

SELECTED NOMENCLATURE FOR AIR POLLUTION FOR CORINAIR 94 INVENTORY (SNAP 94)

Release version 1.1 dated 14/06/96 which cancels and replaces the version 1.0 dated 21/12/95.

Changes deal with a more complete introduction of CORINAIR 94 emittants and sources. The SNAP itself is not changed except 2 additional items (cf 01.05.06 and 05.07); some wordings are modified for a better understanding.

Introduction

Titled "Selected Nomenclature for Air Pollution 1994" - SNAP 94 - the source category split reflects the sources associated with a selection of pollutants in accordance with certain structural principles. The corresponding source category definitions need to be observed in order to actually meet the common goal - comparability in detail of national emission inventories.

The CORINAIR inventory is designed as a common european-wide data base that is easily applicable to the preparation of specific inventories in accordance with guidelines under the LRTAP and FCCC Conventions. Correspondingly, this paper consists of three parts dealing with :

- the enumeration of substances to be considered,
- an explanation of the structure of the SNAP 94, which is, in its three levels, listed in pages 6 to 22,
- the correspondence between the IPCC and CORINAIR sources is displayed in the annex (cf correspondence between SNAP 94 and IPCC / IPCC and SNAP 94).

For guidance in estimating emissions the reader should make use of the EEA/EMEP Atmospheric Emission Inventory Guidebook and the IPCC Guidelines for National Greenhouse Gas Inventories. It is foreseen to revise the EEA/EMEP Guidebook accordingly with the current SNAP.

As far as combustion for energy is concerned energy input is broken down along the NAPFUE Fuel Nomenclature.

Implementation of national CORINAIR data bases is dealt with in the CORINAIR Software Instructions for Use (Version 1.0 January 1996) manual.

Selection of substances

Here follows the list of emittants to be considered for CORINAIR 94 :

ACIDIFYERS, OZONE PRECURSORS AND GREENHOUSE GASES

This group of substances identical with CORINAIR/SNAP 90 is considered to meet the requirements under the CLRTAP and its protocols and the FCCC.

SO _x	SO ₂ and SO ₃ (as SO ₂)	CH ₄	CH ₄ (as CH ₄)	N ₂ O	N ₂ O (as N ₂ O)
NO _x	NO and NO ₂ (as NO ₂)	CO	CO (as CO)	NH ₃	NH ₃ (as NH ₃)
NM _{VOC}	wide range of volatile organic compounds except CH ₄ (as NM _{VOC} s). NM _{VOC} s exclude CFCs and halons.	CO ₂	CO ₂ (as ultimate CO ₂)		

HEAVY METALS AND PERSISTENT ORGANIC POLLUTANTS

This group of substances was added in accordance with the work programmes of OSPAR and HELCOM and the development of protocols on heavy metals and persistent organic pollutants under the CLRTAP.

As	Arsenic and derived solid or gaseous compounds (as As)	HCH	Hexachlorocyclohexane (as HCH)
Cd	Cadmium and derived solid or gaseous compounds (as Cd)	PCP	Pentachlorophenol (as PCP)
Cr	Chromium and derived solid or gaseous compounds (as Cr)	HCB	Hexachlorobenzene (as HCB)
Cu	Copper and derived solid or gaseous compounds (as Cu)	TCM	Tetrachloromethane (as TCM)
Hg	Mercury and derived solid or gaseous compounds (as Hg)	TRI	Trichloroethylene (as TRI)
Ni	Nickel and derived solid or gaseous compounds (as Ni)	PER	Tetrachloroethylene (as PER)
Pb	Lead and derived solid or gaseous compounds (as Pb)	TCB	Trichlorobenzene (as TCB)
Se	Selenium and derived solid or gaseous compounds (as Se)	TCE	Trichloroethane (as TCE)
Zn	Zinc and derived solid or gaseous compounds (as Zn)	DIOX	Dioxins and furans (as Toxic equivalent)
		PAH	Polycyclic Aromatic Hydrocarbons (as PAH)

The Structure of the SNAP 94

It is the overall goal of the inventory process to determine total anthropogenic and natural releases into the atmosphere. With the exception of CO₂ the emittants are more or less trace substances in the atmosphere. For these substances only the sources and the emissions released therefrom are to be recorded. The fate of the substances is not taken into account.

CO₂, however, as a component of organic life is an important constituent of the atmosphere. Correspondingly, releases are of interest only as far as they contribute to the increase of the atmospheric CO₂ concentration. For this reason CO₂ from the combustion of biomass should not be included in national emissions. For CO₂ it would be insufficient to determine only the anthropogenic sources and their emissions. There is a need to assess sinks in which long-term sequestration occurs. Such sequestration arises from a steady enlargement of biomass because carbon taken from the atmosphere in the form of CO₂ is permanently stored.

For CO₂, special procedures are also required as far as combustion sources are concerned. Incomplete combustion leads to further compounds such as CO and HC which are eventually transformed in the atmosphere into CO₂. CO₂ from combustion shall reflect the total potential for CO₂ generation. Consequently, emission data are to be based on the carbon contained in fuels rather than on flue gas measurements.

The method how to achieve the overall goal of total coverage includes the following steps:

- systematic determination of the sources of relevant emissions,
- identification of emission generating events, and
- quantification of emissions released in the reference year.

Sources are understood to be physical objects that can be geographically located. The same applies to relevant CO₂ sinks and related uptakes. This understanding of sources is a characteristic of the CORINAIR inventory, which is different from other inventory or balance concepts (e.g. allocation of emissions according to national energy balances).

The structure of the source nomenclature follows certain principles which reflect - in the first place - the kinds of the emission generating processes.

These structural criteria are set up hierarchically, based on the following distinctions :

- between energetic and non-energetic events,
- as to energetic events between combustion and non-combustion,
- as to combustion events between stationary and mobile sources.

Further structuring occurs following technological and socio-economic criteria.

This approach leads to the following consequences, whenever in a thermal industrial production process energetic and non-energetic events occur jointly : in the inventory this very source will be itemized repeatedly at the different appropriate places in the source nomenclature.

The system is set up in three levels:

- the upper level - 11 source categories - is oriented towards a grouping of sources as commonly practised,
- the intermediate level - 77 source sub-categories - reflects technological and socio-economic criteria,
- the lower level - 375 source activities - pursues two aims :
 - * exhaustive enumeration of sources and sinks in detail,
 - * structuring of sources and sinks to achieve sections which are homogeneous in emission generation.

As the full nomenclature reflects estimation requirements associated with all the substances currently under consideration, for single pollutants national emissions might be achievable from a smaller selection of relevant sources. However, with the aim of complete coverage the SNAP includes all relevant sources.

In the case of difficulties to assign emission events unequivocally to certain SNAP items the Topic Centre on Air Emission should be consulted for assistance. If necessary, the SNAP will be accordingly specified or adapted.

Some SNAP activities might prove to be insufficiently homogeneous considering the multitude of influencing parameters, so that emissions have to be estimated on a more detailed level. This applies, for instance, to large combustion plants and the transportation sector. An emission model of exemplary importance is COPERT (Computer Programme for the Calculation of Emissions from Road Traffic), in which for road transport, all relevant influencing parameters are taken into account so that reliable and comparable emission data can be produced.

COPERT provides data as required for CORINAIR at the national level.

Definitions of itemsGENERAL COMMENT A
about **AUTOPRODUCTION**

The CORINAIR inventory is source oriented and there is therefore no need to distinguish between different products (electricity and heat) for sale or own use from these sources. This means that the fuel consumption and the associated emissions from cogeneration of electricity and heat are to be reported under their physical sources : Public power, District Heating, Commercial, Institutional, Residential, Industry,.... For reporting to IPCC and OECD which are oriented towards economic sectors, in the 1995 Guidelines a distinction must be made between "Public supply" and "Autoproducers". "Public supply" has generation of electricity and heat as their PRIMARY activity whereas autoproducers produce heat for sale and electricity as an activity which SUPPORTS their main activity. This distinction does not have to be made at the generating source category level but must be introduced when necessary in the NAD module where the interface between relevant parts of the fuels and the economic sectors is established. Then emissions (i.e. for "Autoproducers") will be provided by corresponding emission outputs. Regarding the recommendation of the IPCC Phase II Expert group on Combustion this distinction would no longer have to be considered for emissions after confirmation by the IPCC. The present comment will be obsolete after the revised IPCC Guidelines has entered into force.

GENERAL COMMENT B
about **LAND USE CHANGE**

Regarding harmonization need for IPCC, the Land Use and Wood Stock Change is included in the SNAP (group 10 - sections 10.11 to 10.19). The corresponding items allow to report a certain level of data aggregation. IPCC Guidelines provide all details of the methodology to be used.

1 COMBUSTION IN ENERGY AND TRANSFORMATION INDUSTRIES (stationary sources)

Public electricity and combined heat and power stations, district heating, transformation to solids and to gases, petroleum refineries. Autoproduction of electricity and heat (electricity produced and heat sold only) occurring in this sector. Other autoproducers of electricity and heat should no longer be included here (cf general comments A).

