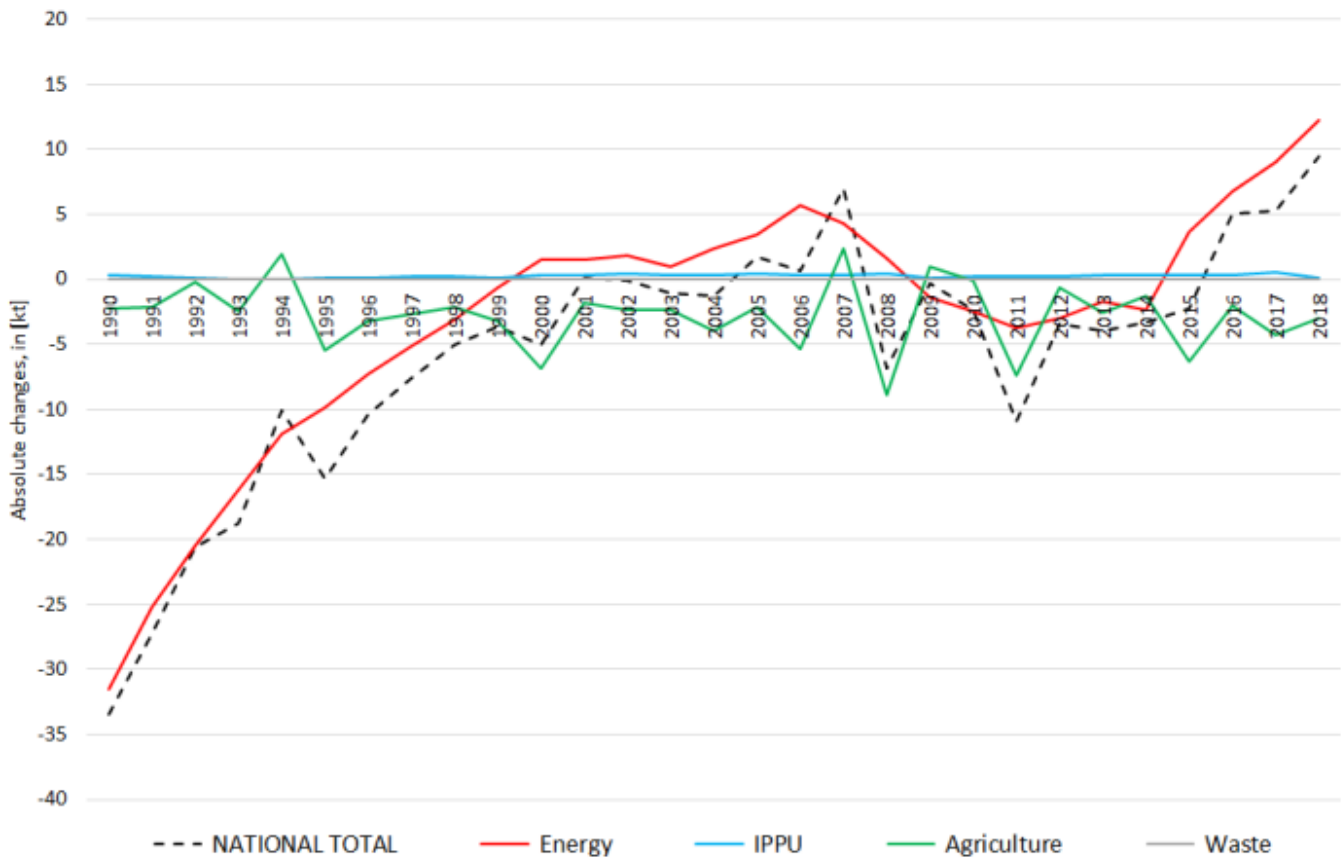
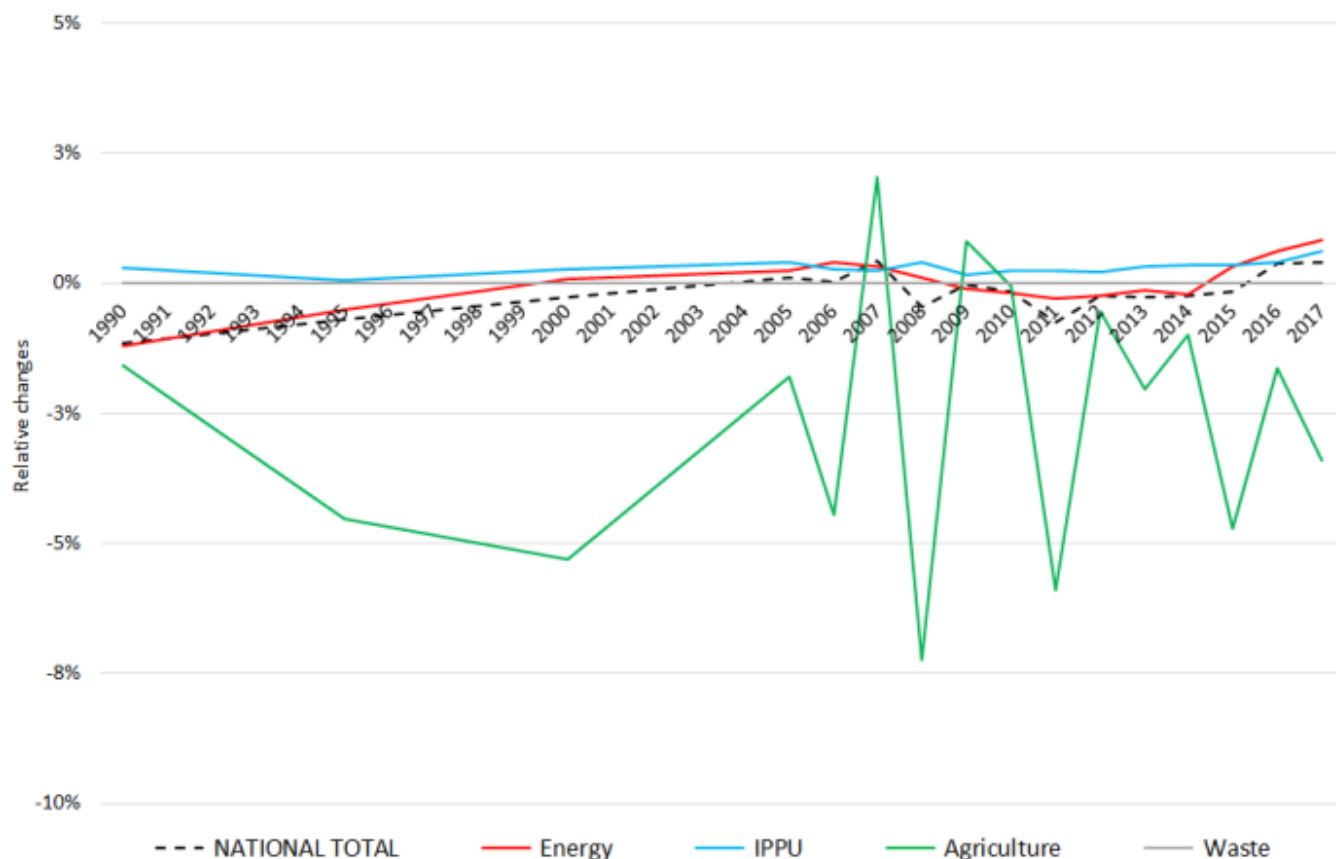


