submission	difference[1]
	($Gg\ CO_2$ eq.)		(%)	($Gg\ CO_2$ eq.)		(%)	($Gg\ CO_2$ eq.)		(%)
6. Waste									
6.A. Solid Waste Disposal on Land									
6.B. Wastewater Handling									
6.C. Waste Incineration									
6.D. Other									
7. Other									
TOTALS									
Memo Items									
International Bunkers									
Multilateral Operations									
CO_2 Emissions from Biomass									

Actual emissions of	HFCs			PFCs			SF_6		
	previous submission	latest submission	difference[1]	previous submission	latest submission	difference[1]	previous submission	latest submission	difference[1]
	($Gg\ CO_2$ eq.)		(%)	($Gg\ CO_2$ eq.)		(%)	($Gg\ CO_2$ eq.)		(%)
2.C. Aluminium production									
2.E. Production of HFC/PFC and SF_6									
2.F. Consumption of HFC/PFC and SF_6									
Total actual emissions									

	Previous submission	Latest submission	change
	($Gg\ CO_2$ eq.)		(%)
OVERALL CO_2 EQUIVALENT EMISSIONS			

[1] Estimate the change due to recalculation with respect to the previous submission (previous submission = 100%). All cases of recalculation of the estimate of the source/sink category, should be addressed and explained in Table 8(b).

TABLE 8(b) RECALCULATION

Year :

Explanatory information

(Sheet 1 of 1)

Specify the sector and source/sink category[1] where changes in estimates have occurred:		GHG	RECALCULATION DUE TO			
			CHANGES IN:			Addition/removal/ replacement of source/sink categories
			Methods [2]	Emission factors [2]	Activity data [2]	

[1] Enter the identification code of the source/sink category (e.g. 1B1) in the first column and the name of the category (e.g. fugitive emissions from solid fuels) in the second column of the table (see Table 8(a)) .

[2] Explain changes in methods, emission factors and activity data that have resulted in recalculation of the estimate of the source/sink as indicated in Table 9(a). Include relevant changes in the assumptions and coefficients under the "Methods" column.

Documentation box: Use the documentation box to report the justifications of the changes as improvements in the accuracy, completeness and consistency of the inventory.

TABLE 9 COMPLETENESS
(Sheet 1 of 2)

Year :

Sources and sinks not reported (NE)[1]			
GHG	**Sector[2]**	**Source/sink category [2]**	**Explanation**
CO_2			
CH_4			
N_2O			
HFCs			
PFCs			
SF_6			

Sources and sinks reported elsewhere (IE)[3]				
GHG	**Source/sink category**	**Allocation as per IPCC Guidelines**	**Allocation used by the Party**	**Explanation**

[1] Please, clearly indicate sources and sinks which are considered in the IPCC Guidelines but are not considered in the submitted inventory. Explain the reason for excluding these sources and sinks, in order to avoid arbitrary interpretations. An entry should be made for each source/sink category for which the indicator "NE" is entered in the sectoral tables.

[2] Indicate omitted source/sink following the IPCC source/sink category structure (e.g. sector: waste, source: wastewater handling).

[3] Please clearly indicate sources and sinks in the submitted inventory that are allocated to a sector other than that indicated by the IPCC Guidelines. Show the sector indicated in the IPCC Guidelines and the sector to which the source or sink is allocated in the submitted inventory. Explain the reason for reporting these sources and sinks in a different sector. An entry should be made for each source/sink for which the indicator "IE" is used in the sectoral tables.

Year :

TABLE 9 COMPLETENESS
(Sheet 2 of 2)

Additional GHG emissions reported[1]					
GHG	Source category	Emissions (Gg)	Estimated GWP (100-year horizon)	Emissions (Gg CO_2 eq.)	Explanation [2]

[1] Parties are encouraged to provide information on emissions of greenhouse gases whose GWP values have not yet been agreed upon by the COP. Please include such gases in this table if they are considered in the submitted inventory.

[2] Please provide additional information on the estimation methods used and reference to the data source of GWP value.

