ECO-FUNDAMENTALISM

by

Deepak Lal

James S. Coleman Professor of International Development Studies,

University of California, Los Angeles

UCLA Dept. of Economics
Working Paper #732
May 1995

Address: Dept. of Economics
8369 Bunche Hall
UCLA, 405 Hilgard Avenue
Los Angeles, CA 90024-1477

Fax: 310-825 9528

INTRODUCTION

With the end of the Cold War, the search is on for the new fault lines which will be the source of international friction in international relations. Huntington (1993) finds them along cultural lines, with the great civilizations -- Western (with its various subdivisions -- Western versus Eastern Christianity, Latin American versus North American), Islamic, Sinic, Hindu and Japanese, vying for influence and power, and trying to promote or protect their traditional values and ways of life. The picture which emerges from his article is of the West attempting to promote its values of economic and political freedom against the Rest. The "religious" values of the Rest being implicitly contrasted with what can be called the secular "classical liberal" values of the West. But in this article I want to argue that this benign view of the West's values overlooks an important secular religious movement in the West (with transnational links) that of the eco-fundamentalists. No less than the bloody borders promoted by Islamic fundamentalism identified so controversially by Huntington, a less bloody but no less fractious conflict between the West and the Rest may yet be provoked by the burgeoning environmental movement in the West.
To establish the "religious" nature of this movement I examine the rational basis for the fears on which an effective end to economic growth -- particularly in the Rest -- is being promoted by environmentalists, as well as their attempts to introduce a form of eco-protectionism of foreign trade in the West aimed at the Rest. This is done in the first section. The second section then shows how in fact there are great similarities in the "religious" fundamentalism of the environmentalists and the more

conventional forms of fundamentalism. The third offers some speculations on the consequences for world order.

I.

It is useful to distinguish between local environmental problems and global ones. The former largely concern pollution of air and water, for instance, which is confined to national borders. The latter to pollution which spills over national boundaries -- as for instance in the problem of acid rain, or the ozone hole purported to have been caused by the use of CFCs, and above all the problem of global warming caused by the greenhouse gasses. Whereas the rational way to deal with the national set of environmental problems is some suitable domestic action, that to deal with the problem of the "global commons" obviously requires international action.

But it is being argued by those who wish to link trade policy to environmental concerns that even in the case of local pollution, international action is required -- for instance through the promotion of an environmental clause in the work of the recently launched World Trade Organization. I want to deal with this case before turning to the question of the problems of dealing with the global commons.

The concern about the absence of an environmental clause in trade policy, is that countries with low pollution standards (implicitly the Rest) will increasingly compromise the high pollution standards of the West. For to the extent that meeting higher local pollution standards raises the costs of production of Western producers as compared with their competitors in the Rest, trade with the polluters will not be on a "level playing field". Hence it is argued that there should be a harmonization

of local environmental standards across the world.

This argument mirrors the argument for an international harmonization of international labor costs, so that low wage countries without the various forms of cost enhancing labor "protection" laws to be found as part of Western welfare states, do not have an unfair advantage against their Western competitors. Economists have found this pauper labor argument "a stupid argument" (Haberler, 1936; Lal, 1981), because it implies that "the object of a tariff should be to counteract the lower costs of foreign countries. Only then, it is claimed, will home industry be able to compete with foreign industry on a "fair" basis. It is clear that the complete and logical application of this postulate would destroy all international trade, since this arises only because of differences in cost" (Haberler, p. 251).

The same is true of the costs of dealing with local pollution. Countries differ in respect of their existing levels of local pollution and even more important in terms of their tolerance of it -- which is a matter of tastes or if you like a question of "values". To legislate one's values across a world, where despite the ink spilt by moral philosophers, there is no universal consensus on "values", would be a clearcut case of eco-imperialism. The case against this ethical strand, which is also to be found in the argument for universal labor standards was set out in my examination of the "pauper labor" argument (Lal, 1994). It applies mutatis mutandis to the parallel case for environmental standards.

