

Clean Air NDC Scorecard 2023: Country Descriptions

Key terms:

- CAT: [Climate Action Tracker](#)
- HFCs: hydrofluorocarbons
- N₂O: nitrous oxide
- NF₃: nitrogen trifluoride
- NMVOC: non-methane volatile organic compounds
- NO_x: nitrogen oxides
- PM: particulate matter
- SLCP: short-lived climate pollutant
- SF₆: sulphur hexafluoride
- SO₂: sulphur dioxide

Australia

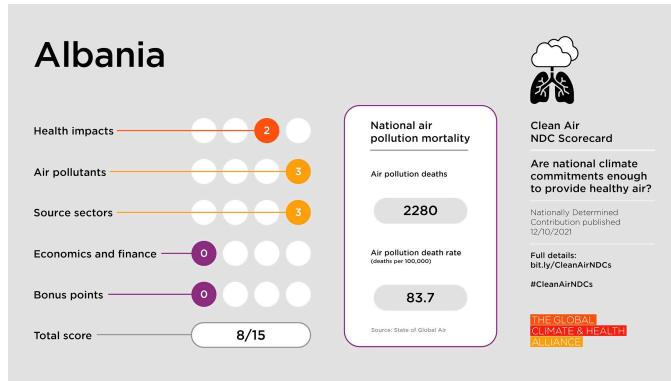
Australia is one of the top 10 per capita emitters of greenhouse gases, and the fifth highest producer of coal worldwide. CAT assesses Australia's NDC to be in line with <3°C when compared to its fair share. However, it achieves a clean air score of just two points, for naming air pollutants N₂O, HFCs, SF₆ and NF₃. Australia fails to make links in its NDC that could support the case for accelerating fossil fuel phase-out.



Albania

Albania cites the impact of poor air quality on cardiovascular and respiratory conditions, especially in Tirana and other cities. The NDC refers to N₂O and HFCs, and mentions air quality monitoring. The

document makes reference to the pillars of the EU Green Deal for the Western Balkans, which include climate action alongside fighting air pollution, while sector specific measures are also mentioned for the agriculture and waste sectors.



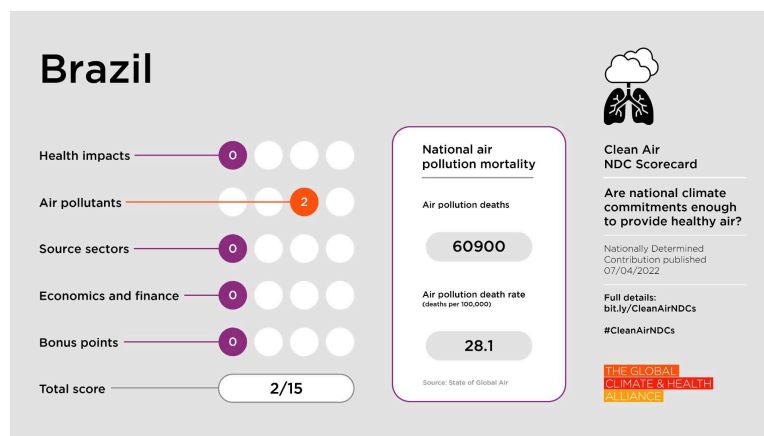
Bahrain

Despite being the second highest emitter of greenhouse gas emissions per capita globally, Bahrain’s NDC includes no mention of air quality considerations.



