Annex 1 – Key categories

Description of methodology used

Key category analysis was done according to the provisions in Chapter 7 of IPCC GPG 2000. A tier 1 method was used to identify key categories (Chapter 7.2.1 of IPCC GPG 2000 presents the method).

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

Key categories analysis took into account every emission source according to the provisions in IPCC GPG 2000 – Reporting Instructions and to those in UNFCCC reporting guidelines on annual inventories.

Tables 7A1 – 7A3 of the IPCC GPG 2000

Tier 1 Analysis – Level Assessment (Table 7A1 of IPCC GPG 2000)					
A **IPCC Source Categories**	**B** **Direct Greenhouse Gas**	**C** **Base Year Estimate (Mt CO_2 Equivalent)**	**D** **Current Year Estimate (Mt CO_2 Equivalent)**	**E** **Level Assessment**	**F** **Cumulative Total of Column E**
Stationary combustion solid fuels	CO_2	**58.9**	**37.4**	**0.24**	**0.24**
Stationary combustion gaseous fuels	CO_2	**61.9**	**29.6**	**0.19**	**0.43**
Stationary combustion liquid fuels	CO_2	**32.7**	**15.3**	**0.10**	**0.53**
Mobile combustion -road	CO_2	**4.6**	**11.5**	**0.07**	**0.61**
Fugitive emissions -oil and natural gas	CH_4	**22.9**	**8.0**	**0.05**	**0.66**
CO_2 from iron and steel production	CO_2	**15.8**	**6.8**	**0.04**	**0.70**
Direct N_2O emissions from agricultural soils	N_2O	**11.2**	**5.8**	**0.04**	**0.74**
CH_4 from enteric fermentation	CH_4	**11.8**	**5.5**	**0.04**	**0.78**
CH_4 from solid waste disposal sites	CH_4	**2.6**	**5.1**	**0.03**	**0.81**
Indirect N_2O emissions from agricultural soils	N_2O	**7.7**	**3.6**	**0.02**	**0.83**
N_2O from nitric acid production	N_2O	**6.8**	**3.2**	**0.02**	**0.86**
CO_2 emissions from cement production	CO_2	**5.6**	**3.2**	**0.02**	**0.88**
Fugitive emissions -solid fuels	CH_4	**6.4**	**2.5**	**0.02**	**0.89**
CO_2 Ammonia production	CO_2	**5.0**	**2.4**	**0.02**	**0.91**
CO_2 emissions from lime production	CO_2	**4.0**	**2.1**	**0.01**	**0.92**
CH_4 from manure management	CH_4	**4.4**	**2.0**	**0.01**	**0.93**
Agricultural soils : animal production	N_2O	**3.3**	**1.7**	**0.01**	**0.95**
CH_4 from waste water handling	CH_4	**2.4**	**1.6**	**0.01**	**0.96**
N_2O from manure management	N_2O	**3.1**	**1.4**	**<0.01**	**0.97**
Stationary combustion -biomass	CH_4	**0.2**	**0.8**	**<0.01**	**0.97**
CO_2 solvents	CO_2	**0.6**	**0.6**	**<0.01**	**0.97**
N_2O from waste water handling	N_2O	**0.7**	**0.6**	**<0.01**	**0.98**
PFC from aluminum production	PFC	**3.3**	**0.6**	**<0.01**	**0.98**
CO_2 from limestone and dolomite use	CO_2	**1.1**	**0.5**	**<0.01**	**0.99**
CO_2 from ferroalloys	CO_2	**0.1**	**0.5**	**<0.01**	**0.99**
CO_2 from aluminum production	CO_2	**0.4**	**0.4**	**<0.01**	**0.99**
Mobile combustion -railways	CO_2	**0.9**	**0.2**	**<0.01**	**0.99**
Stationary combustion -biomass	N_2O	**0.0**	**0.2**	**<0.01**	**0.99**
Stationary combustion solid fuels	N_2O	**0.2**	**0.2**	**<0.01**	**0.99**
Mobile combustion -navigation	CO_2	**1.6**	**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 (Table 7A1 of IPCC GPG 2000)					
A **IPCC Source Categories**	**B** **Direct Greenhouse Gas**	**C** **Base Year Estimate (Mt CO_2 Equivalent)**	**D** **Current Year Estimate (Mt CO_2 Equivalent)**	**E** **Level Assessment**	**F** **Cumulative Total of Column E**
CO_2 from waste incineration	CO_2	**0.1**	**0.1**	**<0.01**	**1.00**
Mobile combustion -civil aviation	CO_2	**0.2**	**0.1**	**<0.01**	**1.00**
Other transportation -other (pipeline)	CO_2	**0.0**	**0.0**	**<0.01**	**1.00**
CO_2 from soda ash production and use	CO_2	**0.1**	**0.0**	**<0.01**	**1.00**
Stationary combustion liquid fuels	N_2O	**0.1**	**0.0**	**<0.01**	**1.00**
Mobile combustion -road	CH_4	**0.0**	**0.0**	**<0.01**	**1.00**
Stationary combustion gaseous fuels	CH_4	**0.1**	**0.0**	**<0.01**	**1.00**
N_2O from field burning of agricultural residues	N_2O	**0.0**	**0.0**	**<0.01**	**1.00**
CO_2 mineral products other	CO_2	**0.1**	**0.0**	**<0.01**	**1.00**
Mobile combustion -road	N_2O	**0.0**	**0.0**	**<0.01**	**1.00**
Stationary combustion solid fuels	CH_4	**0.1**	**0.0**	**<0.01**	**1.00**
CO_2 from carbide production	CO_2	**0.1**	**0.0**	**<0.01**	**1.00**
CH_4 Chemical industry-other	CH_4	**0.0**	**0.0**	**<0.01**	**1.00**
Stationary combustion liquid fuels	CH_4	**0.0**	**0.0**	**<0.01**	**1.00**
Stationary combustion gaseous fuels	N_2O	**0.0**	**0.0**	**<0.01**	**1.00**
CH_4 from rice production	CH_4	**0.2**	**0.0**	**<0.01**	**1.00**
Consumption of halocarbons	PFC, HFC and SF_6	**0.0**	**0.0**	**<0.01**	**1.00**
Mobile combustion -civil aviation	N_2O	**0.0**	**0.0**	**<0.01**	**1.00**
Mobile combustion -railways	N_2O	**0.0**	**0.0**	**<0.01**	**1.00**
Mobile combustion -navigation	N_2O	**0.0**	**0.0**	**<0.01**	**1.00**
Mobile combustion -railways	CH_4	**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_2O	**0.0**	**0.0**	**<0.01**	**1.00**
Mobile combustion -other (agriculture)	CH_4	**0.0**	**0.0**	**<0.01**	**1.00**
N_2O from adipic acid production	N_2O	**0.7**	**0.0**	**<0.01**	**1.00**
TOTAL		**282.5**	**154**	**1.00**	

