

## **Lockdown and future pathways to sustainability: Learning and doing from broad perspectives**

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COVID19 has wrought massive disruption to lives and livelihoods. Through changing our habits and activities, this disruption has left a signature on important atmospheric processes, including air pollution and greenhouse gas emissions. From an atmospheric science point of view, it has created a “natural experiment”, where we can test our understanding of atmospheric chemistry and physics from an abundance of measurements and advanced analyses. I shall review some of this work in terms of air pollution and greenhouse gas emissions, including demonstrating how new data science techniques are becoming an indispensable tool for this research. There have also been broader discussions as to whether the lockdown is a suitable model for a sustainable future, or how we might use this as an opportunity to Build Back Better. Environmental science certainly has important contributions to this discussion, but I will argue that it must recognize its limitations and engage in a broader coalition of expertise and participants if it is to play a useful, legitimate and just role.