2 NON-INDUSTRIAL COMBUSTION PLANTS (stationary sources)

Heat generation in other sectors than industry and energy production and transformation. Autoproduction of electricity and heat (electricity produced and heat sold only) occurring in this sector (cf general comment A).

3 COMBUSTION IN MANUFACTURING INDUSTRY (stationary sources)

Heat generation and production processes whose heat demand is met directly through combustion (non-combustion related emissions excluded). Combined heat and power generation and autoproduction of electricity and heat (electricity produced and heat sold only) from sources belonging to the manufacturing industry are included (cf general comment A).

4 PRODUCTION PROCESSES (stationary sources)

Non-combustion related sources only. Heat demand of non-combustion processes is met directly through heat transfer media.

5 EXTRACTION AND DISTRIBUTION OF FOSSIL FUELS AND GEOTHERMAL ENERGY

Energy related non-combustion sources. Off-shore gas and oil installations including loading within EMEP area.

6 SOLVENT AND OTHER PRODUCT USE

Use of solvents through application of solvent containing products, as an agent, and in manufacturing and processing of products. Use of N₂O for anaesthesia and possibly others.

Definitions of items (continuation)**7 ROAD TRANSPORT**

Vehicles moving and parking; refuelling is included in item 5. Vehicles types and road types are reported. Further data split according to some complementary parameters (fuels, techno are considered by using associated components (fuel and rubric).

8 OTHER MOBILE SOURCES AND MACHINERY

Operation of aircraft, ships, tractors, construction machinery, lawn movers, military and other equipment.

Land based activities in harbours and ground level activities in airports other than aircraft, are included either in other groups or elsewhere in items of this group.

Fishing boats under national registration within the EMEP area. Ship transport including ferries, irrespective of flags, between ports in the same country, localized within the EMEP area.

Fuel consumption from marine and air international bunkers is to be reported but neither the fuel nor the related emissions are included in national totals.

Landing and take-off operations are differentiated from cruise for as well domestic as international traffic.

Regarding machinery, the split recommended by the Expert Panel is considered in the separate technology component.

9 WASTE TREATMENT AND DISPOSAL

Waste incineration with or without heat recovery should be included. If some waste is considered a relevant fuel for energy generation, then this combustion is to be included in items 1 t

Autoproduction of electricity and heat (electricity produced and heat sold only) occurring in this sector is included here (cf general comment A).

10 AGRICULTURE AND FORESTRY, LAND USE AND WOOD STOCK CHANGE

Non-energy processes in culture, animal breeding and managed forests. CO₂ sources and sinks through anthropogenic impact are included

On-field burning is included while open waste burning is excluded (cf item 9).

11 NATURE

Processes uncontrolled by man (metabolic, degradation, thermal, etc...). Corresponding CO₂ emissions are not reported here except for volcanoes.

The contribution of each source type differs according to substances and national particularities. However, these contributions, based on results of CORINAIR 90 at the European level for the first group of pollutants and expectations for items without exact correspondence in CORINAIR 90, are pointed out as follows :

'M' points out a contribution exceeding 10 % of total emissions, 'X' refers to contributions in the range 1 to 10 %, 'x' corresponds to contributions within the interval 0.1 to 1 %,

'(x)' relates to contributions < 0.1 % and '-' means that emissions are generally negligible or not relevant.

Of course, national specific contribution ratio can be widely different of the European figure.

01	COMBUSTION IN ENERGY AND TRANSFORMATION INDUSTRIES	(a) (b)(c)	ACIDIFYERS, OZONE PRECURSORS AND GREENHOUSE GASES							HEAVY METALS								PERSISTENT ORGANIC POLLUTANTS											
			SOx	NOx	NMVOc	CH4	CO	CO2	N2O	NH3	As	Cd	Cr	Cu	Hg	Ni	Pb	Se	Zn	HCH	PCP	HCB	TCM	TRI	PER	TCB	TCE	DIOX	PAH
01 01	Public power																												
01 01 01	Combustion plants >= 300 MW (boilers)		M	M	x	x	x	M	X	(x)	x	x	x	x	x	x	x	x	-	-	-	-	-	-	-	-	(x)	x	
01 01 02	Combustion plants >= 50 and < 300 MW (boilers)		X	x	(x)	(x)	(x)	X	x	(x)	x	x	x	x	x	x	x	x	-	-	-	-	-	-	-	-	(x)	x	
01 01 03	Combustion plants < 50 MW (boilers)		x	x	(x)	(x)	(x)	x	x	(x)	x	x	x	x	x	x	x	x	-	-	-	-	-	-	-	-	(x)	x	
01 01 04	Gas turbines		(x)	x	(x)	(x)	(x)	x	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	-	-	-	-	-	-	-	-	-	(x)	
01 01 05	Stationary engines		x	x	(x)	(x)	(x)	(x)	(x)	(x)	x	x	x	x	x	x	x	x	-	-	-	-	-	-	-	-	-	x	
01 02	District heating plants																												
01 02 01	Combustion plants >= 300 MW (boilers)		x	x	(x)	(x)	(x)	x	x	(x)	x	x	x	x	x	x	x	x	-	-	-	-	-	-	-	-	(x)	x	
01 02 02	Combustion plants >= 50 and < 300 MW (boilers)		X	x	(x)	(x)	(x)	x	x	(x)	x	x	x	x	x	x	x	x	-	-	-	-	-	-	-	-	(x)	x	
01 02 03	Combustion plants < 50 MW (boilers)		X	x	(x)	(x)	x	x	x	(x)	x	x	x	x	x	x	x	x	-	-	-	-	-	-	-	-	(x)	x	
01 02 04	Gas turbines		(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	-	-	-	-	-	-	-	-	-	(x)	
01 02 05	Stationary engines		(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	x	x	x	x	x	x	x	x	-	-	-	-	-	-	-	-	-	x	
01 03	Petroleum refining plants																												
01 03 01	Combustion plants >= 300 MW (boilers)		x	x	(x)	(x)	(x)	x	x	(x)	x	x	x	x	x	x	x	x	-	-	-	-	-	-	-	-	(x)	x	
01 03 02	Combustion plants >= 50 and < 300 MW (boilers)		x	x	(x)	(x)	(x)	x	x	(x)	x	x	x	x	x	x	x	x	-	-	-	-	-	-	-	-	(x)	x	
01 03 03	Combustion plants < 50 MW (boilers)		x	x	(x)	(x)	(x)	x	x	(x)	x	x	x	x	x	x	x	x	-	-	-	-	-	-	-	-	(x)	x	
01 03 04	Gas turbines		(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	-	-	-	-	-	-	-	-	-	(x)	
01 03 05	Stationary engines		(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	x	x	x	x	x	x	x	x	-	-	-	-	-	-	-	-	-	x	
01 03 06	Process furnaces		X	x	x	x	x	X	x	(x)	x	x	x	x	x	x	x	x	-	-	-	-	-	-	-	-	-	x	
01 04	Solid fuel transformation plants																												
01 04 01	Combustion plants >= 300 MW (boilers)		x	x	(x)	(x)	(x)	x	x	(x)	x	x	x	x	x	x	x	x	-	-	-	-	-	-	-	-	(x)	x	
01 04 02	Combustion plants >= 50 and < 300 MW (boilers)		x	x	(x)	(x)	(x)	x	x	(x)	x	x	x	x	x	x	x	x	-	-	-	-	-	-	-	-	(x)	x	
01 04 03	Combustion plants < 50 MW (boilers)		x	x	(x)	(x)	(x)	x	x	(x)	x	x	x	x	x	x	x	x	-	-	-	-	-	-	-	-	(x)	x	
01 04 04	Gas turbines		(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	-	-	-	-	-	-	-	-	-	(x)	
01 04 05	Stationary engines		(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	x	x	x	x	x	x	x	x	-	-	-	-	-	-	-	-	-	x	
01 04 06	Coke oven furnaces		x	x	x	x	x	X	x	(x)	x	x	x	x	x	x	x	x	-	-	-	-	-	-	-	-	-	x	
01 04 07	Other (coal gasification, liquefaction, ...)		(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	x	x	x	x	x	x	x	x	-	-	-	-	-	-	-	-	-	x	
01 05	Coal mining, oil / gas extraction, pipeline compressors																												
01 05 01	Combustion plants >= 300 MW (boilers)		x	x	(x)	(x)	(x)	x	x	(x)	x	x	x	x	x	x	x	x	-	-	-	-	-	-	-	-	(x)	x	
01 05 02	Combustion plants >= 50 and < 300 MW (boilers)		x	x	(x)	(x)	(x)	x	x	(x)	x	x	x	x	x	x	x	x	-	-	-	-	-	-	-	-	(x)	x	
01 05 03	Combustion plants < 50 MW (boilers)		x	x	(x)	(x)	(x)	x	x	(x)	x	x	x	x	x	x	x	x	-	-	-	-	-	-	-	-	(x)	x	
01 05 04	Gas turbines		(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	-	-	-	-	-	-	-	-	-	(x)	
01 05 05	Stationary engines		(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	x	x	x	x	x	x	x	x	-	-	-	-	-	-	-	-	-	x	
01 05 06	Pipeline compressors		(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	-	-	-	-	-	-	-	-	-	(x)	

(a) Process where flames and/or combustion gases are not in contact with other products.