Recalculations - Nitrogen Oxides

Revision of NO_x emissions over time





The small changes within the **National Total reported for 1990 (-4.38 kt | -0.15 %)** are dominated by changes in **NFRs 1.A.3.b i, 1.A.3.b ii and 1.A.3.b iii** together with less significant revisions throughout NFRs 1, 2 and 3.

Here, the strongest relative change occurs for **NFR 1.B.2.a iv (+222,250 %)**.

Table 1: Changes of emission estimates 1990

absolute changes in emissions reported for 1990 <table><thead><tr><th>Category</th><th>Value [kt]</th></tr></thead><tbody><tr><td>NATIONAL TOTAL</td><td>-33,47</td></tr><tr><td>Energy</td><td>-31,50</td></tr><tr><td>IPPU</td><td>0,311</td></tr><tr><td>Agriculture</td><td>-2,285</td></tr><tr><td>Waste</td><td>0,00</td></tr></tbody></table>					Category	Value [kt]	NATIONAL TOTAL	-33,47	Energy	-31,50	IPPU	0,311	Agriculture	-2,285	Waste	0,00	Submission 2020	Submission 2021	Difference	Reasoning
Category	Value [kt]																			
NATIONAL TOTAL	-33,47																			
Energy	-31,50																			
IPPU	0,311																			
Agriculture	-2,285																			
Waste	0,00																			
NFR Code	[kt]			relative	see description and reasoning in															
NATIONAL TOTAL	2.884,38	2.850,05	-34,334	-1,19%	sub-category chapters															
NFR 1 - Energy	2.634,24	2.601,88	-32,360	-1,23%	sub-category chapters															