Given these differences in national "values" and levels of local pollution, the resulting costs of dealing with it will differ across countries, and as with differences

in labor costs there is no case for their harmonization as claimed by the environmental lobby. In the language of the modern theory of trade and welfare, local environmental problems create a domestic distortion in the workings of the price mechanism. Its correction requires some suitable domestic public intervention (tax-subsidy scheme, or creation of property rights). Intervention in international trade will be the worst possible policy, and may make matters worse. Differences in environmental standards to deal with local pollution therefore are desirable, and free trade (which does not differentiate between the origins of goods -- including the processes through which they are produced) still remains ideal. To demand protection against the lower environmental standards of one's competitors, is like the similar argument for protection against their lower labor standards based on "a stupid argument"!

What of the argument for international action to protect the global commons? If there was an established danger of the Apocalypse forecast by the environmentalists, global action would be justified. The centerpiece of the international green agitation concerns the so-called greenhouse gasses -- CO2, CH4, N2O and CFCs. Much of the other aspects of their programs -- preserving the tropical rain forests and their diversity of species, controlling population -- follows on from this. It is indubitable that these gasses have increased over the past 100 years and their emissions will accelerate with growing global economic activity. What remains highly controversial is the purported link between this fact and the prospects of catastrophic climate change, and the destruction of the ozone layer. Many scientists

say that the recent rise in global temperatures is associated with a high point in the sun-spot cycle. Some cast doubt on the link between CFC's and the ozone hole, and argue it too may be linked to variations in the solar cycle (see Lal, 1990; Beckerman, 1995; Ridley, 1995) for references and surveys of the continuing scientific disputes). The most thorough and non-partisan review of the available scientific evidence on climate change is provided by Balling (1992). He concludes:

> one pattern is fairly typical in all of these issues [environmental ones interconnected to the greenhouse effect]. In the mid-1970's, acid rain emerged as the environmental threat capable of enormous destruction. After years of research, a more moderate view of the threat has been accepted by many atmospheric scientists. In the mid to late 1970's, we seemed headed for a disaster via global cooling. Clearly the extreme predictions for catastrophe were not realized ... For a brief period in the early 1980's climatologists became fascinated with the extreme cooling of nuclear winter. But once again, following a period of intensive research, most scientists concluded that the early predictions most likely overestimated the problem. In a similar way, some reputable scientists immediately declared that the oil fires in Kuwait would lead to climate chaos; but once again, the research on the issue moderated our view ... If the greenhouse effect follows the pattern of the other issues that have been addressed by climatologists over the past two decades, we can safely bet on a much more moderate change than what was originally believed and sold as the "popular vision". Only time will tell. (Ballings, 1992, p. 151)

But our environmental Cassandra's will tell us we may not have enough time to wait for these scientific uncertainties to be resolved before we act. For if there is even an infinitely small chance that doing nothing now could lead to Apocalypse, then analogous with Pascal's wager on the existence of God, we must act now to stop global warming -- even though this action may in time be shown to be futile.

The required action is primarily to prevent the buildup of atmospheric CO2, and that implies a brake on the burning of fossil fuels. But such a brake must retard

modern economic growth, particularly in the poorest parts of the world. For as economic historians have emphasized it was not till the Industrial Revolution that mankind found the key to intensive growth -- a sustained rise in per capita income -- which,as the example of the West and many newly industrializing countries have shown, has the potential of eradicating mass structural poverty -- the scourge which in the past was considered to be irremediable (pace the Biblical saying that the poor will always be with us). For in the past most growth was extensive -- with output growing in line with (modest) population growth (Reynolds, 1983). As pre-industrial economies relied on organic raw materials for food, clothing, housing and fuel (energy), whose supply in the long run was inevitably constrained by the fixed factor, land, their growth was ultimately bounded by the productivity of land. For even traditional industry and transportation -- depending upon animal muscle for mechanical energy, and upon charcoal (a vegetable substance) for smelting and working crude ores and providing heat -- would ultimately be constrained by the diminishing returns to land that would inexorably set in once the land frontier was reached. In these organic economies (Wrigley, 1988), with diminishing returns to land conjoined with the Malthusian principle of population, a long run stationary state where the mass of the people languished at a subsistence standard of living seemed inevitable. No wonder the classical economists were so gloomy!

But even in organic economies there could be some respite, through the adoption of market "capitalism" and free trade defended by Adam Smith. This could generate some intensive growth as it would increase the productivity of the economy

as compared with mercantilism, and by lowering the cost of the consumption bundle (through cheaper imports) would lead to a rise in per capita income. But if this growth in popular opulence led to excessive breeding the land constraint would inexorably lead back to subsistence wages. Technical progress could hold the stationary state at bay but the land constraint would ultimately prove binding.

