ESSAY

.83

Stealing from the Future*

lan Lowe Griffith University Australia

Parents in today's western societies are cheating their children by funding their own lifestyles from the future, says lan Lowe, emeritus professor at Brisbane's Griffith University and president of the Australian Conservation Foundation.

In a powerful presentation to an international audience at the *Global Mind*, *Global Soul*, *Global Action* conference at Tamkang University in Taiwan, Professor Lowe emphasised that the future is not somewhere we are going, but something we are creating.

"There are many possible futures. We should be trying to establish a future that can be sustained, even if not for the four to five biltion years that the earth is expected to last. Not doing that is selling short our children by funding our lifestyles from the future."

Taking an unusual approach, Professor Lowe then set out to describe how one might go about destroying a planet, by destroying its future.

"How could we do it?"

"We could start with exponential population growth."

"Then we could increase the rate of consumption per person. We could base our economy on consumption, stimulating consumption that is not necessary. In fact, we could stimulate consumption by appealing to the seven deadly sins. (Or, as Clive Hamilton puts it, we could use money we don't have to buy things we don't want to impress people we don't like.)"

"Then we could deplete significant mineral resources, starting with oil. We could over-use potentially renewable resources like fisheries and forests and groundwater."

"And we could disrupt the global climate."

"In the social dimension we could widen inequality between rich and poor, ensuring that the future is less socially stable. And we could replace traditional spirituality by promoting materialism."

"A visitor from another galaxy would see these strategies as deliberate, would see that we were intelligent and would assume that for some reason we wanted to destroy life on Earth."

Professor Lowe explored some of these issues more closely, starting with the "biological bottom line" of population growth.

There have only ever been three models of change over time in a species population in a closed system. The population can

- increase over time until it comes into balance and remains in balance;
- exceed the sustainable level, collapse, increase again etc.; or it can
- grossly exceed the resources and collapse.

Yet in the face of this basic scientific understanding, he says, "there are not many countries on earth which have set a strategy of sustaining their population." Since 1960, the planet's human population has doubled (increasing at 80m a year); water use has doubled; food production has increased by 2.5 times; energy use has trebled; and economic output has increased by a factor of six.

"What about resources? Our most crucial resource is petroleum. Production will decline, price will increase, we will have to make fundamentally different decisions about personal transport and the provision of

^{*}Speech transcribed and edited by Jan Lee Martin, the Futures Foundation. Jan Lee Martin < jan.leemartin@futuresfoundation.org.au>

- JOURNAL OF FUTURES STUDIES

food, which are currently predicated on the presumption of cheap transport."

Professor Lowe anticipates the peak of oil production will occur in 2009, plus or minus a few years – indeed, it may have happened already. The peak of gas production will be around 2040. After these dates, production will decline with depletion of the natural resources.

Yet for all this, lan Lowe insists that there is no energy shortage.

"The natural flows of solar, wind, tidal, hydro, and geothermal energy are thousands of times greater than any conceivable consumer demand," he told the conference. "For example, the world's 6.5bn humans, in an entire year, for all purposes, use about half the energy that the sun delivers to Australia alone, in one day alone."

"Energy flows are huge, but there is a shortage of the energy generator that is most convenient for transport because of its high density."

Availability of fresh water is another key factor in creating a sustainable future for the planet.

"Humans now use half of the available fresh water of the planet, but still more than 1bn people don't have clean water and hundreds of millions don't have what they need to produce food."

"The productive land which has been responsible for the dramatic increase in food production is being lost to urban expansion and non sustainable pasture use. Forests are declining and disappearing, and all fisheries are either at maximum sustainable use or in decline."

There are many anomalies and contradictions in our relationship with the planet and its natural resources, the professor said.

"The world produces 2 kilograms of food per person per day, but 852m people are undernourished."

"Up to average incomes of US\$4000 per annum, there is a strong correlation between income and life expectancy. Above that level, there no correlation at all. But there is a very strong relationship between inequality and life expectancy. With facts like these it is clear we need not just a new century but a just new century".

Overall our future prospects do not look too bad, said Professor Lowe, but there are some serious problems coming up from behind. For example, he quoted three scenarios described by Richard Eckersley of the Australian National University:

- apocalyptic nihilism decadence rules
- apocalyptic fundamentalism dogma rules
- apocalyptic activisim hope rules.

Turning to the knowledge base that informs our actions, lan Lowe called for not just more science, but a different style of science. He pointed to the damage that has been done to our planetary system by the application of narrow knowledge.

"We need a better understanding of complex natural systems," he said, including links between the local and the global (noting that links between local and global go both ways). "It is vital to use this imported understanding to reduce impacts of human activities on the natural world."

Sustainability science, he said,

- explicitly recognises our ignorance of complex self organising systems
- understands the multiple scales of organisation
- treats knowledge as provisional and subjective
- includes the social and ecological characteristics of place or region
- needs new styles of organisation
- promotes social learning.

In this context, he emphasised the importance of cutting across traditional silos of knowledge, combining various systems of knowledge to recreate integrated knowledge. One of the promoters of this approach of "transdisciplinarity", the Australian professor Margaret Somerville of McGill University in Montreal, has called for "projects that cross the boundaries of religion, ethnic and national origin and culture to capture the profound realities of the human spirit."

Another group of alternative futures includes the continuation of market forces (which are likely to undermine social stability

STEALING FROM THE FUTURE

and the natural resources of the ecosystem); a fortress world without social cohesion; and total breakdown – a collapse of support systems, lan Lowe told the conference.

It was difficult to foresee what the political response to these possibilities might be, he said. There is clearly a need to re-establish the trajectory of development by making enlightened decisions, but it is very difficult to identify the political will to take the hard decisions that are needed.

Nonetheless, there is no doubt of the need for a "great transition" – to a sustainable world driven by new values.

"Cultural values and social institutions determine any concerted response. And a growing number of people are becoming aware that they are looking at a declining standard of living in a steadily deteriorating environment."

"Fortunately there are some signs of hope, with new thinking and the emergence of new values and new practices."

"The underlying drivers of our unsustainable trajectory are

- population growth
- increasing consumption per person
- 'societal' values."

"Attacking these drivers in the movement for change will require a new set of values. As Paul Rashin points out, it will require ecological sensitivity to overcome our inherited habit of seeking to dominate nature; it will require new ideas about the real quality of life to overcome our drift to consumerism; and it will require a new move to human solidarity – rediscovery of community and recognition of the fact that we share a common fate with 6.5bn other humans – to overcome our long journey to extreme individualism."

Then will we see the emergence of "globo sapiens"?

"Markets supply some things we need but many we have to be persuaded to want," said Professor Lowe. "Natural systems give us the things we really need — breathable air; water; the capacity to produce our food, and so on."

"When we truly understand this we will stop seeing the ecology and society as appendages to the economy. We will recognise that the economy is itself fully nested within society and that society itself is nested within the natural environment. And we will act accordingly."

"Perhaps then we can call ourselves globo sapiens."

Correspondence

lan Lowe School of Science Griffith University Nathan 4111 Australia Email: I.Lowe@griffith.edu.au JOURNAL OF FUTURES STUDIES