



Perspective

**Earth Day 2020:
Listen to the science**

Henning Hopf & Stephen A. Matlin

Earth Day, 22 April 2020, has adopted the theme of **climate action**, noting that “*climate change represents the biggest challenge to the future of humanity and the life-support systems that make our world habitable*”.¹

This year’s Earth Day, which celebrates the 50th anniversary of the first such event on 22 April 1970, comes at time when the world is in the midst of the Covid-19 pandemic, the most serious global public health crisis in a century. To an extent unparalleled in the history of the world, leaders of the vast majority of countries are proclaiming that they are listening to the science and following the best scientific advice as they strive to achieve multiple objectives that include saving lives while trying to limit and mitigate economic damage, maintain public confidence and retain their own political standing.

For a significant number of governments, ‘listening to the science’ has not always been the hallmark of their approach to domestic and global problems in recent years. On the contrary, populist politicians and their supporters have all too often been seen to ignore scientific evidence and advice, to dismiss it unjustifiably as unreliable or ‘fake’, to undermine the reputations of honest scientists and respected science institutions with inuendo about bias and self-interest, and to substitute well-researched and tested results with spurious, unreliable and mis-interpreted information which misleads the public.²

The consequences of this for action on climate change have been all too obvious. Despite the clear and unshakeable evidence³ that greenhouse gas emissions caused by human activities are causing global warming and profound changes to the Earth’s climate, countries have dragged their feet in implementing the 2015 Paris Agreement⁴ which was designed to slow the greenhouse gas emissions and limit the rise in global average temperature to below 2°C. The frustration of climate action supporters and the recognition of the anti-science stance of many of the governments that have been unenthusiastic about climate action was clearly summed up in Greta Thunberg’s admonishment⁵: “You can’t simply make up your own facts just because you don’t like what you hear.”

The resurgence of public trust in and support for science during the Covid-19 pandemic has created an important window of opportunity. Those promoting climate action need to build on the refreshed prominence of science in the public discourse to emphasise two crucial points that the pandemic has illustrated: political decisions should be informed by sound science that is based on well-tried systems of evidence gathering and peer review; and solutions to global problems require international co-operation.

The IOCD action group, [*Chemists for Sustainability*](#) (C4S) has been working in the last few years to promote sustainable development, highlight the indispensable roles that science must play, and defend the scientific approach against movements that undermine public trust in science.

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References

- ¹ Earth Day, 22 April 2020. <https://www.earthday.org/earth-day-2020/>
- ² H. Hopf, A. Krief, G. Mehta, S.A. Matlin. *Fake science and the knowledge crisis: Ignorance can be fatal*. **Royal Society Open Science** 2019, 6: 190161, doi: [10.1098/rsos.190161](https://doi.org/10.1098/rsos.190161)
- ³ United Nations Intergovernmental Panel on Climate Change. Reports: <https://www.ipcc.ch/reports/>
- ⁴ The Paris Agreement: United Nations Framework Convention on Climate Change, 2015. <https://unfccc.int/process-and-meetings/the-paris-agreement/the-paris-agreement>
- ⁵ Greta Thunberg speeches: https://www.fridaysforfuture.org/greta-speeches#greta_speech_july23_2019