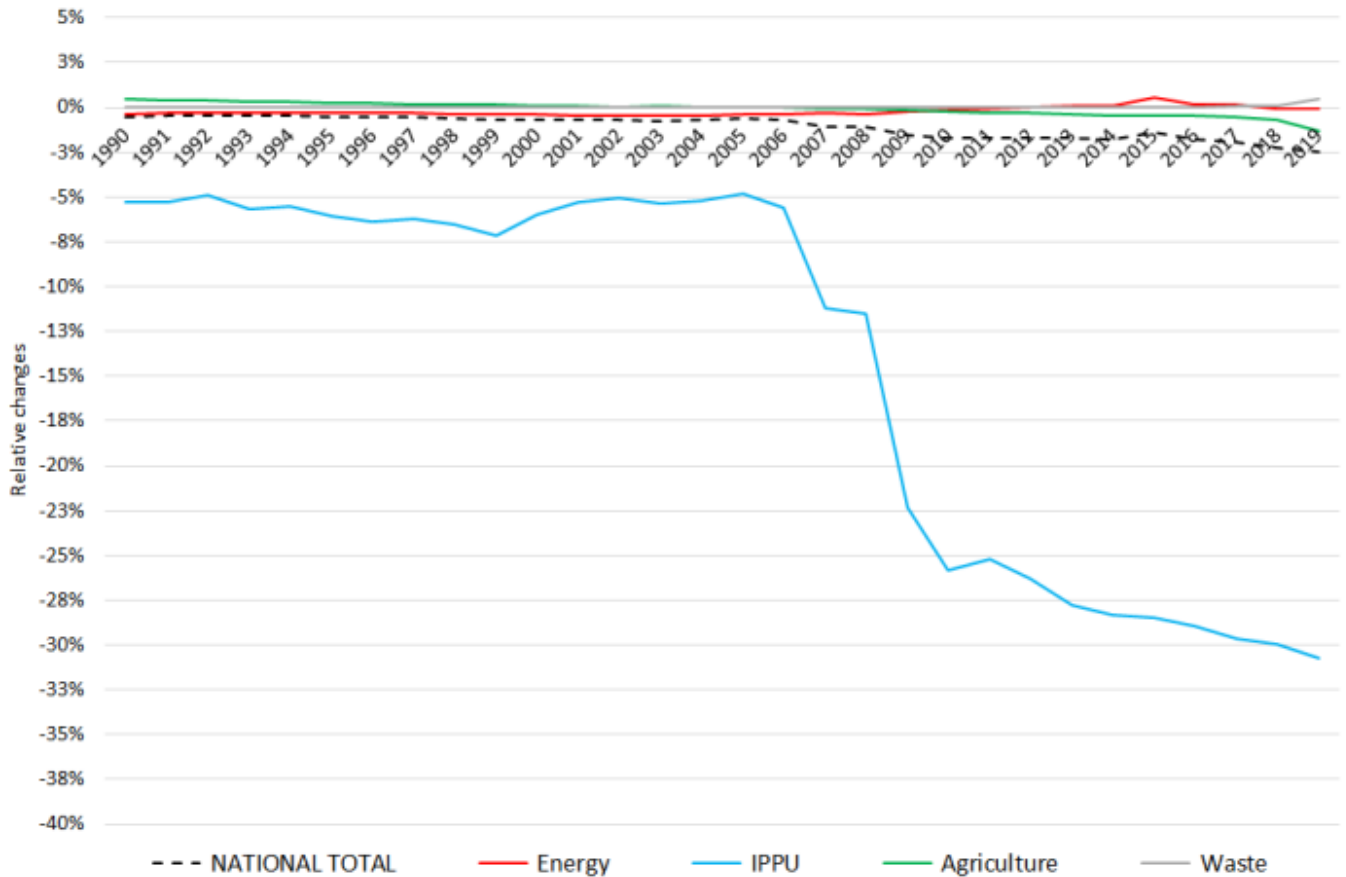
