

## Description of contents:

### Statistics Denmark's air emissions accounts in matrix format

The matrices are available in SAS format (\*.SAS7BDAT), Gauss format (\*.FMT), GAMS format (\*.GAM) and in an Excel spreadsheet file format (\*.XLSX). The matrices are available for the years 1990 through 2010.

#### File names and dimensions:

The air emissions accounts system consists of different matrices with names and contents as described below. YYYY indicates the relevant year.

#### Matrices with energy related emissions and non-energy related emissions, exclusive of Danish operated ships and planes bunkering abroad, broken down by industries and by households:

FILE NAME	DIMENSION	Content
Brancheemission_CO2YYYY	(122x44)	Carbon dioxide (CO <sub>2</sub> ), 1000 tonnes
Brancheemission_SO2YYYY	(122x44)	Sulphur dioxide (SO <sub>2</sub> ), tonnes
Brancheemission_NOxYYYY	(122x44)	Nitrogen oxides (NO <sub>x</sub> ), tonnes
Brancheemission_COYYYY	(122x44)	Carbon oxide (CO), tonnes
Brancheemission_N2OYYYY	(122x44)	Laughing gas (N <sub>2</sub> O), tonnes
Brancheemission_NH3YYYY	(122x44)	Ammonia (NH <sub>3</sub> ), tonnes
Brancheemission_CH4YYYY	(122x44)	Methane (CH <sub>4</sub> ), tonnes
Brancheemission_NMVOCYYYY	(122x44)	Non methane volatile organic compounds (NMVOC), tonnes

#### Matrices with non-energy related emissions that cannot be related to the industries or the households:

FILE NAME	DIMENSION	Content
UforCO2	(7x21*)	Non-energy related CO <sub>2</sub> emissions, 1000 tonnes
UforSO2	(7x21*)	Non-energy related SO <sub>2</sub> emissions, tonnes
UforNOx	(7x21*)	Non-energy related NO <sub>x</sub> emissions, tonnes
UforCO	(7x21*)	Non-energy related CO emissions, tonnes
UforN2O	(7x21*)	Non-energy related N <sub>2</sub> O emissions, tonnes
UforNH3	(7x21*)	Non-energy related NH <sub>3</sub> emissions, tonnes
UforCH4	(7x21*)	Non-energy related CH <sub>4</sub> emissions, tonnes
UforNMVOC	(7x21*)	Non-energy related NMVOC emissions, tonnes

\* The number of columns corresponds to the length of the time series. Here 1990 – 2010.

#### Matrices with emissions caused by Danish operated ships and planes bunkering abroad and emissions caused by cross border trade with petrol and gasoil, net:

FILE NAME	DIMENSION	Content
BunkringCO2	(3x21*)	CO <sub>2</sub> emissions caused by bunkering, 1000 tonnes
BunkringSO2	(3x21*)	SO <sub>2</sub> emissions caused by bunkering, tonnes
BunkringNOx	(3x21*)	NO <sub>x</sub> emissions caused by bunkering, tonnes
BunkringCO	(3x21*)	CO emissions caused by bunkering, tonnes
BunkringN2O	(3x21*)	N <sub>2</sub> O emissions caused by bunkering, tonnes
BunkrinNH3	(3x21*)	NH <sub>3</sub> emissions caused by bunkering, tonnes
BunkringCH4	(3x21*)	CH <sub>4</sub> emissions caused by bunkering, tonnes
BunkringNMVOC	(3x21*)	NMVOC emissions caused by bunkering, tonnes

Detailed information on the content of the rows and the columns is given below.

**Matrices with energy related emissions and non-energy related emissions, exclusive of Danish operated ships and planes bunkering abroad, broken down by industries and by households:**

**Description of the columns:**

<b>Column</b>	<b>Energy commodity etc.</b>	<b>Comment</b>
1	Crude oil	Direct emissions caused by the use of each of the energy commodities.
2	Refinery feedstocks	
3	Refinery gas	
4	LPG	
5	LPG for transport	
6	Light virgin naphta	
7	Tax free petrol	
8	Aero fuel	
9	Unleaded petrol	
10	Leaded petrol	
11	<i>JP4</i>	
12	Kerosene	
13	JP1	
14	Gasoil for other purposes than transport	
15	Gasoil for transport	
16	<i>Marine gasoil</i>	
17	<i>Light fuel oil</i>	
18	Fuel oil	
19	Waste oil	
20	Petroleum coke	
21	Orimulsion	
22	Natural gas (North Sea)	
23	Natural gas (distribution)	
24	Natural gas 3 (transmission)	
25	Power plant coal and other	
26	<i>Other coal</i>	
27	<i>Coke</i>	
28	Furnace coke	
29	<i>Lignite</i>	
30	Patent lignite	
31	Electricity	
32	District heat	
33	Town gas	
34	Wood	
35	Wood waste	
36	Straw	
37	Waste	
38	Bio gas	
39	Wind power	
40	Hydro power	
41	Non-energy related emissions	Non-energy related emissions
42*	Residual related to other energy	Related to other columns than (see below, 41)
43*	Residual related to road transport	Relates to the columns 5, 9, 10, 15
44*	Residual related to biomass	Relates to the columns 34, 35, 36, 37, 38, 39, 40

\* The residual describes the difference to the Emission inventories as reported to the UNFCCC, the UNECE and the EU by the Danish National Environmental Research Institute.