absolute changes in emissions reported for 1990					Submission 2020	Submission 2021	Difference	Reasoning								
<table><thead><tr><th>Category</th><th>Value [kt]</th></tr></thead><tbody><tr><td>NATIONAL TOTAL</td><td>-33,47</td></tr><tr><td>Energy</td><td>-31,50</td></tr><tr><td>IPPU</td><td>0,311</td></tr><tr><td>Agriculture</td><td>-2,285</td></tr><tr><td>Waste</td><td>0,00</td></tr></tbody></table>									Category	Value [kt]	NATIONAL TOTAL	-33,47	Energy	-31,50	IPPU	0,311
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Agriculture	-2,285															
Waste	0,00															
NFR Code					[kt]			relative	see description and reasoning in							
1.A.2.g vii					49,60	50,23	0,633	1,28%	1.A.2.g vii - Mobile Combustion in Manufacturing Industries & Construction]							
1.A.3.a i(i)					3,88	3,94	0,060	1,54%	here							
1.A.3.a ii(i)					2,85	2,80	-0,054	-1,90%	here							
1.A.3.b i					808,22	765,68	-42,539	-5,26%	here							
1.A.3.b ii					41,49	31,49	-10,006	-24,11%	here							
1.A.3.b iii					485,89	506,00	20,111	4,14%	here							
1.A.3.b iv					2,61	2,45	-0,162	-6,18%	here							
1.A.4.a ii					11,52	11,60	0,077	0,67%	1.A.4.a ii - Commercial & Institutional: Mobile]							
1.A.4.b ii					0,07	0,06	-0,006	-8,44%	1.A.4.b ii - Households: Mobile]							
1.A.4.c ii					49,78	49,31	-0,475	-0,95%	1.A.4.c ii - Agriculture / Forestry / Fishery: Mobile]							
NFR 2 - IPPU					106,06	106,37	0,311	0,29%	sub-category chapters							
2.C.3					NA	0,74	0,74		2.C.3 - Aluminum Production]							
2.G					0,74	0,31	-0,429	-58,05%	2.G - Other Product Use]							
NFR 3 - Agriculture					143,55	141,27	-2,28	-1,59%	sub-category chapters							
3.B.1.a					0,72	0,67	-0,051	-7,07%	here							
3.B.1.b					0,7876	0,6958	-0,0918	-11,65%	here							
3.B.4.g iii					0,0033688	0,0033850	0,0000162	0,48%	here							
3.D.a.1					85,31	86,57	1,256	1,47%	here							
3.D.a.2.a					46,65	43,46	-3,189	-6,84%	here							
3.D.a.3					8,65	8,44	-0,209	-2,42%	here							
NFR 5 - Waste					0,53	0,53	0,00	0,00%								
NFR 6 - Other					NA											

The changes within the **National Total** reported for 2017 (+100.56 kt | +8.47 %) are dominated by changes in **NFRs 1.A.3.b i, 1.A.3.b ii and 1.A.3.b iii** together with less significant revisions throughout NFRs 1, 2 and 3.

Here, the strongest relative change occurs for **NFR 1.B.2.a iv (+824,150 %)**.

