

Ecology and Economy

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1.

The two big "e-words" (ecology and economy) in my title have sometimes been used in recent decades as if they represented opposing concerns. Yes, we should be glad to do more about the environment, if only this didn't interfere with economic development and the liberty of people and nations to create wealth in whatever ways they can. Or perhaps, we should be glad to address environmental issues if we could be sure that we had first resolved the challenge of economic injustice within and between societies. So from both left and right there has often been a persistent sense that it isn't proper or possible to tackle both together, let alone to give a different sort of priority to ecological matters.

But this separation or opposition has come to look like a massive mistake. It has been said that 'the economy is a wholly-owned subsidiary of the environment'. The earth itself is what ultimately controls economic activity because it is the source of the materials upon which economic activity works. Increasingly, economists have expressed unease about the habit of thinking of environmental matters as 'externalities' where issues about economic development are concerned; and Professor Partha Dasgupta of Cambridge has argued very cogently that we need to stop measuring wealth in terms of GNP and to include reference to human and natural capital in any serious measure of national well-being. It is perfectly possible for a country to show an increase in its GNP and even its Human Development Index, and in fact to be experiencing overall economic decline because of the erosion of natural resources and the rate of population growth. In a paper of 2002, Dasgupta demonstrated that even in the Indian subcontinent, often cited as a good news story for gradual wealth accumulation, the pattern is really one of decline in the light of these factors. In Pakistan, for example, GNP figures suggest that the national economy grew at a steady annual rate of 2.7% between 1965 and 1993. But when depletion of natural assets and population growth are factored in, it appears that 'the average Pakistani became poorer by a factor of about 1.5 during that period' (Dasgupta 2002, p.5).

To say this is to identify the tip of an iceberg. And the bulk of that iceberg is our incapacity to develop a view of economics that takes account of a sufficient range of factors for really dependable prediction. The pattern we currently see in the world economy is a sort of pincer movement in respect of natural resources. We are taking resources out of the biosphere; and we are contributing to the biosphere a set of lethally dangerous extras. Both can be illustrated with one example. Contemporary methods of fish farming (aquaculture) require large quantities of wild fish as food for farmed fish, so that there is a further dramatic depletion in the wild fish populations. Fishermen who still depend on wild fishing have to pull in greater quantities to compete with farmed produce. Farmed fish contain higher levels of toxins than wild fish; if they escape, as they often do, they interbreed with wild fish and introduce those toxins to the wild strains - as well as introducing genetic complications, since farmed fish, bred for rapid growth, have poor survival capacity outside controlled conditions (see Jared Diamond, *Collapse. How Societies Choose to Fail or Survive*, p.488). Thus we simultaneously deplete and poison. It is an elegant metaphor for a very wide range of phenomena. The impact of carbon emissions is now so well-known that it is hardly worth rehearsing the problems - though the most recent scientific summit on this matter convened by the government at Exeter some few weeks ago agreed, to the dismay of many, that practically all of our estimates of damage in terms of climate deterioration had been spectacularly overoptimistic. The measurable rise in temperature - and the hitherto underrated extent of acidisation in the ocean through carbon pollution - left little doubt that the predicted rise in water levels would be substantially greater within the next decade, and that life in the oceans was more at risk than had been realised. And of course to speak of rising water levels is not just to predict a gentle advance; melting at or near the poles could mean vast slippages of ice capable of triggering a tsunami effect. We know today what that can mean in a way that we could hardly have dreamed of even a year ago. But we are not only speaking about carbon emissions; we know something of the effects of pesticides and herbicides, and we have become more acutely conscious of the chemical cocktails in our food and water. And the transfer, for economic reasons, of plant and animal species from one environment to another has had a regularly devastating effect on the overall ecology of a new environment and its balance.