The Industrial Revolution led to the substitution of this organic economy by a mineral based energy economy. It escaped from the land constraint by using mineral raw materials instead of the organic products of land. Coal was the most notable, providing most of the heat energy of industry and with the development of the steam engine virtually unlimited supplies of mechanical energy. Intensive growth now became possible, as the land constraint on the raw materials required for raising aggregate output was removed.

Thus the Industrial Revolution in England was based on two forms of "capitalism", one institutional, namely that defended by Adam Smith -- because of its productivity enhancing effects, even in an organic economy -- and the other physical: the capital stock of stored energy represented by the fossil fuels which allowed mankind to create in the words of E.A. Wrigley:

> a world that no longer follows the rhythm of the sun and the seasons; a world in which the fortunes of men depend largely upon how he himself regulates the economy and not upon the vagaries of weather and harvest; a world in which poverty has become an optional state rather than a reflection of the necessary limitations of human productive powers. (Wrigley, 1988, p. 6)

The Greens are of course, against both forms of "capitalism" -- the free trade

promoted by Smith, as well as the continued burning of fossil fuels -- leaving little hope for the world's poor.

But even if we take the Green fear of a small probability of an apocalyptic greenhouse effect (which all the current evidence shows is even on the worst assumptions unlikely to be apocalyptic (see Lal, 1990, 1994; Beckerman, 1995; Ridley, 1995), is current action to curb greenhouse gasses rational as an insurance policy. Fortunately, a sophisticated cost benefit study which quantifies the various alternative scenarios and the uncertainties surrounding both the extent of the likely climatic effects of the increase in greenhouse gasses following from continuing economic growth -- not least its acceleration in countries like China and India which contain the bulk of the world's poor -- as well as the effects of this climate change on the economies of different regions of the world is now available (see Nordhaus, 1995).

Nordhaus considers seven alternative policies for dealing with climate change:

> the first is ... "laissez-faire" ... in which there are no controls on greenhouse gasses ... The second is the "optimal" policy, a scenario in which GHG controls are set so as to maximize the discounted value of the utility of consumption. The third is a scenario in which we wait 10 years to implement policies so that our knowledge might be more secure. The fourth and fifth policies are ones that stabilize emissions -- one at the 1990 rate of emissions and the other at 80 percent of the 1990 emissions rate. The sixth proposal is to undertake geo-engineering, while the final approach is to curb emissions sufficiently to slow climate change and eventually stabilize climate. (p. 79)

His results for the best guess case are:

> among these seven [policy options] the rank order from a purely economic viewpoint is geo-engineering, economic optimum, 10 year delay, no controls, stabilizing emissions, cutting emissions by 20

> percent, and stabilizing climate. The advantage of geo-engineering over other policies is enormous. (p. 96)

These results are fairly robust and are not changed markedly by the introduction of "uncertainty and realistic constraints on the resolution of uncertainty" (p. 186).

There are two points worth noting about these results. First, the geo-engineering option, which according to a U.S. National Academy of Sciences survey could be implemented "at relatively low costs" (Nordhaus, op cit., p. 81), involves various options including "shooting smart mirrors into space with 16 inch naval rifles or seeding the oceans with iron to accelerate carbon sequestration" (Nordhaus, ibid). But as Nordhaus notes, these technological fixes are opposed by environmentalists "because of the grave reservations about the environmental impacts of the geo-engineering options" (ibid). Whether these reservations are rational is not discussed. For reasons set out in the next section my suspicion would be they are not!

Second, the 10 year delay and laissez faire alternatives dominate the various alternatives about stabilizing emissions, the policy alternative endorsed by the Rio conference, and adopted enthusiastically by the U.K. and the EU! Moreover the optimal policy implies a reduction in GHG emissions from their laissez faire level of 21.96 billions of tons of carbon equivalent in 2075 to 19.01 billions of tons of carbon equivalent (a mere 13% reduction from laissez faire)! And the gain from this policy over laissez faire is only an 0.06% annual increase in world annual consumption! By contrast all the alternatives of stabilizing emissions involve losses of from 8

to 1.5% of world annual consumption.[1] Given the political difficulties in implementing the optimum solution (see Swanson), and the trivial gains to be thereby secured, the only rational conclusion is that the only sensible policy on climate change is to let well alone -- that is laissez faire!