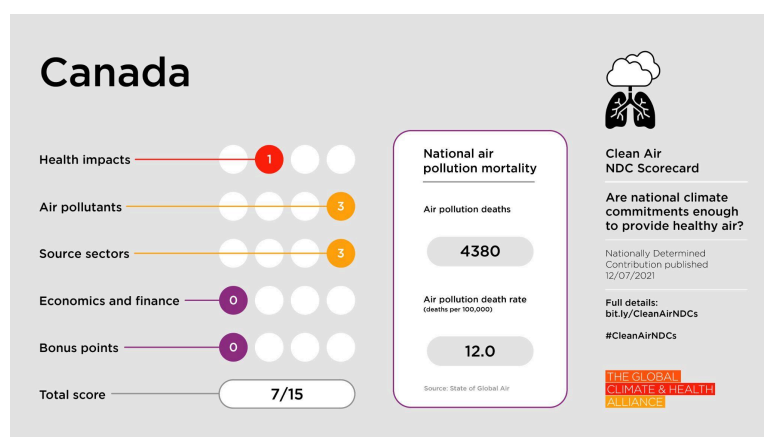
Brazil

Brazil is the forthcoming host of COP30, and among the top 10 greenhouse gas emitters worldwide. Brazil’s NDC mentions N₂O, and HFCs, but does not achieve points on any other issue. As the forthcoming host of COP30, Brazil could demonstrate leadership by making links that could help make the case for accelerating much emissions reductions, which would yield substantial health benefits both locally and globally.



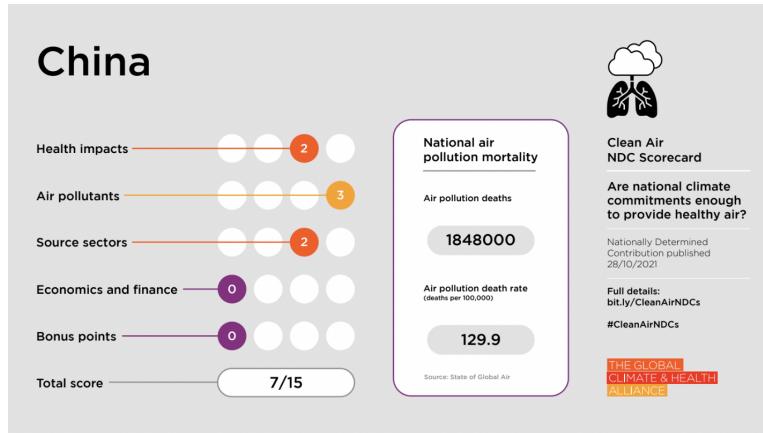
Canada

In addition to its main NDC document, Canada submitted a document detailing Greenhouse Gas and Air Pollutant Emissions Projections, which was also analysed. Canada's NDC describes air quality as important for all Canadians on account of its broad impacts, including on human health. Canada refers to black carbon, N_2O , HFCs, SF_6 , and NF_3 . Notably, Canada's ambient air quality standards are framed as aiming to protect human health and the environment. A commitment by Canada and other Arctic States to a collective, aspirational goal to reduce emissions of black carbon by 25-33% below 2013 levels by 2025 is referred to. When it comes to sectoral sources, multiple sectors are mentioned including agriculture, electricity generation, transportation, industry, urban planning and waste. Specified actions in the NDC include control of VOC emissions from architectural coatings to protect health, as well as various regulations to reduce air pollutants from vehicle engines imported and manufactured in Canada, and a general mention of action to reduce SLCPs such as black carbon. Canada's clean air score of 7 is linked to its relatively low air pollution mortality, though this may also be supported by relatively low population density. Air pollution mortality, and global health burden associated with Canada's climate ambition (assessed by CAT to be aligned with a $<3^\circ C$ world), could be greatly improved by more concerted national action on fossil fuel phase-out.



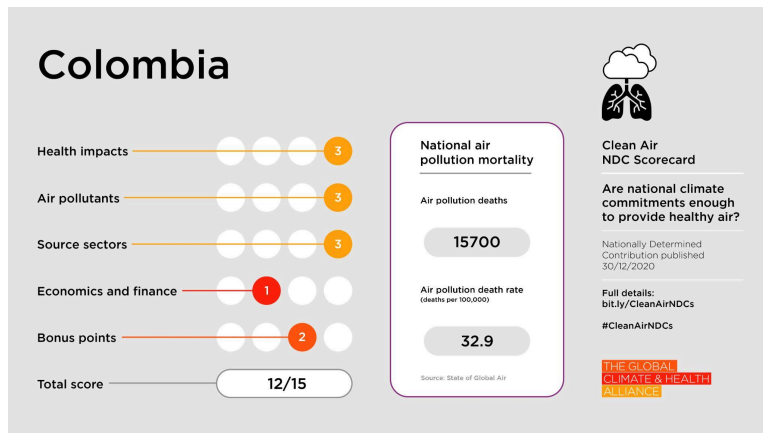
China

China is one of the top 10 greenhouse gas emitters globally, with climate ambition $<^{\circ}4C$. The National Health Commission has compiled technical guidelines for health protection in air pollution. The NDC covers SO_2 , HFCs and NO_x . Air quality will be improved by plans to establish coordinated monitoring. Sectoral interventions include clean heat and public transport electrification.



