

Recalculations - Nitrogen Oxides

Revision of NO_x emissions over time:



Changes within the **National Total** reported for **1990 (-14.72 kt or -0.52 %)** are dominated by changes in NFRs **1.A.3.d ii** (-9.18 kt) and **2.B.2** (-5.68 kt) together with less significant revisions throughout NFRs 1, 2 and 3.

The most significant percental change occurs for **NFR 1.A.4.c iii with minus 52 %**.

Table 1: Changes of emission estimates 1990

NFR Sector	Submission 2021	Submission 2022	Difference		Reasoning
	[kt]			relative	
NATIONAL TOTAL	2.850,05	2.835,33	-14,72	-0,52%	see description and reasoning in: sub-category chapters
NFR 1 - Energy	2.601,88	2.592,15	-9,73	-0,37%	sub-category chapters
1.A.3.a i(i)	3,94	3,94	0,00	-0,02%	here
1.A.3.a ii(i)	2,80	2,78	-0,01	-0,38%	here
1.A.3.b iii	506,00	505,99	-0,01	0,00%	here
1.A.3.c	45,05	45,32	0,26	0,59%	here
1.A.3.d ii	60,65	51,47	<u>-9,18</u>	-15,13%	here
1.A.4.b ii	0,06	0,08	0,02	30,65%	here
1.A.4.c iii	0,81	0,39	-0,42	<u>-51,95%</u>	here
1.A.5.b	41,60	41,20	-0,40	-0,96%	here
NFR 2 - IPPU	106,37	100,73	-5,64	-5,30%	sub-category chapters
2.B.2	16,98	11,30	<u>-5,68</u>	-33,44%	2.B.2 - Nitric Acid Production
2.B.6	NE	0,04	0,04		2.B.6 - Titanium Dioxide Production
NFR 3 - Agriculture	141,27	141,92	0,65	0,46%	sub-category chapters
3.B.1.b	0,6958	0,6896	-0,01	-0,89%	here
3.B.3	0,26	0,28	0,02	6,48%	here
3.B.4.g i	0,0144	0,0143	0,0001	-1,15%	here
3.B.4.g iv	0,00251	0,00248	-0,00003	-1,33%	here
3.D.a.2.a	43,46	44,14	0,68	1,58%	here
3.D.a.3	8,44	8,40	-0,04	-0,49%	here
NFR 5 - Waste	0,53	0,53	0,00	0,00%	
NFR 6 - Other	NA				

The changes within the **National Total** reported for **2019 (-28 kt or -2.46 %)** are dominated by changes in **NFR 2.B.2** (-25.6 kt) together with less significant revisions **throughout NFRs 1 and 3**.

Here, the most significant percental changes occur for NFRs **2.C.3 with plus 104 %** and **2.B.2 with minus 96 %**.

Table 2: Changes of emission estimates 2019

NFR Sector	Submission 2022	Submission 2023	Difference		Reasoning
	[kt]			relative	
NATIONAL TOTAL	1,136.79	1,108.82	-27.97	-2.46%	see description and reasoning in: sub-category chapters
NFR 1 - Energy	938.97	938.49	-0.48	-0.05%	sub-category chapters
1.A.1.a	186.93	186.02	-0.91	-0.49%	here
1.A.1.b	13.98	14.42	0.44	3.16%	here
1.A.1.c	12.85	13.10	0.25	1.97%	here
1.A.2.a	3.61	3.57	-0.04	-1.06%	here
1.A.2.b	0.93	0.92	-0.01	-1.04%	here
1.A.2.e	0.20	0.19	-0.01	-6.98%	here
1.A.2.g vii	14.39	14.62	0.23	1.58%	here
1.A.2.g viii	64.41	70.35	5.94	9.23%	here
1.A.3.a i(i)	5.39	5.04	-0.36	-6.63%	here
1.A.3.a ii(i)	1.13	1.05	-0.08	-6.71%	here
1.A.3.b i	211.62	200.13	-11.49	-5.43%	here
1.A.3.b ii	48.72	48.97	0.25	0.51%	here
1.A.3.b iii	92.85	90.66	-2.20	-2.37%	here
1.A.3.b iv	1.55	1.57	0.02	1.32%	here
1.A.3.c	8.13	8.69	0.56	6.84%	here

	Submission 2022	Submission 2023	Difference		Reasoning
NFR Sector	[kt]		absolute	relative	see description and reasoning in:
NATIONAL TOTAL	1,136.79	1,108.82	-27.97	-2.46%	sub-category chapters
NFR 1 - Energy	938.97	938.49	-0.48	-0.05%	sub-category chapters
1.A.3.d ii	21.63	21.62	0.00	-0.01%	here
1.A.3.e i	0.87	0.87	0.00	0.00%	1.A.3.e i - Pipeline Transport]
1.A.4.a i	19.51	22.22	2.72	13.93%	here
1.A.4.a ii	7.61	7.63	0.02	0.27%	here
1.A.4.b i	59.57	58.80	-0.76	-1.28%	here
1.A.4.b ii	0.5268	0.4194	-0.11	-20.39%	here
1.A.4.c i	7.08	7.03	-0.05	-0.76%	here
1.A.4.c ii	27.12	27.39	0.27	1.00%	here
1.A.5.a	0.218	0.220	0.002	1.06%	here
1.A.5.b	2.38	2.28	-0.10	-4.05%	here
1.B.1.b	0.59	0.57	-0.02	-3.37%	here
NFR 2 - IPPU	54.47	54.92	0.45	0.82%	sub-category chapters
2.A.1	11.72	12.95	1.23	10.54%	here
2.A.3	10.69	10.49	-0.20	-1.88%	here
2.H.1	2.68	2.09	-0.59	-21.91%	here
NFR 3 - Agriculture	108.75	110.15	1.40	1.29%	sub-category chapters
3.B.1.a	0.506	0.502	-0.004	-0.75%	here
3.B.1.b	0.506	0.505	-0.001	-0.17%	here
3.B.3	0.26	0.24	-0.02	-5.30%	here
3.B.4.g i	0.019	0.018	-0.001	-2.66%	here
3.B.4.g ii	0.0135	0.0137	0.0001	1.06%	here
3.B.4.g iii	0.0094	0.0094	0.000008	0.09%	here
3.B.4.g iv	0.00202	0.00202	0.000002	0.09%	here
3.D.a.1	53.71	52.31	-1.40	-2.61%	here
3.D.a.2.a	36.76	37.16	0.40	1.09%	here
3.D.a.2.b	0.56	0.49	-0.07	-12.25%	here
3.D.a.2.c	11.56	14.00	2.44	21.12%	here
3.D.a.3	4.62	4.67	0.05	1.02%	here
3.l	0.169	0.171	0.002	1.16%	here
NFR 5 - Waste	0.71	0.71	0.00	0.00%	
NFR 6 - Other	0.00	0.00	0.00		