

## Chapter 1.5 - Key Categories

The table below shows the key category analysis for the current reporting year. Dominant source categories vary largely for different pollutants. The key category analysis was carried out in accordance with the EMEP/UNECE guidebook. Due to missing information on uncertainties, a tier 1 key category analysis was selected. Thus, the table gives “L” for category-pollutant combinations being key categories because of the high level of emissions. “T” indicates key categories resulting from trend analysis. Categories are linked to their specific sections of the IIR.

Gg	SO2	NOx	NH3	NMVOc	CO	BC	Pb	Hg	Cd	Diox	PAH	HCB	TSP	PM10	PM2_5
<b>1.A.1.a Public Electricity and Heat Production</b>	L/T	L/T	-/-	-/-	L/-	-/-	L/-	L/T	L/T	L/T	-/-	L/-	L/T	L/T	L/T
<b>1.A.1.b Petroleum refining</b>	L/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	L/-	-/-	-/-	NA	-/-	-/-	-/-
<b>1.A.1.c Manufacture of Solid Fuels and Other Energy Industries</b>	L/T	L/T	-/-	-/-	-/-	-/-	-/-	L/T	L/T	-/-	-/-	-/-	L/T	-/T	-/T
<b>1.A.2.a Stationary Combustion in Manufacturing Industries and Construction: Iron and Steel</b>	-/-	-/T	-/-	-/-	-/-	NA	NA	-/-	NA	-/-	-/-	NA	-/-	-/-	-/-
<b>1.A.2.b Stationary Combustion in Manufacturing Industries and Construction: Non-ferrous Metals</b>	-/-	-/-	-/-	-/-	-/-	NA	NA	NA	NA	NA	NA	NA	-/-	NA	NA
<b>1.A.2.c Stationary Combustion in Manufacturing Industries and Construction: Chemicals</b>	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
<b>1.A.2.d Stationary Combustion in Manufacturing Industries and Construction: Pulp, Paper and Print</b>	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
<b>1.A.2.e Stationary Combustion in Manufacturing Industries and Construction: Food Processing, Beverages and Tobacco</b>	-/-	-/-	-/-	-/-	-/-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
<b>1.A.2.f Stationary combustion in manufacturing industries and construction: other</b>	-/-	-/-	-/-	-/-	L/-	NA	NA	NA	NA	NA	NA	NA	-/-	NA	NA
<b>1.A.2.g.vii Mobile Combustion in manufacturing industries and construction</b>	-/-	-/-	-/-	-/-	L/-	L/-	-/-	-/-	-/-	-/-	-/-	NA	-/-	-/T	L/T
<b>1.A.2.g.viii Stationary combustion in manufacturing industries and construction: Other</b>	L/T	L/T	-/-	-/-	-/-	-/-	-/-	L/T	L/T	L/T	-/-	-/-	L/T	-/-	L/-
<b>1.A.3.a.ii.(i) Civil Aviation (Domestic, LTO)</b>	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	NA	-/-	NA	-/-	-/-	-/-
<b>1.A.3.a.i.(i) Civil Aviation (International, LTO)</b>	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	NA	-/-	NA	-/-	-/-	-/-
<b>1.A.3.b.i Road Transport:, Passenger cars</b>	-/-	L/T	-/-	L/T	L/T	L/T	L/T	-/-	-/-	L/-	-/-	NA	-/-	L/T	L/T
<b>1.A.3.b.ii Road Transport:, Light duty vehicles</b>	-/-	L/-	-/-	-/-	-/-	L/T	-/-	-/-	-/-	-/-	-/-	NA	-/-	-/T	L/T
<b>1.A.3.b.iii Road Transport:, Heavy duty vehicles</b>	-/-	L/T	-/-	-/-	-/-	L/T	-/-	-/-	-/-	-/-	-/-	NA	-/-	L/T	L/T
<b>1.A.3.b.iv Road Transport:, Mopeds &amp; Motorcycles</b>	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	NA	-/-	-/-	-/-
<b>1.A.3.b.v Road Transport:, Gasoline evaporation</b>	NA	NA	NA	L/T	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
<b>1.A.3.b.vi Road Transport:, Automobile tyre and brake wear</b>	NA	NA	NA	NA	NA	L/-	L/-	NA	-/-	NA	-/-	NA	L/-	L/T	L/-
<b>1.A.3.b.vii Road Transport:, Automobile road abrasion</b>	NA	NA	NA	NA	NA	NA	-/-	NA	-/-	NA	NA	NA	L/-	L/-	L/-
<b>1.A.3.c Railways</b>	-/-	-/T	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	NA	L/-	L/-	L/-
<b>1.A.3.d.ii National Navigation (Shipping)</b>	-/-	L/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	L/T	L/T
<b>1.A.3.e.i Pipeline compressors</b>	-/-	-/-	NA	-/-	-/-	NA	NA	-/-	NA	NA	NA	NA	-/-	-/-	-/-

