

Annex 1 – Key categories

Description of methodology used

The key category analysis has been performed according to the provisions in Chapter 7 of IPCC GPG 2000 and to those in Chapter 5 of IPCC GPG.

Distinct key category analysis were conducted taking into account both the excluding and including LULUCF and also both level and trend criteria.

The key category analysis followed a Tier 1 approach.

Reference to the key categories tables in the CRF

The same key categories analysis was done both for completing the CRF tables and the relevant section of National Inventory Report.

Information on level of disaggregation

All IPCC sectors and categories, sources and sinks (as suggested in Table 7.1 of IPCC GPG 2000 and in Table 5.4.1 of IPCC GPG 2003), and gases were considered.

Tables 7A1 – 7A3 of the IPCC GPG 2000

Tier 1 Analysis – Level Assessment, 2006, excluding LULUCF (Table 7A1 of IPCC GPG 2000)					
A IPCC Source Categories	B Direct Green house Gas	C Base Year Estimate (Mt CO₂ Equivalent)	D Current Year Estimate (Mt CO₂ Equivalent)	E Level Assessment	F Cumulative Total of Column E
Stationary combustion solid fuels	CO ₂	58.9	36.6	0.23	0.23
Stationary combustion gaseous fuels	CO ₂	61.9	30.0	0.19	0.43
Stationary combustion liquid fuels	CO ₂	32.8	13.9	0.09	0.51
Mobile combustion -road	CO ₂	4.6	12.0	0.08	0.59
Fugitive emissions - oil and natural gas	CH ₄	21.8	8.8	0.06	0.65
CO ₂ emission from Iron and steel production	CO ₂	15.8	8.1	0.05	0.70
CH ₄ from solid waste disposal sites	CH ₄	2.3	5.9	0.04	0.74
CH ₄ from enteric fermentation	CH ₄	11.1	5.6	0.04	0.77
Direct N ₂ O emissions from agricultural soils	N ₂ O	11.2	5.5	0.04	0.81
CO ₂ emissions from Cement production	CO ₂	5.6	3.6	0.02	0.83
Indirect N ₂ O emissions from agricultural soils	N ₂ O	7.5	3.5	0.02	0.85
CH ₄ from waste water handling	CH ₄	5.4	3.1	0.02	0.87
Fugitive emissions - solid fuels	CH ₄	6.4	2.6	0.02	0.89
N ₂ O emission from Nitric acid production	N ₂ O	6.8	2.5	0.02	0.90
CO ₂ emission from Ammonia production	CO ₂	5.0	2.4	0.02	0.92
CH ₄ from manure management	CH ₄	4.3	2.1	0.01	0.93
CO ₂ emissions from Lime production	CO ₂	3.8	2.0	0.01	0.95
N ₂ O from manure management	N ₂ O	3.2	1.8	0.01	0.96
Agricultural soils: animal production	N ₂ O	3.0	1.5	<0.01	0.97
CO ₂ emission from Limestone and dolomite use	CO ₂	1.7	0.9	<0.01	0.97
Stationary combustion - biomass	CH ₄	0.2	0.7	<0.01	0.98
N ₂ O from waste water handling	N ₂ O	0.6	0.7	<0.01	0.98
PFC emission from Aluminium production	PFC	3.3	0.6	<0.01	0.99
CO ₂ emission from Aluminium production	CO ₂	0.4	0.4	<0.01	0.99
CO ₂ from waste incineration	CO ₂	0.0	0.3	<0.01	0.99
Mobile combustion -railways	CO ₂	0.9	0.2	<0.01	0.99
CO ₂ emission from Solvent and other product use	CO ₂	0.6	0.2	<0.01	0.99
Stationary combustion - biomass	N ₂ O	0.0	0.2	<0.01	0.99
Stationary combustion solid fuels	N ₂ O	0.2	0.2	<0.01	1.00
CO ₂ emission from Ferroalloys production	CO ₂	0.3	0.1	<0.01	1.00
CH ₄ from field burning of agricultural residues	CH ₄	0.1	0.1	<0.01	1.00

Tier 1 Analysis – Level Assessment, 2006, excluding LULUCF (Table 7A1 of IPCC GPG 2000)