Tier 1 Analysis – Trend Assessment (Table 7A2 of IPCC GPG 2000)						
A **IPCC Source Categories**	**B** **Direct Greenhouse Gas**	**C** **Base Year Estimate (Mt CO_2 Equivalent)**	**D** **Current Year Estimate (Mt CO_2 Equivalent)**	**E** **Trend Assessment**	**F** **% Contribution to trend**	**G** **Cumulative Total of Column F**
Mobile combustion -road	CO_2	**4.6**	**11.5**	**0.11**	**22**	**0.22**
Stationary combustion solid fuels	CO_2	**58.9**	**37.4**	**0.06**	**13**	**0.35**
Fugitive emissions -oil and natural gas	CH_4	**22.9**	**8.0**	**<0.01**	**11**	**0.46**
Stationary combustion gaseous fuels	CO_2	**61.9**	**29.6**	**<0.01**	**10**	**0.57**
CH_4 from solid waste disposal sites	CH_4	**2.6**	**5.1**	**0.04**	**9**	**0.66**
Stationary combustion liquid fuels	CO_2	**32.7**	**15.3**	**<0.01**	**6**	**0.72**
CO_2 from iron and steel production	CO_2	**15.8**	**6.8**	**<0.01**	**4**	**0.76**
PFC from aluminum production	PFC	**3.3**	**0.6**	**<0.01**	**3**	**0.80**
Fugitive emissions -solid fuels	CH_4	**6.4**	**2.5**	**<0.01**	**2**	**0.82**
CH_4 from enteric fermentation	CH_4	**11.8**	**5.5**	**<0.01**	**2**	**0.84**
Mobile combustion -navigation	CO_2	**1.6**	**0.1**	**<0.01**	**2**	**0.86**
Stationary combustion -biomass	CH_4	**0.2**	**0.8**	**<0.01**	**2**	**0.88**
Indirect N_2O emissions from agricultural soils	N_2O	**7.7**	**3.6**	**<0.01**	**1**	**0.89**
N_2O from nitric acid production	N_2O	**6.8**	**3.2**	**<0.01**	**1**	**0.90**
CO_2 from ferroalloys	CO_2	**0.1**	**0.5**	**<0.01**	**<1**	**0.91**
CH_4 from manure management	CH_4	**4.4**	**2.0**	**<0.01**	**<1**	**0.92**
Direct N_2O emissions from agricultural soils	N_2O	**11.2**	**5.8**	**<0.01**	**<1**	**0.93**
CO_2 Ammonia production	CO_2	**5.0**	**2.4**	**<0.01**	**<1**	**0.94**
CO_2 solvents	CO_2	**0.6**	**0.6**	**<0.01**	**<1**	**0.95**
Mobile combustion -railways	CO_2	**0.9**	**0.2**	**<0.01**	**<1**	**0.95**
N_2O from waste water handling	N_2O	**0.7**	**0.6**	**<0.01**	**<1**	**0.96**
N_2O from manure management	N_2O	**3.1**	**1.4**	**<0.01**	**<1**	**0.97**
CH_4 from waste water handling	CH_4	**2.4**	**1.6**	**<0.01**	**<1**	**0.97**
Stationary combustion -biomass	N_2O	**0.0**	**0.2**	**<0.01**	**<1**	**0.97**
CO_2 from aluminum production	CO_2	**0.4**	**0.4**	**<0.01**	**<1**	**0.98**
CO_2 emissions from cement production	CO_2	**5.6**	**3.2**	**<0.01**	**<1**	**0.98**
Agricultural soils : animal production	N_2O	**3.3**	**1.7**	**<0.01**	**<1**	**0.98**
CO_2 emissions from lime production	CO_2	**4.0**	**2.1**	**<0.01**	**<1**	**0.99**
CH_4 from rice production	CH_4	**0.2**	**0.0**	**<0.01**	**<1**	**0.99**
CO_2 from limestone and dolomite use	CO_2	**1.1**	**0.5**	**<0.01**	**<1**	**0.99**
Stationary combustion solid fuels	CH_4	**0.1**	**0.0**	**<0.01**	**<1**	**0.99**
CO_2 from carbide production	CO_2	**0.1**	**0.0**	**<0.01**	**<1**	**0.99**
Other transportation -other (pipeline)	CO_2	**0.0**	**0.0**	**<0.01**	**<1**	**0.99**
CO_2 from waste incineration	CO_2	**0.1**	**0.1**	**<0.01**	**<1**	**0.99**
CH_4 from field burning of agricultural residues	CH_4	**0.1**	**0.1**	**<0.01**	**<1**	**1.00**