(c) For cogeneration plants and autoproducers, cf general comment A.

(b) All powers are expressed as thermal input capacity.

M : > 10 % , X : > 1 % , x : > 0.1 % , (x) : < 0.1 % , - : generally not relevant

02 NON-INDUSTRIAL COMBUSTION PLANTS (b,c)		ACIDIFYERS, OZONE PRECURSORS AND GREENHOUSE GASES							HEAVY METALS							PERSISTENT ORGANIC POLLUTANTS												
		SOx	NOx	NMVO	CH4	CO	CO2	N2O	NH3	As	Cd	Cr	Cu	Hg	Ni	Pb	Se	Zn	HCH	PCP	HCB	TCM	TRI	PER	TCB	TCE	DIOX	PAH
02 01	Commercial and institutional plants (t)																											
02 01 01	Combustion plants >= 300 MW (boilers)	x	x	x	(x)	x	x	x	(x)	x	x	x	x	x	x	x	x	x	-	-	-	-	-	-	-	-	(x)	x
02 01 02	Combustion plants >= 50 and < 300 MW (boilers)	x	x	x	(x)	x	x	x	(x)	x	x	x	x	x	x	x	x	x	-	-	-	-	-	-	-	-	(x)	x
02 01 03	Combustion plants < 50 MW (boilers)	x	x	x	(x)	x	x	x	(x)	x	x	x	x	x	x	x	x	x	-	-	-	-	-	-	-	-	(x)	x
02 01 04	Stationary gas turbines	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	-	-	-	(x)	-	-	-	-	-	(x)
02 01 05	Stationary engines	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	x	x	x	x	x	x	x	x	x	-	-	-	-	-	-	-	-	-	x
02 01 06	Other stationary equipments (n)	x	x	x	(x)	x	x	x	(x)	x	x	x	x	x	x	x	x	x	-	-	-	-	-	-	-	-	(x)	x
02 02	Residential plants																											
02 02 01	Combustion plants >= 50 MW (boilers)	x	x	x	(x)	(x)	x	x	(x)	x	x	x	x	x	x	x	x	x	-	-	-	-	-	-	-	-	x	x
02 02 02	Combustion plants < 50 MW (boilers)	M	X	X	X	M	M	X	(x)	x	x	x	x	x	x	x	x	x	-	-	-	-	-	-	-	-	x	x
02 02 03	Gas turbines	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	-	-	-	-	-	-	-	-	-	(x)
02 02 04	Stationary engines	x	(x)	(x)	(x)	(x)	(x)	(x)	(x)	x	x	x	x	x	x	x	x	x	-	-	-	-	-	-	-	-	-	x
02 02 05	Other equipments (stoves, fireplaces, cooking,...)	x	x	x	x	x	x	x	(x)	x	x	x	x	x	x	x	x	x	-	-	-	-	-	-	-	-	x	x
02 03	Plants in agriculture, forestry and aquaculture																											
02 03 01	Combustion plants >= 50 MW (boilers)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	x	x	x	x	x	x	x	x	x	-	-	-	-	-	-	-	-	(x)	x
02 03 02	Combustion plants < 50 MW (boilers)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	x	x	x	x	x	x	x	x	x	-	-	-	-	-	-	-	-	(x)	x
02 03 03	Stationary gas turbines	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	-	-	-	-	-	-	-	-	-	(x)
02 03 04	Stationary engines	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	x	x	x	x	x	x	x	x	x	-	-	-	-	-	-	-	-	-	x
02 03 05	Other stationary equipments (n)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	x	x	x	x	x	x	x	x	x	-	-	-	-	-	-	-	-	(x)	x
03	COMBUSTION IN MANUFACTURING INDUSTRY (b,c)																											
		ACIDIFYERS, OZONE PRECURSORS AND GREENHOUSE GASES							HEAVY METALS							PERSISTENT ORGANIC POLLUTANTS												
		SOx	NOx	NMVO	CH4	CO	CO2	N2O	NH3	As	Cd	Cr	Cu	Hg	Ni	Pb	Se	Zn	HCH	PCP	HCB	TCM	TRI	PER	TCB	TCE	DIOX	PAH
03 01	Comb. in boilers, gas turbines and stationary engines																											
03 01 01	Combustion plants >= 300 MW (boilers)	X	X	(x)	(x)	x	X	x	(x)	x	x	x	x	x	x	x	x	x	-	-	-	-	-	-	-	-	(x)	x
03 01 02	Combustion plants >= 50 and < 300 MW (boilers)	X	X	(x)	(x)	x	X	x	(x)	x	x	x	x	x	x	x	x	x	-	-	-	-	-	-	-	-	(x)	x
03 01 03	Combustion plants < 50 MW (boilers)	X	X	x	x	x	X	X	(x)	x	x	x	x	x	x	x	x	x	-	-	-	-	-	-	-	-	(x)	x
03 01 04	Gas turbines	(x)	x	(x)	(x)	(x)	x	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	-	-	-	(x)	-	-	-	-	-	(x)
03 01 05	Stationary engines	x	x	(x)	(x)	(x)	x	(x)	(x)	x	x	x	x	x	x	x	x	x	-	-	-	-	-	-	-	-	-	x
03 01 06	Other stationary equipments (n)	x	x	x	x	x	x	x	(x)	x	x	x	x	x	x	x	x	x	-	-	-	-	-	-	-	-	(x)	x

(b) All powers are expressed as thermal input capacity.

(n) Make up, air heaters, etc.

(t) Including military

(c) For cogeneration plants, cf general comment A.

M : > 10 % , **X** : > 1 % , x : > 0.1 % , (x) : < 0.1 % , - : generally not relevant

		ACIDIFYERS, OZONE PRECURSORS AND GREENHOUSE GASES								HEAVY METALS								PERSISTENT ORGANIC POLLUTANTS										
		SOx	NOx	NMVOOC	CH4	CO	CO2	N2O	NH3	As	Cd	Cr	Cu	Hg	Ni	Pb	Se	Zn	HCH	PCP	HCB	TCM	TRI	PER	TCB	TCE	DIOX	PAH
03 02	Process furnaces without contact (a)																											
03 02 03	Blast furnace cowpers	x	x	(x)	(x)	x	X	x	-	x	x	x	x	x	x	x	x	x	-	-	-	-	-	-	-	-	-	x
03 02 04	Plaster furnaces	x	x	x	(x)	x	x	x	-	x	x	x	x	x	x	x	x	x	-	-	-	-	-	-	-	-	-	x
03 02 05	Other furnaces	(x)	(x)	(x)	-	(x)	(x)	x	-	x	x	x	x	x	x	x	x	x	-	-	-	-	-	-	-	(x)	x	
03 03	Processes with contact																											
03 03 01	Sinter plants	X	X	x	x	X	x	(x)	(x)	x	x	x	x	(x)	x	x	(x)	x	-	-	-	-	-	-	-	-	x	x
03 03 02	Reheating furnaces steel and iron	x	x	(x)	(x)	x	x	x	-	x	x	x	x	(x)	x	x	(x)	x	-	-	-	-	-	-	-	(x)	x	
03 03 03	Gray iron foundries	(x)	(x)	(x)	(x)	X	x	(x)	-	x	x	x	-	-	x	x	-	x	-	-	-	-	-	-	-	(x)	x	
03 03 04	Primary lead production	x	(x)	(x)	-	(x)	(x)	-	-	x	x	-	x	(x)	-	x	-	x	-	-	-	-	-	-	-	-	(x)	
03 03 05	Primary zinc production	x	(x)	(x)	-	(x)	(x)	-	-	x	x	-	x	(x)	-	x	-	x	-	-	-	-	-	-	-	-	(x)	
03 03 06	Primary copper production	x	(x)	(x)	-	x	(x)	-	-	x	x	-	x	(x)	-	x	-	x	-	-	-	-	-	-	-	(x)	-	
03 03 07	Secondary lead production	(x)	(x)	(x)	-	(x)	(x)	-	-	x	x	-	-	-	-	x	-	x	-	-	-	-	-	-	-	(x)		
03 03 08	Secondary zinc production	(x)	(x)	(x)	-	(x)	(x)	-	-	x	x	-	x	-	x	-	x	-	x	-	-	-	-	-	-	-		
03 03 09	Secondary copper production	(x)	(x)	(x)	-	(x)	(x)	-	-	x	(x)	-	x	-	-	(x)	-	(x)	-	-	-	-	-	-	-	(x)	-	
03 03 10	Secondary aluminium production	(x)	(x)	(x)	-	(x)	(x)	-	-	-	x	-	-	-	-	-	-	-	-	-	x	-	-	-	-	(x)	x	
03 03 11	Cement (f)	x	X	(x)	(x)	x	X	x	-	x	x	x	x	x	x	x	x	x	-	-	-	-	-	-	-	(x)	x	
03 03 12	Lime (includ. iron and steel and paper pulp industr.)(f)	x	x	(x)	-	x	x	-	-	x	x	x	-	x	x	x	x	x	-	-	-	-	-	-	-	(x)	x	
03 03 13	Asphalt concrete plants	x	(x)	(x)	-	(x)	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	x	
03 03 14	Flat glass (f)	x	x	(x)	-	(x)	x	-	-	x	x	x	x	x	x	x	x	x	-	-	-	-	-	-	-	-	-	
03 03 15	Container glass (f)	x	x	(x)	-	(x)	x	-	-	x	x	x	x	x	x	x	x	x	-	-	-	-	-	-	-	-	-	
03 03 16	Glass wool (except binding) (f)	(x)	(x)	(x)	-	(x)	(x)	-	-	x	x	x	x	x	x	x	x	x	-	-	-	-	-	-	-	-	-	
03 03 17	Other glass (f)	(x)	x	(x)	-	(x)	(x)	-	-	x	x	x	x	x	x	x	x	x	-	-	-	-	-	-	-	-	-	
03 03 18	Mineral wool (except binding)	(x)	(x)	(x)	-	(x)	(x)	-	-	x	x	x	x	x	x	x	x	x	-	-	-	-	-	-	-	-	-	
03 03 19	Bricks and tiles	x	x	(x)	-	x	x	x	-	x	x	x	x	x	x	x	x	x	-	-	-	-	-	-	-	-	-	
03 03 20	Fine ceramic materials	x	x	(x)	-	x	x	x	-	(x)	(x)	-	-	-	(x)	(x)	-	-	-	-	-	-	-	-	-	-	-	
03 03 21	Paper-mill industry (drying processes)	x	(x)	(x)	(x)	(x)	x	x	-	-	-	-	-	-	-	-	-	-	-	(x)	-	-	-	-	-	(x)	-	
03 03 22	Alumina production	(x)	(x)	(x)	-	(x)	(x)	(x)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
03 03 23	Magnesium production (dolomite treatment)	(x)	-	-	-	(x)	(x)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	(x)	-	
03 03 24	Nickel production (thermal process)	(x)	(x)	(x)	-	(x)	(x)	(x)	-	-	-	-	-	x	-	-	-	-	-	-	-	-	-	-	-	(x)	-	
03 03 25	Enamel production	(x)	(x)	(x)	-	(x)	(x)	(x)	-	x	x	-	-	-	-	x	-	-	-	-	-	-	-	-	-	-	-	
03 03 26	Other	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	