Economy and ecology cannot be separated. If Dasgupta is right about the proper definition of wealth, ecological fallout from economic development is in no way an 'externality'; it is a positive depletion of real wealth, the 'human and natural capital' of which he speaks. We should not be surprised; after all, the two words relate to the same central concept. An oikos is a house, a dwelling-place: ecology is the science of what makes up a dwelling place, an environment, the way it works and holds together, the 'logic' of a material setting; and economy is the law that regulates behaviour in an environment, the active 'housekeeping' that manages what is at hand. To seek to have economy without ecology is to try and manage an environment with no knowledge or concern about how it works in itself - to try and formulate human laws in abstraction from or ignorance of the laws of nature. Much of what I have been saying so far is indebted to the new study by the American biologist and geographer Jared Diamond; and he offers a vivid image for the nature of our ignorance. Why, people ask, should we be bothered about the survival of 'lousy little species' that appear to have no use? 'The entire natural world,' Diamond replies, 'is made up of wild species providing us for free with services that can be very expensive, and in many cases impossible, for us to provide for ourselves. Elimination of lots of lousy little species regularly causes big harmful consequences for humans, just as does randomly knocking out many of the lousy little rivets holding together an airplane' (489).

We cannot continue to pretend to 'keep house' for the human race if we refuse to pay any attention to where in the house the gas pipes and electricity wires are laid, which walls are supporting walls, or where the water is carried off by the guttering. But how many sentences in lectures on this subject have begun with the words, 'We cannot continue to...'? Hundreds at least; apparently we can in the short term. But the most original and disturbing aspect of Diamond's book is its remarkably wide-ranging demonstration that failure to manage the environment is a major decisive factor (though admittedly not the only one) in the collapse of settled cultures throughout the centuries, from Easter Island to Viking Greenland; and that collapse is -as with the rising of water levels - no gentle decline but a bloody and costly disintegration. Diamond applies his model not only to the distant past but also to the history of the genocide in Rwanda and Burundi. We know a little about the way in which economic 'rationalisation' to meet the requirements of the World Bank at the end of the eighties put pressure on Rwanda, contributing to the social rootlessness that leads to militarisation. We are conscious of the poisonous legacy of colonial manipulation of tribal rivalry (perhaps an issue to which Diamond gives insufficient attention, as at least one reviewer has argued). But we are only slowly recognizing the role of population growth, environmental degradation and consequent land shortage in fuelling the conflicts that followed. Such problems cannot indefinitely drift on; 'sooner or later they are likely to resolve themselves, whether in the manner of Rwanda or in some other manner not of our choosing, if we don't succeed in solving them by our own actions' (328).

Social collapse is a real possibility. When we speak about environmental crisis, we are not to think only of spiralling poverty and mortality, but about brutal and uncontainable conflict. An economics that ignores environmental degradation invites social degradation - in plain terms, violence. It is no news that access to water is likely to be a major cause of serious conflict in the century just beginning. But this is only one aspect of a steadily darkening situation. Needless to say, it will be the poorest countries that suffer first and most dramatically, but the 'developed' world will not be able to escape: the failure to manage the resources we have has the same consequences wherever we are. In the interim - just as within so much of urban society in wealthier countries - we can imagine 'fortress' situations, struggling to keep the growing instability and violence elsewhere at bay and so intensifying its energy. We can imagine increasing levels of social control demanded, with all that that means for our own internal harmony or stability. And we are not talking about a remote future. There are arguments over the exact rates of global warming, certainly, and we cannot easily predict the full effects of some modifications in species balance. But we should not imagine that uncertainty in this or that particular area seriously modifies the overall picture. On any account, we are failing.

2.

It is relatively easy to sketch the gravity of our situation; not too difficult either to say that governments should be doing more. Government is crucial, and it matters a great deal that the UK administration has declared a commitment to action on climate change. But governments depend on electorates; electors are persons like us who need motivating. Unless there is real popular motivation, governments are much less likely to act or act effectively; there are always quite a few excuses around for not taking action, and, without a genuine popular mandate for change, we cannot be surprised or outraged if courage fails and progress is minimal. Our own responsibility is to help change that popular motivation and so to give courage to political leaders. And this means challenging and changing some of the governing assumptions about ourselves as human beings.