Tier 1 Analysis – Trend Assessment (Table 7A2 of IPCC GPG 2000)						
A **IPCC Source Categories**	**B** **Direct Greenhouse Gas**	**C** **Base Year Estimate (Mt CO_2 Equivalent)**	**D** **Current Year Estimate (Mt CO_2 Equivalent)**	**E** **Trend Assessment**	**F** **% Contribution to trend**	**G** **Cumulative Total of Column F**
Mobile combustion -road	CH_4	**0.0**	**0.0**	**<0.01**	**<1**	**1.00**
CO_2 from soda ash production and use	CO_2	**0.1**	**0.0**	**<0.01**	**<1**	**1.00**
Stationary combustion solid fuels	N_2O	**0.2**	**0.2**	**<0.01**	**<1**	**1.00**
CO_2 mineral products other	CO_2	**0.1**	**0.0**	**<0.01**	**<1**	**1.00**
Mobile combustion -road	N_2O	**0.0**	**0.0**	**<0.01**	**<1**	**1.00**
Mobile combustion -civil aviation	CO_2	**0.2**	**0.1**	**<0.01**	**<1**	**1.00**
N_2O from field burning of agricultural residues	N_2O	**0.0**	**0.0**	**<0.01**	**<1**	**1.00**
Stationary combustion gaseous fuels	CH_4	**0.1**	**0.0**	**<0.01**	**<1**	**1.00**
Stationary combustion liquid fuels	N_2O	**0.1**	**0.0**	**<0.01**	**<1**	**1.00**
Stationary combustion gaseous fuels	N_2O	**0.0**	**0.0**	**<0.01**	**<1**	**1.00**
Consumption of halocarbons	PFC, HFC and SF_6	**0.0**	**0.0**	**<0.01**	**<1**	**1.00**
Mobile combustion -navigation	N_2O	**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 -navigation	CH_4	**0.0**	**0.0**	**<0.01**	**<1**	**1.00**
Mobile combustion -railways	N_2O	**0.0**	**0.0**	**<0.01**	**<1**	**1.00**
Mobile combustion -railways	CH_4	**0.0**	**0.0**	**<0.01**	**<1**	**1.00**
CH_4 Chemical industry-other	CH_4	**0.0**	**0.0**	**<0.01**	**<1**	**1.00**
Mobile combustion -civil aviation	N_2O	**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_2O	**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_2O from adipic acid production	N_2O	**0.7**	**0.0**	**<0.01**	**<1**	**1.00**
TOTAL		**282.5**	**154**	**0.48**	**1**	