II.

But I do not for a moment believe that this conclusion will be found acceptable by eco-fundamentalists. Not because they can find fault with Nordhaus' method or assumptions, but because they believe this rationalist way of choosing policy is fundamentally misguided. In this they have great similarities with the religious fundamentalisms sweeping the world, and which implicitly are the source of Huntington's cultural fault lines. For though it may appear that the environmental movement is "scientific" and hence "modern" whilst the religious fundamentalists are "non-scientific" and pre-modern, they both share a fear and contempt of the modernity whose central features are rightly seen to be an instrumental rationality which undermines Man's traditional relationship with God or Nature. The sense of loss with modernity's "disenchantment of the world" of the ecologists is paralleled by the fundamentalists fear of losing cherished traditional lifestyles. Both also are premodern in that they "claim to have a privileged, uncontested view of the nature of

---

[1]See Nordhaus, op. cit., Table 5.1 and p. 83. The impact on annualized value of consumption for the world in billions of $ per year is 11 for the optimum; 10 for the 10 year delay; 0 for laissez faire; 224 for geo-engineering; and -283 for stabilizing emissions qt 1990 levels; -501 for stabilization at 80% of 1990 emission levels; and -1639 for stabilizing climate at max of 1.5 degrees C increase. These numbers can be compared to an annual consumption rate of approximately $20,000 billion in the 1990-99 period of Nordhaus' model.

reality, which brooks no discussion, a claim which still flies counter to the work of science, as it did in the great historical disputes" (Douglas and Wildavsky, 1983, p. 30).

But both sets of fundamentalisms are also in other ways exceedingly modern. As the comparative study of Fundamentalism, sponsored by the American Academy of Arts and Sciences, found in the words of one of its co-directors:

> "Fundamentalism"... describes the central process involved in constructing a late-twentieth-century mode of militant political religion. Fundamentalists in Islam or Christianity or Judaism or Hinduism -- often graduates of secular academies- are quite at home with modern technologies, political processes and the latest strategies of mass marketing and mobilization. The people they presume to represent feel enormously threatened by secular elites. The elite classes- educators, scientists, politicians -- have manifestly failed either to share the wealth or preserve "traditional" markers of home, family and communal identity, be these prayer in school, an exclusive domestic role for women, or literal belief in things unseen. Thus the fundamentalists reach back to retrieve elements of the sacred tradition which they claim to be absolutely fundamental to the faith. The religious fundamentals are interpreted or "constructed" in a way most useful to the ideological and organizational goals o the movement.
>
> (Appelby, 1993, p. 217; also see Marty and Appelby, 1993)

By contrast the ecological movement -- though religious in one sense -- arose in part as a reaction to the death of God in the West with the Enlightenment. The historian of the ecological movement Anna Bramwell notes that in the past Western Man was

> able to see the earth as man's unique domain precisely because of God's existence. Before, both religious and natural theology were impregnated with the idea of a God-centered world. When science took over the role of religion in the nineteenth century, the belief that God made the world with a purpose in which man was paramount declined. But if there was no purpose, how was man to live on the earth? The hedonistic answer, to enjoy it as long as possible, was not

> acceptable. If Man had become God, then he had become the shepherd of the earth, the guardian, responsible for the oekonomie of the earth. (Bramwell, 1989, p. 23)

And their beliefs? Bramwell sums them up as follows:

> Ecologists believe in the essential harmony of nature. But it is a harmony to which man may have to be sacrificed. Ecologists are not man-centered or anthropocentric in their loyalties. Therefore they do not have to see nature's harmony as especially protective towards or favoring mankind. Ecologists believe in an absolute responsibility for one's actions, and for the world in general. There is no God the Shepherd; so man becomes the shepherd. There is a conflict between the desire to accept nature's harmonious order, and a need to avert catastrophe because ecologists are apocalyptical, but know that man has caused the impending apocalypse by his actions. Ecologists are the saved. (Bramwell, p. 16)

This seems very much like religious fundamentalism to me. Moreover, like their religious brethren these eco-fundamentalists have also found various aspects of modern technology suitable to their purposes. Khomeni's reliance on the transistor and tape recordings to mobilize his troops is matched by the environmental lobbies use of the computerized mailing lists to garner supporters (Douglas and Wildavsky, p. 165). Moreover in their organization these lobbies are very similar to religious sects (ibid).