(a) Process where flames and/or combustion gases are not in contact with other products.
 (f) Except decarbonizing considered in items 04.06.12/13/14.

(c) For cogeneration plants and autoproducers, cf general comment A.
M : > 10 % , **X** : > 1 % , **x** : > 0.1 % , **(x)** : < 0.1 % , **-** : generally not relevant

04	PRODUCTION PROCESSES (j)	ACIDIFYERS, OZONE PRECURSORS AND GREENHOUSE GASES								HEAVY METALS								PERSISTENT ORGANIC POLLUTANTS										
		SOx	NOx	NMVOC	CH4	CO	CO2	N2O	NH3	As	Cd	Cr	Cu	Hg	Ni	Pb	Se	Zn	HCH	PCP	HCB	TCM	TRI	PER	TCB	TCE	DIOX	PAH
04 01	Processes in petroleum industries																											
04 01 01	Petroleum products processing	x	x	x	(x)	(x)	x	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	(x)	-	x	
04 01 02	Fluid catalytic cracking - CO boiler	x	x	(x)	-	(x)	x	(x)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	(x)	
04 01 03	Sulphur recovery plants	x	-	(x)	-	(x)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	(x)	
04 01 04	Storage and handling of petroleum produc. in refinery	-	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	(x)	
04 01 05	Other	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	
04 02	Processes in iron and steel industries and collieries																											
04 02 01	Coke oven (door leakage and extinction)	-	-	x	x	(x)	(x)	-	(x)	x	x	x	x	x	x	-	x	-	-	-	-	-	-	-	-	-	x	
04 02 02	Blast furnace charging	-	-	(x)	-	x	x	-	-	x	x	x	x	-	x	x	-	x	-	-	-	-	-	-	-	-	x	
04 02 03	Pig iron tapping	(x)	-	-	(x)	(x)	-	-	-	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	(x)	x	
04 02 04	Solid smokeless fuel	-	-	(x)	(x)	-	-	-	-	x	x	-	-	x	-	x	-	x	-	-	-	-	-	-	-	-	x	
04 02 05	Open hearth furnace steel plant	(x)	x	(x)	(x)	(x)	(x)	(x)	-	x	x	x	x	x	x	x	x	x	x	-	-	-	-	-	-	(x)	x	
04 02 06	Basic oxygen furnace steel plant	x	(x)	(x)	(x)	X	(x)	(x)	-	x	x	x	x	x	x	x	x	x	x	-	-	-	-	-	-	(x)	x	
04 02 07	Electric furnace steel plant	(x)	x	(x)	(x)	x	(x)	(x)	-	x	x	x	x	x	x	x	x	x	x	-	x	x	-	-	-	-	(x)	x
04 02 08	Rolling mills	-	-	(x)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	x	
04 02 09	Sinter plant (except combustion 03.03.01)	(x)	(x)	(x)	(x)	(x)	(x)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	(x)	x	
04 02 10	Other	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	
04 03	Processes in non-ferrous metal industries																											
04 03 01	Aluminium production (electrolysis)	x	(x)	(x)	-	x	x	(x)	(x)	-	x	-	-	-	x	-	-	x	-	-	-	-	-	-	-	(x)	x	
04 03 02	Ferro alloys	x	(x)	(x)	(x)	x	x	-	-	-	-	x	-	-	x	-	-	-	-	-	-	-	-	-	-	(x)	x	
04 03 03	Silicium production	-	-	-	-	(x)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	(x)	
04 03 04	Magnesium production (except 03.03.23)	x	-	-	-	x	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	(x)	-		
04 03 05	Nickel production (except 03.03.24)	-	-	-	-	-	-	-	-	-	-	-	-	-	x	-	-	-	-	-	-	-	-	-	-	-	-	
04 03 06	Allied metal manufacturing	-	-	-	-	-	-	-	-	-	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
04 03 07	Galvanizing	-	-	-	-	-	-	-	-	-	x	-	-	-	-	x	-	x	-	-	-	-	-	-	-	-	-	
04 03 08	Electroplating	-	-	-	-	-	-	-	-	-	-	x	-	-	x	-	-	-	-	-	-	-	-	-	-	-	-	
04 03 09	Other	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	

(j) Except combustion which is SNAP 03.

M : > 10 % , X : > 1 % , x : > 0.1 % , (x) : < 0.1 % , - : generally not relevant

		ACIDIFYERS, OZONE PRECURSORS AND GREENHOUSE GASES							HEAVY METALS								PERSISTENT ORGANIC POLLUTANTS												
		SOx	NOx	NMVO	CH4	CO	CO2	N2O	NH3	As	Cd	Cr	Cu	Hg	Ni	Pb	Se	Zn	HCH	PCP	HCB	TCM	TRI	PER	TCB	TCE	DIOX	PAH	
04 04	Processes in inorganic chemical industries																												
04 04 01	Sulfuric acid	x	-	-	-	-	-	-	-	(x)	(x)	-	-	(x)	-	(x)	-	(x)	-	-	-	-	-	-	-	-	-	-	-
04 04 02	Nitric acid	-	x	x	-	-	-	-	X	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
04 04 03	Ammonia	-	x	x	(x)	-	x	X	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
04 04 04	Ammonium sulphate	(x)	-	-	-	-	-	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
04 04 05	Ammonium nitrate	-	(x)	-	-	-	-	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
04 04 06	Ammonium phosphate	-	-	-	-	-	-	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
04 04 07	NPK fertilisers	x	x	x	-	-	-	-	X	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
04 04 08	Urea	-	-	-	-	(x)	-	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
04 04 09	Carbon black	(x)	-	x	x	(x)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	x
04 04 10	Titanium dioxide	x	x	(x)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
04 04 11	Graphite	-	-	(x)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	x
04 04 12	Calcium carbide production	-	-	-	-	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
04 04 13	Chlorine production	-	-	-	-	-	-	-	-	-	-	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-	(x)	-	-
04 04 14	Phosphate fertilizers	-	-	-	-	-	-	-	-	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
04 04 15	Storage and handling of inorganic chemical prod. (o)	-	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	-
04 04 16	Other	-	-	(x)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
04 05	Proc. in organic chemical industr. (bulk production)																												
04 05 01	Ethylene	-	-	x	(x)	(x)	x	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
04 05 02	Propylene	-	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
04 05 03	1,2 dichloroethane (except 04.05.05)	-	-	(x)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	(x)	-	-	-
04 05 04	Vinylchloride (except 04.05.05)	-	-	(x)	-	(x)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	x	x	-	(x)	-	-	-	-
04 05 05	1,2 dichloroethane + vinylchloride (balanced process)	-	-	(x)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	(x)	-	-	-	-
04 05 06	Polyethylene Low Density	-	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
04 05 07	Polyethylene High Density	-	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
04 05 08	Polyvinylchloride	-	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
04 05 09	Polypropylene	-	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
04 05 10	Styrene	-	-	(x)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
04 05 11	Polystyrene	-	-	(x)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
04 05 12	Styrene butadiene	-	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
04 05 13	Styrene-butadiene latex	-	-	(x)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
04 05 14	Styrene-butadiene rubber (SBR)	-	-	(x)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
04 05 15	Acrylonitrile Butadiene Styrene (ABS) resins	-	-	(x)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
04 05 16	Ethylene oxide	-	-	(x)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
04 05 17	Formaldehyde	-	-	x	-	(x)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

(j) Except combustion which is included in SNAP 03.