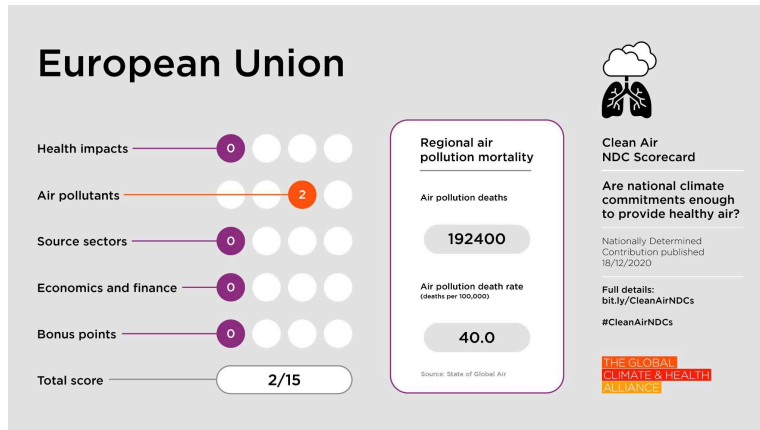
Colombia

Colombia's NDC, which is aligned with $<2^{\circ}C$. I recognise the importance of protecting health (including respiratory health specifically) through air quality action, and of monitoring these gains. The NDC states that the integration of policies facilitating this monitoring will be formulated within the health sector. The NDC also refers to multiple air pollutants, including particulate matter and nitrogen oxides, and sets a goal to achieve a reduction of 40% in black carbon. Multiple sectors are identified as sources of air pollution, including agriculture, electricity generation, industry, and transport. In the transport sector, Colombia intends to augment the modal share of bicycle usage by 5.5% by the year 2030 across all cities, improving mobility and air quality for citizens. Colombia also refers to inequalities and vulnerabilities related to air pollution, as well as quantifying lives saved using the CarBonH tool.



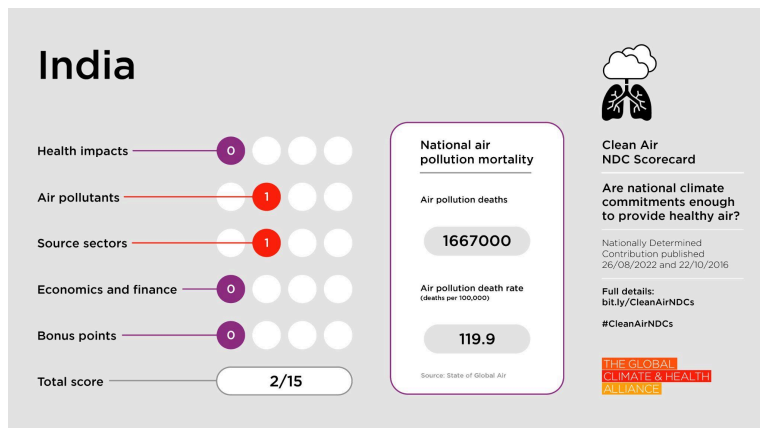
European Union

The European Union, which is included in the top 10 emitters of total greenhouse gases, includes several air pollutants in its NDC, namely N₂O, HFC, SF₆ and NF₃. Making direct links between air pollution, health and climate action in the NDC could accelerate emissions reductions.



