

## The Australian

### Too hot to ignore

Ross Garnaut – 6 June, 2008

#### **CLIMATE change mitigation decisions in 2008, and for the foreseeable future, are made under conditions of great uncertainty.**

Under such uncertainty, it is always sensible to ask whether it would be better to delay decisions while information relevant to the decision is gathered and analysed.

Every climate scientist has their own views on some issues that differ from the mainstream in detail. But the broad findings of the Intergovernmental Panel on Climate Change have general support among scientists with relevant specialist expertise.

The broad wisdom of the IPCC is strongly contested by a small minority of reputed climate scientists.

It is sometimes observed by dissenters that Galileo turned out to be right as a minority of one against the intellectual establishment of his time. Does not this establish that the intelligent dissenter can be right?

Yes, it does. But the establishment of 17th-century Catholic Europe was not learned in scientific method. Would not Galileo be with the majority of established science today?

Probably.

Mainstream science is right on a balance of probabilities.

The dissenters are sometimes called sceptics. This is a misnomer in general. Many hold to their views with profound belief that is independent of external information or analysis.

The dissenters are possibly right and probably wrong.

I recall the perspective offered by former Australian science minister Barry Jones. In his World Meteorological Day Address in 1992, he applied the famous wager of the 17th-century French scientist Blaise Pascal to the climate change problem. If there were no God and one believed, pondered Pascal, what is the loss? Pascal's wager would seem to make the case against the dissenters.

But it is not quite so easy with climate change. Belief, acted upon, could be costly, and wasted if it is all a warp in the modern history of science. There is no alternative to seeking to measure the costs and benefits of efforts to mitigate climate change while being mindful of uncertainty. And, regrettably, there is no alternative to acting on the results of that analysis now, actively or passively, as the passage of time is rapidly reducing the scope for choice among policies affecting climate outcomes.

Economic development over the past two centuries has taken most of humanity from lives that were brutal and short to levels of personal health and security, material comfort and knowledge that were unknown to the elites of earlier times.

A new era began in the fourth quarter of the 20th century, with the rapid extension of the beneficent processes of modern economic development into the heartland of the populous countries of Asia. From this has emerged what I have described as the platinum age of global economic growth in the early 21st century.

The era of modern economic growth has been intimately linked to rapid expansion in the use of fossil fuels.

The amount of fossil fuel in the Earth's crust is obviously finite. However, the amount is so large that its limits are of no practical importance for climate change policies.

There are, however, much tighter limits from the engineering point of view to the availability for human use of fossil fuels: the point at which the energy used to extract the resources would be greater than their energy content.

Tighter still is the economic limit: the availability of fossil fuels in forms and locations that facilitate their extraction for human use at costs below the prices of oil, gas and coal in global markets.

A revolution in humanity's use of fossil fuel-based energy would be necessary sooner or later to sustain and to extend modern standards of living. It will be required sooner if we are to hold the risks of climate change to acceptable levels.

The world is now some way down the track on an international system based on emissions reduction targets, starting with developed countries. There are many imperfections in the Kyoto agreement that must be corrected in its successors if there is to be worthwhile progress towards reducing risks of dangerous climate change to acceptable levels. But the focus needs to be on the improvement of the system that has been emerging within the UN Framework Convention on Climate Change. There is no time to start again.

It is not a new idea for governments to make large financial commitments for insurance against low probability, high-impact events. Defence absorbs several percentage points of gross domestic product each year, most of it on insurance against genuinely low probability developments.

Climate change policy remains a diabolical problem. There is a chance - just a chance - that Australia and the world will manage to develop a position that strikes a good balance between the costs of dangerous climate change and the costs of mitigation.

The consequences of the choice are large enough for it to be worth a large effort to take that chance in the short period that remains before our options diminish fatefully.

*Ross Garnaut heads the climate change review. This is an edited extract of a speech given yesterday.*