

U3A St Heliers

The State of Humanity

**Roger Kerr
EXECUTIVE DIRECTOR
NEW ZEALAND BUSINESS ROUNDTABLE**

**AUCKLAND
6 NOVEMBER 1996**

THE STATE OF HUMANITY

A statement from Agenda 21 - the major document produced by the Rio Earth Summit - makes sobering reading for the uninitiated:

Humanity stands at a defining moment in history. We are confronted with a perpetuation of disparities between and within nations, a worsening of poverty, hunger, ill-health, and illiteracy, and with the continued deterioration of the ecosystems on which we depend for our well-being.

Scary stuff for those inclined to take United Nations resolutions seriously. Our own Ministry for the Environment was so impressed by the apocalyptic flavour of this passage that the words were highlighted and placed on the first page of its own document *Taking Up the Challenge of Agenda 21*. Fortunately, however, the passage quoted contains scarcely a word of truth. Contrary to the received wisdom at Rio, the world as a whole is seeing neither a worsening of poverty, nor of hunger, nor of ill-health, nor of illiteracy. Nor - so far as we can tell - is the ecosystem deteriorating overall. Both rich and poor nations are, in general, becoming wealthier, healthier, less hungry and more literate. The doom-mongering statement is nonsense.

As nonsense, however, it is far from a unique example. It is merely one of the most recent in a long line of predictions that the end of the world as we know it is nigh. If the rhetoric of the doom-mongers is to be believed, we have stood at turning points in history many times. The last 30 or so years have been littered with economic and environmental Jeremiahs. We were told that overpopulation would lead to mass starvation in the third world. Civilisation would be destroyed by nuclear weapons. The earth would run out of minerals by the late twentieth century - in other words, now. The 1974 oil shock would mean the permanent end of economic growth. The gasoline pumps would run dry. Acid rain was destroying our trees, while the oceans would soon be dead from industrial pollution. There would be increasingly severe water shortages. The ocean - if not already dead - would become over-fished. The whole world was about to grow colder, then it was about to grow warmer. Species were becoming extinct at a frightening rate. Pollution would have terrible effects on human health.

Not a single one of these predictions has so far been borne out, and most have been contradicted by events. Notwithstanding local and regional tragedies, somehow we humans continue on average to grow richer, live longer and healthier lives, and manage our environment better. But doom-mongering is nothing if not an adaptive science: Armageddon continually changes its form, or is put off until some time next century.

There is an ideal palliative to the myths of the doom-mongers - a comprehensive new book, edited by American resource economist Julian Simon, and entitled *The State of Humanity*, the title I have taken for this talk. In its 700 pages, Simon and his fellow contributors exhaustively and convincingly document the extraordinary story of the economic advancement of the human race. From his survey of the evidence, Simon concludes:

Almost every absolute change, and the absolute component of almost every economic and social change or trend, points in a positive direction, as long as

we view the matter over a reasonably long period of time. That is, all aspects of material human welfare are improving in the aggregate.

Simon is surely right. Despite the preponderance of gloom in the media, any objective observer considering facts rather than emotion can come to no other conclusion.

The human adventure has so far been a remarkable odyssey of transformation and new discovery, and it is far from over. Until recent centuries, progress was relatively slow, and there were eras of decline. It was around 10,000 years ago that our hunter-gatherer ancestors first discovered agriculture and built permanent settlements. The agricultural revolution brought increased food supply, but probably also new perils in the form of infectious diseases. In the long, slow centuries that followed, the region which was the birthplace of western cultural and economic advance changed many times. The Ancient Greeks brought art and abstract speculation to brilliant new heights, but for various reasons could not make the breakthrough to an industrial society. After the interlude of the dark ages, France in the middle ages and Northern Italy at the time of the renaissance pointed the way forward. But it was the seventeenth century which saw many of the forces gathering that were to create the modern world. In that century our predecessors learnt how to do experimental science, not as a random series of one-off projects by clever men, but as a self-sustained and continually progressing endeavour. The seventeenth century also saw in England the birth of modern political liberalism - the extension of individual rights, the assertion of parliamentary sovereignty over medieval notions of the divine right of kings, and the establishment of a functioning market economy in place of the autocratic and mercantilist regimes of the Stuart monarchs and those who followed them.

