Mapping of the categories in the 2006 IPCC Guidelines for National Greenhouse Gas Inventories and those in the common reporting tables (CRT)

Mandate

Paragraph 29 of decision 5/CMA.3 requested the secretariat to undertake a mapping exercise of the categories in the 2006 IPCC Guidelines for National Greenhouse Gas Inventories and those in the common reporting tables to identify differences in category names and to make the findings of this mapping exercise available to national greenh ouse gas inventory compilers.

Approach

This document outlines the approach taken to prepare the mapping. The results are presented in Annex which contains two tables: Table 1 provides a mapping of categories between the common reporting tables (CRT) agreed in annex I to decision 5/CMA.3 and the 2006 IPCC Guidelines, as contained in Volume 1, Chapter 8, Annex 8A.2. Table 2 provides a mapping of fuels between the CRT and the 2006 IPCC Guidelines, as listed in Volume 2, Chapter 1, table 1.1.

Annex

Table 1: Mapping of the category names in the 2006 IPCC Guidelines for National Greenhouse Gas Inventories and those in the common reporting tables

This table is structured as follows:

1. **Category names in the CRT.** The category names were taken from the complete hierarchy of "categories" contained in column B of the sectoral tables and sectoral background tables of the CRT. For example, the category of 1.B.2. Oil and natural gas and other emissions from energy production from "Table 1 Sectoral report for energy" is fully disaggregated by subcategories as contained in "Table 1.B.2 Sectoral background data for energy".

   Please note the following exceptions: for the energy sector, Table 1 below does not consider fuels as category names (e.g. fuel names as contained in column B of the CRT table 1.A(a), as e.g. liquid fuels). Rather differences in fuels between the CRT and the 2006 IPCC Guidelines are addressed separately in table 2 (see below). In the case of the LULUCF sector, for tables 4(II) and 4(III), since the same mapping results applied across various soil types and land-use categories, the presentation of categories has been streamlined to indicate that the same mapping applies for these rows of the CRT.

2. **Category names in the 2006 IPCC Guidelines.** The comparison in this column is based on the category headings, as contained in Volume 1, Chapter 8, Annex 8A.2.

Table 2: Mapping of the fuel names in the 2006 IPCC Guidelines for National Greenhouse Gas Inventories and those in the common reporting tables

This table contains two columns as follows:

1. **Fuel names in the CRT.** The fuel names are listed based on the complete hierarchy of "fuels" contained in column D of "Table 1.A(b) Sectoral Background Data for Energy" of the CRT.
2. **Fuel names in the 2006 IPCC Guidelines.** This column contains the corresponding fuel as listed in Volume 2, Chapter 1, table 1.1 of the 2006 IPCC Guidelines.

Annex

Table 1: Mapping of the category names in the 2006 IPCC Guidelines for National Greenhouse Gas Inventories and those in the common reporting tables (CRT)

Category names in the CRT	Category names in the 2006 IPCC Guidelines	Note
1. Energy		
Total Energy	1 Energy	
1.A. Fuel combustion activities (sectoral approach)	1 A Fuel Combustion Activities	
1.A.1. Energy industries	1 A 1 Energy Industries	
1.A.1.a. Public electricity and heat production	1 A 1 a Main Activity Electricity and Heat Production	
Drop-down list:		
1.A.1.a.i. Electricity generation	1 A 1 a i Electricity Generation	
1.A.1.a.ii. Combined heat and power generation	1 A 1 a ii Combined Heat and Power Generation (CHP)	
1.A.1.a.iii. Heat plants	1 A 1 a iii Heat Plants	
1.A.1.b. Petroleum refining	1 A 1 b Petroleum Refining	
1.A.1.c. Manufacture of solid fuels and other energy industries	1 A 1 c Manufacture of Solid Fuels and Other Energy Industries	
Drop-down list:		
1.A.1.c.i. Manufacture of solid fuels	1 A 1 c i Manufacture of Solid Fuels	
1.A.1.c.ii. Oil and gas extraction	—	This category is included in the IPCC "1 A 1 c ii Other energy industries" as a sub-element
1.A.1.c.iii. Other energy industries	1 A 1 c ii Other Energy Industries	
1.A.2. Manufacturing industries and construction	1 A 2 Manufacturing Industries and Construction	
1.A.2.a. Iron and steel	1 A 2 a Iron and Steel	
1.A.2.b. Non-ferrous metals	1 A 2 b Non-Ferrous Metals	
1.A.2.c. Chemicals	1 A 2 c Chemicals	
1.A.2.d. Pulp, paper and print	1 A 2 d Pulp, Paper and Print	
1.A.2.e. Food processing, beverages and tobacco	1 A 2 e Food Processing, Beverages and Tobacco	
1.A.2.f. Non-metallic minerals	1 A 2 f Non-Metallic Minerals	
1.A.2.g. Other	—	This CRT category is calculated based on sub-categories listed in the drop-down list.
Drop-down list:		
1.A.2.g.i. Manufacturing of machinery	1 A 2 h Machinery	
1.A.2.g.ii. Manufacturing of transport equipment	1 A 2 g Transport Equipment	
1.A.2.g.iii. Mining (excluding fuels) and quarrying	1 A 2 i Mining (excluding fuels) and Quarrying	
1.A.2.g.iv. Wood and wood products	1 A 2 j Wood and Wood Products	
1.A.2.g.v. Construction	1 A 2 k Construction	
1.A.2.g.vi. Textile and leather	1 A 2 l Textile and Leather	
1.A.2.g.vii. Off-road vehicles and other machinery	1 A 3 e ii Off-road	This IPCC category covers multiple CRT categories.
1.A.2.g.viii. Other *(please specify)*	1 A 2 m Non-specified Industry	
1.A.3. Transport	1 A 3 Transport	
1.A.3.a. Domestic aviation	1 A 3 a ii Domestic Aviation	
1.A.3.b. Road transportation	1 A 3 b Road Transportation	
1.A.3.b.i. Cars	1 A 3 b i Cars	
—	1 A 3 b i 1 Passenger Cars With 3-way Catalysts	

Category names in the CRT	Category names in the 2006 IPCC Guidelines	Note
——	1 A 3 b i 2 Passenger Cars Without 3-way Catalysts	
1.A.3.b.ii. Light duty trucks	1 A 3 b ii Light-duty Trucks	
——	1 A 3 b ii 1 Light-duty Trucks With 3-way Catalysts	
——	1 A 3 b ii 2 Light-duty Trucks Without 3-way Catalysts	
1.A.3.b.iii. Heavy duty trucks and buses	1 A 3 b iii Heavy-duty Trucks and Buses	
1.A.3.b.iv. Motorcycles	1 A 3 b iv Motorcycles	
1.A.3.b.v. Other *(please specify)*	——	This CRT category is calculated based on country-specific sub-categories in the CRT.
——	1 A 3 b v Evaporative Emissions from Vehicles	
1.A.3.c. Railways	1 A 3 c Railways	
1.A.3.d. Domestic navigation	1 A 3 d ii Domestic Water-borne Navigation	
1.A.3.e. Other transportation	1 A 3 e Other Transportation	
1.A.3.e.i. Pipeline transport	1 A 3 e i Pipeline Transport	
1.A.3.e.ii. Other *(please specify)*	——	This CRT category is calculated based on country-specific sub-categories in the CRT.
——	1 A 3 e ii Off-road	This IPCC category covers multiple CRT categories.
1.A.4. Other sectors	1 A 4 Other Sectors	
1.A.4.a. Commercial/institutional	1 A 4 a Commercial/Institutional	
Drop-down list:		
1.A.4.a.i. Stationary combustion	——	
1.A.4.a.ii. Off-road vehicles and other machinery	1 A 3 e ii Off-road	This IPCC category covers multiple CRT categories.
1.A.4.b. Residential	1 A 4 b Residential	
Drop-down list:		
1.A.4.b.i. Stationary combustion	——	
1.A.4.b.ii. Off-road vehicles and other machinery	1 A 3 e ii Off-road	This IPCC category covers multiple CRT categories.
1.A.4.c. Agriculture/forestry/fishing	1 A 4 c Agriculture/Forestry/Fishing/Fish Farms	
1.A.4.c.i. Stationary	1 A 4 c i Stationary	
1.A.4.c.ii. Off-road vehicles and other machinery	1 A 4 c ii Off-road Vehicles and Other Machinery	
1.A.4.c.iii. Fishing	1 A 4 c iii Fishing (mobile combustion)	
1.A.5. Other	1 A 5 Non-Specified	
1.A.5.a. Stationary	1 A 5 a Stationary	
1.A.5.b. Mobile	1 A 5 b Mobile	
——	1 A 5 b i Mobile (Aviation Component)	
——	1 A 5 b ii Mobile (Water-borne Component)	
——	1 A 5 b iii Mobile (Other)	
1.A(b). CO_2 from fuel combustion activities - reference approach (IPCC worksheet fuel combustion activities)	——	In the 2006 IPCC Guidelines, information for table 1.A(b) of the CRT is based on underlying information in table 1.5 Energy Background Table: Reference Approach in annex 8A.2 of the 2006 IPCC Guidelines volume 1.
1.A(c). Comparison of CO_2 emissions from fuel combustion	——	Information in both the CRT and the 2006 IPCC Guidelines is calculated based on underlying information in sectoral and reference and approach.
1.A(d). Feedstocks, reductants and other non-energy use of fuels	——	In the 2006 IPCC Guidelines, information for table 1.A(d) of the CRT is based on underlying information in table 1.5 Energy