TABLE 10 EMISSIONS TRENDS (CO_2)

Year:

(Sheet 1 of 5)

GHG Source and Sink Categories CO_2 equivalent emissions (Gg)	Emissions (Gg)									
	Base year[1]	1990	1991	1992	1993	1994	1995	1996	1997	1998
1. Energy										
A. Fuel Combustion (Sectoral Approach)										
1. Energy Industries										
2. Manufacturing Industries and Construction										
3. Transport										
4. Other Sectors										
5. Other										
B. Fugitive Emissions from Fuels										
1. Solid Fuels										
2. Oil and Natural Gas										
2. Industrial Processes										
A. Mineral Products										
B. Chemical Industry										
C. Metal Production										
D. Other Production										
E. Production of Halocarbons and SF_6										
F. Consumption of Halocarbons and SF_6										
G. Other										
3. Solvent and Other Product Use										
4. Agriculture										
A. Enteric Fermentation										
B. Manure Management										
C. Rice Cultivation										
D. Agricultural Soils										
E. Prescribed Burning of Savannas										
F. Field Burning of Agricultural Residues										
G. Other										
5. Land-Use Change and Forestry[2]										
A. Changes in Forest and Other Woody Biomass Stocks										
B. Forest and Grassland Conversion										
C. Abandonment of Managed Lands										
D. CO_2 Emissions and Removals from Soil										
E. Other (please specify)										
6. Waste										
A. Solid Waste Disposal on Land										
B. Waste-water Handling										
C. Waste Incineration										
D. Other										
7. Other (please specify)										
Total Emissions/Removals[3]										
Total (without LUCF)[3]										
Memo Items:										
International Bunkers										
Aviation										
Marine										
Multilateral Operations										
CO_2 Emissions from Biomass										

[1] Specify the base year adopted by the Party under the Convention.

[2] Take the net emissions as reported in Table 1A. Please note that for the purposes of reporting, the signs for uptake are always (-) and for emissions (+).

[3] The information in these rows is requested to facilitate comparison of data, since Parties differ in the way they report CO_2 emissions and removals from Land-Use Change and Forestry.

TABLE 10 EMISSIONS TRENDS (CH_4) Year:

(Sheet 2 of 5)

GHG Source and Sink Categories	Emissions (Gg)									
	Base year[1]	1990	1991	1992	1993	1994	1995	1996	1997	1998
Total Emissions										
1. Energy										
A. Fuel Combustion (Sectoral Approach)										
1. Energy Industries										
2. Manufacturing Industries and Construction										
3. Transport										
4. Other Sectors										
5. Other										
B. Fugitive Emissions from Fuels										
1. Solid Fuels										
2. Oil and Natural Gas										
2. Industrial Processes										
A. Mineral Products										
B. Chemical Industry										
C. Metal Production										
D. Other Production										
E. Production of Halocarbons and SF_6										
F. Consumption of Halocarbons and SF_6										
G. Other										
3. Solvent and Other Product Use										
4. Agriculture										
A. Enteric Fermentation										
B. Manure Management										
C. Rice Cultivation										
D. Agricultural Soils										
E. Prescribed Burning of Savannas										
F. Field Burning of Agricultural Residues										
G. Other										
5. Land-Use Change and Forestry										
A. Changes in Forest and Other Woody Biomass Stocks										
B. Forest and Grassland Conversion										
C. Abandonment of Managed Lands										
D. CO_2 Emissions and Removals from Soil										
E. Other (please specify)										
6. Waste										
A. Solid Waste Disposal on Land										
B. Waste-water Handling										
C. Waste Incineration										
D. Other										
7. Other (please specify)										
Memo Items:										
International Bunkers										
Aviation										
Marine										
Multilateral Operations										
CO_2 Emissions from Biomass										

[1] Fill in the base year adopted by the Party under the Convention, if different from 1990

TABLE 10 EMISSIONS TRENDS (N_2O) Year:

(Sheet 3 of 5)

GHG Source and Sink Categories	Emissions (Gg)									
	Base year[1]	1990	1991	1992	1993	1994	1995	1996	1997	1998
Total Emissions										
1. Energy										
A. Fuel Combustion (Sectoral Approach)										
1. Energy Industries										
2. Manufacturing Industries and Construction										
3. Transport										
4. Other Sectors										
5. Other										
B. Fugitive Emissions from Fuels										
1. Solid Fuels										
2. Oil and Natural Gas										
2. Industrial Processes										
A. Mineral Products										
B. Chemical Industry										
C. Metal Production										
D. Other Production										
E. Production of Halocarbons and SF_6										
F. Consumption of Halocarbons and SF_6										
G. Other										
3. Solvent and Other Product Use										
4. Agriculture										
A. Enteric Fermentation										
B. Manure Management										
C. Rice Cultivation										
D. Agricultural Soils										
E. Prescribed Burning of Savannas										
F. Field Burning of Agricultural Residues										
G. Other										
5. Land-Use Change and Forestry										
A. Changes in Forest and Other Woody Biomass Stocks										
B. Forest and Grassland Conversion										
C. Abandonment of Managed Lands										
D. CO_2 Emissions and Removals from Soil										
E. Other (please specify)										
6. Waste										
A. Solid Waste Disposal on Land										
B. Waste-water Handling										
C. Waste Incineration										
D. Other										
7. Other (please specify)										
Memo Items:										
International Bunkers										
Aviation										
Marine										
Multilateral Operations										
CO_2 Emissions from Biomass										