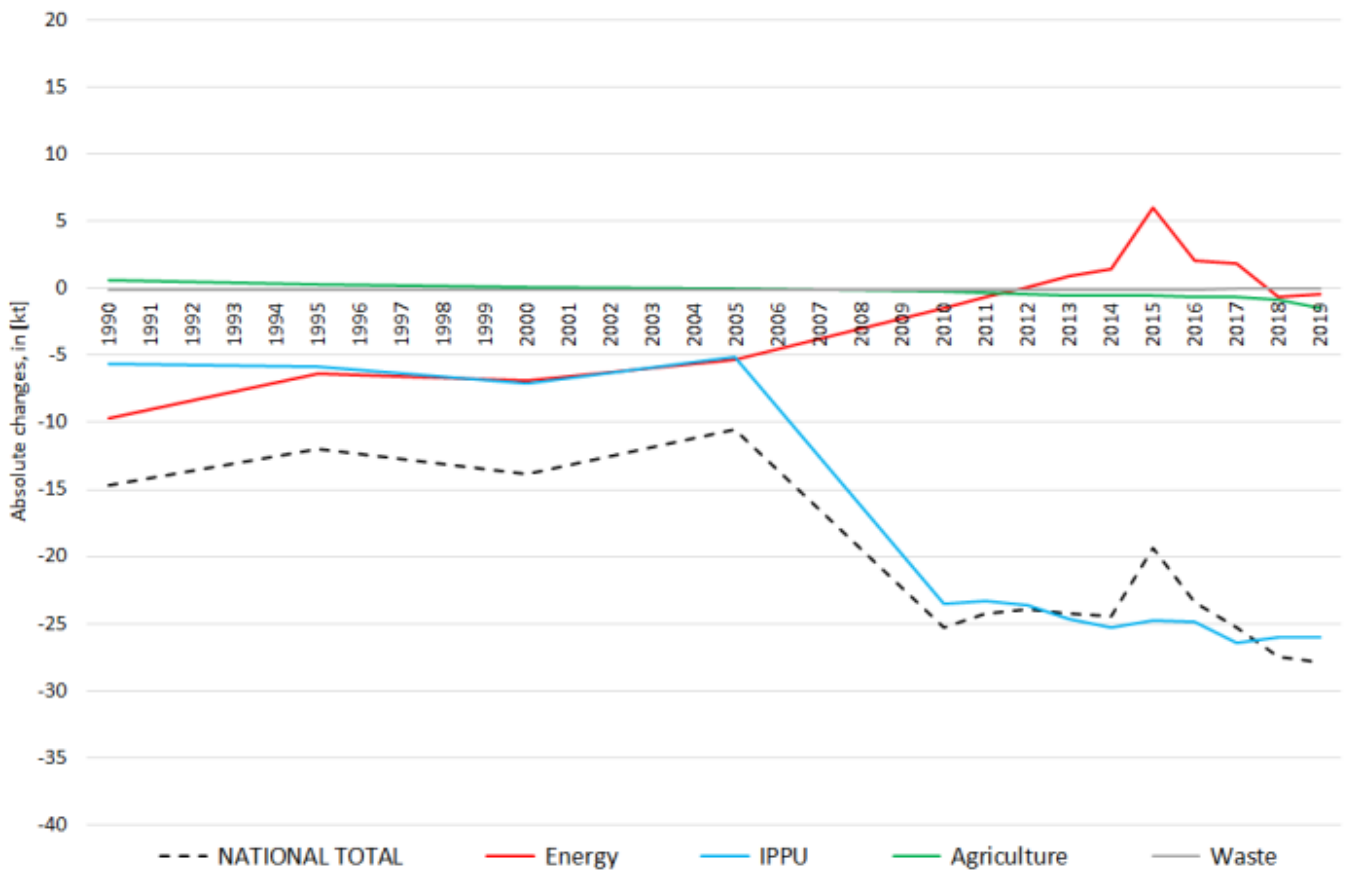