Category names in the CRT	Category names in the 2006 IPCC Guidelines	Note
		Background Table: Reference Approach and table 2.12 IPPU Background Table: Allocation of CO2 emissions from Non-Energy Use of fossil fuels: IPPU and other sectors in annex 8A.2 of the 2006 IPCC Guidelines volume 1.
Information item:		
Waste incineration with energy recovery included as:		
Biomass	—	
Fossil fuels	—	
1.B. Fugitive emissions from fuels	1 B Fugitive Emissions from Fuels	
1.B.1. Solid fuels	1 B 1 Solid Fuels	
1.B.1.a. Coal mining and handling	1 B 1 a Coal Mining and Handling	
1.B.1.a.i. Underground mines	1 B 1 a i Underground Mines	
1.B.1.a.i.1. Mining activities	1 B 1 a i 1 Mining	
1.B.1.a.i.2. Post-mining activities	1 B 1 a i 2 Post-mining Seam Gas Emissions	
1.B.1.a.i.3. Abandoned underground mines *(number of mines)*	1 B 1 a i 3 Abandoned Underground Mines	
1.B.1.a.i.4. Flaring of drained methane or conversion of methane to CO_2	1 B 1 a i 4 Flaring of Drained Methane or Conversion of Methane to CO2	
1.B.1.a.i.5. Other (*please specify*)	—	This CRT category is calculated based on country-specific sub-categories in the CRT.
1.B.1.a.ii. Surface mines	1 B 1 a ii Surface Mines	
1.B.1.a.ii.1. Mining activities	1 B 1 a ii 1 Mining	
1.B.1.a.ii.2. Post-mining activities	1 B 1 a ii 2 Post-mining Seam Gas Emissions	
1.B.1.a.ii.3. Other *(please specify)*	—	This CRT category is calculated based on country-specific sub-categories in the CRT.
1.B.1.b. Fuel transformation	1 B 1 c Solid Fuel Transformation	
Drop-down list:		
1.B.1.b.i. Charcoal and biochar production	—	The 2019 Refinement to the 2006 IPCC Guidelines for National Greenhouse Gas Inventories includes "1 B 1 c i Charcoal and Biochar Production".
1.B.1.b.ii. Coke production	—	The 2019 Refinement to the 2006 IPCC Guidelines for National Greenhouse Gas Inventories includes "1 B 1 c ii Coke Production".
1.B.1.b.iii. Coal to liquids	—	The 2019 Refinement to the 2006 IPCC Guidelines for National Greenhouse Gas Inventories includes "1 B 1 c iv Gasification Transformation".
1.B.1.b.iv. Gas to liquids	—	The 2019 Refinement to the 2006 IPCC Guidelines for National Greenhouse Gas Inventories includes "1 B 1 c iv Gasification Transformation".
1.B.1.b.v. Other *(please specify)*	—	This CRT category is calculated based on country-specific sub-categories in the CRT.
1.B.1.c. Other *(please specify)*	—	This CRT category is calculated based on country-specific sub-categories in the CRT.
—	1 B 1 b Uncontrolled Combustion, and Burning Coal Dumps	
1.B.2. Oil and natural gas and other emissions from energy production	1 B 2 Oil and Natural Gas	
1.B.2.a. Oil	1 B 2 a Oil	

Category names in the CRT	Category names in the 2006 IPCC Guidelines	Note
1.B.2.a.i. Exploration	1 B 2 a iii 1 Exploration	
1.B.2.a.ii. Production and upgrading	1 B 2 a iii 2 Production and Upgrading	
1.B.2.a.iii. Transport	1 B 2 a iii 3 Transport	
1.B.2.a.iv. Refining/storage	1 B 2 a iii 4 Refining	
1.B.2.a.v. Distribution of oil products	1 B 2 a iii 5 Distribution of Oil Products	
1.B.2.a.vi. Other	1 B 2 a iii 6 Other	
Drop down list:		
1.B.2.a.vi.1. Abandoned wells	—	The 2019 Refinement to the 2006 IPCC Guidelines for National Greenhouse Gas Inventories includes "1 B 2 a vii Abandoned Oil Wells".
1.B.2.a.vi.2. Other *(please specify)*	—	This CRT category is calculated based on country-specific sub-categories in the CRT.
1.B.2.b. Natural gas	1 B 2 b Natural Gas	
1.B.2.b.i. Exploration	1 B 2 b iii 1 Exploration	
1.B.2.b.ii. Production and gathering	1 B 2 b iii 2 Production	
1.B.2.b.iii. Processing	1 B 2 b iii 3 Processing	
1.B.2.b.iv. Transmission and storage	1 B 2 b iii 4 Transmission and Storage	
1.B.2.b.v. Distribution	1 B 2 b iii 5 Distribution	
1.B.2.b.vi. Other	1 B 2 b iii 6 Other	
Drop down list:		
1.B.2.b.vi.1. Gas post-meter	—	The 2019 Refinement to the 2006 IPCC Guidelines for National Greenhouse Gas Inventories includes "1 B 2 b vi Gas Post-Meter".
1.B.2.b.vi.2. Abandoned wells	—	The 2019 Refinement to the 2006 IPCC Guidelines for National Greenhouse Gas Inventories includes "1 B 2 b viii Abandoned Gas Wells".
1.B.2.b.vi.3. Other *(please specify)*	—	This CRT category is calculated based on country-specific sub-categories in the CRT.
1.B.2.c. Venting and flaring	—	This CRT category is calculated based on sub-categories.
1.B.2.c.i. Venting	—	This CRT category is calculated based on sub-categories.
1.B.2.c.i.1. Oil	1 B 2 a i Venting	
1.B.2.c.i.2. Gas	1 B 2 b i Venting	
1.B.2.c.i.3. Combined	—	
1.B.2.c.ii. Flaring	—	This CRT category is calculated based on sub-categories.
1.B.2.c.ii.1. Oil	1 B 2 a ii Flaring	
1.B.2.c.ii.2. Gas	1 B 2 b ii Flaring	
1.B.2.c.ii.3. Combined	—	
1.B.2.d. Other *(please specify)*	—	This CRT category is calculated based on country-specific sub-categories in the CRT.
—	1 B 3 Other Emissions from Energy Production	
1.C. CO_2 Transport and storage	1 C Carbon Dioxide Transport and Storage	
1.C.1. Transport of CO_2	1 C 1 Transport of CO_2	
1.C.1.a. Pipelines	1 C 1 a Pipelines	
1.C.1.b. Ships	1 C 1 b Ships	
1.C.1.c. Other *(please specify)*	1 C 1 c Other (please specify)	
1.C.2. Injection and storage	1 C 2 Injection and Storage	
1.C.2.a. Injection	1 C 2 a Injection	

Category names in the CRT	Category names in the 2006 IPCC Guidelines	Note
1.C.2.b. Storage	1 C 2 b Storage	
1.C.3. Other	1 C 3 Other	
Information item (kt CO_2)		
Total amount captured for storage	—	"Total amount captured for storage" of the CRT is the same as "Total amount captured for storage (A)" included in "table 1.4b Energy Background Table: 1C CO_2 Transport, Injection and Storage - Overview" in annex 8A.2 to the 2006 IPCC Guidelines volume 1, chapter 8.
Total amount of imports for storage	—	"Total amount of imports for storage" of the CRT is the same as "Total amount of import for storage (B)" included in "table 1.4b Energy Background Table: 1C CO_2 Transport, Injection and Storage - Overview" in annex 8A.2 to the 2006 IPCC Guidelines volume 1, chapter 8.
Total A	—	This "Total A" is calculated based on "Total amount captured for storage" and "Total amount of imports for storage" above. This total is the same as "Capture +Imports (F=A+B)" included in "table 1.4b Energy Background Table: 1C CO_2 Transport, Injection and Storage - Overview" in annex 8A.2 to the 2006 IPCC Guidelines volume 1, chapter 8.
Total amount of exports for storage	—	"Total amount of exports for storage" of the CRT is the same as "Total amount of export for storage (C)" included in "table 1.4b Energy Background Table: 1C CO_2 Transport, Injection and Storage - Overview" in annex 8A.2 to the 2006 IPCC Guidelines volume 1, chapter 8.
Total amount of CO_2 injected at storage sites	—	"Total amount of CO_2 injected at storage sites" of the CRT is included in "Total amount of CO_2 injected at storage sites (D)" included in "table 1.4b Energy Background Table: 1C CO_2 Transport, Injection and Storage - Overview" in annex 8A.2 to the 2006 IPCC Guidelines volume 1, chapter 8, Table 1.4b does not distinguish between injected for storage and injected for operational use.
CO_2 injected for operational usage	—	same as above
Total leakage from transport, injection and storage	—	"Total leakage from transport, injection and storage" of the CRT is the same as, "Total leakage (E4 = E1 + E2 + E3))" included in "table 1.4b Energy Background Table: 1C CO_2 Transport, Injection and Storage - Overview" in annex 8A.2 to the 2006 IPCC Guidelines volume 1, chapter 8.
Total B	—	This "Total B" is calculated based on the sum of "Total amount of exports for storage", "Total amount of CO_2 injected at storage sites", "CO_2 injected for operational usage" and "Total leakage from transport, injection and storage" above. Equivalent information for Total B is included in "Injection +leakage +exports (G=D+E4+C) in "table 1.4b Energy Background Table: 1C CO_2 Transport, Injection and Storage - Overview" in annex 8A.2 to the 2006 IPCC Guidelines volume 1, chapter 8
Difference (A-B)	—	This "Difference (A-B)" is calculated based on "Total A" and "Total B" above. Equivalent information for "Difference (A-B)" is included in "Discrepancy (F-G)" in "table 1.4b Energy

