

Roger Kerr: Wealth creation environment's best protection

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"Sustainable development" as a term has been around for about 30 years. Its various interpretations fell broadly into pro-growth and anti-growth approaches.

Recent developments suggest the more enlightened interpretations are gaining ground.

One, *The Skeptical Environmentalist*, by former Greenpeace member Bjorn Lomborg, has had a huge impact worldwide. In it, Lomborg exposes environmental myths and painstakingly documents the evidence that environmental quality has generally been steadily improving, at least in the developed world.

Lomborg is visiting New Zealand in October as a guest of the Business Roundtable and the Resource Management Law Association.

Another milestone, the World Summit on Sustainable Development in Johannesburg, may mark a turning point in the international environmental debate, working as it did on the theme "poverty is the worst polluter", and that the best environmental policy is economic growth based not on Government planning but on markets and private initiative.

Recently, Joseph Healy's book, *Corporate Governance and Wealth Creation in New Zealand*, reaffirmed the prime duty of company boards and managements to pursue shareholder wealth creation rather than a nebulous triple bottom line.

No sensible person is against sustainable development. The relevant issue is not the goal but what it means and how best to pursue it.

A common definition of sustainable development is that which "meets the needs of the present without compromising the ability of future generations to meet their own needs".

A moment's thought, however, suggests this definition is hopelessly problematical.

A planner in 1900 concerned about the needs of people in 2000 would have worried about supplies of whale oil for lighting, firewood for heating, copper wire for telecommunications, rock salt for refrigeration and horses for transportation.

Technologies such as CDs, MS-DOS and the internet did not exist 20 years ago, so how can we possibly know what people in 2100 are likely to need?

Efforts to pursue intergenerational equity need to recognise that future generations will almost certainly be far, far better off than we are. How much should relatively poor people be asked to sacrifice to benefit generations whose living standards may be equivalent to those of today's mega-wealthy?

Seen in this way, sustainable development - meeting the needs of the present without compromising the future - is a reality now.

As Cato Institute director of natural resources Jerry Taylor has written, "Look at the data. Life expectancy across the globe has shot up over the course of the last two centuries. People are better fed, better clothed, and better housed today than ever before.

"Air and water pollution in the most industrialised nations of the world is a mere shadow of what it was decades ago.

"Even Third World countries have found that, once per capita income reaches a certain point, economic growth coincides with a cleaner environment. The human footprint on the environment is indeed becoming lighter and softer."

The pessimists have been wrong because they misunderstand the way the world works.

Inflation-adjusted prices of natural resources have been falling for centuries. Even petroleum is becoming more abundant, not more scarce: supplies of conventional and unconventional oil could last for a thousand years. Solar power will be available for billions of years.

The greatest resource of all is human ingenuity. When things are genuinely in short supply, prices rise, people conserve more or switch to substitutes, or find ways of increasing supply - all of which ease the shortages.

The Johannesburg summit outcome suggests a new agenda for sustainable development may be taking shape. Rather than focusing narrowly on "sustainability", it recognised that developing nations need economic development, from which environmental progress will follow.

Also, there is an increasing consensus about the best means of advancing sustainable growth.

A recent World Bank study found that policies that led to the greatest amount of ecological sustainability were adopting market-determined interest and exchange rates, reducing government Budget deficits, market liberalisation, fostering international openness, enhancing the private sector's role and strengthening government and market institutions, coupled with pricing and other reforms in key sectors such as industry, agriculture and energy.

These findings are relevant to economic and environmental policies in New Zealand. Our economy and our environment have benefited from efforts to get prices right, establish clear property rights (eg in fisheries), remove subsidies, open markets to competition and corporatise and privatise state-owned businesses.

There is scope for further advances. Both the economy and environment would benefit from decisive action on roading to reduce traffic congestion in Auckland.

We should get serious about genuine environmental problems rather than over-react to remote ones such as global warming. Water quality, erosion, loss of native birds, destruction of native forests by possums, and smog in Christchurch are crying out for attention. The solution to many of these problems lies in creating clear property rights, developing trading markets and introducing commercial structures and incentives.