The stronghold of the ecological movement since the late 19th century as Bramwell emphasizes has been the Protestant North of Europe (mainly Britain and Germany) and the United States. There has been a scientific root in Britain drawing on Darwin and Malthus, and an atavistic romantic stream stemming form Matthew Arnold (Pepper, 1984). Whilst Bramwell identifies the distinctive qualities of ecologism as consisting of two distinct strands. "One was an anti-mechanistic,

holistic approach to biology deriving from the German zoologist Ernst Haeckel. The second strand was a new approach to economics called energy economics. This focused on the problem of scarce and non-renewable resources. These two strands fused together in the 1970's" (ibid, p. 4).

The religious nature of the movement is further supported by its failure ever to admit that its predictions have been wrong, and to continue making the same assertions based on its world view despite evidence to the contrary. Thus take the Malthusian roots of the movement. This has led it to predict cataclysmic effects from an exploding population mainly in the developing world. Yet one of the most firmly established stylized facts of modern demography is the so-called "demographic transition" (see Birdsall for a review). The rise in Third World populations was primarily due to a fall in death rates because of better sanitation and public health measures such as vaccinations. If parents are aiming for a particular completed family size the number of live births they will aim for will depend upon how many children are likely to survive to maturity. It is only after a lag that parents will begin to recognize that something systemic has changed in the falling death rates - particularly for infants. They will then lower the number of live births they seek, as a smaller number are required to attain the required family size. Thus as has been observed in numerous developing countries, population growth rates rise with the fall in the death rate, and then fall back as the fertility rate adjusts with a lag to the fall in the death rate. This demographic transition is aided by falling infant mortality, better female education and health, and above all by rising incomes, which by

raising the value of time of the parents lead to a substitution of quality for quantity in children.

Yet these well established fact do not seem to have been accepted by "ecologists:. Thus as I write this the Financial Times (April 29/30) carries an interview with Sir Roy Calne described as one of the world's leading transplant specialists and a Professor of Surgery at Cambridge. He has written a book called Too Many People, which according to the FT argues that catastrophe stares us in the face

> with 11 billion humans crammed on to the planet within the next half century- double the present global population. "Every 12 days, a new Los Angeles is added to the world's surface". The ruination of the world's resources, the impoverishment of all lives by want of space, the ubiquitous rise of violence and crime -- all these followed ... Candidly he admitted to me his dream of an engineered virus which would render all human beings automatically sterile after the production of two children ... Sir Roy's less drastic published proposal is that the United Nations set up an International Laboratory for population Studies, with powers to act over the heads of governments only elected for programs of short-term expediency. (Spivey, 1995).

The FT reporter to his credit balks at this "technocratic authoritarianism which liberals traditionally loathe".

This example illustrates a number of important points. First, that the environmental movement is not confined to what Americans call "kooks". As both Branwell and Douglas and Wildavsky note the movement encompasses highly educated people, whose political views span the political spectrum. Second, they do not however, respect the "evidence" even if it is inconvertible. It is as if I, a development economist, wrote a book and was interviewed by the FT on the merits

of hiring Haitian voodoo doctors to deal with the problem of rejection of transplanted organs! Third, -- a point I take up later -- the ecologists as much as the religious fundamentalists have launched an attack on modernity. Fourth, as Sir Roy Calne's proposed panacea suggests many of these eco-fundamentalists are seeking to use transnational (rather than national) institutions to pursue their goals.

Two other examples should suffice to show the "religious" nature of ecologists beliefs. As noted above one of the strands in their beliefs is the increasing scarcity of non-renewable resources as burgeoning populations and economic growth hit these "limits to growth". All the empirical evidence is against this. The commercial reserves of non-renewable resources have risen markedly since 1970 (with those for oil rising by 63% and natural gas by 163%), and declines in their price trends, as well as in their current consumption as a proportion of reserves, all point to a growing abundance rather than a scarcity of many non-renewable resources (World Bank, 1992). Yet to read the Worldwatch Institutes annual survey of woe, one would never know this.

