

**Table S1.** NO<sub>2</sub> performance statistics (MAE, RMSE and  $R^2$  results) for the FFNNs and MLR schemes

	NO <sub>2</sub>					
	FFNN			MLR		
	<i>MAE</i>	<i>RMSE</i>	$R^2$	<i>MAE</i>	<i>RMSE</i>	$R^2$
AGP	5.02	7.58	0.61	5.77	8.63	0.49
ATH	3.77	5.16	0.84	4.85	6.18	0.78
ARI	5.02	6.76	0.88	5.82	7.66	0.84
GEO	3.74	5.67	0.89	4.78	6.67	0.84
ELE	5.71	8.02	0.64	6.65	9	0.55
THR	3.64	5.81	0.59	4.32	6.59	0.47
KOR	5.10	6.66	0.70	6.68	8.57	0.50
LIO	5.31	7.78	0.80	6	8.61	0.75
LYK	4.14	5.89	0.87	4.81	6.89	0.82
MAR	5.32	8.02	0.87	6.07	8.98	0.84
SMY	6.52	9.94	0.82	8.74	11.83	0.74
PAT	10.72	15.24	0.69	14.88	19.56	0.49
PIR	11.05	15.05	0.64	14.92	18.96	0.43
PER	6.20	8.80	0.84	6.99	10.03	0.80
<b>MEAN</b>	<b>5.80</b>	<b>8.31</b>	<b>0.76</b>	<b>7.23</b>	<b>9.87</b>	<b>0.67</b>

**Table S2.** O<sub>3</sub> performance statistics (MAE, RMSE and  $R^2$  results) for the FFNNs and MLR schemes

	O <sub>3</sub>					
	FFNN			MLR		
	<i>MAE</i>	<i>RMSE</i>	$R^2$	<i>MAE</i>	<i>RMSE</i>	$R^2$
AGP	8.73	12.32	0.76	10.86	14.65	0.66
ATH	5.49	7.49	0.92	7.42	9.85	0.86
GEO	5.11	7.02	0.95	6.73	8.93	0.92
ELE	7.55	11.60	0.87	10.84	14.42	0.79
THR	8.10	10.73	0.80	10.72	13.85	0.66
KOR	8.12	11.98	0.80	13.45	16.97	0.60
LIO	6.70	9.08	0.92	7.87	10.83	0.88
LYK	6.61	9.63	0.92	7.84	11.36	0.89
MAR	5.94	8.53	0.94	7.19	10.27	0.92
SMY	7.02	11.23	0.91	10.49	13.81	0.86
PAT	7.71	11.08	0.72	11.41	15.53	0.44
PIR	5.32	7.48	0.83	8.33	10.95	0.63
PER	6.78	8.98	0.93	8.06	11	0.90
<b>MEAN</b>	<b>6.86</b>	<b>9.78</b>	<b>0.87</b>	<b>9.32</b>	<b>12.49</b>	<b>0.77</b>

**Table S3.** PM<sub>10</sub> performance statistics (MAE, RMSE and  $R^2$  results) for the FFNNs and MLR schemes

	PM <sub>10</sub>					
	FFNN			MLR		
	MAE	RMSE	$R^2$	MAE	RMSE	$R^2$
AGP	4.33	6.14	0.96	5.96	8.64	0.93
ARI	6.07	16.65	0.84	7.42	12.22	0.90
ELE	5.15	8.72	0.91	7.05	10.88	0.86
THR	5.22	10.12	0.88	6.11	9.74	0.89
KOR	5.65	11.33	0.87	7.43	11.76	0.85
LIO	7.11	17.05	0.83	8.69	15.01	0.86
LYK	4.86	9.60	0.93	5.47	10.32	0.92
MAR	4.76	7.94	0.95	5.47	9.74	0.93
SMY	5.17	9.59	0.89	6.82	11.10	0.85
PIR	8.04	17.34	0.71	11.83	18.16	0.68
PER	6.45	12.54	0.88	6.67	10.58	0.92
<b>MEAN</b>	<b>5.71</b>	<b>11.55</b>	<b>0.88</b>	<b>7.17</b>	<b>11.65</b>	<b>0.87</b>

**Table S4.** PM<sub>2.5</sub> performance statistics (MAE, RMSE and  $R^2$  results) for the FFNNs and MLR schemes

	PM <sub>2.5</sub>					
	FFNN			MLR		
	MAE	RMSE	$R^2$	MAE	RMSE	$R^2$
AGP	3.49	4.92	0.74	3.94	5.66	0.65
ARI	6.06	10.23	0.75	6.48	10.52	0.73
ELE	5.33	8.35	0.59	5.83	8.98	0.53
THR	3.88	5.64	0.68	4.19	5.99	0.64
LYK	5.03	9.54	0.66	5.55	9.86	0.64
PIR	7.23	12.16	0.71	8.06	12.80	0.68
<b>MEAN</b>	<b>5.17</b>	<b>8.47</b>	<b>0.69</b>	<b>5.68</b>	<b>8.97</b>	<b>0.65</b>

**Table S5.** SO<sub>2</sub> performance statistics (MAE, RMSE and  $R^2$  results) for the FFNNs and MLR schemes

	SO <sub>2</sub>					
	FFNN			MLR		
	MAE	RMSE	$R^2$	MAE	RMSE	$R^2$
ATH	1.62	2.53	0.72	1.83	2.82	0.65
ARI	1.33	2.17	0.79	1.61	2.50	0.71
ELE	2.97	7	0.39	3.73	7.49	0.25
KOR	0.88	1.31	0.38	1.04	1.49	0.20
PAT	1.65	2.45	0.58	2.16	3.15	0.29
PIR	2.88	4.29	0.43	3.94	4.96	0.24
<b>MEAN</b>	<b>1.89</b>	<b>3.29</b>	<b>0.55</b>	<b>2.39</b>	<b>3.74</b>	<b>0.39</b>