**Description of the Rows:**

Row	Industry	Description of content
1	010000	Agriculture and horticulture
2	020000	Forestry
3	030000	Fishing
4	060000	Extraction of oil and gas
5	080090	Extraction of gravel and stone
6	090000	Mining support service
7	100010	Production of meat
8	100020	Processing of fish
9	100030	Manufacture of dairy products
10	100040	Manufacture of bakery products
11	100050	Other manufacture of food
12	110000	Manufacture of beverages
13	120000	Manufact. of tobacco products
14	130000	Manufacture of textiles
15	140000	Manufacture of wearing apparel
16	150000	Manufacture of footwear etc.
17	160000	Manufacture of wood etc.
18	170000	Manufacture of paper etc.
19	180000	Printing etc.
20	190000	Oil refinery etc.
21	200010	Manufacture of basic chemicals
22	200020	Manufact. of paints, soap etc.
23	210000	Pharmaceuticals
24	220000	Manufacture of rubber etc.
25	230010	Manufacture of glass etc.
26	230020	Manufacture of concrete etc.
27	240000	Manufacture of basic metals
28	250000	Manufact. of fabricated metal
29	260010	Manufact. of computers, etc.
30	260020	Manufact. of other electronics
31	270010	Manufacture of motors, etc.
32	270020	Manufacture of wires, cables
33	270030	Manuf.of household appl. etc.
34	280010	Manufacture of engines etc.
35	280020	Manufacture of other machinery
36	290000	Manuf. of motor vehicles etc.
37	300000	Mf. of ships, transport equip.
38	310000	Manufacture of furniture
39	320010	Manufact. of med. instruments
40	320020	Manufacture of toys, etc.
41	330000	Repair, inst. of machinery etc
42	350010	Prod., distrib. of electricity
43	350020	Manuf.and distribution of gas
44	350030	Steam and hot water supply
45	360000	Water collect.purification etc
46	370000	Sewerage
47	383900	Waste and materials
48	410009	Construction of new buildings

49	420000	Civil engeneering
50	430003	Professional repair and maint.
51	430004	Own-account repair and maint.
52	450010	Sale of motor vehicles
53	450020	Repair etc. of motor veh. etc.
54	460000	Wholesale
55	470000	Retail sale
56	490010	Passenger rail transport etc.
57	490020	Transp.by suburban trains etc.
58	490030	Road and pipeline transport
59	500000	Water transport
60	510000	Air transport
61	520000	Support activities for transp.
62	530000	Postal and courier activities
63	550000	Hotels, similar accommodation
64	560000	Restaurants
65	580010	Publishing
66	580020	Publishing,computer games etc.
67	590000	Motion picture, tv and sound
68	600000	Radio, television broadcasting
69	610000	Telecommunications
70	620000	Information technology service
71	630000	Information service activities
72	640010	Monetary intermediation
73	640020	Mortgage credit institutes etc
74	650000	Insurance and pension funding
75	660000	Other financial activities
76	680010	Buying, selling of real estate
77	680023	Renting of resident. buildings
78	680024	Owner-occupied dwellings
79	680030	Renting, non-resid. buildings
80	690010	Legal activities
81	690020	Accounting and bookkeeping
82	700000	Business consultancy
83	710000	Architecture and engineering
84	720001	Research and developm.(market)
85	720002	Research and dev. (non-market)
86	730000	Advertising, market research
87	740000	Other technical business serv.
88	750000	Veterinary activities
89	770000	Rental and leasing activities
90	780000	Employment activities
91	790000	Travel agent activities
92	800000	Security and investigation
93	810000	Services to buildings,cleaning
94	820000	Other business services
95	840010	Public administration
96	840021	Rescue service ect. (market)
97	840022	Defence,publ.order(non-market)
98	850010	Primary education
99	850020	Secondary education

100	850030	Higher education
101	850041	Adult-,other education(market)
102	850042	Adult-,other educ.(non-market)
103	860010	Hospital activities
104	860020	Medical and dental practice
105	870000	Residential care activities
106	880000	Social work without accomod.
107	900000	Theatres, concerts, and arts
108	910001	Libraries, museums (market)
109	910002	Libraries, museums(non-market)
110	920000	Gambling and betting
111	930011	Sports activities (market)
112	930012	Sports activities (non-market)
113	930020	Amusement and recreation
114	940000	Activities of membership org.
115	950000	Repair of personal goods
116	960000	Other personal services
117	970000	Households as employers
		<b>Private consumption</b>
118	4510	Electricity
119	4520	Gas
120	4530	Liquid fuels
121	4540	Heat etc.
122	7220	Petrol and gasoil for vehicles

**Matrices with non-energy related emissions that cannot be related to the industries or the households:**

**Description of the columns:**

Each column contains information on the emissions in a specific year starting from 1990.

**Description of the Rows:**

Row	Description of content
1	Emissions from processes
2	Emissions from the distribution of fossil fuels
3	Emissions from solvents etc.
4	Non-energy related emissions from road transport
5	Emissions from waste water treatment and waste disposal sites
6	Emissions from soil
7	Emissions absorbed by growth of biomass

**Matrices with emissions caused by Danish operated ships and planes bunkering abroad and emissions caused by cross border trade with gasoline and diesel, net:**

**Description of the columns:**

Each column contains information on the emissions in a specific year starting from 1990.

**Description of the Rows:**

Row	Industry	Description of content
1	500000	Emissions caused by fuel oil bunkered abroad by Danish operated ships
2	510000	Emissions caused by JP1 bunkered abroad by Danish operated planes
3	7220	Emissions caused by cross border trade with petrol and gasoil, net