Category names in the CRT	Category names in the 2006 IPCC Guidelines	Note
		Background Table: 1C CO_2 Transport, Injection and Storage - Overview" in annex 8A.2 to the 2006 IPCC Guidelines volume 1, chapter 8.
1.D. Memo items:		
1.D.1. International bunkers	—	This CRT category is calculated based on sub-categories.
1.D.1.a. International aviation (aviation bunkers)	1 A 3 a i International Aviation (International Bunkers)	
1.D.1.b. International navigation (marine bunkers)	1 A 3 d i International Water-borne Navigation (International Bunkers)	
1.D.2. Multilateral operations	1 A 5 c Multilateral Operations	
1.D.3. CO_2 emissions from biomass	—	This CRT category is included in "Table 6.A Trends of CO_2 (3 of 3)" in annex 8A.2 to the 2006 IPCC Guidelines volume 1, chapter 8.
1.D.4. CO_2 captured	—	same as above
1.D.4.a. For domestic storage	—	same as above
1.D.4.b. For storage in other countries	—	same as above
2. Industrial processes and product use		
2. Total industrial processes	2 Industrial Processes and Product Use	
2.A. Mineral industry	2 A Mineral Industry	
2.A.1. Cement production	2 A 1 Cement Production	
2.A.2. Lime production	2 A 2 Lime Production	
2.A.3. Glass production	2 A 3 Glass Production	
2.A.4. Other process uses of carbonates	2 A 4 Other Process Uses of Carbonates	
2.A.4.a. Ceramics	2 A 4 a Ceramics	
2.A.4.b. Other uses of soda ash	2 A 4 b Other Uses of Soda Ash	
2.A.4.c. Non-metallurgical magnesium production	2 A 4 c Non Metallurgical Magnesia Production	
2.A.4.d. Other *(please specify)*	2 A 4 d Other (please specify)	
—	2 A 5 Other (please specify)	
2.B. Chemical industry	2 B Chemical Industry	
2.B.1. Ammonia production	2 B 1 Ammonia Production	
2.B.2. Nitric acid production	2 B 2 Nitric Acid Production	
2.B.3. Adipic acid production	2 B 3 Adipic Acid Production	
2.B.4. Caprolactam, glyoxal and glyoxylic acid production	2 B 4 Caprolactam, Glyoxal and Glyoxylic Acid Production	
2.B.4.a. Caprolactam	—	This category is included in the IPCC "2 B 4 Caprolactam, Glyoxal and Glyoxylic Acid Production" as a sub-element.
2.B.4.b. Glyoxal	—	same as above
2.B.4.c. Glyoxylic acid	—	same as above
2.B.5. Carbide production	2 B 5 Carbide Production	
2.B.5.a. Silicon carbide	—	This category is included in the IPCC "2 B 5 Carbide Production" as a sub-element.
2.B.5.b. Calcium carbide	—	same as above
2.B.6. Titanium dioxide production	2 B 6 Titanium Dioxide Production	
2.B.7. Soda ash production	2 B 7 Soda Ash Production	
2.B.8. Petrochemical and carbon black production	2 B 8 Petrochemical and Carbon Black Production	
2.B.8.a. Methanol	2 B 8 a Methanol	
2.B.8.b. Ethylene	2 B 8 b Ethylene	

Category names in the CRT	Category names in the 2006 IPCC Guidelines	Note
2.B.8.c. Ethylene dichloride and vinyl chloride monomer	2 B 8 c Ethylene Dichloride and Vinyl Chloride Monomer	
2.B.8.d. Ethylene oxide	2 B 8 d Ethylene Oxide	
2.B.8.e. Acrylonitrile	2 B 8 e Acrylonitrile	
2.B.8.f. Carbon black	2 B 8 f Carbon Black	
2.B.8.g. Other	—	This CRT category is calculated based on sub-categories listed in the drop-down list.
Drop-down list:		
2.B.8.g.i. Styrene	—	
2.B.8.g.ii. Other *(please specify)*	—	This CRT category is calculated based on country-specific sub-categories in the CRT.
2.B.9. Fluorochemical production	2 B 9 Fluorochemical Production	
2.B.9.a. By-product emissions	2 B 9 a By-product Emissions	
2.B.9.a.i. Production of HCFC-22	—	The 2019 Refinement to the 2006 IPCC Guidelines for National Greenhouse Gas Inventories includes "2 B 9 a HCFC-22 Production".
2.B.9.a.ii. Other *(please specify)*	—	This CRT category is calculated based on country-specific sub-categories in the CRT.
2.B.9.b. Fugitive emissions	2 B 9 b Fugitive Emissions	
2.B.9.b.i. Production of HFC-134a	—	The 2019 Refinement to the 2006 IPCC Guidelines for National Greenhouse Gas Inventories includes "2 B 9 b HFC Production (specify HFC(s) produced)".
2.B.9.b.ii.Production of SF_6	—	The 2019 Refinement to the 2006 IPCC Guidelines for National Greenhouse Gas Inventories includes "2 B 9 d SF_6 Production".
2.B.9.b.iii.Production of NF_3	—	The 2019 Refinement to the 2006 IPCC Guidelines for National Greenhouse Gas Inventories includes "2 B 9 e NF3 Production".
2.B.9.b.iv. Other *(please specify)*	—	This CRT category is calculated based on country-specific sub-categories in the CRT.
2.B.10. Other	2 B 10 Other (please specify)	
2.B.10.a. Hydrogen production	—	The 2019 Refinement to the 2006 IPCC Guidelines for National Greenhouse Gas Inventories includes "2 B 10 Hydrogen Production".
2.B.10.b. Other *(please specify)*	—	This CRT category is calculated based on country-specific sub-categories in the CRT.
2.C. Metal industry	2 C Metal Industry	
2.C.1. Iron and steel production	2 C 1 Iron and Steel Production	
2.C.1.a. Steel	—	This category is included in the IPCC "2 C 1 Iron and Steel Production" as a sub-element.
2.C.1.b. Pig iron	—	same as above
2.C.1.c. Direct reduced iron	—	same as above
2.C.1.d. Sinter	—	same as above
2.C.1.e. Pellet	—	same as above
2.C.1.f. Other *(please specify)*	—	This CRT category is calculated based on country-specific sub-categories in the CRT.
2.C.2. Ferroalloys production	2 C 2 Ferroalloys Production	
2.C.3. Aluminium production	2 C 3 Aluminium Production	

Category names in the CRT	Category names in the 2006 IPCC Guidelines	Note
2.C.3.a. By-product emissions	—	This category is included in the IPCC "2 C 3 Aluminium Production" as a sub-element.
2.C.3.b. F-gases used in foundries	—	This category is included in the IPCC "2 C 4 Magnesium" as a sub-element.
2.C.4. Magnesium production	2 C 4 Magnesium Production	
2.C.5. Lead production	2 C 5 Lead Production	
2.C.6. Zinc production	2 C 6 Zinc Production	
2.C.7. Other	2 C 7 Other (please specify)	
Drop-down list:		
2.C.7.a. Rare earths production	—	The 2019 Refinement to the 2006 IPCC Guidelines for National Greenhouse Gas Inventories includes "2 C 7 Rare Earths Production".
2.C.7.b. Other *(please specify)*	—	This CRT category is calculated based on country-specific sub-categories in the CRT.
2.D. Non-energy products from fuels and solvent use	2 D Non-Energy Products from Fuels and Solvent Use	
2.D.1. Lubricant use	2 D 1 Lubricant Use	
2.D.2. Paraffin wax use	2 D 2 Paraffin Wax Use	
2.D.3. Other	—	This CRT category is calculated based on sub-categories listed in the drop-down list.
Drop-down list:		
2.D.3.a. Solvent use	2 D 3 Solvent Use	
2.D.3.b. Road paving with asphalt	—	-
2.D.3.c. Asphalt roofing	—	-
2.D.3.d. Other *(please specify)*	2 D 4 Other (please specify)	-
—	1 A 3 b vi Urea-based Catalysts	
2.E. Electronics industry	2 E Electronics Industry	
2.E.1. Integrated circuit or semiconductor	2 E 1 Integrated Circuit or Semiconductor	
2.E.2. TFT flat panel display	2 E 2 TFT Flat Panel Display	
2.E.3. Photovoltaics	2 E 3 Photovoltaics	
2.E.4. Heat transfer fluid	2 E 4 Heat Transfer Fluid	
2.E.5. Other	2 E 5 Other (please specify)	
Drop-down list:		
2.E.5.a. Microelectromechanical systems (MEMS)	—	The 2019 Refinement to the 2006 IPCC Guidelines for National Greenhouse Gas Inventories includes "2 E 4 Microelectromechanical systems (MEMS)".
2.E.5.b. Other *(please specify)*	—	This CRT category is calculated based on country-specific sub-categories in the CRT.
2.F. Product uses as substitutes for ODS	2 F Product Uses as Substitutes for Ozone Depleting Substances	
—	2 F 1 Refrigeration and Air Conditioning	
2.F.1. Refrigeration and air conditioning	2 F 1 a Refrigeration and Stationary Air Conditioning	
2.F.1.a. Commercial refrigeration	—	This CRT category is included in "2 F 1 a Refrigeration and Stationary Air Conditioning" as a sub-element.
2.F.1.b. Domestic refrigeration	—	same as above
2.F.1.c. Industrial refrigeration	—	same as above
2.F.1.d. Transport refrigeration	—	same as above
2.F.1.e. Mobile air-conditioning	2 F 1 b Mobile Air Conditioning	

