

The Selfish Greens

Talk at the Adam Smith Institute March 15th 2004 by James Lovelock

We remember Adam Smith for his stunning intuition of the invisible guiding hand that somehow enables rampant self interest to evolve for the common good. Two hundred years later we face a similar paradox. We know that the Earth is a benign and comfortable place for life and has been so for most of its history, so how have selfish genes allowed the evolution of so altruistic a planet? It is easy now to see how Darwinian natural selection leads to the evolution of fit organisms but how can the common good for all life also evolve by natural selection? What we have discovered is that as our planet, the Earth, evolves it keeps its climate and its chemistry always fit for life, and the invisible hand that regulates the Earth System operates through feedbacks, negative and positive, between its living and non-living parts. But this knowledge, Gaia theory, is still in the domain of specialist science and is not yet understood or applied in the public world. As in politics, it took a long time before we recognised that feedback from market forces can not be ignored, so I suspect that we face a similar slow learning process about our relationship with the Earth. We are still trying to shape it to our ends and needs and we ignore, even disable, its own powerful guiding hand; in our hubris we believe that we can be stewards of the Earth long before we understand it. Perhaps Earth science and economics have more in common than we used to think.

It seems probable – even likely - that we will face huge environmental disturbances as this century evolves. But there are no certainties about the future, only probabilities, and there may be little or no global warming; we might even undo some of the harm we have done; or we might be rescued by a natural event, such as the eruption in sequence of large volcanoes each the size of Tambora. This would put the Earth back on course towards the next glaciation and leave us free to continue burning fossil fuel. But we would be unwise to continue with business as usual and expect something or other, natural or man made, to save us from the revenge of our outraged planet. It would be as inept as for a heavy smoker to assume that good genes or good luck will save him from its consequences.

European politicians appear to accept the near inevitability of global warming but, oddly, turn to the Green Movement and its lobbies for guidance, more than to their scientists. I see myself as a Green but I speak this afternoon as a scientist and I want to show that in spite of their good intentions, the majority of the Greens are unaware how serious are the global changes that soon may come; consequently, their advice to governments may be flawed. Indeed nearly all of us see the world in humanist, not scientific, terms and it is too easy to be mistaken.

So how did it all begin? Rachel Carson's book *Silent Spring*, is said to have started the Green movement; it was a book concerned with the natural world and the threat to bird life from pesticides. As the movement evolved it became politically active and soon it was people not birds that were seen to be threatened by the products of industry; it reflected the fears and prejudices of its mainly urban membership and showed less concern for the natural world. Two centuries ago, in Adam Smith's time, it was natural

and traditional to be concerned about people ; there were less than a billion of us then and nothing we did significantly harmed the Earth. At that time we believed that the Earth was given to us and that we were in charge of it as its stewards. As population and industry grew we did not notice, until recently, that we were changing the atmosphere and the surface of the Earth. We ignored the fact that we depended on the other life forms not only for food but for the air we breathe and the climate we enjoy. Because we are by nature self interested we took it all for granted and rarely ever noticed how much we depended on the Earth and were part of it. The all pervading error of the modern Green movement is its self indulgence, which has led to a near hypochondriac obsession with personal hazards to health such as: pesticide residues and other unwanted chemicals in foodstuff, nuclear radiation, and genetic manipulation. To judge from the supermarket shelves we seem to have the illusion that if the whole planet were farmed organically all would be well. We so ignore the Earth that we fail to see that the regulatory functions of natural ecosystems cannot be simply replaced by farmland.

With more than six billion hungry mouths to feed, and a burgeoning accumulation of greenhouse gases from our heavy industrial past and present, there is no returning to the romantic illusion of a pre-industrial Earth. We are like the driver of a car going down a steep hill who finds the brakes have failed. We could take our foot from the accelerator pedal but instead we chant the mantras of renewable energy or sustainable development. These will not undo the harm done, and we would have to stop what we call development altogether; there are just too many of us living the way we do now. What we need is damage limitation.

