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## REAL economics includes nature

Recent earthquakes in Christchurch, New Zealand have caused havoc and destruction, reminding us we crucially depend on and need to understand the natural world. Miraculously no one died though around 300,000 people have been affected. It's difficult to imagine the human suffering in another calamity in Pakistan, where thousands have died and 20 million people are threatened by deadly water-borne diseases, loss of livelihoods and starvation, their villages washed away, crops destroyed after massive floods (p 27). At the same time in an August heat-wave, hundreds of forest fires in Russia covered Moscow in a thick blanket of toxic smog forcing people to stay indoors. Crops were ruined and wheat exports banned, causing world wheat prices to soar (p 27). These last two events are recent examples of climate change-related disasters, a result of human activity disrupting the atmospheric balance.

Though we might understand our dependence on the Earth and its marvellous ecosystems, the current economic paradigm does not. As Lester Brown explains, economists see the environment as a subset of the economy so our economy is out of sync, disconnected from the biophysical reality of the ecosystems it depends on (p3). As a result there is now a raft of evidence showing the economic system promotes environmental degradation going beyond natural limits, bringing about collapsing fisheries, shrinking forests, eroding soils, rising carbon dioxide (CO<sub>2</sub>) levels, falling water tables, rising temperatures, more destructive storms, melting glaciers, rising sea level, dying coral reefs, and disappearing species.

A core reason for our failure to reduce greenhouse gas emissions and prevent dangerous climate change, despite over two decades of international effort, is because we have a global economic system dominated by the concept of perpetual growth, though the Earth itself does not expand. Consequently, we continue over-exploiting Earth's ecosystems and cannibalising its resources to provide mostly unessential trinkets and gadgets for our western consumer society, while billions of people go hungry. We are told economies must expand or society will collapse. Yet as Herman Daly says, the growth economy is becoming increasingly uneconomic. With rising unemployment and poverty worldwide, a depression is beginning as the growth economy is failing. The way out of our litany of problems is not more of the same failed policies, but, as Daly says, to make the transition to a steady state economy, which operates within the capacities of the Earth. He recommends 10 policies to achieve this (p 21).

The dangers of extracting dwindling petroleum and other resources from increasingly remote and hazardous environments have been graphically illustrated in the recent Gulf of Mexico oil disaster (p19). This is a warning of inevitable future catastrophes in continuing with the western consumer model which has been purveyed with religious zeal to the entire world. Another major failing of the free-trade, economic growth model is there are no government or international plans to deal with the changes needed for communities and countries to survive the onset of peak oil, the finite fuel which fires the global economy. A new study by the U.S. military warns of serious oil shortages by 2015 (p 28). It's bewildering that an era which prides itself on its knowledge is unable to face reality and make plans to save itself. Governments are locked into the failed development model and cannot respond intelligently.

Increasing inequality in every country and particularly between the rich world and third world, where most of the world's people live, is yet another indicator of the failed development model. As Tim Jackson reports, economic growth has allowed prosperity for a few in rich countries, based on ecological destruction and persistent social injustice. He asks: "Are ever-

increasing incomes for the already-rich a legitimate focus for our continued hopes and expectations in a world of finite resources constrained by strict environmental limits?" Third world nations are in urgent need of growth but unless growth in richer nations is stopped we cannot have a fairer world. Twelve steps outline the path to a sustainable economy (p10). Real prosperity is in the quality of our lives and our ability to flourish within the ecological limits of a finite planet.

A recent UN report highlights the existing huge inequity. Three billion people, nearly half the world's people, have no access to modern energy, p 27. Thus, nearly half the world's people contribute either nothing or very little to climate change, while a very small proportion, a fifth of the world's people in richer countries contributes over 80% of emissions, averaging 7.1 to 7.5 tonnes per person, as David Satterthwaite notes (p37). To avoid dangerous climate change depends on achieving a global average of emissions per person called the 'fair share' level, about 2 tonnes of CO<sub>2</sub>e per person. This shows the very high pollution levels in rich countries like Australia and New Zealand, with over 8 tonnes per person, way over the 2 tonnes fair share. The injustice is staggering, consid-

ering also that half the world's people who contribute nothing to warming emissions are also suffering the brunt of climate change effects, living as they do in tropical countries, at greater risk of dangers from climate change, as happened in Pakistan in August. This is also true for millions of our close neighbours in vulnerable Pacific Island countries, affected by sea-level rise and more intense storms. Surely changing the economic paradigm in rich countries so billions of people in poorer countries can live a little better is the least we can do considering the enormous damage our extravagant lifestyles are causing.

Lack of government and international plans to change direction and deal with peak oil and climate change makes it vital for those of us who understand what's happening to start building sustainable local communities now. As Ted Trainer says only by working together now side by side can we build the critical global consciousness and co-operative values to eliminate Third World poverty, deal with climate change and sustain ourselves in the coming years of scarcity (p 43). It's vital to prepare before peak oil hits to avoid being overtaken by the chaos of societies collapsing and potentially violent political conflicts.

KAY WEIR

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## Building an ECO-economy for the Earth

Extensive evidence shows our economy is destroying the environment on which it depends, reports **LESTER BROWN**. An economic revolution is needed which respects ecological principles and can sustain human societies into the future.



In 1553, Polish astronomer Nicolaus Copernicus published *On the Revolutions of the Celestial Spheres*, challenging the view the Earth was the centre of the universe and the Sun revolved around the earth, by arguing the earth revolves around the Sun. His alterna-

tive to the earlier Ptolemaic model led to a revolution in thinking, to a new worldview.<sup>1</sup> Today we need a similar shift in worldview in thinking about the earth and the economy. The issue now is whether the environment is part of the economy, or the economy is part of the environment. Economists see the environment as a subset of the economy. Ecologists see the economy as a subset of the

environment. Like Ptolemy's view of the solar system, the economists' view confuses efforts to understand our world and it has created an economy out of sync with the ecosystem it depends on.

Economic theory and indicators do not explain how the economy is disrupting and destroying the earth's natural systems. Economic theory does not explain why Arctic Sea ice is melting, why grasslands are turning into desert in north-western China, why coral reefs are dying in the South Pacific, why the Newfoundland cod fishery collapsed. Nor does it explain why we are in the early stages of the greatest extinction of plants and animals since the dinosaurs disappeared 65 million years ago. Evidence the economy is in conflict with the earth's natural systems

