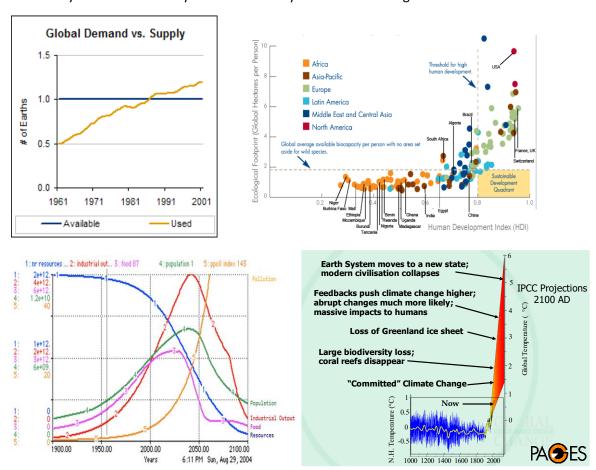
## Getting To Zero Transport Emissions Changing the Mindset

Whilst climate science, trends and the implications have been well understood for decades our politicians continue to ignore it by pursuing what has got us into this mess in the first place. That is business as usual. It is time to get back to basics and throw out many of the ideas, beliefs, dogma that underpins it. Two of these are discussed below. The first is the belief that population and economic growth must be a top priority and are essential to improve living standards with no limits in the foreseeable future at least. The second is that we can, in the words of the Prime Minister rely on technology and "Can Do Capitalism" alone to get us out of this mess.

The fallacy of the first is easily demonstrated by the first three diagrams below.



The first (top right) shows the global footprint of the human enterprise on planet earth. It increased from half a planet earth in 1960 to more than 1.25 planet earths by 2000 and will be much greater now. Clearly humanity is living well beyond its means and doing so by mining the planet's natural resources. But that is only an average. The second diagram shows it is only the poorest countries that are living within the means of planet earth. "Advanced" countries require many planet earths to maintain their lifestyles. The US requires about 5 assuming no provision is made for wild life which is

absurd so the figure could easily be double and Australia is not far behind. This thinking is reflected in limits to growth projections made in the first report to the Club of Rome in 1972. Based on the "standard run" or business as usual, global population would peak before 2050 and rapidly decline to less than a third within about fifty years. According to the Potsdam Institute in Germany that figure could be much less and the peak may occur earlier. Limits to Growth projections do not include the impact of climate change, the projections of which are shown in the fourth diagram and make the planet increasingly less habitable and support fewer people. The population by the end of the century under this scenario could easily be reduced to zero.

These are elementary observations that primary school children can understand. Even a three-year-old understands limits to growth when he watches his father blow up his balloon – telling him when to stop or even imploring him, to ensure it does not burst.

The fallacy of the second is the belief that technology will solve our problems. It is important to apply a fundamental lesson from the history of collapse of societies and civilisations over thousands of years: that is, the very common recourse to using technology, rather than changing behaviour. Nations and politicians continue to be mesmerised by technology and the belief it will solve our problems, but it has often been the abuse/overuse of technology that has got us into this mess in the first place. Technology can be an aid but not a means in itself to solving our problems. We are repeating the follies of the past and it will end in tears.

Looking more closely at the risks associated with technology, the questionable validity of the PM's claim becomes even more telling. These were discussed in my last blog so will not repeat them but what should be clear is "Can Do Capitalism" will not provide answers. To the contrary, market forces will encourage industry and individuals to maximise opportunities for their own benefit, most likely at the expense of the common good.

The bottom line here is the need to abandon both fallacies and understand the fundamental imperatives.

Firstly, limits to growth are real and humanity is exceeding them by a substantial factor. The only possible course of action is to reduce consumption of everything. That is, anticipate negative growth whether we like it or not and understand if we don't act the planet will do it for us. Negative growth means less of everything, including people. In a transport context it means less travel, less often, reduced distances, more efficient travel and transport, fewer vehicles and less infrastructure to support it and redesign and manage what we have in a way that ensures these objectives are met. It also means changes in city planning in a way that helps achieve these outcomes. It also requires restoration of the biosphere but that is a much more complicated task and must be included as part of an integrated strategy with everything else however both have major implications for many of the major infrastructure projects including the Big Build and many other programs being pursued by the State Government.

Secondly, use existing technology in a way that helps manage the transition to a zero-emission world as quickly as possible and focus on transport activities that are critical for the survival of the city. This includes production and transport of essential goods (including food) and services.

Words are cheap; it is action that matters now and actions must be designed in a way that deliver impacts that are measurable and hold government to account. A business case is not sufficient, and this requires a very different mindset. The scale and complexity of the challenge often only start to dawn when the action starts. It will quickly become obvious there are no simple single fix solutions, that it requires fundamental change in the way we think about the environmental imperatives and

goals which will directly impact every aspect of the way we live. In the transport context It is not sufficient to think about more efficient vehicles, it is also important to get rid of the inefficient ones and have a target for this such as removal of all fossil fuel powered vehicles by 2035 and 75% by 2030. The social, economic and political implications are immense.

It also forces us to think about the zero-emission world we must live in. As highlighted in an earlier blog it requires thinking about how many people it will support, where they live, what kind of jobs have value, where they may be located, how the economy will function, the transport task it generates as a service industry and how we must adapt to survive. The list is endless but one thing we can should know is what failed cities and civilisations look like. We see them today in the process of decay, decline and collapse. We can also see the remains that archaeologists dig up: once thriving civilisations which collapsed and disappeared covered by sand or vegetation, and the story behind the collapse, with a few exceptions such as Pompei was the same: an ever-expanding population and evolving technological complexity that finally exhausted its bountiful natural resources and experienced an ecological breakdown that finally doomed the society. In the past these collapses were local or regional. The problem we are facing today is global. The mindset required to respond is not "sustainability" but survival.