

The Politics of Doubt: The Impact of the Global Climate Denialist Campaign



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South Africa and climate change

South Africa is making crucial energy decisions at a time when humankind is at a critical juncture. Since the industrial revolution, the planet has warmed by 0.74°C – an alteration of the climate system caused by human activities such as the burning of carbon-intensive fossil fuels¹. The impacts we are witnessing are occurring far sooner than had been predicted. Droughts in many parts of the world, the near-total loss of the Arctic ice-cap and an additional 150,000 deaths per year² indicate that we are already experiencing dangerous climate change. And it is the world's poorest and most vulnerable people who will be affected first, which means that the African continent is on the frontline of climate change. The challenge humanity faces now is to avoid “catastrophic” climate change.

Climate change is projected to increase the number and severity of extreme weather events around the world. Climate scientists warn that if we warm the atmosphere by more than 2°C from pre-industrial levels, we invite catastrophic climate change and trigger processes that will result in even more emissions being released, taking global warming beyond our control.

South Africa is the largest CO₂ emitter on the African continent and is among the 15 largest emitters in the world. As such, the country has a special responsibility to act and implement a coordinated, coherent, efficient and effective response to the global challenge of climate change. Currently, South Africa's greenhouse-gas emissions are still on a sharp upward trajectory. More than 90% of our electricity comes from coal and two of the biggest coal-fired power stations in the world (Medupi and Kusile) are currently under construction.

The Intergovernmental Panel on Climate Change (IPCC)

The IPCC is the leading international scientific body for the assessment of climate change. It was established by the United Nations Environment Programme (UNEP) and the World Meteorological Organisation (WMO) to provide the world with a clear scientific view on the current state of knowledge of climate change and its potential socio-economic and environmental impacts. The IPCC reviews and assesses the most recent scientific, technical and socio-economic information produced worldwide. It does not conduct any research itself, nor does it specifically monitor climate related data or parameters.

Thousands of scientists from across the globe contribute to the work of the IPCC on a voluntary basis, and some of these scientists are from South Africa. Review is a crucial part of the IPCC process, to ensure complete and objective assessment of current information. The IPCC is open to all member countries of the United

Nations (UN) and WMO – currently 194 countries are members of the IPCC. Governments participate in the review process and the plenary sessions, where the main decisions about the IPCC work programme are taken and reports are accepted, adopted and approved.

Because of its scientific and intergovernmental nature, the IPCC embodies a unique opportunity to provide balanced and meticulous scientific information to decision makers. By endorsing the IPCC reports, governments acknowledge the authority of their scientific content. The work of the IPCC is therefore entirely policy-relevant, but endeavours to avoid being policy-prescriptive³.

The global climate denialist (sceptic) campaign

The IPCC scientific assessment of climate change is a thorough and robust process. It is possibly the largest ever organised scientific endeavour, involving thousands of scientists from many different research institutes around the world, backed up by massive amounts of data. It is also a human endeavour, and therefore not perfect. Despite ever stronger evidence of climate change and the threats it poses, the IPCC has been attacked at every turn.

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As global action on climate change has become more likely, so the campaign against climate science has intensified through climate denialism. While it is important that scientists critically assess findings (including those of the IPCC), there has been a consistent and systematic campaign to sow doubt and promote the denial of climate change, specifically when it comes to the work of the IPCC. This campaign has been run for nearly 20 years by groups and organisations, many funded (directly and indirectly) by fossil fuel companies⁴. This denialist campaign is aimed at one thing: to force upon decision-makers and the public the view that human-induced climate change does not exist. The reason for this is that the IPCC has concluded that greenhouse gas emissions increases at present rates will certainly lead to warming, and therefore to catastrophic climate change⁵. This is a direct threat to business-as-usual in the fossil fuel industry.

The claims and attacks are many and varied. They have been based on: attacking the models, attacking the objectivity, claiming that the IPCC is ‘political’ rather than ‘scientific’, attacking the data, and attacking the scientists. There have been sustained personal attacks on IPCC climate scientists for nothing more than reporting their results (including Ben Santer, Kevin Trenbeth and Michael Mann). Some of the claims/attacks have used these arguments:

- Stabilising carbon dioxide emissions would have little environmental benefit⁶
- Model based projections are controversial and uncertain, thus scientists are divided in their opinion about the likelihood and consequences of climate change⁷
- The science does not support the prospect of catastrophic climate change⁸
- The wording of IPCC reports is inflammatory⁹
- Two errors in the 2,800 page IPCC AR4 report undermine the IPCC’s entire body of work¹⁰

South Africa is not immune to the climate denialist campaign. Increasingly, the same individuals are consistently and publicly questioning the merits of climate change science, the viability of renewable energy as a solution to climate change, and the need for South Africa to shift away from its addiction to fossil fuels.

Is the science on climate change settled?

Climate change denialists have made highly selective use of findings from non-peer reviewed literature to sow doubt about the real science in attempts to undermine faith in the consensus.

The way that scientific research works is that the understanding of any particular subject continues to develop as more information becomes available. This is precisely how climate science has developed. Today, there is a strong international scientific consensus on climate change. This consensus is based on the work of thousands of scientists, and has been accepted by governments around the world. None of the work by climate denialists has changed the harsh reality that anthropogenic climate change is happening.

The IPCC's conclusions reflect the fact that the only remaining theory that is supported by the scientific evidence is that global warming is caused by the growing emissions of greenhouse gases, and that human activity is undeniably responsible.