One of the reasons sometimes given for not being too alarmed by predictions of ecological disaster is that we are underrating the possibilities that will be offered by new technologies. Thus the American economist Nancy Stokey, responding to a very detailed discussion by another American economist, William R. Cline, of the impact of climate change and the measures necessary to control it, describes Cline's picture as 'alarmist': 'he makes no allowance for technical change in the next 300 years that will allow the world to cope more effectively with CO2 emissions and their climatic effects' (Lomborg 2004, p.642). Apart from the assumption that we have time to spare in this matter, what is startling is the appeal to 'technical change' in these general terms as a messianic resource. Diamond notes at the end of his book that technical changes introduced to solve environmental problems have a spectacular record of generating fresh problems (he instances the motor car and the development of CFC gases as safe refrigerating agents; pp.505-6). If we simply do not know what 'technical change' might lie ahead and if the history of technological 'fixes' is so unpromising, it takes a great deal of blind faith to think that we can soften the projections of danger in this way. And if this is so, one of the areas in which we have to challenge assumptions is in this matter of reliance on technology to solve problems that are actually about human choices.

To appeal to a technical future is to say that our most fundamental right as humans is unrestricted consumer choice. In order to defend that, we must mobilise all our resources of skill and ingenuity, diverting resource from other areas so that we can solve problems created by our own addictive behaviours. The question is whether, even if this were clearly possible (which is anything but clear; you can't solve a challenge like this with the mere confidence that something will turn up), it would be a sane or desirable way of envisaging the human future. There would always be a case for putting the technical response to new crises ahead of other human needs - since we should always have to ensure we had an environment at all. But this sounds suspiciously like a recipe for perpetuating anxiety and even injustice; we ought not, surely, to be taking for granted that it is a future to be aimed at. It has been said more than once that a future of tighter technical control is also likely to be one of tighter human control. It is not as if we could simply contemplate a libertarian paradise.

But if this is so, there is no alternative to challenging the underlying motivation. Dasgupta, as quoted earlier, invited us to redefine wealth itself in a way that relativises GNP and includes the idea of natural capital; can the same kind of redefinition apply to our ideas about individual wealth or security? What if we believed that the wealthy or secure person was one whose relationship with the environment was one in which actual enjoyment of and receptivity to the environment played the most significant part? This suggests something of a paradox. In order fully to access, enjoy and profit from our environment, we need to see it as something that does not exist just to serve our needs. Or, to put it another way, we are best served by our environment when we stop thinking of it as there to serve us. When we can imagine what is materially around us as existing in relation to something other than our own purposes, we are free to be surprised, educated and enlarged by it. When we obsessively seek to guarantee that the environment will always be there for us as a storehouse of raw materials, we in fact shrink our own humanity by shrinking what is there to surprise and enlarge, by reducing our capacity for contemplation of what is really other to us.

All the great religious traditions, in their several ways, insist that personal wealth is not to be seen in terms of reducing the world to what the individual can control and manipulate for whatever exclusively human purposes may be most pressing. Judaism's teachings about the 'jubilee' principle stress that the land is lent not given to human cultivators: it requires 'sabbatical' years, and its value is to be seen not in terms of absolute possession but as a source of a limited number of harvests between the sabbatical years (Lev.25). The assumption is that the environment that is given, the land bestowed by God, has to be set free regularly from our assumption that it belongs to us; it has to be left to be itself, to be in relation simply to the God who has given it. A year of uncultivation, wildness, is not a lot, but it speaks eloquently of our willingness to organise economy around ecology, to 'keep house' within the limits of a world where we are guests more than owners. Similarly, Christianity not only has its challenges in the Sermon on the Mount to anxiety about controlling the environment, prohibiting us from identifying wealth with possession; it also has its sacramental tradition which presents the material order as raw material for the communication of God's love - the Eucharist as the effective symbol of God's action in creating a radically different human society, not characterised by rivalry and struggle for resources. At the centre of Christian practice is a rite in which all are equally fed by one gift, and in which material things are identified symbolically with the self-offering of Christ. Islam also underlines the partnership of humanity and the rest of the natural order - and, in a passing observation in the Qur'an (Sura 16.8) reminds us that some of the purposes of the animal creation are unknown to us. And a twentieth century Iranian scholar (Muhammad Husayn Tabatabai) quotes both Muhammad and the fifth of the Shi'a Imams as commending farming because it is beneficial for humans and for the animal world as well. Examples