In the following century the new scientific spirit and the climate of economic and political liberalism in Britain made possible the industrial revolution. And it was this revolution which was to transform European living standards to an unprecedented extent. In the eighteenth century, living at or near subsistence was still the lot of most of mankind. Average calorie intake in many parts of Europe was no higher than in the poorest third world countries today. In the age of Mozart and Goethe, large numbers of people were probably so malnourished that they did not have the energy to work more than a few hours a day. Two hundred years and the industrial revolution later, the difference in European living standards is phenomenal. According to one estimate for 16 developed countries, average per capita income was 13 times higher in 1979 than in 1820 - by far the most spectacular improvement in material wellbeing in the whole of history.

Virtually the entire populations of western nations have shared in this transformation in material conditions. Even those who today sleep under bridges are better off than the vagrants of two centuries ago. Seen in this light, the condemnation of a market economy as a system in which 'the rich get richer and the poor poorer' is nothing short of absurd. For instance the incomes of American blacks - a group traditionally seen as economically disadvantaged - are today 26 times higher than in the late 1860s following the abolition of slavery. In New Zealand the living standards of Maori since the beginning of European contact have also risen enormously. Malnutrition caused solely by poverty has virtually been eliminated, and when the prime minister recently denied that anyone was 'starving' in New Zealand he made a statement of the obvious. In America today, over 60 percent of all households officially classified as

'poor' have one or more cars, and half have air conditioning. An American family of four currently defined as 'poor' has perhaps twice the real income of the average worker at the turn of the century.

In New Zealand our poor do not yet live so well. The unskilled with little ability to hold down a steady job and those who have more children than their income can sustain will always be relatively poor. Arguably the more serious issue in New Zealand is the lack of basic life and parenting skills which lead to many children being brought up in inadequate, if not dysfunctional, environments. But the living standard of the average beneficiary certainly exceeds that of an average wage earner at the turn of the century.

The vastly improved living standard of western nations is reflected in all manner of economic, social and demographic indicators. One of the most dramatic is the improvement in life expectancy. For thousands of years life expectancy at birth was somewhere between 20 and 30 years. By the seventeenth century it was between 30 and 40 in Britain - still only half the traditional 'threescore years and ten'. By the second half of the nineteenth century life expectancy was rising rapidly - a momentum that carried over into this century. Life expectancy is still increasing in the developed world, and now stands between 70 and 80 years. Thus we have doubled our average lifespan since the century of Milton and Newton. Third world trends have been even more dramatic. As late as the turn of this century, life expectancy in the developing world was below 30; today it is over 60.

These increases in lifespan are partly the result of increased wealth. Third world trends in particular strongly suggest that things like clean water, better food and housing and basic drugs to counter disease have played a large role. An increase in life expectancy has gone hand in hand with a dramatic fall in the rate of child mortality. In pre-industrial Europe the death of young children was a regular - indeed expected - tragedy for families of all classes. Somewhere between one quarter and one half of all children died before the age of five. Today that rate has been greatly reduced in the developed countries. And while the third world still lags substantially, it has recorded impressive progress: child mortality rates have been falling on all continents.

Even if we put aside our mortality tables, the rise of modern medicine must rank as one of the most powerful influences on the quality of our lives. Until recently, doctors often did almost as much harm to their patients as they did good, and many of their remedies were not for the squeamish - to put it mildly. Today the experience of physical pain has been greatly reduced in western societies. The greatest agonies of childbirth, or of operations without an anaesthetic, are things of the past. And medicine is continuing to find ways of lengthening life. Of course the very success of medicine creates its own 'problem', inasmuch as new medical technology is often very expensive. In a government-run health system such as New Zealand's, there will inevitably be political tensions between the demand to utilise new technologies and the many competing demands for resources. But these tensions should not obscure the fact that health services as a whole are continually improving. In New Zealand, for instance, many more operations are being carried out now than prior to the health reforms - though we would not know it from much of the public comment on the health system.

As well as living much longer, the average person in the rich world has far more leisure today than in the past. Working hours have declined from around 60 hours per week in the middle of last century to under 40 hours today. Workers are also taking much longer holidays. Along with the increase in free time there has been a big increase in the range and affordability of leisure options. Long-distance travel is now much cheaper and more convenient. Two centuries ago only British aristocrats doing the grand tour would visit Southern Europe; today the British working class take holidays in Spain. And the electronic media have brought the good things of life to a far wider audience. Television may be the 'idiot box' to some, but it can be a huge boon to the aged or bedridden.