It is important to differentiate between the scientists who have challenged the theories of anthropogenic climate change in good faith, seeking to put forward other possible explanations for our changing climate, and the efforts of the denialist campaign, which aims to undermine the credibility of climate science and prevent government action on climate change.

Arguments about sunspots, the Earth's rotation around the sun, the accuracy of temperature measurements, the likely severity of global warming and other theories have all played out over the last 20 years through the scientific literature. The IPCC's conclusions reflect the fact that the only remaining theory that is supported by the scientific evidence is that global warming is caused by the growing emissions of greenhouse gases, and that human activity is undeniably responsible.

The impacts of climate denialism

The purpose of climate denialism is to influence governments to prevent action against climate change. The impacts of this campaign have been to muddy the waters around climate science through interventions in the scientific literature, therefore affecting the political debate around climate change. What this has also meant is that people around the world hear conflicting views on climate change and are uncertain which to believe. The denialist campaign has worked hard to sow these seeds of doubt, with the aim that both ordinary citizens and the media question the certainty around climate science.

By implication, what climate denialism has done is delay the urgent action that is needed to stop catastrophic climate change. This makes it incredibly dangerous.

The kind of action needed to prevent catastrophic climate change

There is much South Africa can do to become a climate leader. Climate change presents the greatest threat the planet faces. But it also provides an opportunity for sustainable development. South Africa has massive renewable energy sources,

from wind and marine energy, to some of the best solar resources in the world. Harnessing these resources would not only make a huge contribution to averting catastrophic climate change, but would also create a green economy based on green jobs. We can and must create a much more sustainable society by using existing clean technologies. Time is not on our side though; the transition must begin immediately. Action is required both through the international UN climate negotiations (aimed at limiting greenhouse gas emissions) and through concrete and immediate action domestically.

The threats posed by climate change demand nothing short of an *Energy [R]evolution*, a transformation in the way that energy is produced, distributed and consumed. The *South African Advanced Energy [R]evolution scenario*¹¹ provides an ambitious blueprint for how emission reductions can be made and how South Africa's energy can be sustainably managed up to the middle of this century. It is entirely possible to reduce our consumption of energy (by increasing energy efficiency), while still continuing to develop and providing the same level of energy services.

Renewable energy is mature, ready and can be deployed on a large scale. It will play a vital role in providing secure, reliable, and zero-emission energy in the future. In fact, this scenario illustrates that if renewable energy is implemented with enough ambition, together with comprehensive energy efficiency measures, South Africa would not have to build Kusile.

Conclusion

As the hosts of the international climate negotiations (COP 17) at the end of this year and the biggest carbon emitter on the African continent, the spotlight will very much be on South Africa and its actions on climate change. As President Jacob Zuma stated at the Green Economy Summit in May 2010, "We have the means, indeed, the responsibility, to ensure that our policies, programmes and activities contribute to emission reduction and respond to the impact of climate change on our country and region".¹²

South Africa urgently needs to end its addiction to coal and dangerous nuclear energy. We need an *Energy [R]evolution* in the struggle to both stop runaway climate change and to create a clean and sustainable future. This country cannot afford to pay the price for nuclear or coal: not economically, not in terms of the environment and not in terms of the safety and health of the people of South Africa.

Climate change is happening, it is caused by human activity, and it will have catastrophic consequences. These three assertions are backed by the most rigorous scientific undertaking in history – the IPCC process. It is time for world leaders to fully acknowledge what climate science is telling us, leaving climate denialism behind, and taking urgent action to drastically reduce greenhouse gas emissions. The importance of the decisions being taken now cannot be underestimated. Failure to act now will have catastrophic consequences for future generations. Let us not have to say to them that we did not have the courage to do enough today.

NOTES

- 1 IPCC Fourth Assessment Synthesis Report. Available: http://www.ipcc.ch/pdf/assessment-report/AR4/SYR/AR4_SYR.pdf
- 2 World Health Organisation. Available: <http://www.who.int/globalchange/news/fsclimandhealth/en/index.html>
- 3 <http://www.ipcc.ch/organization/organization.shtml>
- 4 Dealing in Doubt: The climate denial industry and climate science. Greenpeace. Available: http://greenpeace.hu/up_files/1286289305.pdf
- 5 IPCC AR4 Summary for Policymakers. <http://bit.ly/1ZwL4>
- 6 Jeremy Leggett, 'A Catalogue of Carbon Club Manipulation, Distortion, Sabotage or Lying at the Climate Negotiations', available at <http://www.guardian.co.uk/commentisfree/2006/apr/25/exxonmobilstronglivedemulation>
- 7 'Ecoal', World Coal Institute briefing no. 7, INC 5, New York, April 1992.
- 8 'Are Human Activities Causing Global Warming?' Published by George C. Marshall Institute, 1996; and 'Human Activity is Not the Cause of Global Warming,' Press Release from the Marshall Institute, 10 April 1996.
- 9 'Petroleum Group Disputes that Burning Fossil Fuels Warms Planet', Thomson Energy Report, 18 March 1996
- 10 <http://www.realclimate.org/index.php/archives/2010/02/ipcc-errors-facts-and-spin/>
- 11 http://www.energyblueprint.info/fileadmin/media/documents/national/2011/E_R_South_Africa_May_2011-LR.pdf
- 12 http://www.environment.gov.za/greeneconomy_summit/President%20of%20Republic.pdf