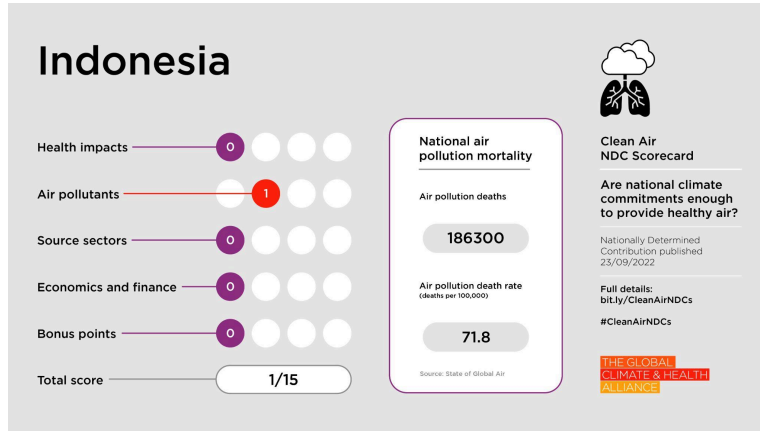
India

India is among the top 10 total emitters globally. Its NDC is aligned with a <3°C world. India's NDC provides information on urban air pollution monitoring tools, as well as the need for action in the power-generation sector. The lack of deeper integration of air quality and health considerations, especially given the high rate of air pollution mortality, is a grave missed opportunity.



Indonesia

Indonesia is one of the top ten total greenhouse gas emitters globally, and with an NDC aligned with 4+°C of warming. With its single point being for a mention of N₂O and HFCs, the low integration of air quality considerations is a missed opportunity for Indonesia to gain from actions which simultaneously benefit climate change, air quality, and health.



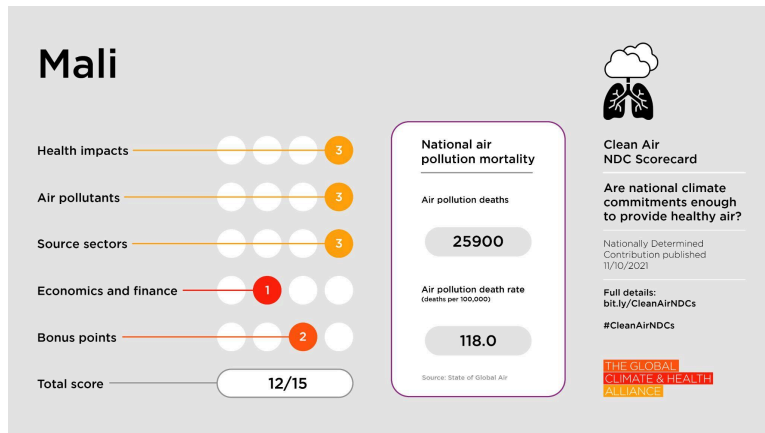
Japan

Japan is among the top ten total greenhouse gas emitters, and its NDC is assessed by CAT as being aligned with <3°C. Points were achieved for mention of N₂O and HFCs.



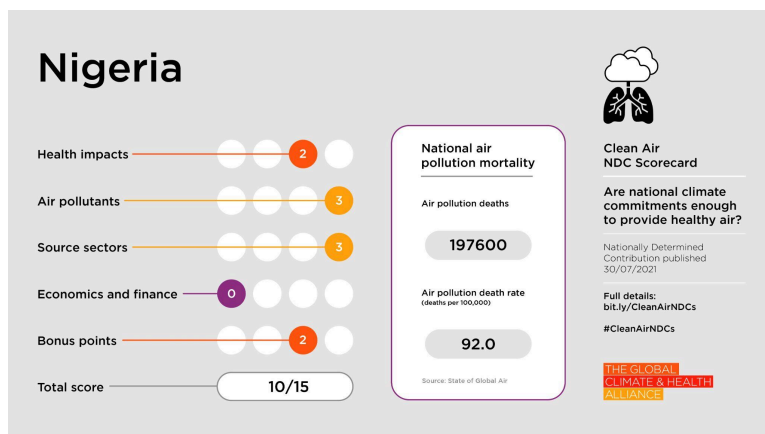
Mali

Mali notes that black carbon contributes to negative impacts on human health, and that PM_{2.5} impacts cardiovascular and respiratory systems. It plans to form a technical team to monitor SLCPs as they relate to human health. In addition to SLCPs, the NDC refers to multiple other air pollutants. Interventions to improve air quality are mentioned in several sectors. The NDC mentions a price tag to reduce air and water pollution linked to pesticides and other harmful products. Mali also refers to the Climate and Clean Air Coalition, and notes that improvements in air quality could avoid 2.4 million premature deaths by 2030.



