

## **The Australian bushfires: Homo “sapiens” scorched Earth program**

As Australian bushfires persist, the reality of climate change as manifested by extreme weather events is hitting, like a blast out of a furnace.



Consistent with laws of physics established for over a century [1], atmospheric temperatures are largely regulated by greenhouse gases (GHG) (Figure 1). The same applies to the connection between rising temperature and the spate of extreme weather events around the globe. This includes increased climate variability shifting toward the warm end of the scale, heat waves, fires, cold fronts consequent on increased evaporation in ice-free polar zones, intensification of the hydrological cycle and consequent rise in floods and hurricanes [2]. experienced in Australia over the last few years and at present [3].

The failure to negotiate agreements for mitigation of GHG, through Kyoto, Copenhagen, Cancun, Durban and Doha (Figure 2) [4] now poses an existential risk around the world and in Australia. Should current trends continue over the next few decades, the danger arises large parts of the Earth would suffer heat waves, fires and floods rendering agriculture hardly possible.

Where does responsibility belong?

Since 1990 the UN International Panel on Climate Change (IPCC) [5] has issued detailed peer review science-based climate change reports, documenting past and current climate parameters and projecting trends to the end of the century. However, the linear nature of the projected trends has lulled the public into false sense of security, assuming sufficient time remains to gradually mitigate carbon emissions. Further, IPCC reports tended to underestimate climate change rates

[6], providing limited information regarding the stability of ice sheets, the magnitude of amplifying feedback effects and methane release.

Since UN climate efforts depend entirely on decisions by its members, the first port of call has to be with governments which, elected or otherwise, ought to be committed to protect people's lives, present and future.

In this regard, James Hansen, NASA's chief climate scientist states:

*“Ladies and gentlemen, your governments are lying through their teeth. You may wish to use softer language, but the truth is that they know that their planned approach will not come anywhere near achieving the intended global objectives. Moreover, they are now taking actions that, if we do not stop them, will lock in guaranteed failure...”* ... *“The problem is that our governments, under the heavy thumb of special interests, are ... pursuing policies to get every last drop of fossil fuel”* [7].

Until recently few government officials dared to link extreme weather events with climate change, using terms such as ‘one in a hundred years event’ for floods and fires occurring at increasing frequency [8]. Governments continue to subsidize fossil fuel production. Some governments have abolished climate change programs, reduced fire rescue services and discourage inclusion of climate change in education curriculum [9].

The next ports of call are the large fossil fuel corporations, known to donate funds to think tanks that are biased toward those who reject climate change science by the bulk of peer-reviewed scientists, research organizations (NASA, NOAA, NSIDC, Hadley-Met, Tyndall, Potsdam, CSIRO, BOM), the World Meteorological Organization and the world's academies of science [10].

The next port of call are the small minority who have been falsifying climate science ignoring the laws of physics and empirical observations, lulling people to a false sense of security.

Major responsibility lies with large sectors of the corporate media which compromise or cover-up the climate evidence which climate scientists attempt to communicate [11]. Much of the media would not acknowledge the connection of extreme weather events with climate change [12].

However, neither governments nor vested interests would have been able to continue on the track leading toward a climate calamity had it not been for the majority who, mostly aware of the risks, pay only lip service to the issue. Ultimately it is the collective foresight or lack of such, by our species which it will decide its future.

Where-to now?

Some scientists despair. Guy McPherson (Professor Emeritus of Natural Resources and Ecology & Evolutionary Biology) writes *“It seems no matter how dire the situation becomes, it only gets worse when I check the latest reports”* [13]. Others accept Pablo Casals dictum *“The situation is hopeless. We must take the next step”*.

In themselves, efforts at reduction in atmospheric CO<sub>2</sub>-emission are no longer sufficient to prevent further global warming. For this reason, along with sharp reductions in carbon emissions, efforts need to be undertaken in an attempt to reduce atmospheric CO<sub>2</sub> levels from their current level of near-400 ppm to well below 350 ppm. A wide range of technologies have been proposed in this regard [14]. What is required is action on a global scale before it is too late.