Recalculations - Nitrogen Oxides

Revision of NO_x emissions over time:



Changes within the **National Total reported for 1990 (-14.72 kt | -0.52 %)** are dominated by changes in NFRs **1.A.3.d ii** (-9.73 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

| absolute changes in emissions reported for 1990 | | | | | Submission 2021 | Submission 2022 | Difference | Reasoning |
|---|-----------------|-----------------|---------------|---------------|---|-----------------|------------|-----------|
| | | | | | | | | |
| NFR Code | [kt] | | | relative | see description and reasoning in: | | | |
| NATIONAL TOTAL | 2.850,05 | 2.835,33 | -14,72 | -0,52% | 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 | -9,18 | -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 | -51,95% | 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 | -5,68 | -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 | 0,01443 | 0,01427 | 0,00 | -1,145% | 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 small changes within the **National Total reported for 2019 (+8.22 kt | +0.68 %)** are dominated by changes in **NFRs 1 and 3**. Here, the most significant relative change occurs for **NFR 2.G with minus 49 %**.

Table 2: Changes of emission estimates 2019

| absolute changes in emissions reported for 2018 | | | | | Submission 2021 | Submission 2022 | Difference | Reasoning |
|---|-----------------|-----------------|---------------|----------------|-----------------------|-----------------------------------|------------|-----------|
| | | | | | | | | |
| NFR Sector | [kt] | | | | 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.1.a | 208,92 | 208,57 | -0,34 | -0,16% | here | | | |
| 1.A.1.b | 16,66 | 16,66 | 0,01 | 0,05% | here | | | |
| 1.A.1.c | 12,01 | 13,38 | 1,37 | 11,43% | here | | | |
| 1.A.2.a | 3,95 | 4,15 | 0,21 | 5,25% | here | | | |
| 1.A.2.b | 1,01 | 0,98 | -0,03 | -2,88% | here | | | |
| 1.A.2.e | 0,208 | 0,207 | -0,001 | -0,67% | here | | | |
| 1.A.2.g vii | 14,81 | 14,74 | -0,07 | -0,47% | here | | | |
| 1.A.2.g viii | 68,68 | 67,08 | -1,61 | -2,34% | here | | | |
| 1.A.3.a i(i) | 11,77 | 11,93 | 0,16 | 1,37% | here | | | |
| 1.A.3.a ii(i) | 2,61 | 2,65 | 0,03 | 1,28% | here | | | |
| 1.A.3.b i | 275,95 | 271,75 | -4,20 | -1,52% | here | | | |
| 1.A.3.b ii | 56,31 | 55,69 | -0,61 | -1,09% | here | | | |
| 1.A.3.b iii | 106,05 | 106,65 | 0,60 | 0,56% | here | | | |
| 1.A.3.b iv | 1,61 | 1,60 | -0,02 | -1,10% | here | | | |
| 1.A.3.c | 7,33 | 7,99 | 0,66 | 8,94% | here | | | |
| 1.A.3.d ii | 24,70 | 24,75 | 0,05 | 0,22% | here | | | |
| 1.A.4.a i | 20,65 | 20,43 | -0,22 | -1,06% | here | | | |
| 1.A.4.a ii | 7,96 | 7,92 | -0,04 | -0,55% | here | | | |
| 1.A.4.b i | 56,94 | 60,05 | 3,11 | 5,47% | here | | | |
| 1.A.4.b ii | 0,4913 | 0,5745 | 0,08 | 16,94% | here | | | |
| 1.A.4.c i | 6,03 | 7,01 | 0,98 | 16,21% | here | | | |
| 1.A.4.c iii | 0,5584 | 0,3768 | -0,18 | -32,53% | here | | | |
| 1.A.5.a | 0,22 | 0,23 | 0,01 | 4,92% | here | | | |
| 1.A.5.b | 3,52 | 3,10 | -0,43 | -12,09% | here | | | |
| 1.B.2.a iv | 0,7171 | 0,7172 | 0,0001 | 0,01% | | | | |
| NFR 2 - IPPU | 84,76 | 58,71 | -26,05 | -30,73% | sub-category chapters | | | |
| 2.A.1 | 12,49 | 12,49 | 0,00 | 0,00% | here | | | |
| 2.A.2 | 3,843 | 3,843 | 0,000 | 0,00% | here | | | |
| 2.A.3 | 11,14 | 10,67 | -0,47 | -4,20% | here | | | |
| 2.A.5.a | NA | NA | #WERT! | #WERT! | here | | | |
| 2.A.5.b | NA | NA | #WERT! | #WERT! | here | | | |
| 2.A.5.c | NA | NA | #WERT! | #WERT! | here | | | |
| 2.A.6 | 2,13 | 2,13 | 0,00 | 0,04% | here | | | |
| 2.B.1 | 2,95 | 2,95 | 0,00 | 0,00% | here | | | |
| 2.B.2 | 26,69 | 1,07 | -25,62 | -96,00% | here | | | |
| 2.B.3 | 0,13 | 0,13 | 0,00 | 0,00% | here | | | |
| 2.B.5 | NA | NA | #WERT! | #WERT! | here | | | |
| 2.B.6 | NE | 0,04 | #WERT! | #WERT! | here | | | |
| 2.B.7 | NA | NA | #WERT! | #WERT! | here | | | |
| 2.B.10.a | NA | NA | #WERT! | #WERT! | here | | | |
| 2.B.10.b | NA | NA | #WERT! | #WERT! | here | | | |
| 2.C.1 | 21,12 | 21,12 | 0,00 | 0,00% | here | | | |

