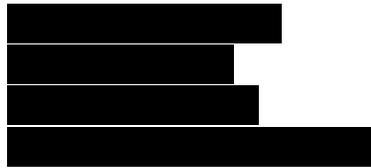


Michael Fabiankovits



My name is Michael Fabiankovits and I am a father of two and a grandfather of four. I am deeply concerned about their future and urge the inquiry to consider the long term impacts of their decisions for the sake of all future generations.

The evidence of the damage from fracking is widespread and plentiful.

Pollution of air and water, impacts on biodiversity, industrialisation of landscapes, and increased climate change are all inevitable and irreversible consequences of an unconventional gas industry. It is said that these impacts can be minimised by effective, best practice, regulation. Best practice is not enough and is never implemented in reality. The time, cost and manpower to monitor this industry effectively is always prohibitive and shortcuts are taken. The trend is towards fast tracking approvals and cutting regulation.

But apart from all of that the biggest and most unavoidable issue is climate change. This is the greatest threat to the environment, species and the human race that mankind has ever faced. The climate has already changed and at only 1 degree of warming this is a sample of the consequences already occurring.

- The oceans have warmed by over a degree
- Sea Level has increased by over 80mm
- Ocean acidification has increased by 30%
- The Arctic minimum sea ice extent has reduced by half
- Greenland and Antarctica are losing about 400 billion tons of ice per year, which is set to increase with the loss of 5 major ice shelves in Antarctica that hold back retreating glaciers.
- Nearly all glaciers are shrinking, which hold 70% of the worlds freshwater.
- As of 2015 40% of global coral has died and over 50% of the coral on the great barrier reef. They provide resources for 25% of all fish and about 1 billion people rely on them. Coral reefs also protect coasts, under threat from sea level rise and storm surges.
- Extreme Precipitation events are up by 10%
- There are now 5 times as many record breaking hot months
- The bushfire season globally has increased by 19% since 1979
- Over 100 years record breaking hot temperatures in Australia have outnumbered cold records by a factor of 12 to 1
- 18% of heavy precipitation events and 75% of hot temp extremes can already be attributed to human activity
- Europes heatwave in 2003 and Russias in 2010 were analysed as being so statistically improbable that they would not have happened without climate change

- In Europe the likelihood of a very hot summer has gone from once in every 50 years to once in every 5
- and so much much more.

Carbon budget calculations show that the oil, gas and coal in the worlds CURRENTLY OPERATING fields and mines will take us beyond 2 degrees, the currently accepted maximum that the worlds scientists think we can emit to preserve a habitable planet at a stage that we can adapt to, but with still huge consequences. Such as the likely loss of most coral reefs and the loss of many low lying pacific islands. In fact 1.5 degrees is the aim but considered unattainable at this stage. Specifically the maths work out that we can emit 800 gigatons of CO2 for ONLY A 66% CHANCE of staying below 2 degrees. The total in those currently operating fields adds up to 942 gigatons.

In fact research in the journal Nature calculated a third of our oil reserves, half of gas reserves and 80% of coal reserves need to stay in the ground for a chance of meeting the 2 degree target. This is KNOWN reserves, without exploring and finding more.

With the consequences now accelerating of increasing droughts, heat waves, bushfires, flooding and intensity of the stronger storms and people already suffering, the consideration of opening up new unconventional gas fields through fracking is immoral. It also fails in our obligations to the international community and dooms our children and grandchildren to increasing pain and suffering, with a deteriorating environment and climate.

Therefore, I call on the Independent Scientific Panel Inquiry to recommend a permanent, legislated ban on fracking and unconventional gas activities across WA, and to recommend the development of renewable energy resources to meet the state's energy needs.

Atmospheric Temperature data sets.

http://data.giss.nasa.gov/gistemp/graphs/graph_data/Global_Mean_Estimates_based_on_Land_and_Ocean_Data/graph.png

http://ds.data.jma.go.jp/tcc/tcc/products/gwp/temp/fig/an_wld.png

<https://crudata.uea.ac.uk/cru/data/temperature/HadCRUT4.png>

https://www.ncdc.noaa.gov/cag/time-series/global/globe/land_ocean/ytd/12/1880-2016?trend=true&trend_base=10&firsttrendyear=1880&lasttrendyear=2016

<http://berkeleyearth.org/wp-content/uploads/2015/02/decadal-comparison-small.png>

Other parts of the climate system

Ocean Temperature - https://www.nodc.noaa.gov/OC5/3M_HEAT_CONTENT/heat_content2000m.png

Sea Level - http://sealevel.colorado.edu/files/2016_rel4/sl_ns_global.png

Arctic Sea Ice Extent -

https://nsidc.org/data/seaice_index/images/daily_images/N_stddev_timeseries.png

Details from actual scientific organisations

CSIRO - <http://www.csiro.au/state-of-the-climate>

NASA - <http://climate.nasa.gov/evidence/>

World Meteorological Organisation - <https://public.wmo.int/en/media/press-release/climate-breaks-multiple-records-2016-global-impacts>

Bureau of Meteorology - <http://www.bom.gov.au/climate/current/annual/aus/>

IPCC - <https://www.ipcc.ch/report/ar5/>

Australian Academy of Science - <https://www.science.org.au/learning/general-audience/science-booklets-0/science-climate-change>

The Nature Article

<https://www.nature.com/articles/nature14016>

Carbon Budget Calculations

<http://priceofoil.org/2016/09/22/the-skys-limit-report/>

Western Australian Impacts

<https://www.climatecouncil.org.au/climate-change-impacts-for-western-australia>