At the company level, we need clearer thinking about environmental issues. Companies in land-based industries may see reporting on their environmental practices and standards as good business sense.

But it is another thing to force firms to embrace triple bottom line accounting. This path risks companies neglecting their prime duty to create shareholder value, wasting money on consultants and creating multiple objectives which blur board and management accountability for performance.

Sustainable development and economic growth are quite consistent. Indeed, growth promotes sustainability. Properly understood, sustainable development is not in conflict with the Government's goal of returning New Zealand to the top half of the OECD income rankings.

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This essay analyses Roger Kerr's column in the *New Zealand Herald* entitled "Wealth creation environment's best protection"¹.

It must first be noted that Kerr restricts his case of an improvement in environmental quality to the so-called "developed world". In reality Kerr is saying that there has been an improvement for a minor fraction of the earth's human population. We will investigate possible reasons for this trend later, but it must be at this stage made clear that the overall health of the planet continues to decline. As E.O. Wilson * points out:

The wealth of the world, if judged solely by domestic product and per capita consumption, is rising, but if judged by the condition of the biosphere, upon which these conventional economic measures ultimately depend, it's falling. The downward trend of the natural economy is plain to see in the databases of the World Bank and of the United Nations Development and Environment Program. Converted into the Living Planet Index.. [this] should serve as a sobering counterweight to Dow Jones and NASDAQ. From 1970 to 1995, the Living Planet Index fell 30%. This takes into account the condition of forests, freshwater, and marine systems. By the early 1990s, the decline had accelerated to an alarming 3% per year².

While Kerr is technically correct in mentioning that poverty contributes to environmental destruction, he ignores a much more embarrassing point. It is not simply just the poor who cause environmental damage but also the rich³. The poor cause damage due to their unsustainable activities (in order to survive from day to day) such as logging, slash and burn agriculture and other destructive activities, the rich on the other hand contribute to environmental destruction via their high levels of consumption of energy, raw materials and manufactured goods³.

There is clearly a massive inequality between the richer and poorer countries. The 15 percent of the world's population living in high income countries account for 56 percent of global consumption, while the poorest 40 percent only consume a meagre 11 percent⁴.

In fact, if everyone in the world were to live like an average person in the high income countries, we would need 2.6 additional planets to support us all, according to the Ecological Footprint Sustainability Measure, an independent measure based on UN statistics⁴.

Despite Kerr's insistence that per capita income and economic growth are linked with improvement in the environment, he ignores a hidden part of the equation.

The relationship Kerr refers to is the 'Environmental Kuznets Curve' (Figure 1), which shows a U-shaped relationship between environmental degradation and per capita income. There is *some* empirical evidence for this relationship⁵, however it is confined to local environmental parameters, such as the ones cited by Kerr, namely air and water pollution.

* Professor E.O. Wilson is a legendary ecologist, widely known for his work in the Theory of Island Biogeography

It is important to note that environmental effects and created by nations economic activity can only be evaluated at the global scale. With the growing importance of trade it is now possible to transfer damaging activities to less developed (lower per capita income) countries. As *The Economist*⁶, explains to us, “it is now the demands of consumers in Europe and Asia that are driving—and accelerating—the destruction” of the Amazon Rainforest. Japan’s forested area has expanded in the last twenty years, despite this Japan currently imports some 80 million tons of forest and agricultural resources such as timber, fodder and food⁵. The observed (local scale) Kuznets curve’s could be created by international specialization. ‘Poor’ countries may attract ‘dirty’ and material intensive production while ‘richer’ countries may specialize in ‘clean’ production.