A IPCC Source Categories	B Direct Greenhouse Gas	C Base Year Estimate (Mt CO₂ Equivalent)	D Current Year Estimate (Mt CO₂ Equivalent)	E Level Assessment	F Cumulative Total of Column E
CO ₂ emission from Soda ash production and use	CO ₂	0.1	0.1	<0.01	1.00
Other transportation -other (pipeline)	CO ₂	0.0	0.1	<0.01	1.00
Mobile combustion –navigation	CO ₂	0.3	0.0	<0.01	1.00
Stationary combustion gaseous fuels	CH ₄	0.1	0.0	<0.01	1.00
Mobile combustion –road	CH ₄	0.0	0.0	<0.01	1.00
Stationary combustion liquid fuels	N ₂ O	0.1	0.0	<0.01	1.00
Mobile combustion –road	N ₂ O	0.0	0.0	<0.01	1.00
CO ₂ emission from Mineral products – other	CO ₂	0.1	0.0	<0.01	1.00
N ₂ O from field burning of agricultural residues	N ₂ O	0.0	0.0	<0.01	1.00
CH ₄ emission from Chemical industry-other	CH ₄	0.0	0.0	<0.01	1.00
CH ₄ from rice production	CH ₄	0.2	0.0	<0.01	1.00
Emission from Consumption of halocarbons	PFC, HFC and SF ₆	0.0	0.0	<0.01	1.00
Stationary combustion solid fuels	CH ₄	0.1	0.0	<0.01	1.00
Stationary combustion gaseous fuels	N ₂ O	0.0	0.0	<0.01	1.00
Stationary combustion liquid fuels	CH ₄	0.0	0.0	<0.01	1.00
CO ₂ emission from Carbide production	CO ₂	0.1	0.0	<0.01	1.00
Mobile combustion -civil aviation	CO ₂	0.0	0.0	<0.01	1.00
Mobile combustion –railways	N ₂ O	0.0	0.0	<0.01	1.00
Mobile combustion –railways	CH ₄	0.0	0.0	<0.01	1.00
Mobile combustion -civil aviation	N ₂ O	0.0	0.0	<0.01	1.00
Mobile combustion –navigation	N ₂ O	0.0	0.0	<0.01	1.00
Mobile combustion –navigation	CH ₄	0.0	0.0	<0.01	1.00
Mobile combustion -civil aviation	CH ₄	0.0	0.0	<0.01	1.00
Mobile combustion -other (agriculture)	CO ₂	0.0	0.0	<0.01	1.00
Mobile combustion -other (agriculture)	N ₂ O	0.0	0.0	<0.01	1.00
Mobile combustion -other (agriculture)	CH ₄	0.0	0.0	<0.01	1.00
N ₂ O emission from Adipic acid production	N ₂ O	0.7	0.0	<0.01	1.00
TOTAL		281.9	157	1.00	

Tier 1 Analysis – Trend Assessment, 2006, excluding LULUCF (Table 7A2 of IPCC GPG 2000)

A IPCC Source Categories	B Direct Greenhouse Gas	C Base Year Estimate (Mt CO₂ Equivalent)	D Current Year Estimate (Mt CO₂ Equivalent)	E Trend Assessment	F % Contribution to trend	G Cumulative Total of Column F
Mobile combustion -road	CO ₂	4.6	12.0	0.11	23	0.23
CH ₄ from solid waste disposal sites	CH ₄	2.3	5.9	0.05	11	0.35
Stationary combustion gaseous fuels	CO ₂	61.9	30.0	0.05	11	0.46
Stationary combustion liquid fuels	CO ₂	32.8	13.9	0.05	11	0.56
Stationary combustion solid fuels	CO ₂	58.9	36.6	0.04	10	0.66
Fugitive emissions - oil and natural gas	CH ₄	21.8	8.8	0.04	8	0.74
PFC emission from Aluminium production	PFC	3.3	0.6	0.01	3	0.77
N ₂ O emission from Nitric acid production	N ₂ O	6.8	2.5	0.01	3	0.80
Fugitive emissions - solid fuels	CH ₄	6.4	2.6	0.01	2	0.83
Direct N ₂ O emissions from agricultural soils	N ₂ O	11.2	5.5	<0.01	2	0.85
Indirect N ₂ O emissions from agricultural soils	N ₂ O	7.5	3.5	<0.01	2	0.86
CO ₂ emission from Iron and steel production	CO ₂	15.8	8.1	<0.01	2	0.88
Stationary combustion - biomass	CH ₄	0.2	0.7	<0.01	2	0.90
CO ₂ emissions from Cement production	CO ₂	5.6	3.6	<0.01	1	0.91
CH ₄ from enteric fermentation	CH ₄	11.1	5.6	<0.01	1	0.92
CO ₂ emission from Ammonia production	CO ₂	5.0	2.4	<0.01	1	0.93
N ₂ O from waste water handling	N ₂ O	0.6	0.7	<0.01	<1	0.94
CO ₂ from waste incineration	CO ₂	0.0	0.3	<0.01	<1	0.95
Mobile combustion -railways	CO ₂	0.9	0.2	<0.01	<1	0.96
CH ₄ from manure management	CH ₄	4.3	2.1	<0.01	<1	0.96
CO ₂ emission from Aluminium production	CO ₂	0.4	0.4	<0.01	<1	0.97
CO ₂ emission from Solvent and other product use	CO ₂	0.6	0.2	<0.01	<1	0.97
Stationary combustion - biomass	N ₂ O	0.0	0.2	<0.01	<1	0.97
CO ₂ emissions from Lime production	CO ₂	3.8	2.0	<0.01	<1	0.98
Agricultural soils: animal production	N ₂ O	3.0	1.5	<0.01	<1	0.98
Mobile combustion -navigation	CO ₂	0.3	0.0	<0.01	<1	0.98
CO ₂ emission from Ferroalloys production	CO ₂	0.3	0.1	<0.01	<1	0.99
CH ₄ from rice production	CH ₄	0.2	0.0	<0.01	<1	0.99
CH ₄ from waste water handling	CH ₄	5.4	3.1	<0.01	<1	0.99
Stationary combustion solid fuels	CH ₄	0.1	0.0	<0.01	<1	0.99
CO ₂ emission from Carbide production	CO ₂	0.1	0.0	<0.01	<1	0.99
Other transportation -other (pipeline)	CO ₂	0.0	0.1	<0.01	<1	0.99
CO ₂ emission from Mineral products - other	CO ₂	0.1	0.0	<0.01	<1	1.00
Mobile combustion -road	CH ₄	0.0	0.0	<0.01	<1	1.00
Mobile combustion -road	N ₂ O	0.0	0.0	<0.01	<1	1.00