Similarly the fear of a global food shortage has been a persistent scare raised by eco-fundamentalists. It still continues (see e.g., Brown et al., 1993). But in fact on the basis of even low technology the world could support one-and-a half times the expected population in 2000, and over nine times that level using the best currently available technology at the United Nations recommended calorie intake a head! (World Bank, ibid). Yet the environmentalists and increasingly a Western public opinion heavily influenced by them ignores this evidence. This again can be taken

as a reaction against the rationalism which has underpinned modernity.

Enough has been said to show that far from a benign liberal rationalist modern West confronting the pre-modern fundamentalisms of the Rest -- as Huntington implies -- there are important pre-modern fundamentalisms in the West which are equally like to be a source of world disorder.

III.

In examining the threat to world order posed by the eco-fundamentalists, it is useful to follow Stephen Toulmin's (1990) brilliant reconstruction of the origins of the "modernity" project, which will also allow us to see why it has run into the sands of eco-fundamentalism. Toulmin argues that there were two strands in modernity. The skeptical humanism of the late Renaissance epitomized by Montaigne, Erasmus and Shakespeare, and the rationalism of the late 16th century epitomized by Descartes search for certainty, which underpinned the triumphs of the scientific revolution as well as the methods of mechanistic Newtonian physics as the exemplary form of rationality. Toulmins's most original insight is that the rationalist project was prompted by the Thirty Years War that followed the assassination of Henry IV of France in 1610. Henry's attempt to create a religiously tolerant secular state with equal rights for Catholics and Protestants mirrored the skeptical humanism of Montaigne. Henry's assassination was taken as a sign of the failure of this tolerant Renaissance skepticism. With the carnage that followed the religious wars in support of different dogmas, Descartes set himself the project of overcoming Montaigne's skepticism -- which seemed to have led to such disastrous consequences

by defining a decontextualized certainty.

This rationalist project, which created the scientific revolution, found resonance argues Toulmin in the coterminous development of the system of sovereign nation states following the peace of Westphalia. The ascendancy of these two "systems" continued in tandem till the First World War. But chinks were appearing in the armor of the rationalist Cartesian project with its separation of human from physical nature with the developments in the late 19th century associated with Darwin and Freud. Despite the replacement of Newtonian physics by the less "mechanistic" physics of Einstein and his successors, the political disorder of the 1930s led as in the 1630s to a search for certainty and the logical positivist movement was born.

The final dismantling of the scaffolding of the rationalist project begun with the peace of Westphalia, according to Toulmin, occurred in the 1960s -- with Kennedy's assassination being as emblematic as Henry IV's. With many hoping that Kennedy was about to launch a period ending the Age of Nations and beginning one of transnational cooperation through transnational institutions. Thus since the 1960's the world has been trying to reinvent the humanism of the Renaissance that was sidelined by the rationalist Cartesian project of the 16th century. As he writes:

> By the 1950s there were already the best of reasons, intellectual and practical for restoring the unities dichotomized in the 17th century: humanity vs. nature, mental activity vs its material correlates, human rationality vs. emotional springs of action and so on.

He then goes on to argue that the post war generation was the first to respond: "because they had strong personal stakes in the then current political situation." The

Vietnam war

> shocked them into rethinking the claims of the nation, and above all its claim to unqualified sovereignty. Rachel Carson had shown them that nature and humanity are ecologically interdependent, Freud's successors had shown them a better grasp of their emotional lives, and now disquieting images on the television news called the moral wisdom of their rulers in doubt. In this situation, one must be incorrigibly obtuse or morally insensible to fail to see the point. This point did not relate to particularly to Vietnam: rather what was apparent was the superannuation of the modern world view that was accepted as the intellectual warrant for "nationhood" in or around 1700. (Toulmin, p. 161)

This is the place to introduce the insights of Douglas and Wildavsky concerning the cultural and political characteristics of the environmental movement. They define a hierarchical center which has been characteristic of the nation state- much as Toulmin does. Opposing this have been what they call "border" organizations. They comprise "secular and religious protest movements and sects and communes of all kinds" (p. 102). They argue that:

> the border is self-defined by its opposition to encompassing larger social systems. It is composed of small units and it sees no disaster in reduction of the scale of organization. It warns the center that its cherished social systems will wither because the center does not listen to warnings of cataclysm. The border is worried about God or nature, two arbiters external to the large-scale social systems of the center. Either God will punish or nature will punish; the jeremiad is the same and the sins are the same: worldly ambition, lust after material things, large organization. (p. 123)

Like Toulmin they see the Vietnam war, and Watergate undermining support for the center in the U.S., and giving greater legitimacy to the border -- particularly to the segment which emphasizes Nature. There are various more complex reasons -- which we cannot go into on this occasion -- why the moral authority of the center in many Western states has been undermined. This has given rise to sources of moral authority outside the hierarchical structure of the nation state, which echoes a

return to pre-modern Western medieval forms. As Toulmin notes:

> One notable feature of the system of European Powers established by the Peace of Westphalia ... was the untrammeled sovereignty it conferred on the European Powers. Before the Reformation, the established rulers ... exercised their political power under the moral supervision of the Church. As Henry II of England found after the murder of Thomas a Becket, the Church might even oblige a King to accept a humiliating penance as the price of its continued support.
> (ibid p. 196)

With the undermining of the moral authority of Western nation states, Toulmin notes that this moral authority is increasingly being taken over by non-governmental organizations (NGO's) like Amnesty International, and in many cases the environmental NGO's. This unravelling of the Westphalian system and a partial reversion to the world of the Middle Ages, poses in my view the real threat of eco-imperialism, modelled less on the model of the 19th century scramble for Africa, than the Crusades.

For whilst the West may be turning its back on modernity and its associated untrammelled sovereignty of nation states, the Rest have no intention of giving up the latter and are eagerly seeking to adopt the technological fruits of the former, without giving up their souls. Hence even religious fundamentalists in the Rest recognize the need for economic progress, if for no other reason than to acquire the ability to produce or purchase those arms which they feel are essential to prevent any repetition of the humiliation they have suffered at the hands of superior Western might in the past. As the Indian defense minister is reported to have said when asked about the lesson he learned from the Gulf War: "Don't fight the United States unless you have nuclear weapons" (cited in Huntington, p. 46). Numerous

developing countries for good or ill have, or are rushing to acquire this new countervailing power. The attempts by the eco moralists to curb their development of the industrial bases of this power, to save Spaceship Earth will be fiercely resisted.

This has ominous consequences for the various transnational organizations like the United Nations, the World Bank and the World Trade Organization. As Huntington notes currently:

> global political and security issues are effectively settled by a directorate of the United states, Britain and France, world economic issues by a directorate of the United States, Germany and Japan ... to the exclusion of lesser and largely non western countries. Decisions made at the U.N. Security Council or in the International Monetary Fund that reflect the interests of the West are presented to the world as reflecting the desires of the world community. The very phrase "the world community" has become the euphemistic collective noun ... to give global legitimacy to actions reflecting the interests of the United States and other Western powers. (p. 39)

It is not surprising therefore that the ecologists should seek to influence the agenda of these international organizations -- see above. But as I have argued given the globally divisive nature of their agenda, how long will it be before the frictions it causes will destroy these institutions?

Equally serious is the danger of international disorder flowing from the essentially incompatabile "value systems" of the eco-fundamentalists and the Rest. It is particularly ironic that just as some in the West are repudiating its rationalist past and in particular the technological artifacts it produces, the Rest is taking to at least the latter with gusto. Moreover, outside Islam the Rest is not faced with the crisis of values that the death of God engendered by rationalism has led to in the West,

one of whose byproducts as I have tried to show is the rise of eco-fundamentalism. For along with Islam most of the West belongs to people of the Book. With the death of God partly resulting from the rationalist Cartesian project, the cement of their societies has been eroded,[2] as the attempts to provide a secular morality based on Reason rather than the revelations of the Holy Book have failed for a variety of complex reasons. The only credible alternative left for many is the bizarre eco-morality which values Nature above Man. The anti-human nature of this "value system" is noted by Douglas and Wildavsky. They write: "The sacred places of the world are crowded with pilgrims and worshippers. Mecca is crowded, Jerusalem is crowded. In most religions, people occupy the foreground of the thinking. The Sierra Nevadas are vacant places, loved explicitly because they are vacant. So the environment has come to take first place" (p. 125).