In a recent study the imports of ores and semi-processed non-renewable resources was used as a rough indicator of the environmental load that a national economy produces abroad. The results of this study suggest that, in the countries studied (Japan, Netherlands and the United States with the exception of Germany), a reduction in local production of pollution intensive products, was paired with a rise in the environmental load shifted abroad. The most extreme example is that of Aluminum which has undergone a 660% increase in ‘South’ to ‘North’ material flow^f. Of the 19 material flows from ‘South’ to ‘North’ investigated, 13 increased and only 6 decreased⁵. Their findings are corroborated by other studies. One such study looked to see if there was an Kuznets curve between direct material flows and per capita GDP, in this case there was no such relationship found in all the countries studied (United States, Germany, Japan, Netherlands and Finland)⁷.

However it must be stressed to accurately determine the effect of GDP on environmental health we cannot (as Kerr does) confine ourselves to single environmental parameters as, these are not good proxy indicators of overall ecological health. We need to somehow take into account the ecological carrying capacity * of the environment. This requires a focus on the ‘the big picture’, to achieve this we can use the most comprehensive⁸ (to date) empirical test of resource use, that of “ecological footprints”.

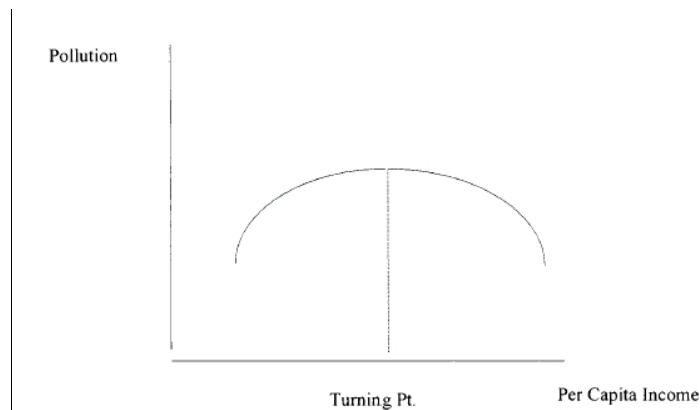


Figure 1. Environmental Kuznet Curve - an inverted U shaped relationship between pollution and per capita income

(Source: 9)

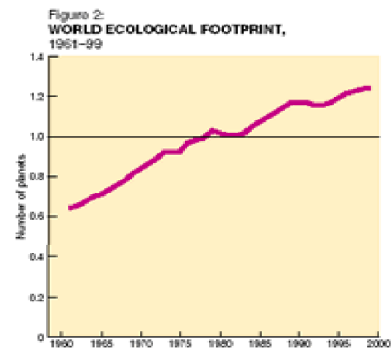


Figure 2. World Ecological Footprint (Source: 10)

Kerr quotes Jerry Taylor as suggesting “the human footprint on the environment is indeed becoming lighter and softer”. This statement ignores the growing body of evidence that suggests that human impacts are actually increasing. Ecological footprint

f. This material flow was measured by comparing the trade from the 1971-76 period with that of the 1991-96 period.

* Carrying capacity is defined as the maximum possible population level that an ecosystem can be sustain indefinitely.

analysis works by transferring the resource requirements of human activities into the amount of productive land required to sustain them. The latest report shows that the global ecological footprint has continued to increase (see figure 2.) and now exceeds the productive land available on earth. It suggests that human consumption of natural resources has overshoot the Earth's biological capacity by 20%¹⁰.

A wide ranging study was undertaken that investigated the relationship between GDP and the quadratic of GDP with ecological footprint size⁸. This study used a data set of 192 nations⁸. Thus this study fits our requirement - it uses a comprehensive empirical test, and covers the majority of the globe. The results indicated a consistently positive relationship between both the GDP measures and ecological footprint⁸. There was no evidence of an environmental Kuznet curve. Rather the ecological footprint consistently increases as GDP per capita increases. This relationship seems to extend across a variety of economic configurations, with the presence of a capitalist system ^f. having no effect on the relationship⁸.

Another study allows us to expand our horizons and extrapolate some tentative answers. By dividing countries up into core and non-core countries * we begin to see a pattern. The relationship between world system position and ecological footprint is significantly positive¹¹. This means, on average, (more powerful) core countries consume resources at higher levels because they contain more productive economies, while non-core countries possess more extractive economies and higher levels of dependent industrialization and under development¹¹. This provides indirect evidence of core countries externalizing the environmental and ecological costs associated with their higher levels of per capita consumption.