Tier 1 Analysis – Trend Assessment, 2006, excluding LULUCF (Table 7A2 of IPCC GPG 2000)

A IPCC Source Categories	B Direct Greenhouse Gas	C Base Year Estimate (Mt CO₂ Equivalent)	D Current Year Estimate (Mt CO₂ Equivalent)	E Trend Assessment	F % Contribution to trend	G Cumulative Total of Column F
Emission from Consumption of halocarbons	PFC, HFC and SF ₆	0.0	0.0	<0.01	<1	1.00
Stationary combustion solid fuels	N ₂ O	0.2	0.2	<0.01	<1	1.00
CH ₄ from field burning of agricultural residues	CH ₄	0.1	0.1	<0.01	<1	1.00
N ₂ O from manure management	N ₂ O	3.2	1.8	<0.01	<1	1.00
Stationary combustion liquid fuels	N ₂ O	0.1	0.0	<0.01	<1	1.00
Stationary combustion gaseous fuels	CH ₄	0.1	0.0	<0.01	<1	1.00
N ₂ O from field burning of agricultural residues	N ₂ O	0.0	0.0	<0.01	<1	1.00
CO ₂ emission from Soda ash production and use	CO ₂	0.1	0.1	<0.01	<1	1.00
CO ₂ emission from Limestone and dolomite use	CO ₂	1.7	0.9	<0.01	<1	1.00
CH ₄ emission from Chemical industry-other	CH ₄	0.0	0.0	<0.01	<1	1.00
Stationary combustion liquid fuels	CH ₄	0.0	0.0	<0.01	<1	1.00
Stationary combustion gaseous fuels	N ₂ O	0.0	0.0	<0.01	<1	1.00
Mobile combustion -civil aviation	CO ₂	0.0	0.0	<0.01	<1	1.00
Mobile combustion -railways	N ₂ O	0.0	0.0	<0.01	<1	1.00
Mobile combustion -railways	CH ₄	0.0	0.0	<0.01	<1	1.00
Mobile combustion -navigation	N ₂ O	0.0	0.0	<0.01	<1	1.00
Mobile combustion -navigation	CH ₄	0.0	0.0	<0.01	<1	1.00
Mobile combustion -civil aviation	N ₂ O	0.0	0.0	<0.01	<1	1.00
Mobile combustion -civil aviation	CH ₄	0.0	0.0	<0.01	<1	1.00
Mobile combustion -other (agriculture)	CO ₂	0.0	0.0	<0.01	<1	1.00
Mobile combustion -other (agriculture)	N ₂ O	0.0	0.0	<0.01	<1	1.00
Mobile combustion -other (agriculture)	CH ₄	0.0	0.0	<0.01	<1	1.00
N ₂ O emission from Adipic acid production	N ₂ O	0.7	0.0	<0.01	<1	1.00
TOTAL		281.9	157	0.46	1	