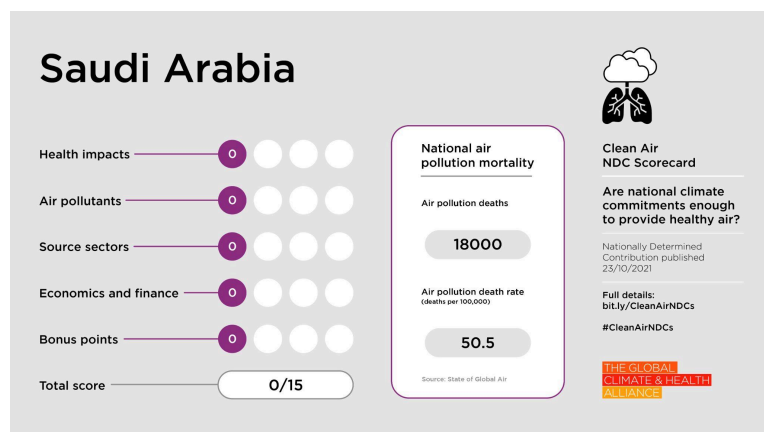
Nigeria

Nigeria's NDC, which is aligned with the 1.5°C target of the Paris Agreement, acknowledges increased short-lived climate pollutants have implications for climate change and for human health. It projects that 97,000 lives could be lost by 2030 due to poor air quality in the home. Named air pollutants include N₂O, HFCs, PM, NO_x, SO₂, NH₃, NMVOC, BC, carbon monoxide, and SLCPs. The national SLCP reduction plans supports 83% reduction in BC by 2030 and 80% reduction in HFCs by 2047. The NDC notes the particular gains of cleaner cooking for women, with the potential to save 30,000 lives in total by 2030.



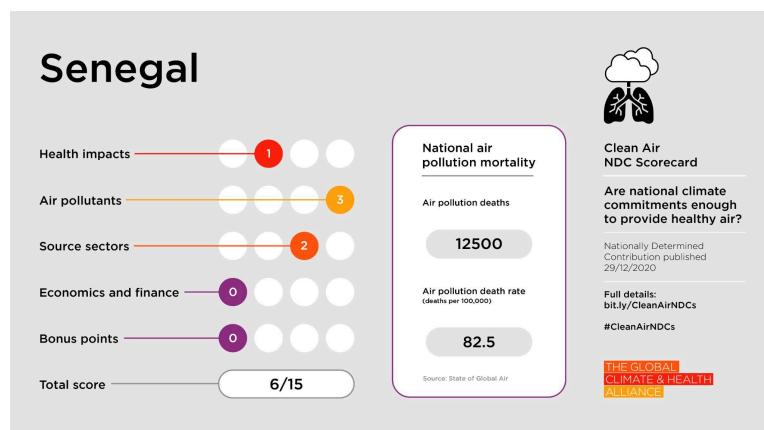
Saudi Arabia

Saudi Arabia ranks in the top 10 countries globally for per capita and total greenhouse gas emissions. Its NDC, which is aligned with 4+°C makes no mention of air quality considerations, resulting in a score of zero points across all categories.