Category names in the CRT	Category names in the 2006 IPCC Guidelines	Note
2.F.1.f. Stationary air-conditioning	—	This CRT category is included in "2 F 1 a Refrigeration and Stationary Air Conditioning" as a sub-element.
2.F.2. Foam blowing agents	2 F 2 Foam Blowing Agents	
2.F.2.a. Closed cells	—	This CRT category is included in "2 F 2 Foam Blowing Agents" as a sub-element.
2.F.2.b. Open cells	—	same as above
2.F.3. Fire protection	2 F 3 Fire Protection	
2.F.4. Aerosols	2 F 4 Aerosols	
2.F.4.a. Metered dose inhalers	—	This CRT category is included in "2 F 4 Aerosols" as a sub-element.
2.F.4.b. Other *(please specify)*	—	This CRT category is calculated based on country-specific sub-categories in the CRT.
2.F.5. Solvents	2 F 5 Solvents	
2.F.6. Other applications	2 F 6 Other Applications (please specify)	
2.F.6.a. Emissive	—	This CRT category is included in "2 F 6 Other Applications (please specify)" as a sub-element.
2.F.6.b. Contained	—	same as above
2.G. Other product manufacture and use	2 G Other Product Manufacture and Use	
2.G.1. Electrical equipment	2 G 1 Electrical Equipment	
—	2 G 1 a Manufacture of Electrical Equipment	
—	2 G 1 b Use of Electrical Equipment	
—	2 G 1 c Disposal of Electrical Equipment	
2.G.2. SF_6 and PFCs from other product use	2 G 2 SF6 and PFCs from Other Product Uses	
2.G.2.a. Military applications	2 G 2 a Military Applications	
2.G.2.b. Accelerators	2 G 2 b Accelerators	
2.G.2.c. Soundproof windows	—	This category is included in the IPCC "2 G 2 c Other (Please specify)" as a sub-element.
2.G.2.d. Adiabatic properties: shoes and tyres	—	same as above
2.G.2.e. Other	2 G 2 c Other (please specify)	
Drop-down list:		
2.G.2.e.i. Waterproofing electronic circuits	—	The 2019 Refinement to the 2006 IPCC Guidelines for National Greenhouse Gas Inventories includes "2 G 2 c Waterproofing of Electronic Circuits".
2.G.2.e.ii. Other *(please specify)*	—	This CRT category is calculated based on country-specific sub-categories in the CRT.
2.G.3. N_2O from product uses	2 G 3 N2O from Product Uses	
2.G.3.a. Medical applications	2 G 3 a Medical Applications	
2.G.3.b. Other	—	This CRT category is calculated based on sub-categories listed in the drop-down list.
Drop-down list:		
2.G.3.b.i. Propellant for pressure and aerosol products	2 G 3 b Propellant for Pressure and Aerosol Products	
2.G.3.b.ii. Other *(please specify)*	2 G 3 c Other (please specify)	
2.G.4. Other *(please specify)*	2 G 4 Other (please specify)	
2.H. Other *(please specify)*	2 H Other	
Drop-down list:		
2.H.1. Pulp and paper	2 H 1 Pulp and Paper Industry	
2.H.2. Food and beverages industry	2 H 2 Food and Beverages Industry	

Category names in the CRT	Category names in the 2006 IPCC Guidelines	Note
2.H.3. Other *(please specify)*	2 H 3 Other (please specify)	
3. Agriculture		
3. Total agriculture	—	"3 Agriculture, Forestry, and Other Land Use (AFOLU)" sector of the 2006 IPCC Guidelines comprises of the "3. Agriculture" sector and the "4. LULUCF" sector of the CRT.
—	3 A Livestock	
3.A. Enteric fermentation	3 A 1 Enteric Fermentation	
3.A.1. Cattle	3 A 1 a Cattle	
Option A:		
3.A.1.a. Dairy cattle	3 A 1 a i Dairy Cows	
3.A.1.b. Non-dairy cattle	3 A 1 a ii Other Cattle	
Option B (country-specific):		
3.A.1.a. Other	—	This CRT category is calculated based on sub-categories listed in the drop-down list.
Drop-down list:		
3.A.1.a.i. Mature dairy cattle	—	This category is included in the IPCC "3 A 1 a i Dairy Cows" as a sub-element.
3.A.1.a.ii. Other mature cattle	—	This category is included in the IPCC "3 A 1 a ii Other Cattle" as a sub-element.
3.A.1.a.iii. Growing cattle	—	This category is included in the IPCC "3 A 1 a ii Other Cattle" as a sub-element.
3.A.1.a.iv. Other *(please specify)*	—	This CRT category is calculated based on sub-categories listed in the drop-down list.
3.A.2. Sheep	3 A 1 c Sheep	
3.A.2.a. Other *(please specify)*	—	This CRT category is calculated based on sub-categories listed in the drop-down list.
3.A.3. Swine	3 A 1 h Swine	
3.A.3.a. Other *(please specify)*	—	This CRT category is calculated based on sub-categories listed in the drop-down list.
3.A.4. Other livestock	—	This CRT category is calculated based on sub-categories listed in the drop-down list.
Drop down list:		
3.A.4.a. Buffalo	3 A 1 b Buffalo	
3.A.4.b. Camels	3 A 1 e Camels	
3.A.4.c. Deer	—	This category is included in the IPCC "3 A 1 j Other (please specify)" as a sub-element.
3.A.4.d. Goats	3 A 1 d Goats	
3.A.4.e. Horses	3 A 1 f Horses	
3.A.4.f. Mules and asses	3 A 1 g Mules and Asses	
3.A.4.g. Poultry	—	
3.A.4.h. Other	—	This CRT category is calculated based on sub-categories listed in the drop-down list. This IPCC category is included in "3 A 1 j Other (please specify)" as a sub-element.
Drop-down list:		
3.A.4.h.i. Rabbit	—	
3.A.4.h.ii. Reindeer	—	

Category names in the CRT	Category names in the 2006 IPCC Guidelines	Note
3.A.4.h.iii. Ostrich	—	Table 10.10 of volume 3, chapter 3, the 2019 Refinement to the 2006 IPCC Guidelines for National Greenhouse Gas Inventories includes "Ostrich".
3.A.4.h.iv. Fur-bearing animals	—	
3.A.4.h.v. Other *(please specify)*	3 A 1 j Other (please specify)	
3.B. Manure management	3 A 2 Manure Management	
3.B.1. Cattle	3 A 2 a Cattle	
Option A:		
3.B.1.a. Dairy cattle	3 A 2 a i Dairy Cows	
3.B.1.b. Non-dairy cattle	3 A 2 a ii Other Cattle	
Option B (country-specific):		
3.B.1.a. Other	—	This CRT category is calculated based on sub-categories listed in the drop-down list.
Drop down list:		
3.B.1.a.i. Mature dairy cattle	—	This category is included in the IPCC "3 A 2 a i Dairy Cows" as a sub-element.
3.B.1.a.ii. Other mature cattle	—	This category is included in the IPCC "3 A 2 a ii Other Cattle " as a sub-element.
3.B.1.a.iii. Growing cattle	—	This category is included in the IPCC "3 A 2 a ii Other Cattle " as a sub-element.
3.B.1.a.iv. Other *(please specify)*	—	
3.B.2. Sheep	3 A 2 c Sheep	
3.B.2.a. Other *(please specify)*	—	
3.B.3. Swine	3 A 2 h Swine	
3.B.3.a. Other *(please specify)*	—	
3.B.4. Other livestock	—	This CRT category is calculated based on sub-categories listed in the drop-down list.
Drop-down list:		
3.B.4.a. Buffalo	3 A 2 b Buffalo	
3.B.4.b. Camels	3 A 2 e Camels	
3.B.4.c. Deer	—	This category is included in the IPCC "3 A 2 j Other (please specify)" as a sub-element.
3.B.4.d. Goats	3 A 2 d Goats	
3.B.4.e. Horses	3 A 2 f Horses	
3.B.4.f. Mules and Asses	3 A 2 g Mules and Asses	
3.B.4.g. Poultry	3 A 2 i Poultry	
3.B.4.h. Other	—	This CRT category is calculated based on sub-categories listed in the drop-down list. This IPCC category is included in "3 A 2 j Other (please specify)" as a sub-element.
Drop-down list:		
3.B.4.h.i. Rabbit	—	This category is included the IPCC in "3 A 2 j Other (please specify)" as a sub-element.
3.B.4.h.ii. Reindeer	—	same as above
3.B.4.h.iii. Ostrich	—	same as above
3.B.4.h.iv. Fur-bearing animals (5)	—	same as above
3.B.4.h.v. Other *(please specify)*	3 A 2 j Other (please specify)	