| absolute changes in emissions reported for 2018 | | | | | Submission 2021 | Submission 2022 | Difference | Reasoning |
|---|-----------------|-----------------|---------------|---------------|-----------------|-----------------|------------------------------|--|
| | | | | | | | | |
| NFR Sector | [kt] | | | | | | 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 | |
| 2.C.2 | NE | NE | #WERT! | #WERT! | | | here | |
| 2.C.3 | 0,51 | 0,51 | 0,53 | 104,34% | | | here | |
| 2.C.4 | NA | NA | #WERT! | #WERT! | | | here | |
| 2.H.1 | 2,95 | 2,94 | 0,00 | -0,11% | | | here | |
| NFR 3 - Agriculture | 112,24 | 110,79 | -1,44 | -1,29% | | | sub-category chapters | |
| 3.B.1.a | 0,489 | 0,507 | 0,017 | 3,52% | | | here | |
| 3.B.1.b | 0,487 | 0,515 | 0,029 | 5,88% | | | here | |
| 3.B.3 | 0,3276 | 0,2616 | -0,0660 | -20,14% | | | here | |
| 3.B.4.d | 0,00187 | 0,00191 | 0,00004 | 2,35% | | | here | |
| 3.B.4.e | 0,0362 | 0,0386 | 0,0024 | 6,67% | | | here | |
| 3.B.4.g i | 0,0180 | 0,0182 | 0,0003 | 1,46% | | | here | |
| 3.B.4.g ii | 0,0179 | 0,0139 | -0,0039 | -21,88% | | | here | |
| 3.B.4.g iii | 0,0108 | 0,0100 | -0,0007 | -6,78% | | | here | |
| 3.B.4.g iv | 0,00202 | 0,00205 | 0,00002 | 1,06% | | | here | |
| 3.D.a.1 | 55,97 | 55,34 | -0,62 | -1,11% | | | here | |
| 3.D.a.2.a | 37,54 | 37,05 | -0,49 | -1,30% | | | here | |
| 3.D.a.2.b | 0,51 | 0,56 | 0,05 | 10,17% | | | here | |
| 3.D.a.2.c | 11,55 | 11,56 | 0,01 | 0,08% | | | here | |
| 3.D.a.3 | 5,10 | 4,73 | -0,37 | -7,21% | | | here | |
| 3.I | 0,172 | 0,169 | -0,003 | -1,86% | | | here | |
| NFR 5 - Waste | 0,826 | 0,830 | 0,004 | 0,50% | | | sub-category chapters | |
| 5.C.2 | 0,283 | 0,288 | 0,004 | 1,44% | | | here | |
| NFR 6 - Other | NA | | | | | | | |