This pathological response to the death of God is less likely in the non-Semitic civilizations e.g., the Sinic or Hindu. Their religions unlike the Semitic ones are not religions of the Book. They have no organized churches and their "religions" are more "ways of life". Their cultural processes of socialization are therefore unlikely to be undermined by the death of God, which is likely to accompany their increasing though reluctant modernization. They are unlikely to succumb to eco-fundamentalism when God is dead.

But this makes it more likely that as they increasingly acquire the sinews of power they will be forced to counter the eco-fundamentalists of the West. With the

---

[2]A fate feared by Islamic fundamentalists, hence their intolerance of blasphemy. See Lal (1995).

growing economic and military power of these non Western countries, they are likely to resist any attempt to discharge a green variant of the white man's burden, through direct or indirect imperialism. This in my view is where the most important long term fault line lies in the future of international relations. Unlike the picture presented in Huntington's account of an antediluvian Rest set against a liberal "modern" West, this ironically casts the two in exactly the opposite roles. This in turn reflects the crisis of "values" in the West and its peculiar disjunction of what should have been the complementary aspects of the humanism of the Renaissance from the rationalism of the Scientific Revolution. Eco-fundamentalism is the inevitable mutant, which will continue to cause the world a good deal of grief for some time to come.

REFERENCES

Appleby, R. Scott (1993): "Fundamentalisms Modern Origins," Foreign Affairs, vol. 72, No. 3, Summer 1993, pp. 217-8.

Balling, R.C., Jr. (1992): The Heated Debate: Greenhouse Predictions versus Climate Reality, Pacific Research Institute for Public Policy, San Francisco.

Beckerman, W. (1995): Small is Stupid, Duckworth, London.

Birdsall, N. (1989): "Economic Analyses of Rapid Population Growth", World Bank Research Observer, vol. 4, no. 1, pp. 23-50; reprinted in D. Lal (ed.) (1992): Development Economics Vol.II, Edward Elgar, Aldershot.

Bramwell, A. (1989): Ecology in the 20th Century - A History, Yale University Press, New Haven.

Brown, Lester R. et al. (1993): State of the World 1993, Earthscan, London.

Douglas, M. and A.Wildavsky (1983): Risk and Culture, University of California Press, Berkeley.

Haberler, G. (1936): Theory of International Trade, William Hodge, London.

Huntington, S.P. (1993): "The Clash of Civilizations?", Foreign Affairs, vol. 72, no. 3, pp. 22-49.

Lal, D. (1981): The Resurrection of the Pauper Labor Argument, Thames Essay No. 28, Trade Policy Research Center, London, reprinted in Lal (1994).

Lal, D. (1990): The Limits of International Cooperation, 20th Wincott Memorial Lecture, Occasional Paper no. 83, Institute of Economic Affairs, London.

Lal, D. (1994): Against Dirigisme, ICS Press, San Francisco.

Lal, D. (1995): Poverty, Markets and Democracy, The 1995 Nestle Lecture on the Developing World, Nestle U.K., London.

Marty, M.E. and R. Scott Appleby (eds.) (1993): Fundamentalisms and the State, Chicago University Press, Chicago.

Nordhaus, W.D. (1994): Managing the Global Commons, MIT Press, Cambridge, MA.

Pepper, D. (1984): The Roots of Modern Environmentalism, Routledge, London.

Reynolds, L.G. (1985): Economic Growth in the Third World, Yale University Press, New Haven.

Ridley, M. (1995): Down to Earth, IEA Studies on the Environment no.3, Institute of Economic Affairs, London.

Spivey, N. (1995): "Human Survival and a Pile of Noodles," Financial Times, Weekend, April 29/30.

Swanson, T.M. (1990): "From Patents to Elephants: The Predictable Failures of International Resource Law", Discussion paper no, 90-13, Dept. of Economics, University College London.

Toulmin, S. (1990): Cosmopolis, University of Chicago Press, Chicago.

World Bank (1992): World Development Report 1992, Oxford University Press, New York.

Wrigley, E.A. (1988): Continuity, Chance and Change, Cambridge University Press, Cambridge.