[1] <http://hyperphysics.phy-astr.gsu.edu/hbase/mod6.html> ;  
<http://www.aip.org/history/climate/co2.htm>

[2] <http://theconversation.edu.au/the-atmospheres-shift-of-state-and-the-origin-of-extreme-weather-events-9285>

[3]

[http://www.aph.gov.au/Parliamentary\\_Business/Committees/Senate\\_Committees?url=ec\\_ctte/extreme\\_weather/submissions.htm](http://www.aph.gov.au/Parliamentary_Business/Committees/Senate_Committees?url=ec_ctte/extreme_weather/submissions.htm)

[4] <http://www.earthinbrackets.org/2013/01/05/no-surprise-connie-doha-was-a-failure/>

[5] [http://www.ipcc.ch/publications\\_and\\_data/publications\\_and\\_data\\_reports.shtml](http://www.ipcc.ch/publications_and_data/publications_and_data_reports.shtml)

[6] Rahmstorf et al. 2007. Recent Climate Observations Compared to Projections.

[7] James Hansen – ‘Storms of my Grandchildren’

[http://books.google.com.au/books?id=zB7VvL0eLD4C&pg=PT121&lpg=PT121&dq=James+hansen+Ladies+and+gentlemen,+your+governments+are+lying+through+their+teeth&source=bl&ots=2KI718i5oD&sig=okk36b-g1lebD7R4R\\_BEGRRx0Nk&hl=en&sa=X&ei=6bLsUOa0LoTumAWchCoDw&sqi=2&ved=0CDAQ6AEwAA](http://books.google.com.au/books?id=zB7VvL0eLD4C&pg=PT121&lpg=PT121&dq=James+hansen+Ladies+and+gentlemen,+your+governments+are+lying+through+their+teeth&source=bl&ots=2KI718i5oD&sig=okk36b-g1lebD7R4R_BEGRRx0Nk&hl=en&sa=X&ei=6bLsUOa0LoTumAWchCoDw&sqi=2&ved=0CDAQ6AEwAA)

[8] "We are bracing for a one-in-a-hundred-year flood," Anna Bligh

<http://www.english.rfi.fr/node/69581>

[9] <http://reneweconomy.com.au/2012/newman-takes-aim-at-climate-and-renewables-95574> ;

<http://www.abc.net.au/local/stories/2012/09/13/3589303.htm> ;

<http://www.brisbanetimes.com.au/queensland/climate-propaganda-on-1np-summit-hit-list-20120712-21ygz.html>

[10] <http://www.greenpeace.org/usa/en/campaigns/global-warming-and-energy/exxon-secrets/>

[11] <http://www.themonthly.com.au/blog-how-can-climate-change-denialism-be-explained-robert-manne-4386> ; <http://theconversation.edu.au/carbon-pricing-policy-in-the-media-3746>

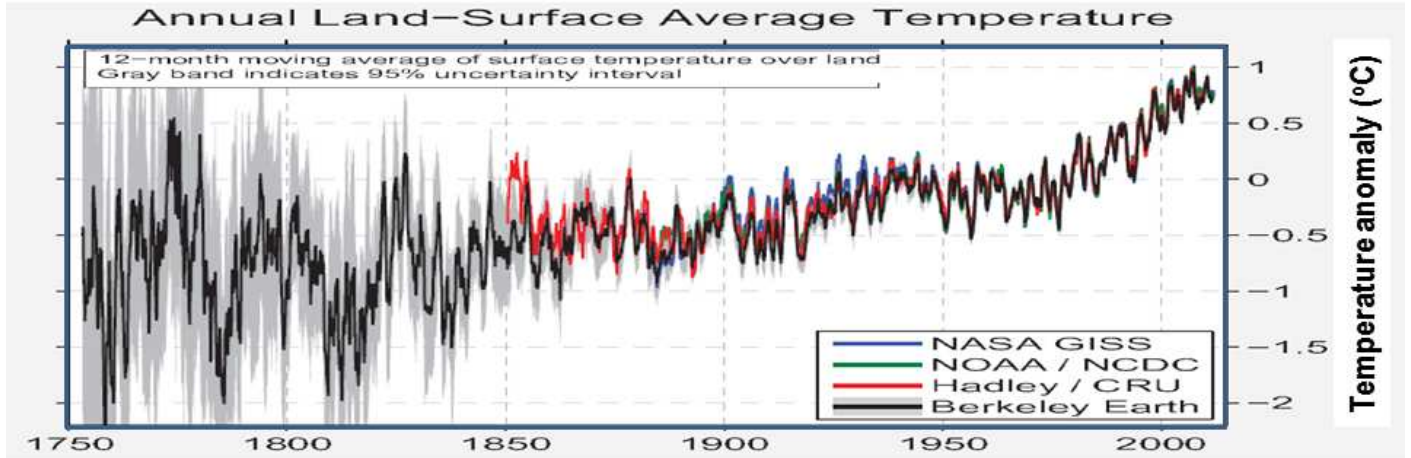
[12] [http://theconversation.edu.au/media-is-missing-climate-in-heatwave-story-11487?utm\\_medium=email&utm\\_campaign=Latest+from+The+Conversation+for+9+January+2013&utm\\_content=Latest+from+The+Conversation+for+9+January+2013+CID\\_f896c4cd91891b4e8460f83dabe9aea7&utm\\_source=campaign\\_monitor&utm\\_term=Media%20is%20missing%20climate%20in%20heatwave%20story](http://theconversation.edu.au/media-is-missing-climate-in-heatwave-story-11487?utm_medium=email&utm_campaign=Latest+from+The+Conversation+for+9+January+2013&utm_content=Latest+from+The+Conversation+for+9+January+2013+CID_f896c4cd91891b4e8460f83dabe9aea7&utm_source=campaign_monitor&utm_term=Media%20is%20missing%20climate%20in%20heatwave%20story)