Category names in the CRT	Category names in the 2006 IPCC Guidelines	Note
3.B.5. Indirect N_2O emissions	3 C 6 Indirect N2O Emissions from Manure Management	
3.C. Rice cultivation	3 C 7 Rice Cultivations	
3.C.1. Irrigated	—	This category is included in the IPCC "3 C 7 Rice Cultivations" as a sub-element.
3.C.1.a. Continuously flooded	—	same as above
3.C.1.b. Intermittently flooded	—	same as above
3.C.1.b.i. Single aeration	—	same as above
3.C.1.b.ii.Multiple aeration	—	same as above
3.C.2. Rain-fed	—	same as above
3.C.2.a. Flood-prone	—	same as above
3.C.2.b. Drought-prone	—	same as above
3.C.3. Deep water	—	same as above
3.C.3.a. Water depth 50–100 cm	—	
3.C.3.b. Water depth > 100 cm	—	
3.C.4. Other *(please specify)*	—	This CRT category is calculated based on country-specific sub-categories in the CRT.
3.D. Agricultural soils	—	This CRT category is calculated based on sub-categories.
3.D.1. Direct N_2O emissions from managed soils	3 C 4 Direct N_2O Emissions from Managed Soils	This IPCC category covers multiple CRT categories.
3.D.1.a. Inorganic N fertilizers	—	This CRT category is included in "table 3.7 AFOLU Background Table: Direct N_2O emissions from Managed Soils" in annex 8A.2 to the 2006 IPCC Guidelines volume 1, chapter 8
3.D.1.b. Organic N fertilizers	—	same as above
3.D.1.b.i. Animal manure applied to soils	—	same as above
3.D.1.b.ii. Sewage sludge applied to soils	—	same as above
3.D.1.b.iii. Other organic fertilizers applied to soils	—	
3.D.1.c. Urine and dung deposited by grazing animals	—	This CRT category is included in "table 3.7 AFOLU Background Table: Direct N_2O emissions from Managed Soils" in annex 8A.2 to the 2006 IPCC Guidelines volume 1, chapter 8
3.D.1.d. Crop residues	—	same as above
3.D.1.e. Mineralization/immobilization associated with loss/gain of soil organic matter	—	same as above
3.D.1.f. Cultivation of organic soils (i.e. histosols)	—	same as above
3.D.1.g. Other	—	
3.D.2. Indirect N_2O Emissions from managed soils	3 C 5 Indirect N_2O Emissions from Managed Soils	This IPCC category covers multiple CRT categories.
3.D.2.a. Atmospheric deposition	—	This CRT category is included in "table 3.8 AFOLU Background Table: Indirect N_2O emissions from Managed Soils and Manure Management (3 C 5 and 3 C 6)" in annex 8A.2 to the 2006 IPCC Guidelines volume 1, chapter 8
3.D.2.b. Nitrogen leaching and run-off	—	same as above
3.E. Prescribed burning of savannahs	3 C 1 Emissions from Biomass Burning	This IPCC category covers multiple CRT categories.
3.E.1. Forest land (specify ecological zone)	—	This CRT category is included in "3 C 1 a Emissions from Biomass Burning in Forest Land" as a sub-element.
3.E.2. Grassland (specify ecological zone)	—	This CRT category is included in "3 C 1 c Emissions from Biomass Burning in Grassland" as a sub-element.
3.F. Field burning of agricultural residues	3 C 1 b Biomass Burning in Cropland	This IPCC category covers multiple CRT categories.

Category names in the CRT	Category names in the 2006 IPCC Guidelines	Note
3.F.1. Cereals	—	This CRT category is calculated based on sub-categories.
3.F.1.a. Wheat	—	This category is included in the IPCC "3 C 1 b Biomass Burning in Cropland" as a sub-element.
3.F.1.b. Barley	—	The 2019 Refinement to the 2006 IPCC Guidelines for National Greenhouse Gas Inventories includes "Other crops" under "3 C 1 b Emissions from Biomass Burning in Cropland" as a sub-element.
3.F.1.c. Maize	—	This category is included in the IPCC "3 C 1 b Biomass Burning in Cropland" as a sub-element.
3.F.1.d. Other *(please specify)*	—	This CRT category is calculated based on country-specific sub-categories in the CRT. The 2019 Refinement to the 2006 IPCC Guidelines for National Greenhouse Gas Inventories includes "Other crops" under "3 C 1 b Emissions from Biomass Burning in Cropland" as a sub-element.
3.F.2. Pulses	—	
3.F.2.a. Other *(please specify)*	—	This CRT category is calculated based on country-specific sub-categories in the CRT.
3.F.3. Tubers and roots	—	
3.F.3.a. Other *(please specify)*	—	This CRT category is calculated based on country-specific sub-categories in the CRT. The 2019 Refinement to the 2006 IPCC Guidelines for National Greenhouse Gas Inventories includes "Other crops" under "3 C 1 b Emissions from Biomass Burning in Cropland" as a sub-element.
3.F.4. Sugar cane	—	This category is included in the IPCC "3 C 1 b Biomass Burning in Cropland" as a sub-element.
3.F.5. Other *(please specify)*	—	This CRT category is calculated based on country-specific sub-categories in the CRT. The 2019 Refinement to the 2006 IPCC Guidelines for National Greenhouse Gas Inventories includes "Other crops" under "3 C 1 b Emissions from Biomass Burning in Cropland" as a sub-element.
3.G. Liming	3 C 2 Liming	
3.G.1. Limestone $CaCO_3$	—	This CRT category is included in "table 3.5 AFOLU Background Table: CO_2 emissions from Liming (3 C 2)" in annex 8A.2 to the 2006 IPCC Guidelines volume 1, chapter 8.
3.G.2. Dolomite $CaMg(CO_3)_2$	—	This CRT category is included in "table 3.5 AFOLU Background Table: CO_2 emissions from Liming (3 C 2)" in annex 8A.2 to the 2006 IPCC Guidelines volume 1, chapter 8.
3.H. Urea application	3 C 3 Urea Fertilization	
3.I. Other carbon-containing fertilizers	—	
3.J. Other *(please specify)*	3 C 8 Other (please specify)	
4. Land Use, Land-Use Change and Forestry		
4. Total LULUCF	3 B Land	
4.1 Land transition matrix	—	
4.A. Forest land	3 B 1 Forest Land	
4.A.1. Forest land remaining forest land	3 B 1 a Forest land Remaining Forest Land	

Category names in the CRT	Category names in the 2006 IPCC Guidelines	Note
4.A.2. Land converted to forest land	3 B 1 b Land Converted to Forest Land	
4.A.2.a. Cropland converted to forest land	3 B 1 b i Cropland Converted to Forest Land	
4.A.2.b. Grassland converted to forest land	3 B 1 b ii Grassland Converted to Forest Land	
4.A.2.c. Wetlands converted to forest land	3 B 1 b iii Wetlands Converted to Forest Land	
4.A.2.d. Settlements converted to forest land	3 B 1 b iv Settlements Converted to Forest Land	
4.A.2.e. Other land converted to forest land	3 B 1 b v Other Land Converted to Forest Land	
4.B. Cropland	3 B 2 Cropland	
4.B.1. Cropland remaining cropland	3 B 2 a Cropland Remaining Cropland	
4.B.2. Land converted to cropland	3 B 2 b Land Converted to Cropland	
4.B.2.a. Forest land converted to cropland	3 B 2 b i Forest Land Converted to Cropland	
4.B.2.b. Grassland converted to cropland	3 B 2 b ii Grassland Converted to Cropland	
4.B.2.c. Wetlands converted to cropland	3 B 2 b iii Wetlands Converted to Cropland	
4.B.2.d. Settlements converted to cropland	3 B 2 b iv Settlements Converted to Cropland	
4.B.2.e. Other land converted to cropland	3 B 2 b v Other Land Converted to Cropland	
4.C. Grassland	3 B 3 Grassland	
4.C.1. Grassland remaining grassland	3 B 3 a Grassland Remaining Grassland	
4.C.2. Land converted to grassland	3 B 3 b Land Converted to Grassland	
4.C.2.a. Forest land converted to grassland	3 B 3 b i Forest Land Converted to Grassland	
4.C.2.b. Cropland converted to grassland	3 B 3 b ii Cropland Converted to Grassland	
4.C.2.c. Wetlands converted to grassland	3 B 3 b iii Wetlands Converted to Grassland	
4.C.2.d. Settlements converted to grassland	3 B 3 b iv Settlements Converted to Grassland	
4.C.2.e. Other land converted to grassland	3 B 3 b v Other Land Converted to Grassland	
4.D. Wetlands	3 B 4 Wetlands	
4.D.1. Wetlands remaining wetlands	3 B 4 a Wetlands Remaining Wetlands	
4.D.1.a. Peat extraction remaining peat extraction	3 B 4 a i Peatlands Remaining peatlands	
4.D.1.b. Flooded land remaining flooded land	3 B 4 a ii Flooded Land Remaining Flooded Land	
4.D.1.c. Other wetlands remaining other wetlands	—	The 2013 Supplement to the 2006 IPCC Guidelines for National Greenhouse Gas Inventories: Wetlands includes "3 B 4 a.iii Other wetlands remaining other wetlands".
Drop-down list:		
4.D.1.c.i. Coastal wetlands	—	This category is included as a sub-element in "3 B 4 a iii - Other wetlands remaining other wetlands", which is from the 2013 Supplement to the 2006 IPCC Guidelines for National Greenhouse Gas Inventories: Wetlands.
4.D.2. Land converted to wetlands	3 B 4 b Land Converted to Wetlands	
4.D.2.a. Lands converted to peat extraction	3 B 4 b i Land Converted for Peat Extraction	
Drop-down list:		
4.D.2.a.i. Forest land converted to peat extraction	—	This category is included in the IPCC "3 B 4 b i - Land Converted for Peat Extraction" as a sub-element.
4.D.2.a.ii. Cropland converted to peat extraction	—	same as above
4.D.2.a.iii. Grassland converted to peat extraction	—	same as above
4.D.2.a.iv. Settlements converted to peat extraction	—	same as above
4.D.2.a.v. Other land converted to peat extraction	—	same as above
4.D.2.b. Land converted to flooded land	3 B 4 b ii Land Converted to Flooded Land	
Drop-down list:		
4.D.2.b.i. Forest land converted to flooded land	—	This category is included in the IPCC "3 B 4 b ii - Land Converted to Flooded Land" as a sub-element.