The years since the industrial revolution have seen a mushrooming in educational opportunities for millions upon millions of people. There was a big increase in school attendance in the course of the nineteenth century, while in our own century the numbers going on to tertiary education have exploded. Educational opportunity in the third world is also changing rapidly. Though still lagging the rich nations, third world trends in the percentages enrolled in primary, secondary and tertiary education have all been positive. Over the last generation, the percentage of all children aged 6-11 in developing countries enrolled in school has risen from about 50 percent to nearer 70 percent. In line with this trend, adult illiteracy in the third world has fallen spectacularly.

For at least the last 200 years, many have predicted that increasing resource scarcity would bring industrial expansion to an end. Early in the industrial revolution Thomas Malthus postulated that overpopulation would choke off economic growth (thus gaining for economics the misleading tag of the 'dismal science'). In the middle of the nineteenth century the economist Stanley Jevons believed growth would come to a halt as Britain ran out of coal. The Club of Rome said much the same thing in the 1970s. Yet growth has not ended. It has continued because resources are not in fact static. Growing incomes or a growing population put pressure on resources. But technological progress creates new resources, or makes more efficient use of existing ones. This advance of technology in a market economy has no end limit; it is subject to its own dynamics and will continue indefinitely so long as governments of the world let it. Every time a resource is in short supply its price rises. That sets off a search for solutions - for better ways of creating or extracting the resource, or for techniques that will substitute for that resource. The most cost-effective solutions are adopted commercially and become the commonplace technologies of the next generation.

Simon gives the example of energy sources in Britain. In the seventeenth century, wood for fuel was increasingly becoming in short supply, and wood prices were rising. Coal was developed as a substitute. Two centuries later doubts arose over whether coal supplies would be adequate. This in turn led to the development of the oil industry. Today Britain exports both oil and coal. Nuclear energy has been developed, and other energy sources are waiting to be exploited if it becomes economic to do so. More energy-efficient cars, buildings, plant and machinery have stretched available supplies.

But won't we eventually run out of resources as supplies of non-renewable resources run out? The answer is 'no'. Renewable energy sources will eventually take over, if need be, and existing technology can already create most of the products made by nature. Indeed there is an important indicator available to show that we are not running out of resources - resource prices. If our industrial society were really putting pressure on resources, we would expect to see resource prices rising. Yet the trend since the industrial revolution - indeed for most of human history - has been one of falling resource prices in real terms. In the Babylon of 2000 BC, copper was around one thousand times more expensive, relative to wages, than in America today. In Roman times it was a hundred times more expensive than today. The copper price has continued to trend down in real terms this century, as have the prices of most raw materials. Even oil prices - despite some highly-publicised fluctuations - have trended moderately downward since the middle of last century.

This pattern of falling resource prices is a fact which professional doom-mongers find particularly difficult to fit into their world view. One of the most prominent of them, Paul Erlich, lost a public bet with Julian Simon over this very question. Erlich was confident that a basket of specified metals would rise in real terms in the course of a decade. It fell, and the bet left Erlich poorer. Despite challenges from Simon, none of the other doom-mongers has subsequently been brave enough to put their money where their mouth is.

Another indication that the world is not running out of resources is the ease with which our food production is expanding. Despite the rise in population, the world's people are today better fed than at any time in history. Better agricultural techniques

have progressively brought far higher yields per acre - a process which has accelerated in the last few decades with the spectacular success of the Green Revolution. Despite a more than doubling of food output over the last 30 years, there has been no significant expansion in the land area used for agriculture. Ongoing productivity improvements have brought about huge reductions in the percentage of the labour force involved in agriculture - from well over 50 percent in most western countries prior to the industrial revolution to well under 5 percent today. Though less complete, that process is also well advanced in most developing countries. The long-run trend of food prices is down, as is the long-run price of land. These happy developments are a world away from the dire predictions of famine through overpopulation made regularly by United Nations bodies, presidential commissions and professional doom-mongers over the last two or three decades. Paul Erlich, for instance, claimed the world was "teetering on the brink of mass starvation".

In only one region has the food situation deteriorated - Africa. But as Africa is not one of the most densely populated continents, this hardly gives support to overpopulation theories. And the recent famine and desperate plight of countries such as Ethiopia are plainly due to the chaotic governments such countries endure. Civil war, regional conflict and Marxist economics have combined with genuine drought to push some African countries into the abyss. But there are promising signs even in Africa as some countries are moving towards freer markets - it may not be long before we are talking of the first wave of African 'tiger' economies. It is also well to remember that attempts to collectivise agriculture have led to some of the greatest human catastrophes of the century: unknown millions starved or were killed in the Soviet Union under Stalin and in China when Mao Tse Tung began his so-called Great Leap Forward in the late fifties. By contrast, wherever private farmers have been allowed to get on with the job, food production has flourished.