(o) Excluding petroleum products

M : > 10 % , X : > 1 % , x : > 0.1 % , (x) : < 0.1 % , - : generally not relevant

	ACIDIFYERS, OZONE PRECURSORS AND GREENHOUSE GASES								HEAVY METALS								PERSISTENT ORGANIC POLLUTANTS											
	SOx	NOx	NMVOC	CH4	CO	CO2	N2O	NH3	As	Cd	Cr	Cu	Hg	Ni	Pb	Se	Zn	HCH	PCP	HCB	TCM	TRI	PER	TCB	TCE	DIOX	PAH	
04 05	Proc. in organic chemical industr. (bulk production)																											
	(continuation)																											
04 05 18	-	-	(x)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
04 05 19	-	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
04 05 20	-	-	(x)	-	-	-	(x)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
04 05 21	-	(x)	-	-	-	-	X	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
04 05 22	-	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	x	x	x	-	-	-	-	x	-	-	-
04 05 23	-	-	-	-	-	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
04 05 24	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	x	x	x	x	x	-	x	(x)	-	-
04 05 25	-	-	(x)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	(x)	-	-
04 05 26	-	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	x	(x)	x	(x)	x	(x)	(x)	(x)	(x)	x	-
04 05 27	-	-	(x)	-	-	-	-	-	-	-	-	(x)	-	-	-	-	-	-	-	-	-	-	x	-	-	-	-	-
04 06	Processes in wood, paper pulp, food, drink and other industries																											
04 06 01	-	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	x	-	-	-	-	-	-	-	-	-
04 06 02	-	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	x	x	-	-	-	-	-	(x)	-	-
04 06 03	x	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	x	x	-	-	-	-	-	(x)	-	-
04 06 04	x	-	(x)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	x	x	-	-	-	-	(x)	-	-	-
04 06 05	-	-	x	-	-	(x)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
04 06 06	-	-	(x)	-	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
04 06 07	-	-	x	-	-	(x)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
04 06 08	-	-	x	-	-	(x)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
04 06 10	(x)	-	x	-	(x)	(x)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	x
04 06 11	-	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
04 06 12	-	-	-	-	-	X	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
04 06 13	-	-	-	-	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
04 06 14	-	-	-	-	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
04 06 15	-	-	-	-	-	-	-	-	-	x	-	-	x	x	x	-	-	-	-	-	-	-	-	-	-	-	-	-
04 06 16	-	-	-	-	-	-	-	-	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)
04 06 17	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	-
04 07	Cooling plants																											
	-	-	-	-	-	-	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

(j) Except combustion which is included in SNAP 03.

(o) Excluding petroleum products

M : > 10 % , X : > 1 % , x : > 0.1 % , (x) : < 0.1 % , - : generally not relevant

05	EXTRACTION AND DISTRIBUTION OF FOSSIL FUELS AND GEOTHERMAL ENERGY	ACIDIFYERS, OZONE PRECURSORS AND GREENHOUSE GASES							HEAVY METALS							PERSISTENT ORGANIC POLLUTANTS												
		SOx	NOx	NMVOc	CH4	CO	CO2	N2O	NH3	As	Cd	Cr	Cu	Hg	Ni	Pb	Se	Zn	HCH	PCP	HCB	TCM	TRI	PER	TCB	TCE	DIOX	PAH
05 01	Extraction and 1st treatment of solid fossil fuels (g)																											
05 01 01	Open cast mining	-	-	-	X	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
05 01 02	Underground mining	-	-	-	M	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
05 01 03	Storage of solid fuel	-	-	-	X	(x)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
05 02	Extraction, 1st treatment and loading of liquid fossil fuels (d)(g)(p)																											
05 02 01	Land-based activities	(x)	-	(x)	(x)	(x)	(x)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
05 02 02	Off-shore activities	(x)	-	X	x	(x)	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
05 03	Extraction, 1st treatment and loading of gaseous fossil fuels (d)(g)(p)																											
05 03 01	Land-based desulfuration	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
05 03 02	Land-based activities (other than desulfuration)	(x)	-	x	x	(x)	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
05 03 03	Off-shore activities	(x)	-	(x)	x	(x)	(x)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
05 04	Liquid fuel distribution (except gasoline distribution)																											
05 04 01	Marine terminals (tankers, handling and storage)	-	-	x	(x)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
05 04 02	Other handling and storage (including pipeline) (q)	-	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
05 05	Gasoline distribution																											
05 05 01	Refinery dispatch station	-	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
05 05 02	Transport and depots (except 05.05.03)	-	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
05 05 03	Service stations (including refuelling of cars)	-	-	X	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
05 06	Gas distribution networks																											
05 06 01	Pipelines (q)	-	-	(x)	x	(x)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
05 06 03	Distribution networks	-	-	x	X	(x)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
05 07	Geothermal energy extraction	(x)	-	-	-	-	(x)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

(d) Excluding flaring which is included in 09.02.08

(p) Combined oil and gaz extraction has to be considered in items 05.02.

(q) Except combustion in compressor stations which is included in item 01.05.06.

(g) Except combustion which is included in 01.05

M : > 10 % , X : > 1 % , x : > 0.1 % , (x) : < 0.1 % , - : generally not relevant

06	SOLVENT AND OTHER PRODUCT USE	ACIDIFYERS, OZONE PRECURSORS AND GREENHOUSE GASES								HEAVY METALS								PERSISTENT ORGANIC POLLUTANTS										
		SOx	NOx	NMVO	CH4	CO	CO2	N2O	NH3	As	Cd	Cr	Cu	Hg	Ni	Pb	Se	Zn	HCH	PCP	HCB	TCM	TRI	PER	TCB	TCE	DIOX	PAH
06 01	Paint application																											
06 01 01	Paint application : manufacture of automobiles	-	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	x	x	-	x	-	-	
06 01 02	Paint application : car repairing	-	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	x	x	-	x	-	-	
06 01 03	Paint application : construction and buildings (except item 06.01.07)	-	-	X	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	x	x	-	x	-	-	
06 01 04	Paint application : domestic use (except 06.01.07)	-	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	x	x	-	x	-	-	
06 01 05	Paint application : coil coating	-	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	x	x	-	x	-	-	
06 01 06	Paint application : boat building	-	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	x	x	-	x	-	-	
06 01 07	Paint application : wood	-	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	x	x	-	x	-	-	
06 01 08	Other industrial paint application	-	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	x	x	-	x	-	-	
06 01 09	Other non industrial paint application	-	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	x	x	-	x	-	-	
06 02	Degreasing, dry cleaning and electronics																											
06 02 01	Metal degreasing	-	-	X	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	x	x	-	x	(x)	-	
06 02 02	Dry cleaning	-	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	x	x	-	x	(x)	-	
06 02 03	Electronic components manufacturing	-	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	x	x	-	x	-	-	
06 02 04	Other industrial cleaning	-	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	x	x	-	x	-	-	
06 03	Chemical products manufacturing or processing																											
06 03 01	Polyester processing	-	-	(x)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
06 03 02	Polyvinylchloride processing	-	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	(x)	-	-	
06 03 03	Polyurethane processing	-	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
06 03 04	Polystyrene foam processing	-	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
06 03 05	Rubber processing	-	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	x	
06 03 06	Pharmaceutical products manufacturing	-	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	x	-	-	
06 03 07	Paints manufacturing	-	-	x	-	-	-	-	-	-	x	x	-	-	-	x	x	-	-	-	-	x	-	-	x	-	-	
06 03 08	Inks manufacturing	-	-	(x)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	x	-	-	-	-	-	
06 03 09	Glues manufacturing	-	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	x	-	-	-	-	-	
06 03 10	Asphalt blowing	-	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	x	
06 03 11	Adhesive, magnetic tapes, films and photographs manufacturing	-	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	(x)	-	-	-	-	-	
06 03 12	Textile finishing	-	-	(x)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	x	-	x	-	-	-	
06 03 13	Leather tanning	-	-	(x)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	x	-	-	-	
06 03 14	Other	-	-	(x)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	(x)	(x)	(x)	(x)	(x)	(x)	-

M : > 10 % , X : > 1 % , x : > 0.1 % , (x) : < 0.1 % , - : generally not relevant