Category names in the CRT	Category names in the 2006 IPCC Guidelines	Note
4.D.2.b.ii. Cropland converted to flooded land	—	same as above
4.D.2.b.iii. Grassland converted to flooded land	—	same as above
4.D.2.b.iv. Settlements converted to flooded land	—	same as above
4.D.2.b.v. Other land converted to flooded land	—	same as above
4.D.2.c. Land converted to other wetlands	3 B 4 b iii Land Converted to Other Wetlands	
Drop-down list:		
4.D.2.c.i. Forest land converted to other wetlands	—	This category is included in the IPCC "3 B 4 b iii - Land Converted to Other Wetlands" as a sub-element.
4.D.2.c.ii. Cropland converted to other wetlands	—	same as above
4.D.2.c.iii. Grassland converted to other wetlands	—	same as above
4.D.2.c.iv. Settlements converted to other wetlands	—	same as above
4.D.2.c.v. Other land converted to other wetlands	—	same as above
4.E. Settlements	3 B 5 Settlements	
4.E.1. Settlements remaining settlements	3 B 5 a Settlements Remaining Settlements	
4.E.2. Land converted to settlements	3 B 5 b Land Converted to Settlements	
4.E.2.a. Forest land converted to settlements	3 B 5 b i Forest Land Converted to Settlements	
4.E.2.b. Cropland converted to settlements	3 B 5 b ii Cropland Converted to Settlements	
4.E.2.c. Grassland converted to settlements	3 B 5 b iii Grassland Converted to Settlements	
4.E.2.d. Wetlands converted to settlements	3 B 5 b iv Wetlands Converted to Settlements	
4.E.2.e. Other Land converted to settlements	3 B 5 b v Other Land Converted to Settlements	
4.F. Other land	3 B 6 Other Land	
4.F.1. Other land remaining other land	3 B 6 a Other Land Remaining Other Land	
4.F.2. Land converted to other land	3 B 6 b Land Converted to Other Land	
4.F.2.a. Forest land converted to other lands	3 B 6 b i Forest Land Converted to Other Land	
4.F.2.b. Cropland converted to other lands	3 B 6 b ii Cropland Converted to Other Land	
4.F.2.c. Grassland converted to other lands	3 B 6 b iii Grassland Converted to Other Land	
4.F.2.d. Wetlands converted to other lands	3 B 6 b iv Wetlands Converted to Other Land	
4.F.2.e. Other Land converted to other lands	3 B 6 b v Settlements Converted to Other Land	
4(I). Direct and indirect N_2O emissions from N inputs to managed soils	3 C 4 Direct N_2O Emissions from Managed Soils 3 C 5 Indirect N_2O Emissions from Managed Soils	These IPCC categories cover multiple CRT categories.
Drop down list:		
4(I).A. Forest land	—	This category of the CRT is included in "table 3.7 AFOLU Background Table: Direct N_2O emissions from Managed Soils" and "table 3.8 AFOLU Background Table: Indirect N_2O emissions from Managed Soils and Manure Management (3 C 5 and 3 C 6)" in annex 8A.2 to the 2006 IPCC Guidelines volume 1, chapter 8.
4(I).A.1. Forest land remaining forest land	—	same as above
4(I).A.1.a. Inorganic N fertilizers	—	same as above
4(I).A.1.b. Organic N fertilizers	—	same as above
4(I).A.2. Land converted to forest land	—	same as above
4(I).A.2.a. Inorganic N fertilizers	—	same as above
4(I).A.2.b. Organic N fertilizers	—	same as above
4(I).D. Wetlands	—	same as above
4(I).D.1. Wetlands remaining wetlands	—	same as above
4(I).D.1.a. Inorganic N fertilizers	—	same as above
4(I).D.1.b. Organic N fertilizers	—	same as above

Category names in the CRT	Category names in the 2006 IPCC Guidelines	Note
4(I).D.2. Land converted to wetlands	—	same as above
4(I).D.2.a. Inorganic N fertilizers	—	same as above
4(I).D.2.b. Organic N fertilizers	—	same as above
4(I).E. Settlements	—	same as above
4(I).E.1. Settlements remaining settlements	—	same as above
4(I).E.1.a. Inorganic N fertilizers	—	same as above
4(I).E.1.b. Organic N fertilizers	—	same as above
4(I).E.2. Land converted to Settlements	—	same as above
4(I).E.2.a. Inorganic N fertilizers	—	same as above
4(I).E.2.b. Organic N fertilizers	—	same as above
4(I).H. Other	—	
4(I).H.1. Inorganic N fertilizers	—	
4(I).H.2. Organic N fertilizers	—	
4(II). Total for all land use categories (*Emissions and removals from drainage and rewetting and other management of organic and mineral soils*)	3 C 4 Direct N_2O Emissions from Managed Soils	This IPCC category covers multiple CRT categories. This CRT category is calculated based on sub-categories.
4(II).*. [land-use category]	—	This CRT category is calculated based on sub-categories.
Total organic soils	—	This CRT category is calculated based on sub-categories listed in the drop-down list.
Drop-down list:		
Drained organic soils	—	The 2013 Supplement to the 2006 IPCC Guidelines for National Greenhouse Gas Inventories: Wetlands also includes "3 C 8 CH_4 from Drained Organic Soils" and "3 C 9 CH_4 from Drainage Ditches on Organic Soils".
Rewetted organic soils	—	The 2013 Supplement to the 2006 IPCC Guidelines for National Greenhouse Gas Inventories: Wetlands also includes "3 C 10 CH_4 from Rewetting of Organic Soils" and "3 C 11 CH_4 Emissions from Rewetting of Mangroves and Tidal Marshes".
Other *(please specify)*	—	This CRT category is calculated based on country-specific sub-categories in the CRT.
Total mineral soils	—	This CRT category is calculated based on sub-categories listed in the drop-down list.
Drop-down list:		
Rewetted mineral soils	—	The 2013 Supplement to the 2006 IPCC Guidelines for National Greenhouse Gas Inventories: Wetlands includes "3 C 13 CH_4 Emissions from Rewetted and Created Wetlands on Inland Wetland Mineral Soils".
Other *(please specify)*	—	This CRT category is calculated based on country-specific sub-categories in the CRT.
4(II).H. Other *(please specify)*	—	This CRT category is calculated based on country-specific sub-categories in the CRT.
4(III). Total for all land-use categories (*Direct and indirect nitrous oxide (N_2O) emissions from nitrogen (N) mineralization/immobilization associated with loss/gain of soil organic matter resulting from change of land use or management of mineral soils*)	3 C 4 Direct N2O Emissions from Managed Soils 3 C 5 Indirect N2O Emissions from Managed Soils	These IPCC categories cover multiple CRT categories.
4(III).A. Forest land	—	This CRT category is included in "table 3.7 AFOLU Background Table: Direct N_2O emissions from Managed Soils" and "table 3.8