could be multiplied from these and other faiths; but what I have quoted makes it abundantly clear that religious faith assumes that our humanity grows into maturity by allowing the material environment its own integrity. While the detail of this is inescapably complex, the point is plain. The oikos we inhabit has a logos, a meaning whose fullness is not exhausted in what we can make of it; the nomos, the law of our behaviour in this dwelling place, has to work with and not against the larger significance of a world that stands first in relation to its maker, and so has to be seen as free from our preoccupations about its usefulness to us.

The jubilee idea has had great currency recently as a focal image for the imperative of debt remission; I believe it has just as much importance in this context - and indeed that using it in this context reminds us of the way in which the issues of economic justice and of ecological justice belong together. Perhaps we need another 'jubilee' campaign, concentrated on sabbaticals for overfished waters and deforested uplands, recognising that the rapacity and short-term planning that devastate these resources have their roots in the same blindness that, three decades ago, began to press disadvantaged nations into debt and then sought to improve their economies by the profoundly damaging strategies of 'structural adjustment', which deplete the human - the civil and cultural - resources of a nation.

The unique contribution that can be made to this whole discussion by religious conviction might be characterised in two ways. Religious belief claims, in the first place, that I am most fully myself only in relation with my creator; what I am in virtue of this relationship cannot be diminished or modified by any earthly power. It is this that grounds the obstinate belief in the irreducible value of human persons which animates any religious witness or work for the sake of justice; it is this that enables religious resistance to even the most overwhelmingly powerful and successful tyrannies, from the Roman Empire to the Third Reich, the Soviet Union or apartheid South Africa. But the implication, secondly, is that every aspect of creation likewise finds its full value and significance in relation to the creator, not to the agenda of any other creature. In the environment there is a dimension that resists and escapes us: to be aware of that is to grasp the implications of belief in human dignity, in my own dignity or value. And to reduce the world to a storehouse of materials for limited human purposes is thus to put in question any serious belief in an indestructible human value. As writers like Mary Midgley have argued eloquently, humanity needs to rejoin the rest of creation, to become aware of the limits that interdependence imposes and of the dangerous groundlessness of belief in human value when it is abstracted from a sense of value in all that exists around us.

We are speaking about redefining wealth as 'wealth that builds and sustains and takes forward the core purpose of our whole human enterprise' (Danah Zohar and Ian Marshall, *Spiritual Capital*, p.33). If we have to use the language of rights here - and it is ambiguous in many ways - we ought to be saying that human persons have a right to live in an environment that is not only safe and healthy in the obvious sense but also is itself, not fully determined by human projects. We could imagine a 'charter' of rights in relation to the environment - that we should be able to live in a world that still had wilderness spaces, that still nurtured a balanced variety of species, that allowed us access to unpoisoned natural foodstuffs. Over the twentieth century, there have in fact been a good many moves in such a direction - in the UK through clean air legislation and the maintenance of public parks and the work of many conservation trusts. It may be that the time is ripe for an attempt at a comprehensive statement of this, a new UN commitment - a 'Charter of Rights to Natural Capital' to which governments could sign up and by which their own practice and that of the nations in whose economies they invested could be measured. But we should make no mistake: the possibility of anything like this depends on each of us. Already consumer power has begun to make a difference to the practices of international business in pressing for signs of environmental responsibility; governments need strengthening in their commitments and need electoral incentives to be involved in the sort of internationally agreed aspirations I have sketched.