		ACIDIFYERS, OZONE PRECURSORS AND GREENHOUSE GASES							HEAVY METALS							PERSISTENT ORGANIC POLLUTANTS												
		SOx	NOx	NMVOC	CH4	CO	CO2	N2O	NH3	As	Cd	Cr	Cu	Hg	Ni	Pb	Se	Zn	HCH	PCP	HCB	TCM	TRI	PER	TCB	TCE	DIOX	PAH
06 04	Other use of solvents and related activities																											
06 04 01	Glass wool enduction	-	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
06 04 02	Mineral wool enduction	-	-	(x)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
06 04 03	Printing industry	-	-	X	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	(x)	-	-	x	-	-	-	-
06 04 04	Fat, edible and non edible oil extraction	-	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	x	x	-	-	-	-	-
06 04 05	Application of glues and adhesives	-	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
06 04 06	Preservation of wood	-	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	x	x	x	-	-	-	x	-	(x)	-
06 04 07	Underseal treatment and conservation of vehicles	-	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	x	-	-	-
06 04 08	Domestic solvent use (other than paint application)	-	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	(x)	-	-	x	-	-	-
06 04 09	Vehicles dewaxing	-	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	x	-	-	-
06 04 10	Pharmaceutical products manufacturing	-	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
06 04 11	Domestic use of pharmaceutical products	-	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
06 04 12	Other (preservation of seeds,...)	-	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	-	-
06 05	Use of N2O																											
06 05 01	Use of N2O for anaesthesia	-	-	-	-	-	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
06 05 02	Other use of N2O	-	-	-	-	-	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

M : > 10 % , X : > 1 % , x : > 0.1 % , (x) : < 0.1 % , - : generally not relevant

07	ROAD TRANSPORT	ACIDIFYERS, OZONE PRECURSORS AND GREENHOUSE GASES							HEAVY METALS							PERSISTENT ORGANIC POLLUTANTS												
		SOx	NOx	NMVO	CH4	CO	CO2	N2O	NH3	As	Cd	Cr	Cu	Hg	Ni	Pb	Se	Zn	HCH	PCP	HCB	TCM	TRI	PER	TCB	TCE	DIOX	PAH
07 01	Passenger cars (r)																											
07 01 01	Highway driving	x	X	X	(x)	X	X	x	x	-	x	x	x	-	x	x	x	x	-	(x)	-	-	-	-	-	-	(x)	x
07 01 02	Rural driving	x	X	X	x	M	X	x	x	-	x	x	x	-	x	x	x	x	-	(x)	-	-	-	-	-	-	(x)	x
07 01 03	Urban driving	x	X	X	x	M	X	x	x	-	x	x	x	-	x	x	x	x	-	(x)	-	-	-	-	-	-	(x)	x
07 02	Light duty vehicles < 3.5 t (r)																											
07 02 01	Highway driving	(x)	x	x	(x)	x	x	x	(x)	-	x	x	x	-	x	x	x	x	-	(x)	-	-	-	-	-	-	(x)	x
07 02 02	Rural driving	x	X	x	(x)	X	x	x	(x)	-	x	x	x	-	x	x	x	x	-	(x)	-	-	-	-	-	-	(x)	x
07 02 03	Urban driving	x	X	X	(x)	X	x	x	(x)	-	x	x	x	-	x	x	x	x	-	(x)	-	-	-	-	-	-	(x)	x
07 03	Heavy duty vehicles > 3.5 t and buses (r)																											
07 03 01	Highway driving	x	X	x	(x)	x	X	x	(x)	-	x	x	x	-	x	x	x	x	-	(x)	-	-	-	-	-	-	(x)	x
07 03 02	Rural driving	x	X	X	(x)	X	X	x	(x)	-	x	x	x	-	x	x	x	x	-	(x)	-	-	-	-	-	-	(x)	x
07 03 03	Urban driving	x	X	X	(x)	X	X	x	(x)	-	x	x	x	-	x	x	x	x	-	(x)	-	-	-	-	-	-	(x)	x
07 04	Mopeds and Motorcycles < 50 cm3	(x)	(x)	X	(x)	x	x	(x)	(x)	-	x	x	x	-	x	x	x	x	-	(x)	-	-	-	-	-	-	(x)	x
07 05	Motorcycles > 50 cm3																											
07 05 01	Highway driving	(x)	(x)	x	(x)	x	(x)	(x)	(x)	-	x	x	x	-	x	x	x	x	-	(x)	-	-	-	-	-	-	(x)	x
07 05 02	Rural driving	(x)	(x)	x	(x)	x	x	(x)	(x)	-	x	x	x	-	x	x	x	x	-	(x)	-	-	-	-	-	-	(x)	x
07 05 03	Urban driving	(x)	(x)	x	(x)	x	x	(x)	(x)	-	x	x	x	-	x	x	x	x	-	(x)	-	-	-	-	-	-	(x)	x
07 06	Gasoline evaporation from vehicles	-	-	X	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
07 07	Automobile tyre and brake wear	-	-	-	-	-	-	-	-	-	x	x	x	-	x	-	-	x	-	-	-	-	-	-	-	-	-	-

- (r) Gasoline and diesel vehicles are differentiated by associating relevant fuels, equipments such as catalyst are considered by using rubrics. Relevant combinations of activities, fuels and rubrics allows to fit with source split requirements of COPERT and Guidebook.
- M** : > 10 % , **X** : > 1 % , x : > 0.1 % , (x) : < 0.1 % , - : generally not relevant

08	OTHER MOBILE SOURCES AND MACHINERY	ACIDIFYERS, OZONE PRECURSORS AND GREENHOUSE GASES								HEAVY METALS								PERSISTENT ORGANIC POLLUTANTS										
		SOx	NOx	NMVOc	CH4	CO	CO2	N2O	NH3	As	Cd	Cr	Cu	Hg	Ni	Pb	Se	Zn	HCH	PCP	HCB	TCM	TRI	PER	TCB	TCE	DIOX	PAH
		(x)	x	(x)	(x)	(x)	x	(x)	(x)	-	-	x	x	x	-	x	x	x	x	-	(x)	-	-	-	-	-	-	(x)
08 01	Military	(x)	x	(x)	(x)	(x)	x	(x)	(x)	-	-	x	x	x	-	x	x	x	x	-	(x)	-	-	-	-	-	(x)	x
08 02	Railways																										(x)	x
08 02 01	Shunting locs	(x)	x	(x)	(x)	(x)	x	(x)	(x)	-	-	x	x	x	-	x	x	x	x	-	(x)	-	-	-	-	-	(x)	x
08 02 02	Rail-cars	(x)	x	(x)	(x)	(x)	x	(x)	(x)	-	-	x	x	x	-	x	x	x	x	-	(x)	-	-	-	-	-	(x)	x
08 02 03	Locomotives	(x)	x	(x)	(x)	(x)	x	(x)	(x)	-	-	x	x	x	-	x	x	x	x	-	(x)	-	-	-	-	-	(x)	x
08 03	Inland waterways																										(x)	x
08 03 01	Sailing boats with auxilliary engines	(x)	x	(x)	(x)	(x)	(x)	(x)	(x)	-	-	x	x	x	-	x	x	x	x	-	(x)	-	-	-	-	-	(x)	x
08 03 02	Motorboats / workboats	(x)	x	(x)	(x)	(x)	(x)	(x)	(x)	-	-	x	x	x	-	x	x	x	x	-	(x)	-	-	-	-	-	(x)	x
08 03 03	Personal watercraft	(x)	x	(x)	(x)	(x)	(x)	(x)	(x)	-	-	x	x	x	-	x	x	x	x	-	(x)	-	-	-	-	-	(x)	x
08 03 04	Inland goods carrying vessels	(x)	x	(x)	(x)	(x)	(x)	(x)	(x)	-	-	x	x	x	-	x	x	x	x	-	(x)	-	-	-	-	-	(x)	x
08 04	Maritime activities																											
08 04 02	National sea traffic within EMEP area	x	X	x	(x)	x	x	x	-	-	x	x	x	-	x	x	x	x	-	(x)	-	-	-	-	-	-	(x)	x
08 04 03	National fishing	x	x	(x)	(x)	(x)	x	(x)	-	-	x	x	x	-	x	x	x	x	-	(x)	-	-	-	-	-	-	(x)	x
08 04 04	International sea traffic (international bunkers)(h)	x	x	x	x	x	x	x	-	-	x	x	x	-	x	x	x	x	-	(x)	-	-	-	-	-	-	(x)	x
08 05	Air traffic																										(x)	x
08 05 01	Domestic airport traffic (LTO cycles - <1000 m)	(x)	x	x	(x)	x	x	(x)	(x)	-	-	x	x	x	-	x	x	x	x	-	(x)	-	-	-	-	-	(x)	x
08 05 02	International airport traffic (LTO cycles - <1000 m)	(x)	x	x	(x)	x	x	(x)	(x)	-	-	x	x	x	-	x	x	x	x	-	(x)	-	-	-	-	-	(x)	x
08 05 03	Domestic cruise traffic (>1000 m)	x	x	x	x	x	x	x	-	-	x	x	x	-	x	x	x	x	-	(x)	-	-	-	-	-	-	(x)	x
08 05 04	International cruise traffic (>1000 m)(i)	x	x	x	x	x	x	x	-	-	x	x	x	-	x	x	x	x	-	(x)	-	-	-	-	-	-	(x)	x
08 06	Agriculture	x	X	X	(x)	X	X	x	-	-	x	x	x	-	x	x	x	x	-	(x)	-	-	-	-	-	-	(x)	x
08 07	Forestry	(x)	x	x	(x)	(x)	(x)	(x)	-	-	x	x	x	-	x	x	x	x	-	(x)	-	-	-	-	-	-	(x)	x
08 08	Industry	x	X	x	(x)	x	x	x	-	-	x	x	x	-	x	x	x	x	-	(x)	-	-	-	-	-	-	(x)	x
08 09	Household and gardening	(x)	x	x	(x)	x	(x)	(x)	-	-	x	x	x	-	x	x	x	x	-	(x)	-	-	-	-	-	-	(x)	x
08 10	Other off-road	x	x	x	x	x	x	x	-	-	x	x	x	-	x	x	x	x	-	(x)	-	-	-	-	-	-	(x)	(x)

(h) International bunkers based on total national sales for ships and boats minus fuels used for items 08.03.01 to 08.03.04 and 08.04.02 and 08.04.03.