Key Category Analysis Summary, 2006, excluding LULUCF (Table 7A3 of IPCC GPG 2000)				
Quantitative Method Used: <input checked="" type="checkbox"/> Tier 1 <input type="checkbox"/> Tier 2				
A IPCC Source Categories	B Direct Greenhouse Gas	C Key Source Category Flag	D If Column C is Yes, Criteria for Identification	E Comments
Energy				
Fugitive emissions -oil and natural gas	CH ₄	Yes	Level, Trend	
Fugitive emissions -solid fuels	CH ₄	Yes	Level, Trend	
Mobile combustion -civil aviation	CO ₂	No		
Mobile combustion -civil aviation	N ₂ O	No		
Mobile combustion -civil aviation	CH ₄	No		
Mobile combustion –navigation	CO ₂	No		
Mobile combustion –navigation	N ₂ O	No		
Mobile combustion –navigation	CH ₄	No		
Mobile combustion -other (agriculture)	CO ₂	No		
Mobile combustion -other (agriculture)	N ₂ O	No		
Mobile combustion -other (agriculture)	CH ₄	No		
Mobile combustion –railways	CO ₂	No		
Mobile combustion –railways	N ₂ O	No		
Mobile combustion –railways	CH ₄	No		
Mobile combustion –road	CO ₂	Yes	Level, Trend	
Mobile combustion –road	CH ₄	No		
Mobile combustion –road	N ₂ O	No		
Other transportation -other (pipeline)	CO ₂	No		
Stationary combustion –biomass	CH ₄	Yes	Trend	
Stationary combustion –biomass	N ₂ O	No		
Stationary combustion gaseous fuels	CO ₂	Yes	Level, Trend	
Stationary combustion gaseous fuels	CH ₄	No		
Stationary combustion gaseous fuels	N ₂ O	No		
Stationary combustion liquid fuels	CO ₂	Yes	Level, Trend	
Stationary combustion liquid fuels	N ₂ O	No		
Stationary combustion liquid fuels	CH ₄	No		
Stationary combustion solid fuels	CO ₂	Yes	Level, Trend	
Stationary combustion solid fuels	N ₂ O	No		
Stationary combustion solid fuels	CH ₄	No		
Industrial Processes				
CH ₄ Chemical industry-other	CH ₄	No		
CO ₂ Ammonia production	CO ₂	Yes	Level, Trend	
CO ₂ emissions from cement production	CO ₂	Yes	Level, Trend	
CO ₂ emissions from lime production	CO ₂	Yes	Level	
CO ₂ from aluminum production	CO ₂	No		
CO ₂ from carbide production	CO ₂	No		
CO ₂ from ferroalloys	CO ₂	No		
CO ₂ from iron and steel production	CO ₂	Yes	Level, Trend	

Key Category Analysis Summary, 2006, excluding LULUCF (Table 7A3 of IPCC GPG 2000)				
Quantitative Method Used: <input checked="" type="checkbox"/> Tier 1 <input type="checkbox"/> Tier 2				
A IPCC Source Categories	B Direct Greenhouse Gas	C Key Source Category Flag	D If Column C is Yes, Criteria for Identification	E Comments
Industrial Processes				
CO ₂ from limestone and dolomite use	CO ₂	No		
CO ₂ from soda ash production and use	CO ₂	No		
CO ₂ mineral products other	CO ₂	No		
Consumption of halocarbons	PFC, HFC and SF ₆	No		
N ₂ O from adipic acid production	N ₂ O	No		
N ₂ O from nitric acid production	N ₂ O	Yes	Level, Trend	
PFC from aluminium production	PFC	Yes	Trend	
Solvents and other product use				
CO ₂ solvents	CO ₂	No		
Agriculture				
Agricultural soils: animal production	N ₂ O	No		
CH ₄ from enteric fermentation	CH ₄	Yes	Level, Trend	
CH ₄ from field burning of agricultural residues	CH ₄	No		
CH ₄ from manure management	CH ₄	Yes	Level	
CH ₄ from rice production	CH ₄	No		
Direct N ₂ O emissions from agricultural soils	N ₂ O	Yes	Level, Trend	
Indirect N ₂ O emissions from agricultural soils	N ₂ O	Yes	Level, Trend	
N ₂ O from field burning of agricultural residues	N ₂ O	No		
N ₂ O from manure management	N ₂ O	No		
Waste				
CH ₄ from solid waste disposal sites	CH ₄	Yes	Level, Trend	
CH ₄ from waste water handling	CH ₄	Yes	Level	
CO ₂ from waste incineration	CO ₂	Yes	Trend	
N ₂ O from waste water handling	N ₂ O	Yes	Trend	

