

FACT SHEET - CLIMATE CHANGE

1. Carbon Dioxide (CO₂) is not a pollutant

To quote from Collins English Dictionary: "carbon dioxide is a colourless odourless incombustible gas present in the atmosphere and formed during respiration, the decomposition and combustion of organic compounds and in the reaction with carbonates: used to carbonate drinks, fire extinguishers and as dry ice for refrigeration. Formula CO₂" and "carbon cycle is the circulation of carbon between living organisms and their surroundings. Carbon dioxide from the atmosphere (with water) is synthesized by plants into plant tissue, which is ingested and metabolized by animals and reduced to carbon dioxide again during respiration and decay."

Observe a glass of soda water - the crystal clear bubbles you see drifting to the top of the glass are CO₂. How can they be a pollutant?

Reference to Wikipedia, or any other reputable encyclopaedia, demonstrates that the percentage of CO₂ in the atmosphere is less than a mere four 100ths of 1%. As a decimal it is 0.038%. As a fraction it is 1/27th of 1%. Measurements of CO₂ vary from one source to another from 0.036% -0.039% due to the difficulty in measuring such a small quantity and other factors such as wind direction. Nitrogen is 78.09% of the atmosphere, Oxygen is 20.95% and Argon is 0.93%. CO₂ is a minute trace gas at 0.038%. Nature produces nearly all of the CO₂. Humans produce only 3%. As a decimal it is only 0.001% of the atmosphere. Australia produces only 1% of the man made CO₂. As a decimal it is an insignificant 0.00001% of the atmosphere, that is one, one-hundred thousandth. (Refer Greg D Thompson, climate Researcher and [http\en.wikipedia.org\wik\Atmoshere of earth#Composition.](http://en.wikipedia.org/wiki/Atmosphere_of_earth#Composition))

Clearly carbon dioxide is NOT a pollutant but an "ecologically beneficial trace gas that forms the base of almost the entire planetary food chain and which currently exists at atmospheric starvation levels of only 380ppm compared with up to ten times that concentration and more during the preceding 600 million years of multi cellular life on Earth." (Professor R M Carter, National Observer, Summer 2008/2009.)

Any successful action to reduce atmospheric CO₂ will simply reduce the abundance of plant and animal (and ultimately human) life on Earth.

CO₂ has a mild warming effect but because of the logarithmically decreasing warming that accompanies increasing CO₂, reducing the rate of increase is likely to have little if any discernible effect on future global temperature or climate. This is demonstrated by research which shows that over a longer time frame such as the Medieval Warm Period a thousand years ago through the Little Ice Age 200-500 years ago to the Modern Warming now Cooling period there is no direct linkage between CO₂ and temperature. See CO₂, Etheridge et al 1996, (to 1975); Keeling et al 2008 (after 1975);GISP2 temp; Alley, RB 2004; CRU Temp Jones et al 1999.

2 Are Sea levels rising?

Nils Axel Morner is a leading world authority on sea levels. A former Professor at University of Stockholm and past president (1999-2003) of the International Union for Quaternary Research Commission on sea level changes and coastal evolution. Morner's expertise on sea level changes is beyond question. Morner's studies show that "sea levels have remained virtually constant for the past 30 years" He states that there is "no rational basis" for the hysterical claims that the people of the Maldives - or the rest of the world are threatened by sea levels rising at an alarming rate.

Morner's view is confirmed by the Bureau of Meteorology's National Tidal Centre in its June 2009 report on sea levels at its Port Kembla Station South of Sydney since 1991, showing an average yearly increase of 1.9mm in the combined net rate of relative sea levels.

This is further confirmed by records maintained over the 20 years 1990 - 2010 by Maritime Services Queensland in its recently published "Tidal Reference Frame for Queensland". The annual rise in sea level along the 3,000kms of Queensland coast is 0.3mm per year. At this rate if it should continue over a period of 100 years the increase would be about 30mm

Phil Watson, one of Australia's foremost experts on the relationship between climate change and sea levels, has written a peer reviewed paper concluding that rises in sea levels are "decelerating". His study, published in the "Journal of Coastal Research" during 2011, is based on century long tide gauge records - Fremantle from 1897, Auckland Harbour (NZ) from 1903, Fort Denison Sydney Harbour from 1914 and Pilot Station Newcastle from 1925 - all to the present time. These factual measurements confirm the findings detailed above.

Despite these facts, Professor Will Steffen, a member of the Gillard Government's Climate Commission in a recent Report, "The Critical Decade", concedes although "there is no clear consensus in the peer reviewed literature" he expects the magnitude of global average sea-level rise in 2100 compared to 1990 to be in the range 0.5 to 1.0 metre. As Professor Steffen offers no proven scientific basis for his "expectation" it can be described as nothing more than a guess."

This "guess" has then been used by the Department of Climate to warn quite unjustifiably that \$250bn of Australian coastal buildings, homes and rail and road infrastructure is a risk.

Conclusion; There is no rational basis for the Climate Commission's prediction of alarming sea level rises.

3 Are coal fired power stations "dirty"?

Modern coal fired power stations are not "dirty" as alleged by Prime Minister Gillard. There is virtually no fly ash as this is removed by the precipitators that are 99.98% efficient. The exhaust heat is captured by economizers and reheaters. The small amount of CO₂ emitted is of no consequence as CO₂ is not a pollutant. The media often shows pictures of coal fired power stations with twin towers apparently emitting "smoke". These are cooling towers and the "smoke" is steam, which is harmless.

25th June, 2011