Overall this research refutes any link between per capita GDP and a reduction in ecosystem pressures. In fact, this research suggests the opposite, the richer we become the heavier the human becomes.

Contrary to Kerr's suggestion that the definition of Sustainable Development is "hopelessly problematical", one can devise a set of criteria from which one can empirically test sustainability.

A) the rate of renewable resource use does not exceed their rate of regeneration.

B) the rate of non-renewable resource use does not exceed that at which sustainable renewable substitutes are developed.

C) the rate of pollution emissions do not exceed the assimilative capacity of the environment.

Other indicators have also been proposed by the UN, this comprehensive list covers social, environmental, economic and institutional factors, and can be viewed [here](#).

In addition to this Kerr actually ignores one of the major idea's of sustainable development. The Bruntland report "Our Common Future" was produced at the World Commission on Environment and Development in 1987. This emphasized not only inter-generational equality but also intra-generational equality. It considered that sustainable development requires the fair distribution of resources by addressing the imbalances in resource use and resource impacts among the different nations of the world ¹². Intra-generational equality is completely sidestepped by Kerr, presumably because of his horror of the idea of redistributing wealth among the population to achieve equality.

f. The study classified nations as either "capitalist", "mixed capitalist" or "capitalist-statist"

* Immanuel Wallerstein, was the first to address the idea of unequal global linkages and a world-systems perspective. He argued that the modern capitalist world economy, which originated in the 16th century, reflected a tripartite global division of labor that generated and maintained relative structural inequalities across core, semi-peripheral and peripheral "zones" of the world economy⁸¹.

In relation to oil Kerr is technically correct in his statement that petroleum is becoming more abundant. New discoveries are increasing the known reserves in the world. However Kerr fails to mention the fact that the production of oil has been exceeding the discovery rate since 1981¹³. During the 1990's discoveries were between a quarter and a third of annual usage¹³. Total world oil consumption is projected to increase by 1.9 percent per year, from 77 million barrels per day in 2001 to nearly 121 million barrels per day in 2025¹⁴. Kerr's grand notion that "oil could last for a thousand years" defies all logic and evidence. Kerr provides absolutely no evidence for this statement and once again ignores a large body of evidence. The real issue behind oil, is not the known reserves available in the world, but rather the rate of *production*. Production from an oil well always rises to a maximum, and then when about half the oil well is depleted, the rate will fall incrementally to zero¹⁵. It is becoming much more accepted that global oil production is likely to peak before the year 2010 (see figure 3.). It has even been given some (albeit minor) coverage in the mainstream media¹⁶. A good illustration is provided by the United States domestic production which has declined since 1970¹⁵ from a rate of 9.6 million barrels per day¹⁷, and has not significantly risen despite advances in technology and recent attempts from the Bush administration to revive it¹⁸⁻¹⁹. Production is now at 50-year lows²⁰ and was in 2003 only 5.5 million barrels per day¹⁷ (see figure 4.).

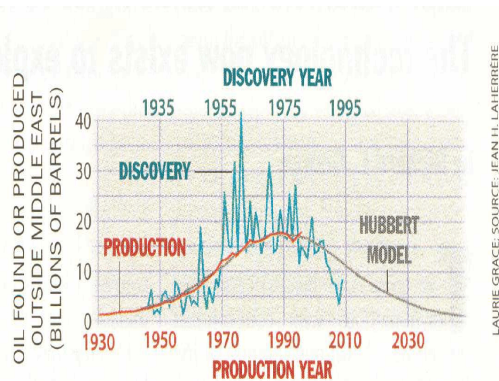


Figure 3. Oil Production and Oil Discovery Rates (Source: 7)

