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LAWYERS

An Inconvenient Truth Must Out



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There will, of course, be those who reject the arguments put forward by former US Vice President Al Gore in his film 'An Inconvenient Truth'. Very few of the scientists concerned with the issues of global warming however, will be included in that group.

For those interested in the film, its viewing must be undertaken with an understanding of a number of underlying scientific issues that are clearly well known to Gore but may not be as well known to viewers. These include the following:-

- **Life expectancy of carbon dioxide**

Carbon dioxide is by far the most prevalent greenhouse gas. It takes the best part of 100 years for it to be 'removed' from the atmosphere primarily by its absorption into plants (photosynthesis) or water. In general terms, this means that even if the emission of carbon dioxide ceased immediately, increasing global warming would continue for that period;

- **Time delay effect**

It isn't possible to tell what the climate changes set in motion by the emission of carbon gases at a particular time will be until "several decades" after that emission occurs. This is mainly because the climate system has a built in time delay. As the Charney Panel noted in its report to former US President Jimmy Carter:-

"We may not be given a warning until the CO₂ loading is such that an appreciable climate change is inevitable."

This is exactly what tends to happen. The manifestation of climate change can, and almost certainly will, occur quite suddenly and without any signs of warning.

The manifestations of emissions released over the last few decades may not yet have appeared although we are clearly aware of the rapid increase in greenhouse gas emissions over that period. If these manifestations serve to increase global warming, as they almost certainly will, we must anticipate continuation of the chain reaction effect;

- **Increasing greenhouse gases**

The emission of carbon based greenhouse gases has been continuing year by year at a progressively increasing rate since the Industrial Revolution. The rate of that increase has increased dramatically over the past few decades and still continues to increase at an increasing rate each year;

- **The chain reaction effect**

Global warming has been under discussion since the 1970s. Some events such as the possible melting of the Greenland and Antarctic ice caps and the permafrost were initially played down because it was believed action would be taken to reverse global warming before they could commence. But that action has not been taken. The ice caps are starting to melt, so is the permafrost. If the ice caps continue to melt the oceans of the planet will rise significantly and the extent of the rise will be determined by the extent of the melt. Viewers of the film must bear in mind that global warming will, for the reasons given, continue for a long time to come and so will the melt;

Melting of the permafrost will, it is estimated, release up to a further 450 billion tonnes of carbon, again depending on the extent of the melt. This, in turn, will affect the extent of the melting of the ice caps;

- **Polar extremes**

The effect of global warming increases the closer one gets to either of the poles. It has significantly less effect at the equator. In addition it is the climate at the poles and the equator which significantly affect the ocean currents and consequently our weather. Any change in this and our weather changes as well;

- **Scientists**

Scientists are very cautious people they do not stifle dissent. They insist on reasonable proof before making a pronouncement and are not prone to venture into hypothesis. That caution should not, however, be mistaken for doubt;

Almost everyone now accepts that climate change is occurring and the planet is becoming significantly warmer. Some people still insist, however, that this is being caused by something other than an excess of carbon based gases in the atmosphere (although that increase is undeniable). Despite the increase in carbon dioxide, most of this group regard global warming as a cyclical type of event the causes of which are unknown.

In fairness the Kyoto Treaty makes it very clear that human induced (anthropogenic) factors are not necessarily the only cause of global warming. It insists, however, that they are the predominant cause. Carbon dioxide is emitted from many sources, it is after all what we exhale. Nevertheless, scientists have now been able to extract ice core samples in both the Arctic and Antarctic going back for four glacial periods. Nothing in these samples resembles what is presently occurring, particularly in the speed of its happening.

The samples also reveal that the significant climate changes which they evidence are all associated with changes in atmospheric carbon dioxide levels although the causes of carbon dioxide increases and reductions have yet to be ascertained. As has been said previously, significant volcanic activity such as the eruption of Krakatoa in Indonesia would cause carbon dioxide levels to rise significantly and the increased carbon dioxide produced would remain in the atmosphere for approximately 100 years.

Conclusions

The inescapable conclusion therefore is that the carbon dioxide levels which are currently very high (380 ppm) are effecting the climate no matter what, in addition to human activity, may be increasing their

level. It follows from this that anything done to reduce the emission of carbon based gases will benefit the situation no matter what caused the gas to be there in the first place.

As Gore has made clear frequently in the past and again in An Inconvenient Truth, the people of Planet Earth are perfectly capable of reversing global warming. To do so, however, means they must look at the issues free of any existing prejudices.

For example, in greenhouse terms in Australia, cows create a greater greenhouse problem than cars but almost nobody wants to give up their products. If we want to continue using those products therefore, we must find a way to change the methane cows exhale to some non-greenhouse gas (ie by genetic engineering).

Australian governments, miners, power generators and many others still demand coal sourced electricity because it is cheap. If we insist on continuing to use coal, its emissions must, without question, be captured and retained. This is a costly process and it is also dangerous. It will make electricity very costly and our economy will need to adapt to that change.

The Commonwealth Government has been riding a period of exceptional economic stability. It wants the good times to continue. It is clearly dismayed by any suggestion that Australia adopt an emissions trading market that prices up those goods and services which create pollution by their production or operation. Yet such a market is the only known way of involving everyone in the process of overcoming the greenhouse crisis. To this author, that is the way we have to go because Australia really needs everyone to pull together in order to succeed in the abatement of global warming.

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