But aspirations alone are no use. We return constantly in discussions of this subject to what sort of structures and sanctions might assist in making effective a change in our motivations and myths. A charter may be desirable, but needs institutional backing. Various suggestions have been advanced; and it is worth noting that very different commentators have come to convergent views on the sort of thing that is required. Sir Crispin Tickell has argued in a lecture last year for a 'World Environment Organisation' comparable to the World Trade Organisation and capable of working in harness with it. George Monbiot has elaborated, in his recent book, *The Age of Consent. A Manifesto for a New World Order*, the model of a 'Fair Trade Organisation' that would establish both ecological and economic standards for multinational trading. It would act as a global licensing body, restricting trade and enterprise across national boundaries to those companies that were ready to abide by a set of specified criteria at every stage of their activities. If, for example, a food-processing company based in Switzerland wished to import cocoa from Cote d'Ivoire, it would need to demonstrate to the Fair Trade Organisation that the plantations it bought from were not

employing slaves, using banned pesticides, expanding into protected tropical forests, or failing to conform to whatever other standards the organization set' (p.228). As he points out, there are already examples of such regulatory regimes in operation, some voluntary (as with the existing fair trade movement), some mandatory, such as health and safety regulations within the jurisdiction of individual nations. Is it impossible to think of internationally enforceable regulation of this sort? Monbiot goes so far as to float the possibility of expanding the remit of the International Criminal Court to deal with companies that distort or bypass the liberties of elected governments in forcing environmentally and socially disastrous developments on them (p.230) – a drastic course of action, which would bring its own complications; but the idea itself at least underlines the sense in which environmental disaster can be as destructive as military crimes.

We are looking here at new sorts of structures. Yet through institutions like the WTO, we already see possibilities. Whether a new regulatory body should be a partner to the WTO or should be a comprehensive body dealing with the large issues Monbiot outlines, a sort of combination of WTO and a 'World Environment Organization' matters less than the willingness to entertain and acknowledge the urgency of some intensified international regime to monitor and discipline economic activity in the ways we have been discussing. A manageable first step relating particularly to carbon emissions, supported by a wide coalition of concerned parties, is of course the 'Contraction and Convergence' proposals initially developed by the Global Commons Institute in London. This involves granting to each nation a notional 'entitlement to pollute' up to an agreed level that is credibly compatible with overall goals for managing and limiting atmospheric pollution. Those nations which exceed this level would have to pay pro rata charges on their excess emissions. The money thus raised would be put at the service of low emission nations - or could presumably be ploughed back into poor but high-emission nations - who would be, so to speak, in credit as to their entitlements, so as to assist them in ecologically sustainable development.

Such a model has the advantage that it seeks to intervene in what is presently a dangerously sterile situation. At the moment, some nations that are excessive but not wildly excessive polluters (mostly in Western Europe) have agreed levels of reduction under the Kyoto protocols, and are moving with reasonable expedition towards their targets; some developed nations that are excessive polluters have simply ignored Kyoto (the USA); some rapidly developing nations that are excessive polluters have also ignored Kyoto because they can see it only as a barrier to processes of economic growth already in hand (India and China). A charging regime universally agreed would address all these situations, allowing the first category to increase investment aid in sustainable ways, obliging the second to contribute realistically to meeting the global costs of its policies, and enabling the third to explore alternatives to heavy-polluting industrial development and to consider remedial policies.

This scheme deals with only one of the enormous complex of interlocking environmental challenges; but it offers a model which may be transferable of how international regimes may be constructed and implemented. If Contraction and Convergence gained the explicit support of the UK government, this would be a significant step towards political plausibility for the programme, and it is well worth keeping the proposals in the public eye with this goal in mind. Election campaigns seldom give much space to environmental matters; but the perceived significance of these concerns is weightier now than it has ever been, and the UK's declared commitments on climate change provide an important lever for bringing them into fuller focus as we move towards the election. Just as in the realm of consumer pressure, it is up to us how high a profile a plan such as Contraction and Convergence has in the questions we raise for political candidates.

3.

