The Green Junta: or, is democracy sustainable?

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Abstract: Attempts to achieve significant lasting change at local, national and international levels have foundered on the inability to gain agreement. Consensus between multiple stakeholders, while acceptable at a political level, increasingly seems inadequate to the task of creating sustainable societies. This paper starts with a review of the reasons why drastic, rapid and dramatic change is needed. All the main indicators in terms of global warming, North-South imbalance, oil reserves, water resources, biodiversity, deforestation, population growth and rural-urban shift, globalisation, over-consumption and the distribution of wealth suggest a situation almost in free-fall. The second section then outlines the failure of global governance. The final, speculative, section considers the appeal that may arise from a 'strong government for a crowded planet' right-wing agenda.

Keywords: sustainable democracy; liberal capitalism; totalitarianism; militarism; resource competition; global governance.

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1 Introduction

Rather in the manner of the apple that reportedly fell upon Newton's head, this paper was triggered initially by a trivial event. In 2005, the people of Edinburgh, in Scotland, were asked to vote on proposals to introduce a congestion-charging scheme that was inspired

by the scheme already introduced in central London by the Lord Mayor, Ken Livingstone. About 62% of the population voted, a considerably higher proportion than turns out for a general election in the UK. Of those that voted, 74% were against the scheme.

As any resident or visitor to Edinburgh will attest, it is a city with its share of transport problems and issues: travelling in and around the city is painfully slow; parking is contentious; air quality is often poor and the magnificent architecture that provides one of the main attractions for the economically important tourism industry is blackened and crumbling after years of vehicle exhaust emissions. Despite all these and other transport-related problems, the democratic choice of the city populace was to reject the 'sustainable' solution. It is not the purpose here to examine that decision in any detail or to explore the reasons why the vote was so emphatically negative. Rather, the decision can be seen as a relatively small, simple, even parochial example of something rather more profound: democracy may be inadequate to the task of achieving change on a sufficient scale and pace in the face of persistent and often burgeoning environmental threats.

It must be acknowledged that the term 'democracy' covers a multitude of sins in that it has myriad meanings for different people at different times and places. The term is used quite loosely here as a form of shorthand for the institutional and cultural practices that define our lives and more particularly, our ability to respond to the threats to our societies. As Diamond (2005) and others have ably testified, societal collapse is hardly novel and often can be attributed to an inability to respond to environmental changes or threats, often themselves occasioned by that society. There are those that might point to similar population explosions followed by collapse in other living organisms, from bacteria to ladybirds and on through to dinosaurs and through their elegant mathematical models conclude that such dynamics are entirely inevitable and unavoidable (Johansen and Sornette, 2001). Such a stance is not taken in this paper, for it seems an abdication of our essential humanity, our ability for good or ill purposefully to change our manifest destiny through individual and collective action.

Not all would agree with the thesis put forward by Diamond (2005) that in many instances social collapse was in some important respects avoidable, if only those societies had heeded the warnings and taken the appropriate action. Still, the point raised in that historical analysis is clearly pertinent to the situation facing not just individual societies but arguably world civilisation today.

On this basis, this paper is structured in the following manner. First there is a brief outline of the major stress points facing the planet in terms of sustainability. It is evident from the geological record that previously there have been cataclysmic events resulting in mass extinctions wherein up to 95% of land life forms disappeared. Equally, from the same record, it is evident that life reemerged in all its diverse glory. So, the issue here is not really whether the planet itself is in crisis, because the historical evidence suggests that 'life' in a general sense will continue to prevail. Rather, and more fundamentally, to take an instrumentalist view the question is whether the planet in a form suited to humanity is in crisis. Having established that, at least in some important respects, the concept of crisis is broadly applicable, the next question is what do we (collectively, as a civilisation) do about it? The stance taken here is that ultimately this is a question of how societal resources are mobilised and utilised, and therefore it is a question of politics. This paper documents various collective attempts to resolve some of the issues raised and the relative lack of progress made. The final main section of this paper therefore moves

on to consider whether the vacuum in terms of progress may create the space for a 'Green Junta' that combines militarism with other totalitarian tendencies in an attempt to impose drastic solutions.