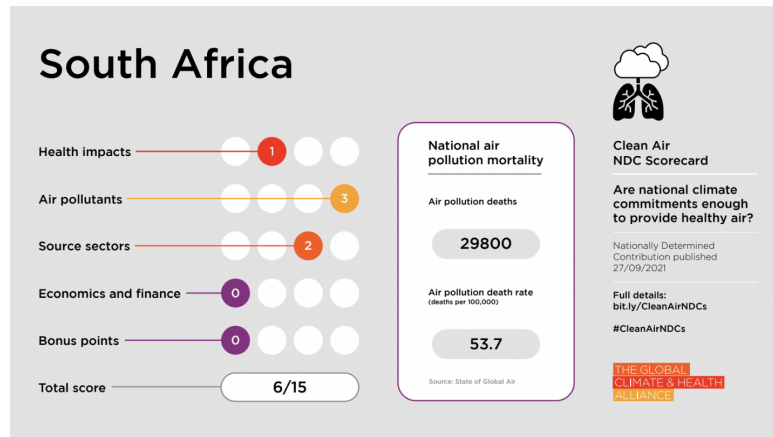
Senegal

In its NDC, Senegal notes the use of modern forms of energy in homes and the sustainable management of urban waste will make it possible to limit atmospheric pollution and consequently reduce the harmful effects on the health of populations. The NDC enumerates and monitors several air pollutants, including N₂O, and HFCs.



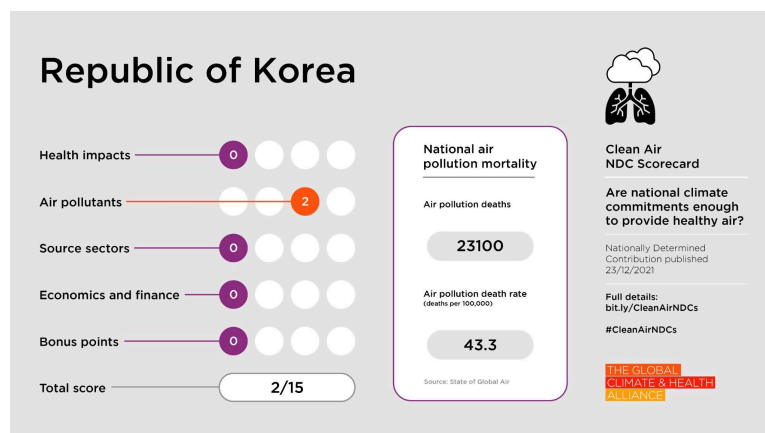
South Africa

South Africa's updated NDC, which is rated by CAT as being aligned with <math><3^{\circ}\text{C}</math> of warming, contextualises the Integrated Resource Plan (which entails a transition to renewable energy) as being relevant to reduce air pollution and improve health. The NDC includes N₂O and HFCs among other gases, and national annual pollution prevention plans are prepared.



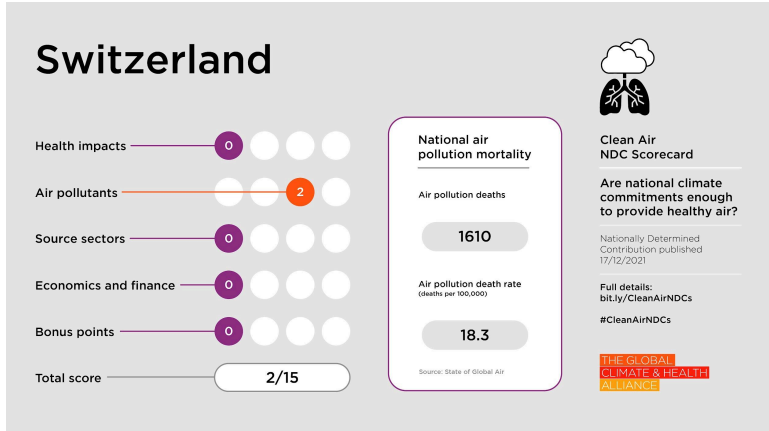
South Korea

The NDC of South Korea, which is assessed by CAT as being consistent with $<4^{\circ}\text{C}$ of warming, mentions an array of air pollutants, namely including HFCs, N_2O , NF_3 , SF_6 , but does not score points in any other categories.



