

# Replacing Kyoto - Making the Right Decisions

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Local Tasmanian John Harrison, known around the world for his ideas on anthropogenic sequestration, recently gave a presentation to members of the Tasmanian Chamber of Commerce & Industry and this article outlines his thoughts then and since about the Kyoto treaty and its replacement.

The Kyoto treaty was ratified in 2004 and mandates that industrialized nations reduce their emissions 5 percent below 1990 levels between 2008 and 2012. Between 1990 and 2000, the emissions from industrial nations had dropped by 3 percent, a statistic that by itself would have suggested that the developed nations were aware of the threat and taking action. A closer look, however, reveals that the lion's share of that reduction was the result of the closing of antiquated and inefficient coal-fired industries in Russia in the years following the collapse of the Soviet Union. With Russian data excluded, industrial emissions rose 8 per cent in the same period. The fact is that only a few EU nations will meet their targets, and industrial nations will most likely be 10 percent above 1990 levels by 2010. Worse, from the point of view of meaningful action, is the fact that the United States has refused to sign Kyoto, and the world's second-largest emitter of CO<sub>2</sub>, China, is not subject to its provisions. In relation to solving the pressing problem of climate change we are tracking worse than worst case scenarios.

The Kyoto treaty is the result of political negotiation and diplomatic compromise and on the surface not a lot more than short term promises to reduce emissions that make politicians look good, but that their successors cannot possibly keep. It does however provide a useful forum for negotiation regarding it's all important replacement.

Although energy use efficiency is rising the resulting gains will be nowhere near sufficient to make much difference because of increasing affluence in China, India and parts of south America and of course population growth. Affluence is arguably desirable if for no other reason than that it promises to curb population growth however the problem is that in spite of improved efficiency gains high energy use is required to achieve it and over 95% of this energy is still derived from fossil fuels.

There has been some switching to non fossil fuel sources of energy and nuclear is predicted to grow but the basic problem remains of a coupling between fossil fuel energy and affluence. Given this coupling calls for emissions reductions by the US or for that matter so called third world nations are falling on deaf ears.

A further strategy is to add sequestration to the mix of measures to combat global warming however this is not, at least until the TecEco Gaia Engineering platform is understood and implemented, as simple as it seems. Geosequestration is at best a very short term alternative fraught with danger and any leakage will result in failure within a few hundred years.

It seems that everybody in the world are missing the point. We will not get there on a plan like Kyoto based on promises. Humans are basically on the whole too greedy and self centered for constraint to work and besides the third world are entitled to and many are rapidly achieving the level of affluence we have. The plan must include means for these countries to achieve affluence without the same per capita carbon cost that we have had in achieving our standard of living. Rather than promises there must be a plan to take us into the long term future that takes into account the way we are turning greed and selfishness which are currently a major impediment into a driving force for solving the carbon problem. Put simply the solution must make money. The world must adopt such a plan or as Stern and now Prof Garnaut have pointed out, the cost will be huge. The impact on civilisation of increased drought, famine, floods and hurricanes may be far worse.

We must accept our long term role of maintaining "spaceship earth" as planetary engineers and find ways of maintaining the level of carbon dioxide, oxygen and other gases in the atmosphere at desirable levels and we cannot possibly arrest the alarming increases in atmospheric carbon dioxide currently occurring through efficiency, emissions reduction (constraint) or substitution alone.

Nature is the greatest economist of all and we have a good chance of preserving the future if we mimic her by finding profitable uses for carbon and other wastes. A solution that puts profit in the pocket of a large

number who will as a consequence wish to engage is required otherwise it cannot be implemented on the massive scale required.

Anthropogenic sequestration as man made carbonate in the built environment is a new technology platform that has the promise of profitably sequestering massive amounts of carbon and the markets created in building and construction are insatiable, large enough and indefinitely continuing. Anthropogenic sequestration is achieved in our Gaia engineering technology platform by building with man made carbonate and most likely presents the only option we have for saving the planet from runaway climate change until such time as safe and reliable forms of energy alternative to fossil fuels can be developed.

John Harrison's bio is on the TecEco web site.