Category names in the CRT	Category names in the 2006 IPCC Guidelines	Note
		AFOLU Background Table: Indirect N_2O emissions from Managed Soils and Manure Management (3 C 5 and 3 C 6)" in annex 8A.2 to the 2006 IPCC Guidelines volume 1, chapter 8.
4(III).A.1. Forest land remaining forest land	——	same as above
4(III).A.2. Lands converted to forest land	——	same as above
4(III).A.2.*. [sub-categories of "4(III).A.2. Lands converted to forest land"]	——	same as above
4(III).B. Cropland	——	same as above
4(III).B.2. Lands converted to cropland	——	same as above
4(III).B.2.*. [sub-categories of "4(III).B.2. Lands converted to cropland"]	——	same as above
4(III).C. Grasslands	——	same as above
4(III).C.1. Grasslands remaining grasslands	——	same as above
4(III).C.2. Lands converted to grasslands	——	same as above
4(III).C.2.*. [sub-categories of "4(III).C.2. Lands converted to grasslands"]	——	same as above
4(III).D. Wetlands	——	same as above
4(III).D.1. Wetlands remaining wetlands	——	same as above
4(III).D.2. Lands converted to wetlands	——	same as above
4(III).D.2.*. [sub-categories of "4(III).D.2. Lands converted to wetlands"]	——	same as above
4(III).E. Settlements	——	same as above
4(III).E.1. Settlements remaining settlements	——	same as above
4(III).E.2. Lands converted to settlements	——	same as above
4(III).E.2.*. [sub-categories of "4(III).E.2. Lands converted to settlements"]	——	same as above
4(III).F. Other land	——	same as above
4(III).F.2. Lands converted to other land	——	same as above
4(III).F.2.*. [sub-categories of "4(III).F.2. Lands converted to other land"]	——	same as above
4(IV). Total for all land-use categories *(Biomass Burning)*	3 C 1 Emissions from Biomass Burning	
4(IV).A. Forest land	3 C 1 a Biomass Burning in Forest Land	
4(IV).A.1. Forest land remaining forest land	——	This category is included in the IPCC "3 C 1 a Biomass Burning in Forest Land" as a sub-element.
4(IV).A.1.a. Controlled burning	——	same as above
4(IV).A.1.b. Wildfires	——	same as above
4(IV).A.2. Land converted to forest land	——	same as above
4(IV).A.2.a. Controlled burning	——	same as above
4(IV).A.2.b. Wildfires	——	same as above
4(IV).B. Cropland	3 C 1 b Biomass Burning in Cropland	
4(IV).B.1. Cropland remaining cropland	——	This category is included in the IPCC "3 C 1 b Biomass Burning in Cropland" as a sub-element.
4(IV).B.1.a. Controlled burning	——	same as above
4(IV).B.1.b. Wildfires	——	same as above
4(IV).B.2. Land converted to cropland	——	same as above
4(IV).B.2.a. Controlled burning	——	same as above

Category names in the CRT	Category names in the 2006 IPCC Guidelines	Note
4(IV).B.2.b. Wildfires	—	same as above
4(IV).C. Grassland	3 C 1 c Biomass Burning in Grassland	
4(IV).C.1. Grassland remaining grassland	—	This category is included in the IPCC "3 C 1 c Biomass Burning in Grassland" as a sub-element.
4(IV).C.1.a. Controlled burning	—	same as above
4(IV).C.1.b. Wildfires	—	same as above
4(IV).C.2. Land converted to grassland	—	same as above
4(IV).C.2.a. Controlled burning	—	same as above
4(IV).C.2.b. Wildfires	—	same as above
4(IV).D. Wetlands	3 C 1 d Biomass Burning in All Other Land	This IPCC category covers multiple CRT categories.
4(IV).D.1. Wetlands remaining wetlands	—	This category is included in the IPCC "3 C 1 d Biomass Burning in All Other Land" as a sub-element.
4(IV).D.1.a. Controlled burning	—	same as above
4(IV).D.1.b. Wildfires	—	same as above
4(IV).D.2. Land converted to wetlands	—	same as above
4(IV).D.2.a. Controlled burning	—	same as above
4(IV).D.2.b. Wildfires	—	same as above
4(IV).E. Settlements	3 C 1 d Biomass Burning in All Other Land	This IPCC category covers multiple CRT categories.
4(IV).E.1. Settlements remaining settlements	—	This category is included in the IPCC "3 C 1 d Biomass Burning in All Other Land" as a sub-element.
4(IV).E.1.a. Controlled burning	—	same as above
4(IV).E.1.b. Wildfires	—	same as above
4(IV).E.2. Land converted to settlements	—	same as above
4(IV).E.2.a. Controlled burning	—	same as above
4(IV).E.2.b. Wildfires	—	same as above
4(IV).F. Other land	3 C 1 d Biomass Burning in All Other Land	This IPCC category covers multiple CRT categories.
4(IV).F.2. Land converted to other lands	—	This category is included in the IPCC "3 C 1 d Biomass Burning in All Other Land" as a sub-element.
4(IV).F.2.a. Controlled burning	—	same as above
4(IV).F.2.b. Wildfires	—	same as above
4(IV).H. Other *(please specify)*	—	This CRT category is calculated based on country-specific sub-categories in the CRT.
4.G. Harvested wood products	3 D 1 Harvested Wood Products	
Approach A (*Stock change approach*)	—	This CRT category is included in "3 D 1 Harvested Wood Products" as a sub-element.
4.G. TOTAL HWP consumed domestically (ΔC HWPdom IU DC)	—	same as above
4.G.1. Solid wood	—	same as above
Drop down list:		
4.G.1.a. Sawnwood	—	This CRT category is included in "3 D 1 Harvested Wood Products" as a sub-element.
4.G.1.b. Wood panels	—	same as above
4.G.1.c. Other solid wood products	—	same as above
4.G.2. Paper and paperboard	—	same as above
4.G.2.a. Other *(please specify)*	—	same as above
4.G.3. Other *(please specify)*	—	-

Category names in the CRT	Category names in the 2006 IPCC Guidelines	Note
Approach B (*Production approach*)	—	This CRT category is included in "3 D 1 Harvested Wood Products" as a sub-element.
4.G. TOTAL HWP from domestic harvest (ΔC HWP IU DH)	—	same as above
4.G.1. Solid wood	—	same as above
Drop down list:		
4.G.1.a. Sawnwood	—	This CRT category is included in "3 D 1 Harvested Wood Products" as a sub-element.
4.G.1.b. Wood panels	—	same as above
4.G.1.c. Other solid wood products	—	same as above
4.G.2. Paper and paperboard	—	same as above
4.G.2.a. Other *(please specify)*	—	same as above
4.G.3. Other *(please specify)*	—	
4.G(I). HWP produced and consumed domestically (ΔC HWPdom IU DH) Total	—	This CRT category is included as a sub-element of "3 D 1 Harvested Wood Products" in the 2019 Refinement to the 2006 IPCC Guidelines for National Greenhouse Gas Inventories.
4.G(I).1. Solid wood	—	same as above
Drop down list:		
4.G(I).1.a. Sawnwood	—	This CRT category is included as a sub-element of "3 D 1 Harvested Wood Products" in the 2019 Refinement to the 2006 IPCC Guidelines for National Greenhouse Gas Inventories.
4.G(I).1.b. Wood panels	—	same as above
4.G(I).1.c. Other solid wood products	—	same as above
4.G(I).2. Paper and paperboard	—	same as above
4.G(I).2.a. Other *(please specify)*	—	same as above
4.G(I).3. Other *(please specify)*	—	-
4.G(II). HWP produced and exported (ΔC HWPexp IU DH) Total	—	This CRT category is included as a sub-element of "3 D 1 Harvested Wood Products" in the 2019 Refinement to the 2006 IPCC Guidelines for National Greenhouse Gas Inventories.
4.G(II).1. Solid wood	—	same as above
Drop down list:		
4.G(II).1.a. Sawnwood	—	This CRT category is included as a sub-element of "3 D 1 Harvested Wood Products" in the 2019 Refinement to the 2006 IPCC Guidelines for National Greenhouse Gas Inventories.
4.G(II).1.b. Wood panels	—	same as above
4.G(II).1.c. Other solid wood products	—	same as above
4.G(II).2. Paper and paperboard	—	same as above
4.G.2(II).a. Other *(please specify)*	—	same as above
4.G(II).3. Other *(please specify)*	—	
Approach C (*Atmospheric flow approach*)	—	This CRT category is included in "3 D 1 Harvested Wood Products" as a sub-element.
4.G. TOTAL	—	same as above
4.G.1. Solid wood	—	same as above
Drop down list:		
4.G.1.a. Sawnwood	—	This CRT category is included in "3 D 1 Harvested Wood Products" as a sub-element.
4.G.1.b. Wood panels	—	same as above

