

Scientists who trade in doubt

by: Mike Steketee, The Australian, March 17, 2012

CARBON dioxide levels in the atmosphere have ranged between 170 and 300 parts per million across most of the past 800,000 years, according to the CSIRO and the Bureau of Meteorology.

Last year they reached 390ppm and they are increasing at 2ppm a year. Should we be worried? Not according to sceptics such as Bob Carter, a former head of James Cook University's school of earth sciences. He says he has seen no evidence that the climate change that is occurring is caused by human activity or is dangerous.

How does this square with the overwhelming majority of expert scientific opinion? It doesn't.

In their joint report this week on the state of the climate, the CSIRO and BOM argue "that the dominant cause of the observed CO₂ increase is the combustion of fossil fuels" - that is, it is not due to natural variation. They arrive at this conclusion from looking at the change in the composition of atmospheric CO₂, as measured through isotopes; that is, different forms of a chemical element.

This identifies the burning of fossil fuels as accounting for more than 85 per cent of CO₂ emissions caused by human activity, with the next biggest factor, land use change, mainly deforestation, responsible for less than 10 per cent.

The CSIRO-BOM report concludes that, although both natural and human factors have affected the climate during the past century, "it is very likely that most of the surface global warming observed since the mid-20th century is due to anthropogenic (human-induced) increases in greenhouse gases", including CO₂.

Even though this is now widely accepted, to critics such as Carter it creates enough doubt to provide an opening. The evidence that he demands really is absolute proof, an impossible test given the complexity of the world's climate, as well as other areas of science.

If 90 per cent of people receiving a vaccination develop immunity, this is not proof the vaccine works. But it does seem likely, even if some will continue to argue against its effectiveness.

Confidential documents leaked last month show Carter receiving \$US1667 (\$1590) a month from the Heartland Institute, an American organisation that campaigns against action on global warming.

He is described as a co-editor on the non-governmental international panel on climate change - a project designed to challenge the UN body of a similar name, whose reports are accepted as authoritative by governments across the world, despite occasional errors.

What's wrong with that? Nothing, necessarily. Carter confirms that he is doing the work, though he won't comment on the amount he is being paid. "I am retired from the university," he tells Inquirer. "I have no salary and I sometimes do consulting work."

However, Carter's biography on his website says: "He receives no research funding from special interest organisations such as environmental groups, energy companies or government departments." Isn't the Heartland Institute a special interest organisation? "Of course not," says Carter. "They are a think tank."

Whatever it is, it devotes a great deal of its time to lobbying and public advocacy. The Heartland documents show it spending \$US4.2 million of its planned \$US6.6m budget for this year on editorial, government relations, communications, fundraising and publication. Heartland describes the project

on which Carter is working as "the most comprehensive and authoritative rebuttal of the United Nations IPCC reports".

Another Heartland project, in which Carter is not involved, is developing a curriculum for schools. "Many people lament the absence of educational material suitable for K-12 students on global warming that isn't alarmist or overtly political," one of the documents says. Proposed teaching modules include "whether humans are changing the climate is a major scientific controversy".

Carter argues that, as a professional scientist, he does not take positions, other than to base whatever he says on scientific evidence. But he does not always sound so dispassionate. In a review for *Quadrant* of the climate debate last year, he wrote that "the political year yielded a spectacular display of chicanery, scientific malfeasance, media bias and economic and social irresponsibility, all underpinned by a confusion of both purpose and morality".

Alongside Carter as co-editor on Heartland's climate change panel is Fred Singer, a physicist and one-time senior US government figure with a long track record as a contrarian, as documented by Naomi Oreskes and Erik Conway in their 2010 book *Merchants of Doubt*.

He was the co-author of a report, funded by the Tobacco Institute, attacking the findings of health risks from passive smoking.

In 1982, as a member of a panel appointed by the Reagan administration, he argued against taking action on acid rain, the sulphur and nitrogen emissions from industries and motor vehicles that destroyed soils and waterways.

The strategy that Oreskes and Conway identified as common to all these debates, and climate change, was "doubt-mongering".

In one of the documents made public in litigation against tobacco companies, an industry executive wrote in 1969: "Doubt is our product, since it is the best means of competing with the body of fact that exists in the minds of the public." This, wrote Oreskes and Conway, was the tobacco industry's key insight: "that you could use normal scientific uncertainty to undermine the status of actual scientific knowledge".

No doubt the views of Carter and some other contrarians are sincerely held. The motives of others are not so clear. The donors to the Heartland Institute include tobacco and oil company interests.

In the meantime, the evidence for global warming and its consequences keeps growing.

A Climate Commission paper released this week says record sea surface temperatures caused by global warming may have contributed to the intensity of the rainfall in Australia in recent years, even though the long-term drying pattern in the south continues.

No doubt Carter would dismiss this as far too qualified to consider.