Source Category Analysis Summary (Table 7A3 of IPCC GPG 2000)				
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**
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_2O	No		
Mobile combustion -civil aviation	CH_4	No		
Mobile combustion -navigation	CO_2	Yes	Trend	
Mobile combustion -navigation	N_2O	No		
Mobile combustion -navigation	CH_4	No		
Mobile combustion -other (agriculture)	CO_2	No		
Mobile combustion -other (agriculture)	N_2O	No		
Mobile combustion -other (agriculture)	CH_4	No		
Mobile combustion -railways	CO_2	No		
Mobile combustion -railways	N_2O	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_2O	No		
Other transportation -other (pipeline)	CO_2	No		
Stationary combustion -biomass	CH_4	Yes	Trend	
Stationary combustion -biomass	N_2O	No		
Stationary combustion gaseous fuels	CO_2	Yes	Level, Trend	
Stationary combustion gaseous fuels	CH_4	No		
Stationary combustion gaseous fuels	N_2O	No		
Stationary combustion liquid fuels	CO_2	Yes	Level, Trend	
Stationary combustion liquid fuels	N_2O	No		
Stationary combustion liquid fuels	CH_4	No		
Stationary combustion solid fuels	CO_2	Yes	Level, Trend	
Stationary combustion solid fuels	N_2O	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	
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	Yes	Trend	
CO_2 from iron and steel production	CO_2	Yes	Level, Trend	

Source Category Analysis Summary (Table 7A3 of IPCC GPG 2000)				
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, SF_6	No		
N_2O from adipic acid production(a incetat prod.)	N_2O	No		
N_2O from nitric acid production	N_2O	Yes	Level, Trend	
PFC from aluminium production	PFC	Yes	Trend	
Solvents and other product use				
CO_2 solvents	CO_2	Yes	Trend	
Agriculture				
Agricultural soils : animal production	N_2O	Yes	Level	
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, Trend	
CH_4 from rice production	CH_4	No		
Direct N_2O emissions from agricultural soils	N_2O	Yes	Level, Trend	
Indirect N_2O emissions from agricultural soils	N_2O	Yes	Level, Trend	
N_2O from field burning of agricultural residues	N_2O	No		
N_2O from manure management	N_2O	No		
Waste				
CH_4 from solid waste disposal sites	CH_4	Yes	Level, Trend	
CH_4 from waste water handling	CH_4	No		
CO_2 from waste incineration	CO_2	No		
N_2O from waste water handling	N_2O	No		