Renewable energy might be a good idea in the long term, and is a showy way for politicians to prove they are doing something, but it is already too late to expect it significantly to ameliorate the present crisis; global warming is already happening and is likely to intensify. To supplement the feeble energy supplies from renewables by lashings of natural gas is a risky option, particularly for the UK. The European encouragement of subsidized renewable energy might be justified were there no alternative tried and tested energy source but we do have clean and safe nuclear energy and it is immediately available. The Green objection to it is unscientific and perverse, but they have preached against it until some European governments have been forced by fear of disapproval to go against the public good and allow it to be phased out.

In January this year a conference was held in Cambridge organised by the Earth scientists, John Shepherd and Harry Elderfield, to discuss other ways that might serve to ameliorate global warming. The delegates presented a set of ingenious and well considered remedies. These included: space mounted sunshades, a method for increasing cloudiness over the oceans, and the removal of carbon dioxide from smoke stacks or even from the air. Unfortunately, none was free of disadvantages or available now. We left the meeting realising that it is easy to make mistakes when knowledge about the whole system is lacking and we are still amazingly ignorant about the Earth system. The economist, Shimon Awerbach, reminded us that the magical appearance of a completely clean, safe and economic source of energy would do little to stop the burning of fossil fuels; such is the human tendency to over consume. Indeed, the widespread use of wind

turbines in Germany has been accompanied by an increase in coal combustion, the dirtiest of all fuels. The Earth system, Gaia, functions because within it are powerful restraints to growth, as we will soon discover. We have to make our own restraints if we are to avoid those the Earth will surely apply. Perhaps the unreasoning fear of nuclear energy is an advantage for it implies a built in restraint.

So what will happen and what should we do? I have heard of three alternatives but there may be more. The first is laissez faire: just continue to enjoy a warmer 21st century while it lasts, and make cosmetic attempts to hide global warming. I suspect that this is what will happen in much of the world. Second, is the deep Green way: eat nothing but organic food, use nothing but renewable energy and raw materials; and use alternative not scientific medicine. Either of these policies might restore the Earth to health but at the cost of a massive reduction in the numbers of people and possibly the loss of some civilizations as well. There may be a less unpleasant way: the high tech road. It would require us to take global change seriously and do our best to lessen the footprint of humans on the Earth. It would involve these things: first and most important, no more natural habitat destruction anywhere. To attempt to farm the whole Earth to feed people would make us like sailors who burnt the timbers and rigging of their ship to keep warm.

We must embrace science and engineering, not reject them; we need their skills and inventions to lessen our impact on the Earth. If more food comes from less land by genetic engineering then use it; better still, if food can be synthesised by the chemical and biochemical industries from carbon dioxide, water and nitrogen, then let's make it and give the Earth a rest. We need a portfolio of energy sources, with nuclear playing a major part, at least until fusion power becomes a practical option; and we must stop fretting over the minute statistical risks of cancer from chemicals or radiation. One quarter of us will die of cancer anyway, mainly because we breathe air laden with that all pervasive carcinogen, oxygen. If we fail to concentrate our minds on the real danger, which is global warming, we may die even sooner, as did more than 20,000 unfortunates from overheating in Europe last summer.

We are like passengers on a large aircraft crossing the Pacific Ocean who suddenly realise just how much carbon dioxide their plane is adding to the already overburdened air. It would hardly help if they asked the captain to turn off the engines and let the plane travel like a glider by wind power alone. The Kyoto agreement and the Government White Paper on energy use are like this, small changes in the right direction but insufficient to alter the course of events and inadequate for stirring the altruism needed to curb emissions and our pressures on the land. My hope lies in that powerful force that takes over our lives when we sense that our tribe or nation is threatened from outside. In wartime we accept without question the severest of rationing and will readily offer our lives. Perhaps when the catastrophes of the intensifying greenhouse become frequent enough we will pull together as a global unit with the self restraint to stop burning fossil fuel and abusing the natural world. Astronauts who have had the chance to look back at the Earth from space and see what a stunningly beautiful planet it is often talk of the Earth as home. Greens, let us put aside our baseless fears and be brave enough to see that the real threat is to the living Earth, which is our nation and our home.