[13] <http://guymcpherson.com/2013/01/climate-change-summary-and-update/>

[14] [http://www.google.com.au/#hl=en&tbo=d&rlz=1W1ADFA\\_enAU418&scient=psy-ab&q=australian+acadmy+of+science+geoengineering&oq=australian+acadmy+of+science+geoengineering&gs\\_l=serp.12..0i13i30.7728.15962.0.18162.31.30.0.0.0.17.423.7397.2-13j11j1.25.0.les%3B..0.0...1c.1.5LKJ0M37ciE&pbx=1&bav=on.2.or.r\\_gc.r\\_pw.r\\_qf.&fp=1b06cd1115cee478&biw=1031&bih=857](http://www.google.com.au/#hl=en&tbo=d&rlz=1W1ADFA_enAU418&scient=psy-ab&q=australian+acadmy+of+science+geoengineering&oq=australian+acadmy+of+science+geoengineering&gs_l=serp.12..0i13i30.7728.15962.0.18162.31.30.0.0.0.17.423.7397.2-13j11j1.25.0.les%3B..0.0...1c.1.5LKJ0M37ciE&pbx=1&bav=on.2.or.r_gc.r_pw.r_qf.&fp=1b06cd1115cee478&biw=1031&bih=857)

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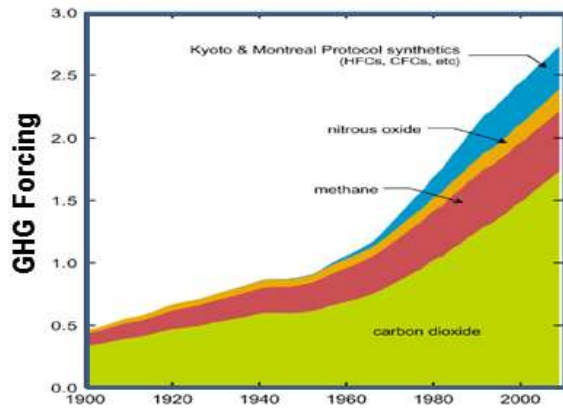
A. Global land temperatures have increased by 1.5 C over the past 250 years.

<http://berkeleyearth.org/results-summary/>

B. Trends in GHG change 1900-2011

Fraser *et al.*, *CAWCR Technical Report*, 2011.  
The Centre for Australian Weather and Climate Research A partnership between CSIRO and the Bureau of Meteorology

[http://www.google.com/search?sourceid=navclient&ie=UTF-8&rlz=1T4ADFA\\_enAU418AU418&q=Trends+in+global+radiative+forcing+csiro+22](http://www.google.com/search?sourceid=navclient&ie=UTF-8&rlz=1T4ADFA_enAU418AU418&q=Trends+in+global+radiative+forcing+csiro+22)



**Figure 1**

The radiative greenhouse effects of fossil fuel emissions and global temperatures



**Figure 2**

UN global efforts vs global CO<sub>2</sub> rise.

<http://www.vancouverobserver.com/blogs/climatesnapshot/climate-failure-kyoto-doha-one-simple-chart>