(i) International bunkers based on total national sales of aviation fuels minus fuels used for items 08.05.01 to 08.05.03.

M : > 10 % , **X** : > 1 % , x : > 0.1 % , (x) : < 0.1 % , - : generally not relevant

09 WASTE TREATMENT AND DISPOSAL		ACIDIFYERS, OZONE PRECURSORS AND GREENHOUSE GASES								HEAVY METALS								PERSISTENT ORGANIC POLLUTANTS										
		SOx	NOx	NMVO	CH4	CO	CO2	N2O	NH3	As	Cd	Cr	Cu	Hg	Ni	Pb	Se	Zn	HCH	PCP	HCB	TCM	TRI	PER	TCB	TCE	DIOX	PAH
09 02	Waste incineration																											
09 02 01	Incineration of domestic or municipal wastes	x	x	(x)	(x)	x	x	(x)	-	x	x	x	x	x	x	x	x	x	-	(x)	x	-	x	-	-	-	(x)	x
09 02 02	Incineration of industrial wastes (except flaring)	x	(x)	(x)	(x)	(x)	(x)	(x)	-	x	x	x	x	x	x	x	x	-	(x)	x	-	x	-	-	-	(x)	x	
09 02 03	Flaring in oil refinery	x	x	(x)	(x)	(x)	(x)	(x)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	(x)	x	
09 02 04	Flaring in chemical industries	(x)	(x)	(x)	(x)	(x)	(x)	(x)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	(x)	x	
09 02 05	Incineration of sludges from waste water treatment	(x)	(x)	(x)	(x)	(x)	(x)	(x)	-	x	x	x	x	x	x	x	-	x	-	-	x	-	-	x	x	-	(x)	x
09 02 06	Flaring in gas and oil extraction	(x)	(x)	(x)	(x)	(x)	(x)	(x)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	(x)	x	
09 02 07	Incineration of hospital wastes	(x)	(x)	(x)	(x)	(x)	(x)	(x)	-	x	x	x	x	x	x	x	-	x	-	-	x	-	x	x	-	x	(x)	x
09 02 08	Incineration of waste oil	(x)	(x)	(x)	(x)	(x)	(x)	(x)	-	x	x	x	x	x	x	x	-	x	-	-	x	-	x	x	-	x	(x)	x
09 07	Open burning of agricultural wastes (except 10.03)	(x)	x	X	x	X	x	x	(x)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	x
09 09	Cremation																											
09 09 01	Incineration of corpses	x	x	x	x	x	x	x	-	-	-	-	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-	x
09 09 02	Incineration of carcasses	x	x	x	x	x	x	x	-	-	-	-	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-	x
09 10	Other waste treatment																											
09 10 01	Waste water treatment in industry	-	-	x	x	-	(x)	x	x	-	-	-	-	-	-	-	-	-	-	x	x	-	x	-	-	-	(x)	-
09 10 02	Waste water treatment in residential/commercial sect.	-	-	x	x	-	x	x	x	-	-	-	-	-	-	-	-	-	-	x	x	-	x	-	-	-	(x)	-
09 10 03	Sludge spreading	-	-	x	x	-	(x)	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	(x)	-
09 10 04	Land filling	-	x	x	M	x	x	-	X	-	-	-	-	-	-	-	-	-	x	-	x	-	x	-	-	-	(x)	(x)
09 10 05	Compost production from waste	-	-	(x)	x	-	x	-	(x)	-	-	-	-	-	-	-	-	-	x	-	x	-	x	-	-	-	(x)	-
09 10 06	Biogas production	-	-	(x)	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	(x)
09 10 07	Latrines	-	-	-	-	-	-	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
09 10 08	Refuse Derived Fuel production	(x)	(x)	(x)	(x)	(x)	(x)	(x)	-	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	-	-	-	-	-	-	-	-	-	(x)
10 AGRICULTURE AND FORESTRY, LAND USE AND WOOD STOCK CHANGE		ACIDIFYERS, OZONE PRECURSORS AND GREENHOUSE GASES								HEAVY METALS								PERSISTENT ORGANIC POLLUTANTS										
		SOx	NOx	NMVO	CH4	CO	CO2	N2O	NH3	As	Cd	Cr	Cu	Hg	Ni	Pb	Se	Zn	HCH	PCP	HCB	TCM	TRI	PER	TCB	TCE	DIOX	PAH
10 01	Cultures with fertilizers (except animal manure)																											
10 01 01	Permanent crops	-	-	x	X	-	-	X	X	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10 01 02	Arable land crops	-	-	x	x	-	-	M	M	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10 01 03	Rice field	-	-	(x)	x	-	-	x	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10 01 04	Market gardening	-	-	(x)	x	-	-	x	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10 01 05	Grassland	-	-	x	x	-	-	X	X	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10 01 06	Fallows	-	-	-	(x)	-	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

M : > 10 % , **X** : > 1 % , x : > 0.1 % , (x) : < 0.1 % , - : generally not relevant

		ACIDIFYERS, OZONE PRECURSORS AND GREENHOUSE GASES							HEAVY METALS							PERSISTENT ORGANIC POLLUTANTS												
		SOx	NOx	NMVOc	CH4	CO	CO2	N2O	NH3	As	Cd	Cr	Cu	Hg	Ni	Pb	Se	Zn	HCH	PCP	HCB	TCM	TRI	PER	TCB	TCE	DIOX	PAH
10 02	Cultures without fertilizers																											
10 02 01	Permanent crops	-	-	x	(x)	-	-	x	(x)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10 02 02	Arable land crops	-	-	(x)	(x)	-	-	x	(x)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10 02 03	Rice field	-	-	(x)	x	-	-	x	(x)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10 02 04	Market gardening	-	-	(x)	(x)	-	-	x	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10 02 05	Grassland	-	-	x	(x)	-	-	X	(x)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10 02 06	Fallows	-	-	-	(x)	-	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10 03	On-field burning of stubble, straw,...	-	x	x	x	x	x	-	(x)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	x
10 04	Enteric fermentation																											
10 04 01	Dairy cows	-	-	-	X	-	-	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10 04 02	Other cattle	-	-	-	X	-	-	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10 04 03	Ovines	-	-	-	X	-	-	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10 04 04	Fattening pigs	-	-	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10 04 05	Horses	-	-	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10 04 06	Mules and asses	-	-	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10 04 07	Goats	-	-	-	x	-	-	-	(x)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10 04 08	Laying hens	-	-	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10 04 09	Broilers	-	-	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10 04 10	Other poultry (ducks,geese,etc.)	-	-	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10 04 11	Fur animals	-	-	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10 04 12	Sows	-	-	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10 04 13	Camels	-	-	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10 04 14	Buffalo	-	-	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10 04 15	Other	-	-	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10 05	Manure management																											
10 05 01	Dairy cows	-	-	x	X	-	-	x	M	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10 05 02	Other cattle	-	-	x	X	-	-	x	M	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10 05 03	Fattening pigs	-	-	X	X	-	-	x	M	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10 05 04	Sows	-	-	x	x	-	-	(x)	X	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10 05 05	Ovines	-	-	x	x	-	-	x	X	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10 05 06	Horses	-	-	x	x	-	-	-	X	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10 05 07	Laying hens	-	-	x	x	-	-	-	X	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10 05 08	Broilers	-	-	x	x	-	-	-	X	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10 05 09	Other poultry (ducks,geese,etc.)	-	-	x	x	-	-	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

M : > 10 % , **X** : > 1 % , x : > 0.1 % , (x) : < 0.1 % , - : generally not relevant