'But surely,' some people may protest, 'all the increasing affluence is only being achieved at the expense of a deteriorating natural environment.' The short answer to that is 'no'. The environments of western nations have generally been improving in recent years - partly because rich countries can afford to give greater emphasis to pollution controls. And it is quite wrong to assume - as many do - that environmental degradation is mainly a twentieth century or capitalist phenomenon. The medieval towns of Europe that charm today's tourists would strike us as much less charming if we went back to the middle ages and actually visited one. The air would be smoky, the streets would be open sewers, and disease would lurk in every corner.

When the wife of the English King Henry III visited Nottingham Castle in the thirteenth century, the air was so full of the smoke from coal burning that she left in fear of her health. A century later when Henry Bolingbroke was being crowned Henry IV, the Archbishop of Canterbury noticed that his head was swarming with lice. By the seventeenth century Londoners were breathing what the diarist John Evelyn called an "impure and thick mist, accompanied by a fuliginous and filthy vapour, corrupting the lungs". In the nineteenth century the London fog was still notorious. The last few decades have seen a dramatic improvement in the quality of air, in London and elsewhere in Britain and Europe. There has been a substantial reduction in air pollution in the United States. Water quality has in general improved, and pollution levels in the American Great Lakes have fallen sharply. The harvest of fish from the ocean is still increasing, and oil spills have not had the dire effects on fisheries that some had predicted. While there is no room for complacency on any of

these matters, environmental trends in western countries have been moderately encouraging.

The same cannot possibly be said for the command economies of the former Soviet bloc. Where there was no private property, no organised public opinion, and no effective check on the power of bureaucrats, environmental disasters multiplied. The drastic shrinking of the Aral Sea - and consequent loss of fish - was a catastrophe even greater than Chernobyl. Soviet rivers became atrociously polluted, and the air of industrial cities seriously endangered health. Russia is one of the few countries where the trend in life expectancy has turned around and is now falling - a testimony to the arrogance of central planners and the folly of trying to run a country as one vast public sector.

Many if not most of the environmental scares in western countries have been unproven at best, and demonstrably baseless at worst. Water in general is not yet in short supply, as predicted by Erlich and others. If it ever becomes scarce, standard market mechanisms can be employed to reduce water demand and increase supply. The threat of ecological catastrophe through 'acid rain' was widely reported in the media in the seventies. It has not proved to be a significant problem, and is unlikely to become one within the foreseeable future. There were numerous scares over pesticides which have not been substantiated by subsequent events.

In the mid-seventies, many of the very people currently panicking about global warming were claiming that a new ice age would soon be upon us. The most widely read science journal, *Science Digest*, said:

The world's climatologists are agreed on only two things: That we do not have the comfortable distance of tens of thousands of years to prepare for the next ice age, and that how carefully we monitor our atmospheric pollution will have a direct bearing on the arrival and nature of this weather crisis. The sooner man confronts these facts, these scientists say, the safer he'll be. Once the freeze starts, it will be too late.

Ten years later the image changed from sabre-toothed tiger to sauna: many scientists were now sure that the earth was warming up as a result of so-called greenhouse gases released by industrial society. Perhaps it is. But there is little evidence as yet that the rise is significant: the earth's temperature fluctuates naturally from year to year, and according to the best available data there has been no global rise in temperatures over the past 50 years - the very period over which greenhouse gases are supposed to have had an effect. The models employed by the warming school are primitive, and are not yet good enough to explain the recent past. Future projections for warming have already been scaled back. The most sensible course of action is to monitor the situation closely, attempt to improve our climate models, and be prepared to take collective action if a genuine problem is seen to emerge.

In sum, there is little evidence that the overall environment is deteriorating in a manner likely to compromise industrial society or our overall quality of life. I am not suggesting that there are no environmental problems, nor that trade-offs never have to be made between economic development and environmental goals. Of course they do. But wealthier nations are clearly more prepared to devote resources to improving their environment than are poorer nations. As economic growth continues, the overall

trend of an improving environment is also likely to continue.