Table 2: Changes of emission estimates 2017

absolute changes in emissions reported for 2018 ■ NATIONAL TOTAL ■ Energy ■ IPPU ■ Agriculture ■ Waste					
=					
			= Submission 2019	= Submission 2020	= Difference = Reasoning
= NFR Code				= [kt]	= relative < see description and reasoning in:
~ NATIONAL TOTAL			> 1,187.50	> 1,288.07	> 100.56 > 8.47% < sub-category chapters
NFR 1 - Energy			> 972.26	> 1,073.00	> 100.74 > 10.36% < sub-category chapters
1.A.1.a			> 257.85	> 251.15	> -6.69 > -2.60% < here]
1.A.1.b			> 16.88	> 14.64	> -2.24 > -13.26% < here]
1.A.1.c			> 12.51	> 12.24	> -0.27 > -2.17% < here]
1.A.2.a			> 4.26	> 4.21	> -0.05 > -1.10% < here]
1.A.2.b			> 1.25	> 1.00	> -0.24 > -19.61% < here]
1.A.2.e			> 0.22	> 0.19	> -0.02 > -11.33% < here]
1.A.2.g vii			> 13.44	> 13.47	> 0.03 > 0.25% < here]
1.A.2.g viii			> 75.07	> 72.79	> -2.28 > -3.04% < here]
1.A.3.a i(i)			> 10.98	> 11.44	> 0.46 > 4.17% < here]
1.A.3.a ii(i)			> 2.81	> 2.36	> -0.45 > -15.87% < here]
1.A.3.b i			> 244.99	> 313.87	> 68.88 > 28.12% < here]
1.A.3.b ii			> 32.64	> 65.78	> 33.14 > 102% < here]
1.A.3.b iii			> 122.05	> 140.10	> 18.05 > 14.79% < here]
1.A.3.b iv			> 2.74	> 1.74	> -1.00 > -36.58% < here]
1.A.3.c			> 11.78	> 9.30	> -2.47 > -21.00% < here]
1.A.3.d ii			> 27.06	> 26.11	> -0.95 > -3.52% < here]
1.A.4.a i			> 19.34	> 21.31	> 1.96 > 10.15% < here]
1.A.4.a ii			> 10.32	> 10.34	> 0.02 > 0.17% < here]
1.A.4.b i			> 57.94	> 55.04	> -2.90 > -5.01% < here]
1.A.4.b ii			> 0.5137	> 0.5135	> -0.0002 > -0.04% < here]
1.A.4.c i			> 9.54	> 6.38	> -3.16 > -33.10% < here]
1.A.4.c ii			> 30.65	> 30.82	> 0.16 > 0.54% < here]
1.A.4.c iii			> 1.3267	> 1.3264	> -0.0003 > -0.02% < here]
1.A.5.a			> 0.27	> 0.26	> -0.01 > -2.14% < here]
1.A.5.b			> 3.44	> 3.36	> -0.08 > -2.43% < here]
1.B.2.a iv			> 0.0001	> 0.7674	> 0.7673 > 824.150% < here]
1.B.2.c			> 0.33	> 0.43	> 0.10 > 29.02% < here]
NFR 2 - IPPU			> 88.67	> 88.68	> 0.01 > 0.02% < sub-category chapters
2.A.2			> 4.123	> 4.122	> -0.002 > -0.04% < here]
2.A.6			> 2.49	> 2.13	> -0.36 > -14.51% < here]
2.G			> 0.434	> 0.435	> 0.001 > 0.13% < here]
2.H.1			> 2.78	> 3.01	> 0.23 > 8.27% < here]
NFR 3 - Agriculture			> 125.79	> 125.60	> -0.20 > -0.16% < sub-category chapters

3.B.1.a	> 0.523	> 0.522	> -0.001	> -0.19%	< here]
3.B.1.b	> 0.574	> 0.581	> 0.007	> 1.15%	< here]
3.B.2	> 0.011	> 0.011	> 0.000	> 0.00%	< here]
3.B.3	> 0.3468	> 0.3464	> -0.0004	> -0.11%	< here]
3.B.4.g i	> 0.0171	> 0.0176	> 0.0005	> 3.06%	< here]
3.B.4.g ii	> 0.0174	> 0.0177	> 0.0003	> 1.85%	< here]
3.B.4.g iii	> 0.0103	> 0.0109	> 0.0006	> 5.34%	< here]
3.B.4.g iv	> 0.0023	> 0.0020	> -0.0002	> -9.49%	< here]
3.D.a.2.a	> 40.38	> 40.45	> 0.07	> 0.17%	< here]
3.D.a.2.b	> 0.74	> 0.56	> -0.18	> -24.29%	< here]
3.D.a.2.c	> 11.91	> 11.72	> -0.20	> -1.64%	< here]
3.D.a.3	> 5.64	> 5.75	> 0.11	> 1.88%	< here]
3.I	> 0.178	> 0.176	> -0.002	> -1.23%	<
NFR 5 - Waste	> 0.79	> 0.79	> 0.00	> 0.00%	<
NFR 6 - Other					= NA