

Table 1 Description of key features of the available global air pollutant emission inventories

No	Inventory	Pollutants	Unit	Duration	Resolution		Source ¹	Sources			Reference to be cited	Contact
					Spatial	Temporal		Fuel	Ind.	Agri.		
1	PKU-CO2-v2	CO ₂	g/km ² /month	1960-2014	0.1°	monthly	64	✓	✓		Wang et al., ACP 2013, 13, 5189 Liu et al., Nature 2015, 335	Tao, Shu ³
2	PKU-CO-v2	CO	g/km ² /month	1960-2014	0.1°	monthly	81	✓	✓		Zhong et al., ESPR 2016, 24, 864	Tao, Shu ³
3	PKU-PM2.5-v2	primary PM _{2.5}	g/km ² /month	1960-2014	0.1°	monthly	86	✓	✓		Huang et al., ES&T 2014, 48, 13834	Tao, Shu ³
4	PKU-PM10-v2	primary PM ₁₀	g/km ² /month	1960-2014	0.1°	monthly	86	✓	✓		Huang et al., ES&T 2014, 48, 13834	Tao, Shu ³
5	PKU-TSP-v2	primary TSP	g/km ² /month	1960-2014	0.1°	monthly	86	✓	✓		Huang et al., ES&T 2014, 48, 13834	Tao, Shu ³
6	PKU-BC-v2	BC	g/km ² /month	1960-2014	0.1°	monthly	73	✓	✓		Wang et al., PNAS 2014, 111, 2459	Tao, Shu ³
7	PKU-OC-v2	OC	g/km ² /month	1960-2014	0.1°	monthly	76	✓	✓		Huang et al., AE 2015, 122, 505	Tao, Shu ³
8	PKU-SO2-v2	SO ₂	g/km ² /month	1960-2014	0.1°	monthly	76	✓	✓		Zhang et al., to be published	Tao, Shu ³
9	PKU-NOx-v2	NO _x	g/km ² /month	1960-2014	0.1°	monthly	86	✓	✓		Huang et al., ES&T, 2017, 51, 7992	Tao, Shu ³
10	PKU-NH3-v2	NH ₃	g/km ² /month	1960-2014	0.1°	monthly	75	✓	✓		Meng et al., ES&T, 2017, 51, 2821	Tao, Shu ³
11	PKU-PAHs-v2	PAHs ²	g/km ² /month	1960-2014	0.1°	monthly	77	✓	✓		Shen et al., ES&T 2013, 47, 6415	Tao, Shu ³
12	PKU-CH4-China-v1	CH ₄ ²	g/m ² /year	1980-2010	0.1°	annual	8 ⁵	✓		✓	Peng et al., ACP doi:10.5194/acp-16-14545-2016	Peng, Shushi ⁴

¹ Only the total number of sources per pollutant are provided here and the detailed sources are listed in Table 2.

² Inventories for the 16 polycyclic aromatic hydrocarbons listed among U.S. EPA priority pollutants for this class of chemicals, including naphthalene, acenaphthene, acenaphthylene, fluorene, phenanthrene, anthracene, fluoranthene, pyrene, benz(a)anthracene, chrysene, benzo(b)fluoranthene, benzo(k)fluoranthene, benzo(a)pyrene, dibenz(a,h)anthracene, indeno(1,2,3-cd)pyrene, benzo(g,h,i)perylene

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⁵ Category 'Agri' includes the following: livestock, rice cultivation, and biomass and biofuel burning (both residential and open field); category 'Fuel' includes the following: combustion, exploitation, and transportation for fossil fuel; category 'Waste' includes the following: landfills and wastewater