Category names in the CRT	Category names in the 2006 IPCC Guidelines	Note
4.G.1.c. Other solid wood products	—	same as above
4.G.2. Paper and paperboard	—	same as above
4.G.2.a. Other (please specify)	—	same as above
4.G.3. Other *(please specify)*	—	
4.H. Other *(please specify)*	—	This CRT category is calculated based on sub-categories.
—	3 D 2 Other (please specify)	
—	—	The 2013 Supplement to the 2006 IPCC Guidelines for National Greenhouse Gas Inventories: Wetlands includes "3 C 12 N_2O Emissions from Aquaculture".
Memo Item:		
Emissions and subsequent removals from natural disturbances on managed lands	—	
5. Waste		
5. Total waste	4 Waste	
5.A. Solid waste disposal	4 A Solid Waste Disposal	
5.A.1. Managed waste disposal sites	4 A 1 Managed Waste Disposal Sites	
5.A.1.a. Anaerobic	—	This category is included in the IPCC "4 A 1 Managed Waste Disposal Sites" as a sub-element.
Drop down list:		
Less decomposable wastes	—	The 2006 IPCC Guidelines includes methodologies for slowly degrading waste, moderately degrading waste and rapidly degrading waste.
Moderately decomposable wastes	—	same as above
Highly decomposable wastes		same as above
Bulk waste	—	same as above
5.A.1.b. Semi-aerobic	—	This category is included in the IPCC "4 A 1 Managed Waste Disposal Sites" as a sub-element.
Drop down list:		
Less decomposable wastes	—	The 2006 IPCC Guidelines includes methodologies for slowly degrading waste, moderately degrading waste and rapidly degrading waste.
Moderately decomposable wastes	—	same as above
Highly decomposable wastes	—	same as above
Bulk waste	—	same as above
5.A.1.c. Active-aeration	—	This CRT category is included as a sub-element of "4 A 1 Managed Waste Disposal Sites" in the 2019 Refinement to the 2006 IPCC Guidelines for National Greenhouse Gas Inventories.
Drop down list:		
Less decomposable wastes	—	The 2019 Refinement to the 2006 IPCC Guidelines for National Greenhouse Gas Inventories include methodologies for slowly degrading waste, moderately degrading waste and rapidly degrading waste.
Moderately decomposable wastes	—	same as above
Highly decomposable wastes	—	same as above
Bulk waste	—	same as above
5.A.2. Unmanaged waste disposal sites	4 A 2 Unmanaged Waste Disposal Sites	
Drop down list:		

Category names in the CRT	Category names in the 2006 IPCC Guidelines	Note
Less decomposable wastes	—	The 2006 IPCC Guidelines includes methodologies for slowly degrading waste, moderately degrading waste and rapidly degrading waste.
Moderately decomposable wastes	—	same as above
Highly decomposable wastes	—	same as above
Bulk waste	—	same as above
5.A.3. Uncategorized waste disposal sites	4 A 3 Uncategorised Waste Disposal Sites	
Drop down list:		
Less decomposable wastes	—	The 2006 IPCC Guidelines includes methodologies for slowly degrading waste, moderately degrading waste and rapidly degrading waste.
Moderately decomposable wastes	—	same as above
Highly decomposable wastes	—	same as above
Bulk waste	—	same as above
5.B. Biological treatment of solid waste	4 B Biological Treatment of Solid Waste	
5.B.1. Composting	—	This category is included in the IPCC "4 B Biological Treatment of Solid Waste" as a sub-element.
5.B.1.a. Municipal solid waste	—	same as above
5.B.1.b. Other *(please specify)*	—	This CRT category is calculated based on country-specific sub-categories in the CRT.
5.B.2. Anaerobic digestion at biogas facilities	—	This category is included in the IPCC "4 B Biological Treatment of Solid Waste" as a sub-element.
5.B.2.a. Municipal solid waste	—	same as above
5.B.2.b. Other *(please specify)*	—	This CRT category is calculated based on country-specific sub-categories in the CRT.
5.C. Incineration and open burning of waste	4 C Incineration and Open Burning of Waste	
5.C.1. Waste incineration	4 C 1 Waste Incineration	
5.C.1.a. Biogenic	—	
5.C.1.a.i. Municipal solid waste	—	
5.C.1.a.ii. Other	—	This CRT category is calculated based on sub-categories listed in the drop-down list.
Drop down list		
5.C.1.a.ii.1. Industrial solid wastes	—	
5.C.1.a.ii.2. Hazardous waste	—	
5.C.1.a.ii.3. Clinical waste	—	
5.C.1.a.ii.4. Sewage sludge	—	
5.C.1.a.ii.5. Other *(please specify)*	—	This CRT category is calculated based on country-specific sub-categories in the CRT.
5.C.1.b. Non-biogenic	—	This CRT category is calculated based on sub-categories.
5.C.1.b.i. Municipal solid waste	—	This category is included in the IPCC "4 C 1 Waste Incineration" as a sub-element.
5.C.1.b.ii. Other	—	This CRT category is calculated based on sub-categories listed in the drop-down list.
Drop down list		
5.C.1.b.ii.1. Industrial solid wastes	—	This category is included in the IPCC "4 C 1 Waste Incineration" as a sub-element.
5.C.1.b.ii.2. Hazardous waste	—	same as above

Category names in the CRT	Category names in the 2006 IPCC Guidelines	Note
5.C.1.b.ii.3. Clinical waste	—	same as above
5.C.1.b.ii.4. Sewage sludge	—	same as above
5.C.1.b.ii.5. Fossil liquid waste	—	same as above
5.C.1.b.ii.6. Other *(please specify)*	—	This CRT category is calculated based on country-specific sub-categories in the CRT.
5.C.2. Open burning of waste	4 C 2 Open Burning of Waste	
5.C.2.a. Biogenic	—	
5.C.2.a.i. Municipal solid waste	—	
5.C.2.a.ii. Other *(please specify)*	—	This CRT category is calculated based on country-specific sub-categories in the CRT.
5.C.2.b. Non-biogenic	—	This CRT category is calculated based on sub-categories.
5.C.2.b.i. Municipal solid waste	—	This category is included the IPCC in "4 C 2 Open Burning of Waste" as a sub-element.
5.C.2.b.ii. Other *(please specify)*	—	This CRT category is calculated based on country-specific sub-categories in the CRT.
5.D. Wastewater treatment and discharge	4 D Wastewater Treatment and Discharge	
5.D.1. Domestic wastewater	4 D 1 Domestic Wastewater Treatment and Discharge	
5.D.2. Industrial wastewater	4 D 2 Industrial Wastewater Treatment and Discharge	
5.D.3. Other	—	
5.E. Other *(please specify)*	4 E Other (please specify)	
Memo item:		
5.F.1. Long-term storage of C in waste disposal sites	—	This CRT category is included in "table 4.3 Waste Background Table: Long-term storage of carbon Information items " in annex 8A.2 to the 2006 IPCC Guidelines volume 1, chapter 8.
5.F.2. Annual change in total long-term C storage	—	same as above
5.F.3. Annual change in total long-term C storage in HWP waste	—	same as above
6. Other		
6. Other *(please specify)*	5 B Other (please specify)	
Indirect emissions		
CO_2	—	Related methodological information is provided in volume 1, chapter 7 of the 2006 IPCC Guidelines.
N_2O	5.A Indirect N_2O emissions from the atmospheric deposition of Nitrogen in NOx and NH_3	

Table 2: Mapping of the fuel names in the 2006 IPCC Guidelines for National Greenhouse Gas Inventories and those in the common reporting tables (CRT)

Fuel names in the CRT	Fuel names in the 2006 IPCC Guidelines
Liquid fossil	
Crude oil	Crude Oil
Orimulsion	Orimulsion
Natural gas liquids	Natural Gas Liquids
Gasoline	
	Aviation Gasoline
	Jet Gasoline
	Motor Gasoline
Jet kerosene	Jet Kerosene
Other kerosene	Other Kerosene
Shale oil	Shale oil
Gas/diesel oil	Gas/diesel oil
Residual fuel oil	Residual Fuel oil
Liquefied petroleum gases (LPG)	Liquified Petroleum Gases
Ethane	Ethane
Naphtha	Naphtha
Bitumen	Bitumen
Lubricants	Lubricants
Petroleum coke	Petroleum Coke
Refinery feedstocks	Refinery Feedstocks
Other oil	
	Other Petroleum Products
	Paraffin Waxes
	Refinery Gas
	White Spirit and SBP
Other liquid fossil *(please specify)*	*Country specific fuels possible*
Solid fossil	
Anthracite	Anthracite
Coking coal	Coking coal
Other bituminous coal	Other Bituminous Coal
Sub-bituminous coal	Sub-Bituminous Coal
Lignite	Lignite
Oil shale and tar sand	Oil Shale / Tar Sands
BKB and patent fuel	
	Brown Coal Briquettes
	Patent Fuel
Coke oven/gas coke	
	Coke Oven Gas /Lignite Coke
	Gas Coke
Coal tar	Coal Tar
Other solid fossil *(please specify)*	
	Blast Furnace Gas
	Gas Works Gas
	Oxygen Steel Furnace Gas
	Country specific fuels possible
Gaseous fossil	
Natural gas (dry)	Natural Gas (dry)
Other gaseous fossil *(please specify)*	*Country specific fuels possible*
Other fossil fuels	
Waste (non-biomass fraction)	
	Industrial Wastes
	Municipal Wastes (nonbiomass fraction)
Other fossil fuels *(please specify)*	
	Waste Oils
	Country specific fuels possible

Fuel names in the CRT	Fuel names in the 2006 IPCC Guidelines
Peat	
Peat	Peat
Biomass	
Solid biomass	
	Charcoal
	Other Primary Solid Biomass
	Sulphitelyes (Black Liquor)
	Wood / Wood Waste
Liquid biomass	
	Biodiesels
	Biogasoline
	Other Liquid Biofuels
Gas biomass	
	Landfill Gas
	Other Biogas
	Sludge Gas
Other non-fossil fuels (biogenic waste)	
	Municipal Wastes (biomass fraction)