

ANNEX II

Table1 Summary of sectors, uncertainties and updates

NFR code (EMEP Guideline)	subcategory	Key category	Uncertainty	Priority	Updates MESP
1.A.1 Energy Industries (Thermal Power Plant, Heat Production, etc.) 1.A.2 Combustion in Manufacturing Industries and construction 2. Industrial Process and Product Use (IPPU) Sector	Large industry - IPPC	YES	5% error assumed – IPPC measurements 50% error assumed – other IPPC	Update data for IPPC installation without measurements for main pollutants: PM10, PM2.5, NOx, SO2, NMVOC Ongoing development of inventory with new installations MESP system changes decreasing uncertainty	List of data required in the permits (like height and diameter of emitters, total annual emissions in Mg/year, gas flow in real and standard conditions and temperature, emitter coordinates, Ongoing development of inventory with new installations - basing on new IPPC permits
1.A.1 Energy Industries (Thermal Power Plant, Heat Production, etc.) 1.A.2 Combustion in Manufacturing Industries and construction 2. Industrial Process and Product Use (IPPU) Sector	Industry with environmental permits	NO	Partly included in the database – asphalt manufacturing 50% error assumed	Increasing completeness of database	Ongoing analysis of environmental permits and emission calculation for the selected installations and implementation of data into emission database
1.A.4 Small combustion – commercial / institutional, residential	Domestic heating, commercial heating	YES	Activity: 10% error assumed For service/business activities : 50-100%	Improvement of spatial distribution of emission in cities	1. Calculation of heat /energy demand methodology, heat coefficient data for buildings at different age for Kosovo (in the case of lacking data based on

			<p>error assumed</p> <p>Emission factor: SO2-10% NOx, NMVOC: 20% PM10, PM2.5: 20% - 50% HM: 100%</p>	<p>Ensuring data delivery in a systemic way</p> <p>Decreasing uncertainty of activity factor for small business/services in cities</p>	<p>surveys/questionnaires or statistics)</p> <p>2. Spatial distribution improvement:</p> <ul style="list-style-type: none"> - obtaining actual and complete addresses or building layer, - district heating data (no. of buildings connected, amount of heat supplied) - division cities into balance district with homogeneous building structure <p>3. New 2021 Census - include necessary data for the update:</p> <ul style="list-style-type: none"> - No. and type of buildings and stoves at settlement /cities - Age structure and type of stoves - Type and amount of fuel use by households - Average area of household and services, <p>4. Development of cooperation with cities for data needed for air quality management transfer</p> <ul style="list-style-type: none"> - Local data collection from cities (i.e. business register, fuel use from public administration, district heating data) - Preparation of detailed emission inventories of small combustion sources in the most polluted cities <p>5. Cooperation with scientific institutes or universities to conduct measurement campaign of emissions from domestic stoves/boilers</p>
1.A.3 Exhaust emissions from road transport, Road vehicle tire and brake wear, road	Road transport	YES	<p>Activity: 2% error assumed; other traffic data (modelled) – 10%</p>	<p>Decreasing uncertainty at cities level</p> <p>Ensuring data delivery in a</p>	<p>Development of cooperation with cities for data needed for air quality management transfer (regarding local traffic measurements, car register)</p>

surface wear			error assumed Emission factor: SO2-10% NOx, PM10, PM2.5, NMVOC: 20% HM: 100%	systemic way	
5. Waste 3. Agriculture 1.B.1.a Fugitive emission from solid fuels 2.A.5.a. Quarrying and mining other than coal 11.C. Other natural sources	Landfills – PM10 emissions Agriculture - livestock and soil cultivation Other natural sources: forests	NO Agriculture go NOx emissions - YES	Activity data: 10% error assumed Emission factor: SO ₂ , NOx, NMMVOC - 20-100%, PM10, PM2.5: 50% - >100% HM: > 100%	Identifying and eliminating large errors	Ongoing update for every year Identifying and eliminating large errors

Table2 Summary of sectors included and not included in the emission inventory

NFR code of main sectors	NFR code of sectors included in the database	Key category	NFR code of sectors not included in the database	Key category
1.A Combustion	1.A.1 Energy Industries (Thermal Power Plant, Heat Production, etc.) with IPPC permits	YES	1.A.1 Energy Industries (Thermal Power Plant, Heat Production, etc.) other	NO
	1.A.2 Combustion in Manufacturing Industries and construction – with IPPC permits	YES	1.A.2 Combustion in Manufacturing Industries and construction – other	NO
	1.A.2 Combustion in Manufacturing Industries and construction – asphalt manufacturing	NO		
	1.A.3 Exhaust emissions from road transport	YES	1.A.3.b.v Gasoline evaporation	NO
	1.A.3.b.vi-vii Road vehicle tyre and brake wear, road surface wear	YES	1.A.3.c Railways	NO
	1.A.4 Small combustion – commercial / institutional, residential	YES	1.A.3.d Navigation (shipping)	NO
1.B Fugitive emissions from fuels	1.A.4 Other non-road mobile sources and machinery for agriculture	NO	1.A.3.e.i Pipeline transport	NO
	1.A.3.a Aviation – will be included in the update	NO	1.A.4 Other non-road mobile sources and machinery – other than agriculture	NO
	1.B.1.a Fugitive emission from solid fuels	NO	1.B Fugitive emissions from fuels	NO
			1.B.1.a Fugitive emissions from solid fuels: coal mining and handling	NO
			1.B.1.c Other fugitive emissions from solid fuels	NO
			1.B.2.a.i, 1.B.2.b Fugitive emissions: exploration, production and transport of oil and natural gas	NO
			1.B.2.a.iv Fugitive emissions oil: refining and storage	NO
			1.B.2.a.v Distribution of oil products	NO

			1.B.2.c Venting and flaring 1.B.2.d Other fugitive emissions from energy production	NO NO
2. Industrial Process and Product Use (IPPU) Sector	2. Industrial Process and Product Use (IPPU) Sector with IPPC permits	YES	2. Industrial Process and Product Use (IPPU) Sector - other	NO
	2.A.5.a Quarrying and mining of minerals other than coal	NO		
3. Agriculture	3.B Manure management	NO	3.D.f, 3.I Agriculture other including use of pesticides	NO
	3.D Crop production and agricultural soils	NO	3.F Field burning of agricultural wastes	NO
5. Waste	5.A Biological treatment of waste: solid waste disposal on land	NO	5.B.1 Biological treatment of waste: composting	NO
			5.B.2 Biological treatment of waste: anaerobic digestion at biogas facilities	NO
			5.C.1.a Municipal waste incineration	NO
			5.C.1.b Industrial waste incineration including hazardous waste and sewage sludge	NO
			5.C.1.b.iii Clinical waste incineration	NO
			5.C.1.b.v Cremation	NO
			5.C.2 Open burning of waste	NO
			5.D Wastewater handling	NO
5.E Other waste	NO			
6 Other sources			6.A Other sources	NO
11 Natural sources	11.C. Other natural sources Non-managed and managed forests		11.A Volcanoes	NO
			11.B Forest fires	NO
		NO	Natural grassland and other vegetation	NO

			Wetlands and waters Animals Geological seepage Lightning Forest and grassland soils Changes in forest and other woody biomass stock Forest and grassland conversion Abandonment of managed land CO2 emissions from or removal into soil other	
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