Gg	SO2	NOx	NH3	NMVOc	CO	BC	Pb	Hg	Cd	Diox	PAH	HCb	TSP	PM10	PM2_5
<b>1.A.4.a.i Commercial / Institutional: Stationary</b>	-/-	-/-	-/-	L/T	L/T	-/-	L/-	-/-	-/-	L/-	L/T	-/-	L/T	L/T	L/T
<b>1.A.4.a.ii Commercial / Institutional: Mobile</b>	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	NA	-/-	-/-	-/-
<b>1.A.4.b.i Residential: Stationary plants</b>	L/T	L/-	-/-	L/T	L/T	L/-	-/-	L/-	-/-	L/-	L/T	L/-	L/T	L/T	L/T
<b>1.A.4.b.ii Residential: Household and gardening (mobile)</b>	-/-	-/-	-/-	-/-	L/-	-/-	-/-	-/-	-/-	-/-	-/-	NA	-/-	-/-	-/-
<b>1.A.4.c.i Agriculture/Forestry/Fishing: Stationary</b>	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-
<b>1.A.4.c.ii Agriculture/Forestry/Fishing: Off-road Vehicles and Other Machinery</b>	-/-	L/-	-/-	-/-	-/-	L/T	-/-	-/-	-/-	-/-	-/-	NA	-/-	L/T	L/T
<b>1.A.4.c.iii Agriculture/Forestry/Fishing: National Fishing</b>	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-
<b>1.A.5.a Other, Stationary (including Military)</b>	-/-	-/-	-/-	L/T	-/-	-/-	NA	-/-	NA	-/-	-/-	-/-	-/-	-/-	-/-
<b>1.A.5.b Other, Mobile (Including military, land based and recreational boats)</b>	-/-	-/T	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-
<b>1.B.1.a Fugitive emission from Solid Fuels: Coal Mining and Handling</b>	NA	NA	NA	-/-	NA	NA	NA	NA	NA	NA	NA	NA	-/-	-/-	-/-
<b>1.B.1.b Fugitive emission from Solid Fuels: Solid fuel transformation</b>	-/-	-/-	-/-	-/-	-/-	-/-	NA	NA	NA	-/-	L/T	NA	L/T	-/-	-/-
1.B.1.c Other fugitive emissions from solid fuels	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1.B.2.a.i Fugitive Emissions Oil: Exploration, Production, Transport	NA	NA	NA	-/-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1.B.2.a.iv Fugitive Emissions Oil: Refining / Storage	-/-	-/-	NA	-/-	-/-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1.B.2.a.v Distribution of oil products	NA	NA	NA	-/T	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1.B.2.b Fugitive emissions from natural gas (exploration, production, processing, transmission, storage, distribution and other)	-/-	-/-	NA	-/-	-/-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1.B.2.c Venting and flaring (oil, gas, combined oil and gas)	-/-	-/-	NA	-/-	-/-	-/-	NA	-/-	NA	NA	NA	NA	-/-	-/-	-/-
1.B.2.d Other fugitive emissions from energy production	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