Tables 5.4.7, 5.4.8 and 5.4.5 of the IPCC GPG 2003

Tier 1 Analysis – Level Assessment, 2006, including LULUCF (Table 5.4.7 of IPCC GPG 2003)					
A IPCC Source Categories	B Direct Green house Gas	C Base Year Estimate Absolute Value (Mt CO₂ Equivalent)	D Current Year Estimate Absolute Value (Mt CO₂ Equivalent)	E Level Assessment	F Cumulative Total of Column E
CO ₂ from Forest Land remaining Forest Land	CO ₂	32.6	37.5	0.19	0.19
Stationary combustion solid fuels	CO ₂	58.9	36.6	0.19	0.38
Stationary combustion gaseous fuels	CO ₂	61.9	30.0	0.15	0.54
Stationary combustion liquid fuels	CO ₂	32.8	13.9	0.07	0.61
Mobile combustion -road	CO ₂	4.6	12.0	0.06	0.67
Fugitive emissions - oil and natural gas	CH ₄	21.8	8.8	0.05	0.71
CO ₂ emission from Iron and steel production	CO ₂	15.8	8.1	0.04	0.76
CH ₄ from solid waste disposal sites	CH ₄	2.3	5.9	0.03	0.79
CH ₄ from enteric fermentation	CH ₄	11.1	5.6	0.03	0.82
Direct N ₂ O emissions from agricultural soils	N ₂ O	11.2	5.5	0.03	0.84
CO ₂ emissions from Cement production	CO ₂	5.6	3.6	0.02	0.86
Indirect N ₂ O emissions from agricultural soils	N ₂ O	7.5	3.5	0.02	0.88
CH ₄ from waste water handling	CH ₄	5.4	3.1	0.02	0.90
Fugitive emissions - solid fuels	CH ₄	6.4	2.6	0.01	0.91
N ₂ O emission from Nitric acid production	N ₂ O	6.8	2.5	0.01	0.92
CO ₂ emission from Ammonia production	CO ₂	5.0	2.4	0.01	0.94
CH ₄ from manure management	CH ₄	4.3	2.1	0.01	0.95
CO ₂ emissions from Lime production	CO ₂	3.8	2.0	0.01	0.96
N ₂ O from manure management	N ₂ O	3.2	1.8	<0.01	0.97
Agricultural soils: animal production	N ₂ O	3.0	1.5	<0.01	0.97
CO ₂ emission from Limestone and dolomite use	CO ₂	1.7	0.9	<0.01	0.98
Stationary combustion - biomass	CH ₄	0.2	0.7	<0.01	0.98
N ₂ O from waste water handling	N ₂ O	0.6	0.7	<0.01	0.99
PFC emission from Aluminium production	PFC	3.3	0.6	<0.01	0.99
CO ₂ emission from Aluminium production	CO ₂	0.4	0.4	<0.01	0.99
CO ₂ from waste incineration	CO ₂	0.0	0.3	<0.01	0.99
Mobile combustion -railways	CO ₂	0.9	0.2	<0.01	0.99
CO ₂ emission from Solvent and other product use	CO ₂	0.6	0.2	<0.01	0.99
Stationary combustion - biomass	N ₂ O	0.0	0.2	<0.01	1.00
Stationary combustion solid fuels	N ₂ O	0.2	0.2	<0.01	1.00
CO ₂ emission from Ferroalloys production	CO ₂	0.3	0.1	<0.01	1.00
CH ₄ from field burning of agricultural residues	CH ₄	0.1	0.1	<0.01	1.00
CO ₂ emission from Soda ash production and use	CO ₂	0.1	0.1	<0.01	1.00
Other transportation -other (pipeline)	CO ₂	0.0	0.1	<0.01	1.00

Tier 1 Analysis – Level Assessment, 2006, including LULUCF (Table 5.4.7 of IPCC GPG 2003)