		ACIDIFYERS, OZONE PRECURSORS AND GREENHOUSE GASES							HEAVY METALS								PERSISTENT ORGANIC POLLUTANTS											
		SOx	NOx	NMVOc	CH4	CO	CO2	N2O	NH3	As	Cd	Cr	Cu	Hg	Ni	Pb	Se	Zn	HCH	PCP	HCB	TCM	TRI	PER	TCB	TCE	DIOX	PAH
10 05	Manure management (continuation)																											
10 05 10	Fur animals	-	-	x	x	-	-	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
10 05 11	Goats	-	-	x	x	-	-	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
10 05 12	Mules and asses	-	-	x	x	-	-	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
10 05 13	Camels	-	-	x	x	-	-	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
10 05 14	Buffalo	-	-	x	x	-	-	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
10 05 15	Other	-	-	x	x	-	-	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
10 06	Use of pesticides	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	x	x	x	-	-	-	-	-	(x)	-	
10 07	Managed deciduous forests (y)																											
10 07 01	High isoprene emitters	-	-	X	x	-	-	X	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
10 07 02	Low isoprene emitters	-	-	x	(x)	-	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
10 07 03	Non isoprene emitters	-	-	X	x	-	-	X	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
10 08	Managed coniferous forests (y)	-	-	M	x	-	-	X	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
(s)																												
10 11	LUWC-Wood biomass stock change /annual growth (m)																											
10 11 01	Tropical forests/Plantations	-	-	-	-	-	u	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
10 11 02	Tropical forests/Other managed forests	-	-	-	-	-	u	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
10 11 03	Tropical forests/Other	-	-	-	-	-	u	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
10 11 04	Temperate forests/Plantations	-	-	-	-	-	u	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
10 11 05	Temperate forests/Commercial	-	-	-	-	-	u	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
10 11 06	Temperate forests/Other	-	-	-	-	-	u	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
10 11 07	Boreal forests	-	-	-	-	-	u	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
10 11 08	Other ecosystem types	-	-	-	-	-	u	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
10 11 09	Non-forest trees	-	-	-	-	-	u	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
10 12	LUWC-Wood Biomass stock change /annual harvest (k)(m)																											
10 12 01	Biomass in commercial harvest (k)	-	-	-	-	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
10 12 02	Traditional fuelwood consumed (k)	-	-	-	-	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
10 12 03	Other wood use (k)	-	-	-	-	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

(k) Harvest "from stock" ie excludes wood from forest clearing which is accounted within forest conversion (conversion /off site burning).

(s) Items 10.09 and 10.10 are not used.

(y) Including emissions from the soil.

(m) LUWC : Land Use and Wood stock Change.

M : > 10 % , **X** : > 1 % , x : > 0.1 % , (x) : < 0.1 % , - : generally not relevant

[u] Carbon uptake ie negative CO2 emission factors

		ACIDIFYERS, OZONE PRECURSORS AND GREENHOUSE GASES							HEAVY METALS								PERSISTENT ORGANIC POLLUTANTS											
		SOx	NOx	NMVO	CH4	CO	CO2	N2O	NH3	As	Cd	Cr	Cu	Hg	Ni	Pb	Se	Zn	HCH	PCP	HCB	TCM	TRI	PER	TCB	TCE	DIOX	PAH
10 13	LUWC-Conversion /Burning aboveground biomass (l)(m)																											
10 13 01	Tropical forests on site	-	x	x	x	x	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
10 13 02	Tropical forests off site (v)	-	-	-	-	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
10 13 03	Temperate forests on site	-	x	x	x	x	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
10 13 04	Temperate forests off site (v)	-	-	-	-	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
10 13 05	Boreal forests on site	-	x	x	x	x	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
10 13 06	Boreal forests off site (v)	-	-	-	-	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
10 13 07	Grassland on site	-	x	x	x	x	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
10 13 08	Grassland off site (v)	-	-	-	-	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
10 13 09	Other on site	-	x	x	x	x	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
10 13 10	Other off site (v)	-	-	-	-	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
10 14	LUWC-Conversion /Aboveground biomass decay (l)(m)																											
10 14 01	Tropical forests	-	-	-	-	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
10 14 02	Temperate forests	-	-	-	-	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
10 14 03	Boreal forests	-	-	-	-	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
10 14 04	Grassland	-	-	-	-	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
10 14 05	Other	-	-	-	-	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
10 15	LUWC-Conversion /Soil carbon release (l)(m)																											
10 15 01	Tropical forests	-	-	-	-	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
10 15 02	Temperate forests	-	-	-	-	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
10 15 03	Boreal forests	-	-	-	-	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
10 15 04	Grassland	-	-	-	-	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
10 15 05	Other	-	-	-	-	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
10 16	LUWC-Managed land abandonment < 20 years / Aboveground biomass carbon uptake (m)(w)																											
10 16 01	Tropical forests	-	-	-	-	-	u	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
10 16 02	Temperate forests	-	-	-	-	-	u	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
10 16 03	Boreal forests	-	-	-	-	-	u	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
10 16 04	Grassland	-	-	-	-	-	u	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
10 16 05	Other	-	-	-	-	-	u	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

(l) LUWC-Conversion relates to forests and natural grasslands conversion to other modes of cultivation (cropland, pasture, ...).

(m) LUWC : Land Use and Wood stock Change.

(v) Emissions from off-site burning is treated as fuel in sectors 1 to 3.

(w) Including afforestation

M : > 10 % , **X** : > 1 % , **x** : > 0.1 % , **(x)** : < 0.1 % , **-** : generally not relevant

[u] Carbon uptake ie negative CO2 emission factors

		ACIDIFYERS, OZONE PRECURSORS AND GREENHOUSE GASES								HEAVY METALS								PERSISTENT ORGANIC POLLUTANTS											
		SOx	NOx	NMVO	CH4	CO	CO2	N2O	NH3	As	Cd	Cr	Cu	Hg	Ni	Pb	Se	Zn	HCH	PCP	HCB	TCM	TRI	PER	TCB	TCE	DIOX	PAH	
10 17	LUWC-Managed land abandonment < 20years / Soil carbon uptake (m)(w)																												
10 17 01	Tropical forests	-	-	-	-	-	u	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
10 17 02	Temperate forests	-	-	-	-	-	u	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
10 17 03	Boreal forests	-	-	-	-	-	u	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
10 17 04	Grassland	-	-	-	-	-	u	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
10 17 05	Other	-	-	-	-	-	u	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
10 18	LUWC-Managed land abandonment >20years / Aboveground biomass carbon uptake (m)(w)																												
10 18 01	Tropical forests	-	-	-	-	-	u	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
10 18 02	Temperate forests	-	-	-	-	-	u	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
10 18 03	Boreal forests	-	-	-	-	-	u	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
10 18 04	Grassland	-	-	-	-	-	u	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
10 18 05	Other	-	-	-	-	-	u	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
10 19	LUWC-Managed land abandonment > 20years / Soil carbon uptake (m)(w)																												
10 19 01	Tropical forests	-	-	-	-	-	u	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
10 19 02	Temperate forests	-	-	-	-	-	u	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
10 19 03	Boreal forests	-	-	-	-	-	u	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
10 19 04	Grassland	-	-	-	-	-	u	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
10 19 05	Other	-	-	-	-	-	u	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

(m) LUWC : Land Use and Wood stock Change.

M : > 10 % , **X** : > 1 % , x : > 0.1 % , (x) : < 0.1 % , - : generally not relevant
[u] Carbon uptake ie negative CO2 emission factors

11	NATURE	ACIDIFYERS, OZONE PRECURSORS AND GREENHOUSE GASES								HEAVY METALS								PERSISTENT ORGANIC POLLUTANTS										
		SOx	NOx	NMVO	CH4	CO	CO2	N2O	NH3	As	Cd	Cr	Cu	Hg	Ni	Pb	Se	Zn	HCH	PCP	HCB	TCM	TRI	PER	TCB	TCE	DIOX	PAH
11 01	Non-managed deciduous forests (y)			X	x	-	-	X	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
11 01 01	High isoprene emitters	-	-	x	(x)	-	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
11 01 02	Low isoprene emitters	-	-	X	x	-	-	X	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
11 01 03	Non isoprene emitters	-	-	X	x	-	-	X	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
11 02	Non-managed coniferous forests (y)	-	-	M	x	-	-	X	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
11 03	Forest fires	(x)	x	x	x	X	-	x	(x)	-	-	-	-	-	-	-	-	-	x	-	-	-	-	-	-	x	x	
11 04	Natural grassland	-	-	x	x	-	-	X	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
11 05	Wetlands (marshes - swamps)																											
11 05 01	Undrained and brackish marshes	-	-	-	X	-	-	x	(x)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	x	
11 05 02	Drained marshes	-	-	-	x	-	-	x	(x)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	x	
11 05 03	Raised bogs	-	-	-	x	-	-	x	(x)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	x	
11 06	Waters																											
11 06 01	Lakes	-	-	-	M	-	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
11 06 02	Shallow saltwaters	-	-	-	x	-	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
11 06 03	Ground waters	-	-	-	x	-	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
11 06 04	Drainage waters	-	-	-	x	-	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
11 06 05	Rivers	-	-	-	x	-	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
11 06 06	Ditches and canals	-	-	-	x	-	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
11 06 07	Open sea (> 6m)	-	-	-	x	-	-	X	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
11 07	Animals																											
11 07 01	Termites	-	-	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
11 07 02	Mammals	-	-	-	x	-	-	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
11 08	Volcanoes	X	x	x	x	x	x	-	-	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	-	-	-	-	-	-	-	-	x	
11 09	Near-surface deposits (e)	-	-	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

(e) Interglacial organic deposits containing natural gas.

M : > 10 % , **X** : > 1 % , x : > 0.1 % , (x) : < 0.1 % , - : generally not relevant