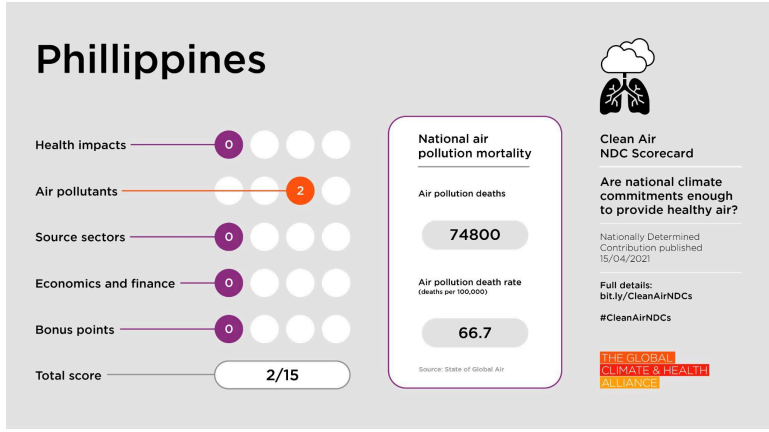
Switzerland

Switzerland's NDC refers to N_2O , HFCs, SF_6 and NF_3 , but does not achieve points in any other category.



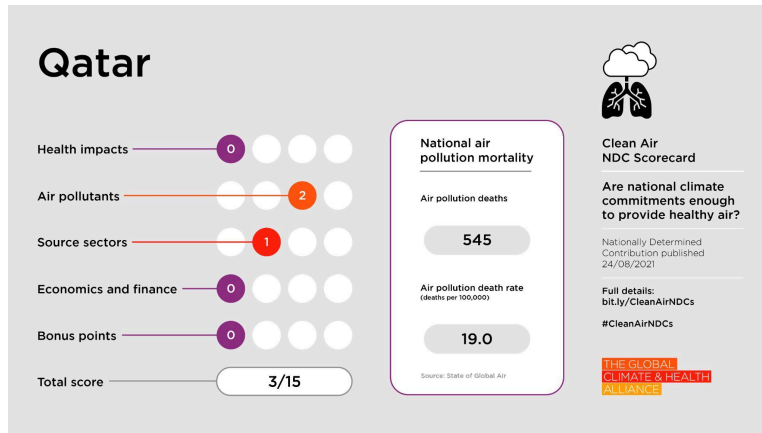
Philippines

The NDC of the Philippines, which is rated by CAT as being in line with <3°C of warming, includes N₂O and HFCs, but doesn't achieve points in other categories.



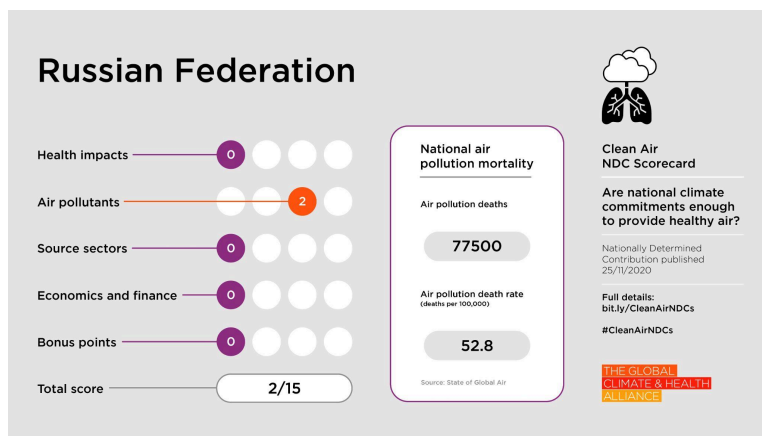
Qatar

Within its NDC, Qatar mentions the links between fuel source and health. The NDC includes N₂O and refers to measurement of air quality and an index. Qatar is one of the highest emitting countries ranked by per capita emissions worldwide.