A IPCC Source Categories	B Direct Green house Gas	C Base Year Estimate Absolute Value (Mt CO₂ Equivalent)	D Current Year Estimate Absolute Value (Mt CO₂ Equivalent)	E Level Assessment	F Cumulative Total of Column E
Mobile combustion -navigation	CO ₂	0.3	0.0	<0.01	1.00
Stationary combustion gaseous fuels	CH ₄	0.1	0.0	<0.01	1.00
Mobile combustion -road	CH ₄	0.0	0.0	<0.01	1.00
Stationary combustion liquid fuels	N ₂ O	0.1	0.0	<0.01	1.00
Mobile combustion -road	N ₂ O	0.0	0.0	<0.01	1.00
CO ₂ emission from Mineral products - other	CO ₂	0.1	0.0	<0.01	1.00
N ₂ O from field burning of agricultural residues	N ₂ O	0.0	0.0	<0.01	1.00
CH ₄ emission from Chemical industry- other	CH ₄	0.0	0.0	<0.01	1.00
CH ₄ from rice production	CH ₄	0.2	0.0	<0.01	1.00
Emission from Consumption of halocarbons	PFC, HFC and SF ₆	0.0	0.0	<0.01	1.00
Stationary combustion solid fuels	CH ₄	0.1	0.0	<0.01	1.00
Stationary combustion gaseous fuels	N ₂ O	0.0	0.0	<0.01	1.00
Stationary combustion liquid fuels	CH ₄	0.0	0.0	<0.01	1.00
CO ₂ emission from Carbide production	CO ₂	0.1	0.0	<0.01	1.00
Mobile combustion -civil aviation	CO ₂	0.0	0.0	<0.01	1.00
CH ₄ from Forest Land remaining Forest Land	CH ₄	0.0	0.0	<0.01	1.00
Mobile combustion -railways	N ₂ O	0.0	0.0	<0.01	1.00
Mobile combustion -railways	CH ₄	0.0	0.0	<0.01	1.00
N ₂ O from Forest Land remaining Forest Land	N ₂ O	0.0	0.0	<0.01	1.00
Mobile combustion -civil aviation	N ₂ O	0.0	0.0	<0.01	1.00
Mobile combustion -navigation	N ₂ O	0.0	0.0	<0.01	1.00
Mobile combustion -navigation	CH ₄	0.0	0.0	<0.01	1.00
Mobile combustion -civil aviation	CH ₄	0.0	0.0	<0.01	1.00
Mobile combustion -other (agriculture)	CO ₂	0.0	0.0	<0.01	1.00
Mobile combustion -other (agriculture)	N ₂ O	0.0	0.0	<0.01	1.00
Mobile combustion -other (agriculture)	CH ₄	0.0	0.0	<0.01	1.00
N ₂ O emission from Adipic acid production	N ₂ O	0.7	0.0	<0.01	1.00
TOTAL		314.5	194	1.00	

Tier 1 Analysis – Trend Assessment, 2006, including LULUCF (Table 5.4.8 of IPCC GPG 2003)

A IPCC Source Categories	B Direct Greenhouse Gas	C Base Year Estimate Absolute Value (Mt CO₂ Equivalent)	D Current Year Estimate Absolute Value (Mt CO₂ Equivalent)	E Trend Assessment	F % Contribution to trend	G Cumulative Total of Column F
CO ₂ from Forest Land remaining Forest Land	CO ₂	32.6	37.5	0.38	38	0.38
Mobile combustion -road	CO ₂	4.6	12.0	0.17	17	0.55
Stationary combustion solid fuels	CO ₂	58.9	36.6	0.15	15	0.70
CH ₄ from solid waste disposal sites	CH ₄	2.3	5.9	0.08	8	0.78
Stationary combustion liquid fuels	CO ₂	32.8	13.9	0.03	3	0.81
Fugitive emissions - oil and natural gas	CH ₄	21.8	8.8	0.03	3	0.84
PFC emission from Aluminium production	PFC	3.3	0.6	0.02	2	0.86
CO ₂ emissions from Cement production	CO ₂	5.6	3.6	0.02	2	0.88
N ₂ O emission from Nitric acid production	N ₂ O	6.8	2.5	0.01	1	0.89
Stationary combustion - biomass	CH ₄	0.2	0.7	0.01	1	0.90
CO ₂ emission from Iron and steel production	CO ₂	15.8	8.1	<0.01	<1	0.91
CH ₄ from waste water handling	CH ₄	5.4	3.1	<0.01	<1	0.92
Fugitive emissions - solid fuels	CH ₄	6.4	2.6	<0.01	<1	0.93
N ₂ O from waste water handling	N ₂ O	0.6	0.7	<0.01	<1	0.94
Stationary combustion gaseous fuels	CO ₂	61.9	30.0	<0.01	<1	0.94
CH ₄ from enteric fermentation	CH ₄	11.1	5.6	<0.01	<1	0.95
CO ₂ from waste incineration	CO ₂	0.0	0.3	<0.01	<1	0.96
N ₂ O emission from Adipic acid production	N ₂ O	0.7	0.0	<0.01	<1	0.96
N ₂ O from manure management	N ₂ O	3.2	1.8	<0.01	<1	0.97
Mobile combustion -railways	CO ₂	0.9	0.2	<0.01	<1	0.97
CO ₂ emission from Aluminium production	CO ₂	0.4	0.4	<0.01	<1	0.97
CO ₂ emissions from Lime production	CO ₂	3.8	2.0	<0.01	<1	0.98
Direct N ₂ O emissions from agricultural soils	N ₂ O	11.2	5.5	<0.01	<1	0.98
Stationary combustion - biomass	N ₂ O	0.0	0.2	<0.01	<1	0.98
CO ₂ emission from Limestone and dolomite use	CO ₂	1.7	0.9	<0.01	<1	0.98
Indirect N ₂ O emissions from agricultural soils	N ₂ O	7.5	3.5	<0.01	<1	0.98
Agricultural soils: animal production	N ₂ O	3.0	1.5	<0.01	<1	0.99
CO ₂ emission from Solvent and other product use	CO ₂	0.6	0.2	<0.01	<1	0.99
Mobile combustion -navigation	CO ₂	0.3	0.0	<0.01	<1	0.99
CH ₄ from rice production	CH ₄	0.2	0.0	<0.01	<1	0.99
CO ₂ emission from Ferroalloys production	CO ₂	0.3	0.1	<0.01	<1	0.99
CH ₄ from manure management	CH ₄	4.3	2.1	<0.01	<1	0.99
Stationary combustion solid fuels	CH ₄	0.1	0.0	<0.01	<1	0.99
Other transportation -other (pipeline)	CO ₂	0.0	0.1	<0.01	<1	1.00
CO ₂ emission from Carbide production	CO ₂	0.1	0.0	<0.01	<1	1.00
Stationary combustion solid fuels	N ₂ O	0.2	0.2	<0.01	<1	1.00
Mobile combustion -road	CH ₄	0.0	0.0	<0.01	<1	1.00
CH ₄ from field burning of agricultural residues	CH ₄	0.1	0.1	<0.01	<1	1.00

