

co²vid-19



Joshua Kilani, XMS Managing Director, shares insights gained from the pandemic on carbon emission reductions.

COVID-19 was declared a global pandemic by the WHO on the 11th of March 2020. Now, over 2 years later, as we mark the official end to the Natural State of Disaster in South Africa let's take a look back and reflect from a climate change perspective.

Firstly, we must acknowledge that the COVID-19 pandemic continues to threaten human lives and has had an adverse effect on human health and national economies. However, the global restrictions implemented over the past 2 years dramatically altered the patterns of energy demand, resulting in the largest decrease in energy related carbon emissions in modern history. Although there have been other crises which have led to emission reductions, the population confining nature of the COVID-19 crisis resulted in unique emission consequences.

Various sources claim that annual CO₂ Emissions for 2020 fell somewhere in the range between 5.4% - 17% from 2019 levels with a 25% drop experienced at the Peak of COVID-19 restrictions. At the global peak of confinement aviation decreased by 75%, surface transport decreased by 50% and power generation decreased by 15%.

According to the Global Carbon Project, although these numbers are substantial, if they are viewed holistically the reduction in emissions are extremely small compared to the reduction required to tackle climate change. To put it into perspective it is estimated that the associated annual decrease required to limit climate change to a 1.5°C warming would be between 4.2 - 7.5%, which is within the lower range of the estimated reductions achieved through the drastic COVID-19 confinement methods. The Pandemic has therefore certainly demonstrated the scale of annual emissions reductions required for climate stabilization, indicating just how much needs to be done to achieve the goals set out in the Paris Agreement

Furthermore, the reductions experienced due to the pandemic have been temporary and emissions rebounded at the end of 2020 in line with increased economic productivity. This shows that any long-lasting reductions would require a structural transitioning away from fossil fuels. However, the fear is that post pandemic economic pressures will force governments to soften green legislation and loosen compliance standards resulting in even steeper increases in carbon emissions. The government actions taken and long-term decisions made post COVID-19 will influence the global emissions path for decades.

Lessons Learnt:

- The pandemic provides a case study and quantitative indication of the global reduction potential and should provide direction to stakeholders and policy makers on developing and implementing mitigatory measures towards a sustainable environment
- COVID regulations have achieved what would have taken years to do through policy and legislation, the emergency regulations show that policies can play a key role in emissions reductions.
- Emissions derived from transportation declined the most during the crisis confirming transportation as a low hanging fruit that could be used to address carbon reduction needs towards sustainability goals
- The pandemic has revealed the benefit of shifting the patterns and mindsets of mobility in large cities
- The temporary nature of reductions and consequent rebound of carbon emissions have confirmed that any reductions not underpinned by structural changes in economic, transport and energy systems will not lead to sustainable outcomes

Sources:

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Impact of COVID-19 on CO₂ emissions – UNFCCC Pierre Friedlingstein, Corinne Le Quéré , Pep Canadell , Rob Jackson and Glen Peters

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