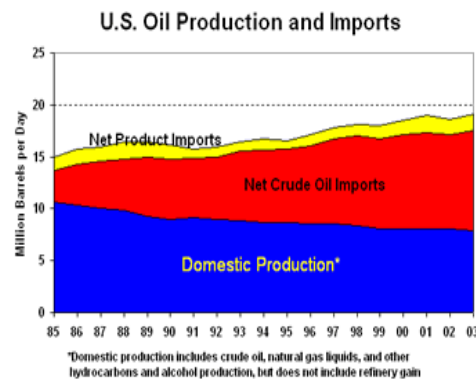


Figure 4. Domestic US Oil Production (Source: 20)

I am unaware of broad support for Kerr's "increasing consensus about the best means of advancing sustainable growth". It is not surprising that the World Bank found that neo-liberal policies lead to sustainability, I have yet to see a World Bank report that does not rely on free-market policies to solve *any* problem.

I am however surprised that for someone who believes that sustainability is a "hopelessly problematical" concept to define, is able to suggest methods of encouraging it. I would recommend that careful scrutiny is to solutions provided by someone who is unable to define the actual problem.

An thorough investigation into the effect of free market economies and sustainability is outside the scope of this essay. However the cited literature has found a link between unsustainability and economic growth. Free markets require economic growth, hence an odd contradiction.

Kerr suggests that we should stop over-reacting to "remote" problems such as "global warming" and should instead focus on the "genuine" ones "crying out for attention" such as "water quality, erosion, loss of native birds, destruction of native forests by possums". I am afraid that it is Roger Kerr who "misunderstand[s] the way the world works". The ecological environment is *interconnected*, this means that the problems are also

interrelated. Ironically all the examples of “genuine” problems that Kerr uses are expected to be effected by climate change * (something which Kerr considers a remote problem). The World Bank predicts that climate change will lead to a decrease in water quality and quantity²¹. As for the loss of birds, forests - it is now known that climate change is having an impact on the ecology of species around the world²², and that this could sharply increase the extinction probabilities of many species²³. The loss of forests will in turn lead to problems of erosion.

The implications of global warming are still as yet unknown. However there recently has been intense scrutiny on the possibility of a runaway greenhouse effect. The Permian extinction period has long been recognized as the biggest mass extinction of all time, with 60.9% of all biological *families* going extinct and at the species level it is estimated that potentially 95% of all species on Earth went extinct²⁴. Stable Carbon isotope analysis has lent weight behind the hypothesis that an initial increase in global temperatures caused a melting of gas hydrates. These gas hydrates stored incredible amounts of methane (a greenhouse gas). Once the threshold level had been crossed the melting released extra methane which would exacerbate the rise in temperature and lead to more gas hydrates melting. The current amount of carbon in the hydrates is estimated to be 10,000 gigatonnes, dwarfing the 750 gigatonnes of carbon in the atmosphere as carbon dioxide today²⁵. A positive feedback loop like this could have disastrous implications for much ecosystem viability and hence much of life on Earth (including the human race).

I find it hard to see how this excepted phenomenon of climate change, which could potentially lead to disastrous consequences is a “remote” problem, not worthy of attention.

Whilst Kerr suggests that we should ignore global warming, he contradicts himself by telling us that we can benefit the environment by “remov[ing] subsidies”. However one can see carbon dioxide (and other greenhouse gas) emissions as an externality that in effect a subsidy. This is what the Kyoto Protocol is designed to rectify. Despite this Kerr has been consistently opposed to the Kyoto Protocol.

Overall Kerr makes no valid argument that economic growth and sustainable growth are compatible. Kerr’s argument is riddled with inaccurate and one-sided statements and his analysis lacks any empirical evidence what so-ever. Kerr either misunderstands (or deliberately misleads us) about the issues he describes. There is a mass of evidence that contradicts his claims, and it seems quite clear that economic growth is not the best protection for the environment.

Due to time constraints I didn’t manage to get as in-depth as I wanted. However I think the basic points are covered. If you would like to discuss any part of the article, or become involved in countering the multitude of business propaganda then please feel free to contact me: fiend@anarchism.org.nz

* I use the term climate change instead of global warming. This is to make the distinction that due to changes in atmospheric and oceanic circulation flows, *some* regions are likely to become colder.

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