Tier 1 Analysis – Trend Assessment, 2006, including LULUCF (Table 5.4.8 of IPCC GPG 2003)

A IPCC Source Categories	B Direct Greenhouse Gas	C Base Year Estimate Absolute Value (Mt CO₂ Equivalent)	D Current Year Estimate Absolute Value (Mt CO₂ Equivalent)	E Trend Assessment	F % Contribution to trend	G Cumulative Total of Column F
Mobile combustion -road	N ₂ O	0.0	0.0	<0.01	<1	1.00
CO ₂ emission from Ammonia production	CO ₂	5.0	2.4	<0.01	<1	1.00
CO ₂ emission from Mineral products - other	CO ₂	0.1	0.0	<0.01	<1	1.00
Emission from Consumption of halocarbons	PFC, HFC and SF ₆	0.0	0.0	<0.01	<1	1.00
Stationary combustion gaseous fuels	CH ₄	0.1	0.0	<0.01	<1	1.00
N ₂ O from field burning of agricultural residues	N ₂ O	0.0	0.0	<0.01	<1	1.00
CH ₄ emission from Chemical industry-other	CH ₄	0.0	0.0	<0.01	<1	1.00
Stationary combustion liquid fuels	N ₂ O	0.1	0.0	<0.01	<1	1.00
CO ₂ emission from Soda ash production and use	CO ₂	0.1	0.1	<0.01	<1	1.00
CH ₄ from Forest Land remaining Forest Land	CH ₄	0.0	0.0	<0.01	<1	1.00
Mobile combustion -railways	N ₂ O	0.0	0.0	<0.01	<1	1.00
Stationary combustion liquid fuels	CH ₄	0.0	0.0	<0.01	<1	1.00
Mobile combustion -civil aviation	CO ₂	0.0	0.0	<0.01	<1	1.00
Mobile combustion -railways	CH ₄	0.0	0.0	<0.01	<1	1.00
Stationary combustion gaseous fuels	N ₂ O	0.0	0.0	<0.01	<1	1.00
N ₂ O from Forest Land remaining Forest Land	N ₂ O	0.0	0.0	<0.01	<1	1.00
Mobile combustion -navigation	N ₂ O	0.0	0.0	<0.01	<1	1.00
Mobile combustion -navigation	CH ₄	0.0	0.0	<0.01	<1	1.00
Mobile combustion -civil aviation	N ₂ O	0.0	0.0	<0.01	<1	1.00
Mobile combustion -civil aviation	CH ₄	0.0	0.0	<0.01	<1	1.00
Mobile combustion -other (agriculture)	CO ₂	0.0	0.0	<0.01	<1	1.00
Mobile combustion -other (agriculture)	N ₂ O	0.0	0.0	<0.01	<1	1.00
Mobile combustion -other (agriculture)	CH ₄	0.0	0.0	<0.01	<1	1.00
TOTAL		314.5	194	1.01	1	

Key Category Analysis Summary, 2006, including LULUCF (Table 5.4.5 of IPCC GPG 2003)