[1] Fill in the base year adopted by the Party under the Convention, if different from 1990

TABLE 10 EMISSION TRENDS (HFC, PFC and SF_6) Year:

(Sheet 4 of 5)

GHG Source and Sink Categories	Emissions (Gg)									
	Base year[1]	1990	1991	1992	1993	1994	1995	1996	1997	1998
Emissions of HFCs[2]										
HFC-23										
HFC-32										
HFC-41										
HFC-43-10mee										
HFC-125										
HFC-134										
HFC-134a										
HFC-152a										
HFC-143										
HFC-143a										
HFC-227ea										
HFC-236fa										
HFC-245ca										
Emissions of PFCs[2]										
CF_4										
C_2F_6										
C_3F_8										
C_4F_{10}										
c-C_4F_8										
C_5F_{12}										
C_6F_{14}										
Emissions of SF_6[2]										

[1] Fill in the base year adopted by the Party under the Convention, if different from 1990.

[2] Enter information on the actual emissions. Where estimates are only available for the potential emissions, specify this in a footnote.

TABLE 10 EMISSION TRENDS (SUMMARY) (Sheet 5 of 5)

Year:

GHG emissions	Base year[1]	1990	1991	1992	1993	1994	1995	1996	1997	1998
CO_2 equivalent emissions (Gg)										
Net CO_2 emissions/removals										
CO_2 emissions (without LUCF) [2]										
CH_4										
N_2O										
HFC										
PFC										
SF_6										
Total (with net CO_2 emissions/removals)										
Total (without CO_2 from LUCF) [2]										

GHG emission sources/sinks	Base year[1]	1990	1991	1992	1993	1994	1995	1996	1997	1998
Emissions (Gg CO_2 equivalent)										
1. Energy										
2. Industrial Processes										
3. Solvent and Other Product Use										
4. Agriculture										
5. Land-Use Change and Forestry [3]										
6. Waste										
7. Other										

[1] Fill in the base year adopted by the Party under the Convention, if different from 1990.

[2] The information in these rows is requested to facilitate comparison of data, since Parties differ in the way they report CO_2 emissions and removals from Land-Use Change and Forestry.

[3] Net emissions.

TABLE 11 *CHECK LIST of REPORTED INVENTORY INFORMATION*[1]

Party: **Year:**

Contact info:			
Focal point for national GHG inventories:			
Address:			
Telephone:	*Fax:*	*E-mail:*	
Main institution preparing the inventory			

General info:		
Date of submission:		
Base years:		*PFCs, HFCs, SF_6*
Year(s) covered in the submission:		
Gases covered:		
Omissions in geographic coverage:		

Tables:	*energy*	*ind.processes*	*solvent use*	*LUCF*	*agriculture*	*waste*
IPCC Sectoral report tables	☐	☐	☐	☐	☐	☐
Background data tables	☐	☐	☐	☐	☐	☐
IPCC Summary tables	*IPCC Table 7A* ☐			*IPCC Table 7B* ☐		
CO_2 equivalent table	☐					
Uncertainty	*IPCC Table 8A* ☐		*National information* ☐			
Recalculation table	☐					
Completeness table	☐					

CO_2	*Comparison of*	*Worksheet 1-1*	*Percentage of difference*	*Explanation of differences*
	CO_2 from fuel combustion	☐		☐

Recalculation:	*energy*	*ind.processes*	*solvent use*	*LUCF*	*agriculture*	*waste*
CO_2	☐	☐	☐	☐	☐	☐
CH_4	☐	☐	☐	☐	☐	☐
N_2O	☐	☐	☐	☐	☐	☐
HFC,PFC,SF_6		☐				
Explanations:	☐	☐	☐	☐	☐	☐
CRF tables for sectors with changes	☐	☐	☐	☐	☐	☐
Summary tables for all recalculated years	☐					
Full CRF for the recalculated base year	☐					

HFC, PFC, SF_6	*HFC*		*PFC*		*SF_6*	
Disaggregation by species	☐		☐			
Production of Halocarbons/SF_6	☐		☐		☐	
	Actual	*Potential*	*Actual*	*Potential*	*Actual*	*Potential*
Consumption of Halocarbons/SF_6	☐	☐	☐	☐	☐	☐
Potential/Actual emission ratio						

Reference to the National Inventory Report and/or national inventory	

CRF - Common Reporting Format.
LUCF - Land-Use Change and Forestry.

[1] For each omission, give an explanation for the reasons on a separate page attached to the check-list.