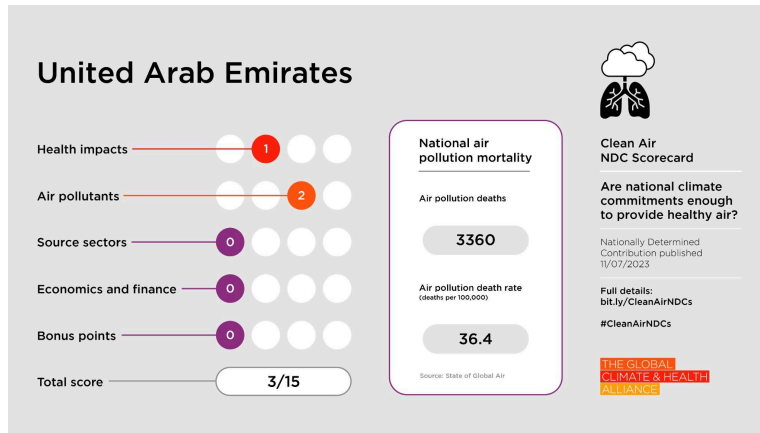
Russia

Russia is one of the top 10 global emitters, with a CAT NDC rating in line with $>4^{\circ}\text{C}$. While Russia's NDC includes multiple air pollutants such as N_2O , SF_6 , NF_3 and HFCs, it doesn't achieve any points in other categories.



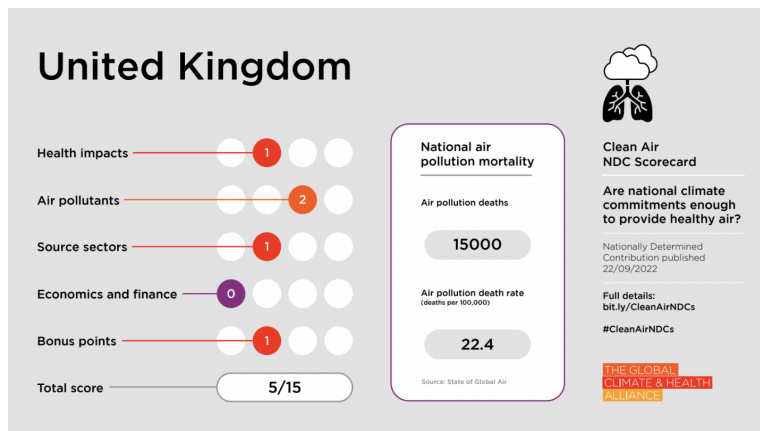
United Arab Emirates

The United Arab Emirates, the host of COP28, acknowledges the exacerbation of respiratory problems due to climate change, noting that air pollutants can irritate the respiratory system and worsen conditions like asthma. The UAE's Space Agency has initiated the Space Analytics and Solutions project, which aims to strengthen GHG and air quality inventory collection. Despite this content and action, the UAE NDC is in line with $<4^{\circ}\text{C}$ NDC, according to CAT. In fact, the NDC covers N_2O , but notably does not cover HFCs, while many other countries choose to incorporate these gases in their NDCs.



United Kingdom

The United Kingdom’s NDC identifies air pollution as the top environmental risk to human health. The NDC refers to the UK Clean Air Strategy, which outlines measures to address various air pollutants, aiming to improve air quality and reduce health inequalities. The UK refers to gases N₂O, HFCs, SF₆, and NF₃. The UK’s Clean Air Strategy sets out how the UK will tackle all types of air pollution, making the air healthier to breathe and protecting nature. It is noted that the Clean Air Strategy will save lives and reduce health inequalities, in line with protecting the right to health as set out in the Paris Agreement. This recognition of air quality and health links should be translated into action to raise the UK’s climate ambition about the <3C rating given by CAT, including through accelerated phase-out of fossil fuels.



United States

The United States is in the top 10 total greenhouse gas emitters worldwide. The US NDC refers to the rationale to reduce air pollution to improve health, and mentions N₂O, and SLCPs including HFCs. In terms of action across sectors, the NDC notes that zero-carbon solutions in the United States will create good jobs and improve the health of families and communities, and mentions a goal to reach 100 percent carbon pollution-free electricity by 2035, and that eliminating greenhouse gases from the electricity sector will also reduce air and water pollution, improving public health while supporting good jobs building modern infrastructure. Local air pollution reductions associated with actions in the NDC are

projected to avoid tens of thousands of premature deaths by 2030, while air quality action is linked to intergenerational equity. The United States' climate ambition (assessed by CAT to be aligned with a <3°C world), could be greatly improved by more concerted national action on fossil fuel phase-out.