Quantitative Method Used: ☒ Tier 1 ☐ Tier 2

A IPCC Source Categories	B Direct Green house Gas	C Key Source Category Flag	D If Column C is Yes, Criteria for Identification	E Comments
Energy				
Fugitive emissions -oil and natural gas	CH ₄	Yes	Level, Trend	
Fugitive emissions -solid fuels	CH ₄	Yes	Level, Trend	
Mobile combustion -civil aviation	CO ₂	No		
Mobile combustion -civil aviation	N ₂ O	No		
Mobile combustion -civil aviation	CH ₄	No		
Mobile combustion –navigation	CO ₂	No		
Mobile combustion –navigation	N ₂ O	No		
Mobile combustion –navigation	CH ₄	No		
Mobile combustion -other (agriculture)	CO ₂	No		
Mobile combustion -other (agriculture)	N ₂ O	No		
Mobile combustion -other (agriculture)	CH ₄	No		
Mobile combustion –railways	CO ₂	No		
Mobile combustion –railways	N ₂ O	No		
Mobile combustion –railways	CH ₄	No		
Mobile combustion –road	CO ₂	Yes	Level, Trend	
Mobile combustion –road	CH ₄	No		
Mobile combustion –road	N ₂ O	No		
Other transportation -other (pipeline)	CO ₂	No		
Stationary combustion –biomass	CH ₄	Yes	Trend	
Stationary combustion –biomass	N ₂ O	No		
Stationary combustion gaseous fuels	CO ₂	Yes	Level, Trend	
Stationary combustion gaseous fuels	CH ₄	No		
Stationary combustion gaseous fuels	N ₂ O	No		
Stationary combustion liquid fuels	CO ₂	Yes	Level, Trend	
Stationary combustion liquid fuels	N ₂ O	No		
Stationary combustion liquid fuels	CH ₄	No		
Stationary combustion solid fuels	CO ₂	Yes	Level, Trend	
Stationary combustion solid fuels	N ₂ O	No		
Stationary combustion solid fuels	CH ₄	No		
Industrial Processes				
CH ₄ Chemical industry-other	CH ₄	No		
CO ₂ Ammonia production	CO ₂	Yes	Level	
CO ₂ emissions from cement production	CO ₂	Yes	Level, Trend	
CO ₂ emissions from lime production	CO ₂	No		
CO ₂ from aluminum production	CO ₂	No		
CO ₂ from carbide production	CO ₂	No		
CO ₂ from ferroalloys	CO ₂	No		
CO ₂ from iron and steel production	CO ₂	Yes	Level, Trend	

Key Category Analysis Summary, 2006, including LULUCF (Table 5.4.5 of IPCC GPG 2003)

Quantitative Method Used: ☒ Tier 1 ☐ Tier 2

A IPCC Source Categories	B Direct Greenhouse Gas	C Key Source Category Flag	D If Column C is Yes, Criteria for Identification	E Comments
Industrial Processes				
CO ₂ from limestone and dolomite use	CO ₂	No		
CO ₂ from soda ash production and use	CO ₂	No		
CO ₂ mineral products other	CO ₂	No		
Consumption of halocarbons	PFC, HFC and SF ₆	No		
N ₂ O from adipic acid production	N ₂ O	No		
N ₂ O from nitric acid production	N ₂ O	Yes	Level, Trend	
PFC from aluminium production	PFC	Yes	Trend	
Solvents and other product use				
CO ₂ solvents	CO ₂	No		
Agriculture				
Agricultural soils: animal production	N ₂ O	No		
CH ₄ from enteric fermentation	CH ₄	Yes	Level, Trend	
CH ₄ from field burning of agricultural residues	CH ₄	No		
CH ₄ from manure management	CH ₄	Yes	Level	
CH ₄ from rice production	CH ₄	No		
Direct N ₂ O emissions from agricultural soils	N ₂ O	Yes	Level	
Indirect N ₂ O emissions from agricultural soils	N ₂ O	Yes	Level	
N ₂ O from field burning of agricultural residues	N ₂ O	No		
N ₂ O from manure management	N ₂ O	No		
LULUCF				
CO ₂ from Forest Land remaining Forest Land	CO ₂	Yes	Level, Trend	
CH ₄ from Forest Land remaining Forest Land	CH ₄	No		
N ₂ O from Forest Land remaining Forest Land	N ₂ O	No		
Waste				
CH ₄ from solid waste disposal sites	CH ₄	Yes	Level, Trend	
CH ₄ from waste water handling	CH ₄	Yes	Level, Trend	
CO ₂ from waste incineration	CO ₂	No		
N ₂ O from waste water handling	N ₂ O	Yes	Trend	