

Table A1. The average NO₂ concentration changes before and during COVID-19 pandemic in each province of Thailand

Provinces of Thailand	Before pandemic NO₂ (μmol/m²)	During pandemic NO₂ (μmol/m²)	Changes (μmol/m²)	% Change
Samut Sakhon	100	44	-56.5	-56.4
Samut Songkhram	48	32	-16.0	-33.1
Samut Prakan	81	55	-25.8	-32.1
Bangkok Metropolis	98	75	-22.1	-22.7
Nonthaburi	94	77	-16.8	-18.0
Nakhon Pathom	59	49	-10.3	-17.4
Prachuap Khiri Khan	18	15	-3.0	-16.7
Chumphon	11	10	-0.9	-7.8
Phra Nakhon Si Ayutthaya	66	62	-3.9	-5.8
Ranong	11	11	-0.5	-4.6
Phetchaburi	24	24	-0.5	-1.9
Narathiwat	10	9	-0.2	-1.7
Nakhon Si Thammarat	11	11	-0.2	-1.6
Phuket	14	14	-0.1	-0.5
Phatthalung	9	9	0.1	1.6
Phangnga	10	10	0.2	2.3
Yala	9	9	0.2	2.6
Surat Thani	11	11	0.3	2.9
Trang	10	10	0.4	4.0
Songkhla	11	12	0.5	4.4
Pattani	10	11	0.5	5.0
Krabi	10	11	0.5	5.1
Pathum Thani	61	64	3.5	5.8
Satun	11	12	1.0	9.0
Ratchaburi	33	36	3.4	10.2
Chon Buri	36	41	5.4	15.1
Rayong	30	35	5.2	17.5
Saraburi	57	70	13.0	22.8
Ang Thong	39	47	8.8	22.8
Suphan Buri	31	39	8.5	27.4
Chanthaburi	18	23	5.1	28.7
Nakhon Nayok	28	37	8.5	30.2
Chachoengsao	28	36	8.7	31.3
Bueng Kan	17	23	5.8	33.4

Nakhon Phanom	18	25	6.6	36.8
Chaiyaphum	20	27	7.6	38.4
Sing Buri	32	44	12.3	38.5
Chai Nat	28	39	10.9	38.6
Trat	15	20	5.8	40.2
Khon Kaen	23	32	9.2	40.4
Sakon Nakhon	18	26	7.5	40.5
Nong Khai	19	28	8.6	45.5
Nong Bua Lam Phu	20	30	9.5	47.6
Udon Thani	20	29	9.4	47.9
Prachin Buri	23	34	11.2	48.0
Nakhon Ratchasima	21	32	10.4	48.7
Kalasin	19	28	9.4	49.5
Sa Kaeo	19	29	9.5	50.0
Kanchanaburi	21	31	10.4	50.4
Phetchabun	20	30	10.2	52.3
Si Sa Ket	18	28	9.5	52.3
Maha Sarakham	20	31	10.7	52.5
Surin	19	30	10.5	54.7
Nakhon Sawan	25	39	13.8	54.8
Phichit	24	38	13.6	55.9
Buri Ram	19	30	10.9	56.9
Lop Buri	27	43	15.7	57.5
Phitsanulok	20	31	11.3	57.6
Roi Et	19	31	11.2	58.1
Mukdahan	16	25	9.1	58.3
Loei	16	27	10.3	63.3
Yasothon	17	28	10.9	63.5
Sukhothai	21	35	14.0	66.7
Lampang	25	42	17.0	67.5
Uthai Thani	20	34	13.8	67.8
Kamphaeng Phet	22	38	15.6	70.3
Ubon Ratchathani	15	26	11.0	71.7
Lamphun	20	34	14.4	73.2
Amnat Charoen	15	27	11.8	76.3
Uttaradit	18	33	14.6	81.6
Tak	15	28	12.6	81.6
Chiang Mai	15	29	13.5	89.4
Phrae	19	37	18.2	97.4
Chiang Rai	16	33	17.4	110.7

Phayao	16	36	19.9	125.5
Nan	14	31	17.7	130.9
Mae Hong Son	12	28	16.3	133.6

Table A2. The average NO₂ concentration changes before and during COVID-19 pandemic in each district of Bangkok

Districts of Bangkok	Before pandemic NO₂ (μmol/m²)	During pandemic NO₂ (μmol/m²)	Changes (μmol/m²)	% Change
Bangkhuntien	134	52	-82	-61.2
Bang Bon	167	65	-102	-61.1
Nongkheam	153	65	-88	-57.5
Thungkru	143	63	-80	-55.9
Chom Thong	172	77	-95	-55.2
Bang Khae	163	75	-88	-54.0
Rat Burana	157	76	-81	-51.6
Phasi Charoen	171	83	-88	-51.5
Thon Buri	179	88	-91	-50.8
Bang Kho Laem	165	85	-80	-48.5
Bangkok Yai	176	91	-85	-48.3
Khlong San	176	94	-82	-46.6
Thawi Wattana	134	76	-58	-43.3
Bangkok Noi	164	94	-70	-42.7
Taling Chan	150	89	-61	-40.7
Samphantawong	169	102	-67	-39.6
Phra Nakhon	166	101	-65	-39.2
Sathorn	159	98	-61	-38.4
Yannawa	143	89	-54	-37.8
Bang Rak	164	103	-61	-37.2
Pom Pram Sattru	162	105	-57	-35.2
Bang Plad	151	104	-47	-31.1
Pathum Wan	153	109	-44	-28.8
Bang Na	110	80	-30	-27.3
Khlong Toey	128	99	-29	-22.7
Dusit	147	115	-32	-21.8
Ratchathewi	144	113	-31	-21.5
Prakanong	108	87	-21	-19.4
Prawet	93	79	-14	-15.1
Wattana	119	103	-16	-13.4
Phaya Thai	133	117	-16	-12.0
Bang Su	130	117	-13	-10.0
Suan Luang	98	91	-7	-7.1

Din Dang	123	116	-7	-5.7
Huai Kwang	113	111	-2	-1.8
Bang Kapi	90	95	5	5.6
Chatuchak	108	115	7	6.5
Saphan Sung	77	82	5	6.5
Wang Thonglang	100	107	7	7.0
Don Muang	92	103	11	12.0
Lat Krabang	57	64	7	12.3
Lak Si	99	113	14	14.1
Bung Kum	80	93	13	16.3
Sai Mai	73	87	14	19.2
Lat Phrao	90	108	18	20.0
Min Buri	57	69	12	21.1
Khan Na Yao	70	85	15	21.4
Nong Chok	40	49	9	22.5
Bang Khen	78	97	19	24.4
Khlong Sam Wa	53	67	14	26.4