1990/1995/2000 & 2018		Component													
Category Code	SO <sub>x</sub>	NO <sub>x</sub>	NH <sub>3</sub>	NMVOc	CO	TSP	PM <sub>10</sub>	PM <sub>2.5</sub>	Pb	Hg	Cd	PCDD/F	PAH	HCb	BC
1.A.1.a	L/T	L/T			L	L/T	L/T	L/T		L/T	L/T	L/T		L	
1.A.1.b	L/T										L/T				
1.A.1.c	L/T	L/T				L/T				L/T	L/T				
1.A.2.a		L/T													
1.A.2.f					L/T										
1.A.2.g vii					L/T		T	L/T							L
1.A.2.g viii	L/T	L				L/T		L		L/T	T	L/T			
1.A.3.b i		L/T		L/T	L/T		L/T	L/T	L/T			L			L/T
1.A.3.b ii		L/T					L/T	L/T							L/T
1.A.3.b iii		L/T					L/T	L/T							L/T
1.A.3.b iv															
1.A.3.b v				L/T											
1.A.3.b vi						L/T	L/T	L/T	L/T						L/T
1.A.3.b.vii						L/T	L/T	L/T							
1.A.3.c						L	L/T	L/T							
1.A.3.d ii		L					L/T	L/T							
1.A.4.a.i	T			L/T	L/T	L/T	L	L	L/T			L/T	L		
1.A.4.b.i	L/T	L/T		L	L	L	L/T	L/T				L	L/T		L/T
1.A.4.b ii					L/T										
1.A.4.c ii		L					L	L							L/T

1.A.5.a				L/T												
1.A.5.b		T														
1.B.1.a						L	L									
1.B.1.b						L/T								L/T		
1.B.2.a.iv																
<b>Category Code</b>	<b>SOx</b>	<b>NOx</b>	<b>NH3</b>	<b>NMVOC</b>	<b>CO</b>	<b>TSP</b>	<b>PM10</b>	<b>PM2.5</b>	<b>Pb</b>	<b>Hg</b>	<b>Cd</b>	<b>PCDD/F</b>	<b>PAH</b>	<b>HCB</b>	<b>BC</b>	
2.A.1										L						
2.A.3	T															
2.A.5.a						L/T	L/T	L								
2.A.5.b						L/T	L/T									
2.A.6						L										
2.B.2		L/T														
2.B.10.a	L/T									T						
2.C.1	L/T	T				L/T	L/T	L/T	L/T	L	L/T	L/T				
2.C.3														T	L/T	
2.C.7.a									L	L/T						
2.D.3.a				L/T												
2.D.3.d				L/T												
2.D.3.e				L												
2.D.3.g				L/T												
2.D.3.h				L/T												
2.D.3.i				L/T												
2.G						L	L	L/T	L/T	L						
2.L						L/T	L/T	L/T								
<b>Category Code</b>	<b>SOx</b>	<b>NOx</b>	<b>NH3</b>	<b>NMVOC</b>	<b>CO</b>	<b>TSP</b>	<b>PM10</b>	<b>PM2.5</b>	<b>Pb</b>	<b>Hg</b>	<b>Cd</b>	<b>PCDD/F</b>	<b>PAH</b>	<b>HCB</b>	<b>BC</b>	
3.B.1.a			L	L/T												
3.B.1.b			L/T	L/T												
3.B.3			L/T			L/T										
3.B.4.g.i						L										
3.D.a.1		L/T	L/T													
3.D.a.2.a		L/T	L/T													
3.D.a.2.c		T	L/T													
3.D.c						L/T	L/T									
3.D.f															L/T	
<b>Category Code</b>	<b>SOx</b>	<b>NOx</b>	<b>NH3</b>	<b>NMVOC</b>	<b>CO</b>	<b>TSP</b>	<b>PM10</b>	<b>PM2.5</b>	<b>Pb</b>	<b>Hg</b>	<b>Cd</b>	<b>PCDD/F</b>	<b>PAH</b>	<b>HCB</b>	<b>BC</b>	
5.C.2							L	L								
5.E.2								L/T				L/T				

## Qualitative criteria to identify Key Categories

According to guidebook section 2.4.3 parties to the convention have to assess qualitative criteria to identify key categories. The German inventory has been carefully checked and it was found that no additional categories need to be marked as key categories.

## Key Categories and Inventory Improvements

The results of the KCA, as presented above, are carefully checked each year and are an integral part of both the [inventory planning](#) and the [QA/QC activities](#). Key categories receive greater attention when quality control measures are taken and their methods are regularly checked for appropriateness. Where needed, key categories are more likely to have research funded that aims at moving them to a higher tier method.