But it is because the ecological agenda is always going to be vulnerable to the pressure of other more apparently 'immediate' issues that it cannot be left to electoral politics alone. Change in consumer attitudes, leading to the gradual emergence of slightly more eco-friendly policies on the part of major retailers, did not happen primarily as a result of conventional political activism, but in the wake of a persistent drip-feed of information and the identification of simple local means of exercising consumer power. As Jared Diamond says in an appendix to his book, the most effective action occurs when people have worked out the point in the commercial chain where they can most constructively bring pressure to bear: 'Consumers...need to go to the trouble of learning which links in a business chain are most sensitive to public influence, and also which links are in the strongest position to influence other links' (p.557). Consumer pressure (for abundant energy sources, for fast food, for efficient refrigeration, for rapid travel and so on) has always been a major part of the problem in the development of ecologically irresponsible economics; the question is now whether it can be part of the solution.

The indications certainly are that it can. But in a context where information overload makes us rapidly bored or disoriented or both, we still need a steady background of awareness and small-scale committed action, nourished by some kind of coherent vision. Ecologists have argued regularly that some religious attitudes are part of the problem; once again we have to ask whether religion is part of the solution. Certainly, what has sometimes been said about the responsibility of the Judaeo-Christian tradition for the exploitation of the earth is a caricature, in the light of the theological resources touched on earlier in this lecture; nor is it true that premodern or non-Western societies innately possess a superior wisdom that delivers them from ecological follies. But there is this amount of truth in the caricature: the alliance of early modern Western culture in its first flush of energy- eagerly problem-solving, expansionist, colonialist, functionally-minded - with a certain kind of Christianity - triumphalistic, rational and unsympathetic to the idea of a sacred world of symbolism, heavily focused on ideas rather than acts and relations - has undoubtedly been a factor in what is so often called the 'disenchantment' of the natural environment. The slow rediscovery, in and out of the Christian fold, of that dimension of the environment that is in no way defined by its relationship with us but exists in its own relationship with God has posed a proper and grave challenge to what is left of the early modern rationalist/expansionist alliance.

But it is an open question whether either a simply secular philosophy or a diffuse 'sense of the sacred' in the environment will fully do the job. In these reflections, we have come back more than once to the question of how we define wealth. The historic religious traditions see it, in one way or another, as bound up in relation with an entire environment that is understood as given 'in trust'; we are answerable in respect of our relation with the material world, as we are answerable for what we make of ourselves. This is more than just an awareness of 'sacred' depth in things; it is recognising that we are bound to be involved in intervention in our environment, but that this intervention has to be measured by something more than the meeting of our needs. Thus religious faith steers us away from any fantasies we may have of not 'interfering' with the environment (the first planting of grain was an interference), but it tells us that our interaction with what lies around can never be simply functional and problem-solving. We have to discover a way of preserving an environment whose freedom from our anxious and exploiting need becomes a vital contribution to our own lives and our sense of our dignity. In honouring the freedom of what lies around us to be more than a storehouse for our gratification, we give the respect that is due to environment as creation - and thus give due honour to a creator whose purposes are not restricted to what we can grasp as good for us alone (remember the important reservation in the Qur'anic text I quoted about the unknown purposes of God in the animal creation).

Wealth is access to the 'capital' of the world as it is, access to the truth and reality that can be discovered when we are set free from our narrow and self-directed concerns - a discovery that both individuals and societies need to make. As such it is access to the depth of our own being, to the rich capacity of the world around to generate in us joy and amazement as well as practical sustenance, and to the final depth of reality which is the love of God as the source of all gifts. We shall not be able adequately to deal with our crisis of 'housekeeping' without what I earlier called the sense of being a guest in the oikos of our world, the sense that ought to keep together the logic of the household and the discipline of the household, ecology and economy. Religious commitment becomes in this context a crucial element in that renewal of our motivation for living realistically in our material setting - the motivation that is vital if we are to avoid the collapse of civil discourse, material sustainability, justice and stability which, if Diamond is right, regularly accompanies ecological degradation. The loss of a sustainable environment protected from unlimited exploitation is the loss of a sustainable humanity in every sense - not only the loss of a spiritual depth but ultimately the loss of simple material stability as well. It is up to us as consumers and voters to do better justice to the 'house' we have been invited to keep, the world where we are guests.

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