We can thus look back on the last few hundred years and see a continuing improvement in all of the principal material conditions of life - including the quality of our environment. Note that I have spoken only about the improvement in *material* conditions. I am not suggesting that we have created heaven on earth, or that life has latterly become a bowl of cherries. We do not live by bread alone, and material goods do not guarantee anyone happiness. Even in the wealthy countries, plenty of individuals still find life boring, frustrating, meaningless, humiliating or tragic. Some people make irresponsible or self-impoverishing lifestyle choices. That is the nature of the human condition. But keeping a healthy sense of realism about the limitations of material welfare need not involve denying that, on almost every indicator we can actually measure, the general conditions of life are getting better.

Note also that I am speaking here of long-term trends in our material welfare. There are many short-term ups and downs. Nor would I dream of suggesting that the improvement over time represents an automatic upward escalator, which will continue at the same speed regardless of the policies that governments adopt. The fallacy of any such thinking is all too apparent from our recent experience in New Zealand. We squandered several decades of the twentieth century with overly-centralised economic control and intervention. One byproduct of the 'high' point of that period of economic mismanagement was the environmental vandalism of fertiliser subsidies, Forest Service tree plantings, land development loans and some of the Think Big schemes. Meanwhile incomes stagnated, debt built up, unemployment began rising, and it took the recent economic reforms to put the economy back on to a sound footing. Moreover, we still have social problems that need the careful attention of policymakers: crime, family breakdown, and an uncomfortably large underclass of poor and dependent welfare beneficiaries. But plainly government policy *does* matter for such problems, and in the free contest of ideas provided by democratic societies we can expect good policy ideas generally to win out over bad ideas over time.

Yet here is the paradox. At no time in history have the material conditions of life been better. And yet the mood about the future in New Zealand - and in most western societies - is at best wary and apprehensive. In a recent opinion poll, 82 percent of New Zealanders agreed with the statement that it is getting harder and harder for the ordinary family to give their children a good future. In the light of the trends I have been discussing, such a statement is plainly nonsense. The current generation of school children will be wealthier, be better educated (at least in terms of years in formal training), live longer, and have access to higher quality health care (much of it as yet uninvented) than any previous generation of New Zealanders. And this generation will almost certainly have the technological capacity to deal with any environmental problems that arise in the middle of next century. Yet that does not appear to be the public perception.

There can be little doubt that the public is strongly influenced by the media barrage of doom and gloom stories - hospital waiting lists, environmental scares, problems in schools, pressure groups complaining about 'underfunding' and so forth. Such a collage of negative images can have a cumulative effect even on quite sophisticated people. And pressure groups like Greenpeace are masters at producing media-friendly scare stories which get wide coverage despite Greenpeace's dismal record of unsubstantiated doom-mongering. By contrast, positive news is usually much less

exciting. To that extent, a bias towards the sensational is simply the nature of the media game.

As a contribution towards a more realistic view of our situation, it is worth listing the long-run forecasts at the end of Simon's book. These forecasts are contingent only on the absence of global war or political upheaval:

- people will live longer lives than now; fewer will die young;
- families all over the world will have higher incomes and better standards of living than now;
- the costs of natural resources will be lower than at present;
- agricultural land will continue to become less and less important as an economic asset, relative to the total value of all other economic assets;
- the natural environment will be healthier than now, because as nations continue to get richer they will buy more cleanliness as one of the good things wealth can purchase;
- accidents such as fires will diminish in number, and losses to natural disasters such as hurricanes and earthquakes will get smaller as our buildings become stronger and our methods of mitigating disasters improve;
- nuclear power from fission will account for a growing proportion of the world's electricity supply, and probably our total energy supply as well, until it is displaced by some cheaper source of energy (perhaps fusion); and
- nuclear power will never be displaced by solar energy using the kinds of technology currently available, nor by any ordinary development of those kinds of technology.

We may still continue to *think* that disaster lies just around the corner, and there may be specific and local setbacks, but the likelihood is that in general things will continue to get better over the long term just as they have for at least the last 1000 years. Talk of long-term material improvement is surely of little consolation to the victims of current disasters in Africa and elsewhere. But it does remind us of mankind's enormous capacity for both material improvement and, at the same time, misguided mischief. The task now, as always, is to reduce the risks of disasters and, when they do come, to mitigate the consequences. The long-term view assures us that we have the means and knowledge. Whether we have the will is another matter.