At heart is the need for innovation, not in a technological sense but in terms of the ways in which we collectively define problems and arrive at solutions. Sustainable development is therefore about discourse as much as it is about artefacts; indeed to put faith in the future emergence of some revolutionary technology is to avoid responsibility for hard discussions and decisions now. It is not that science is unimportant, quite the contrary, but we need to find ways to adjust our responses to the emerging crisis, before it overwhelms us. The purpose of this paper is also to redefine the terms of the debate. Many in the environmental movement have tended to see the options as ecological modernism or radical 'deep green' sustainability; this paper argues that the emerging discourse on sustainability will be embedded within and interact with the existing political, economic and social terms of reference that constitute what we understand to be democracy. We should not be surprised therefore if the path to sustainability is both contested and constructed by shifting patterns of power and allegiance.

2 A planet in crisis?

In the 1970s, the idea of the Malthusian trap was revived by a report in Europe into the limits to growth (Meadows et al., 1972), citing the twin problems of rising population levels and declining physical resources that would 'inevitably' lead to a cataclysmic event in the near future. The spectre of, in particular, declining petroleum reserves has been revisited several times since, again accompanied by portents of 'the end of life as we know it' (MacKenzie, 1996; Minniear, 2000). Others may point to the apparently endless succession of wars, often conducted over and for scarce resources (Klare, 2001; Ward, 2003) – with arguably the two Gulf wars the most visible illustrations of the problem (Pelletiere, 2004). Inevitably, there is disagreement with the 'resource scarcity as a cause of war' thesis (Beaumont, 1994). Others still may (incorrectly according to Piel (1994)) identify new plagues sweeping through human society, like AIDS or as now, bird flu, as illustrative of the ways in which nature finds corrective actions to overpopulation that according to some may be regarded as a mathematical inevitability (Johansen and Sornette, 2001). The broad case is, that humanity is pushing up against the limits of global carrying capacity (Cohen, 1997).

On the other hand, the last 30 years or so that have accompanied the rise of environmentalism as a social and political force has also been witness to remarkable achievements. We can identify events like the actual or virtual eradication of major diseases like smallpox (Fenner, 1982, 1988) or polio (Andrus et al., 1997), the feeding of much more people world-wide (albeit with billions still on the edge of adequate sustenance), the 'profusion society' of the contemporary Western world in which many of the major problems appear to do with over-production and over-consumption rather than scarcity (Cahill, 2001; Clapp, 2001) and the response to crisis and emergency such as with the tsunami of 2004 triggered by an earthquake off the coast of Indonesia. Indeed, previously 'lost' environments have staged remarkable recoveries in the deindustrialising parts of the world, with rivers running cleaner once more (Fuchs and Statzner, 1990; Nienhuis et al., 2002; Van Djik et al., 1995), trees growing again and all

manner of flora and fauna returning to habitats where once they had been eradicated (Carroll et al., 2003). Yes there are debates about the degree, extent and robustness of these recoveries (Ehrenfeld, 2000), but they are at least hopeful signs.

2.1 So, is there a crisis?

While the progress and victories of recent years give hope to environmentalists, it is hard to deny much of the scientific advice and analysis that suggests that for each step forward we are collectively still taking two steps back. Again, it has to be recognised that in the partial list presented below each topic represents a lively and as yet unsettled scientific debate about the scale of the issue, theoretical explanation, methodology of analysis and means of redress. Some of the key indicators include:

- *Global warming*: on balance the scientific advice is that global warming is accelerating, and is due to human influence. Not only that, but global warming is beginning to trigger non-linear climate responses, many of which may be irreversible – such as the diversion of the Gulf Stream across the northern Atlantic (Rahmstorf and Ganopolski, 1999; Schmittner and Stocker, 1998).
- *Habitat loss and species diversity (Brooks et al., 2002)*: the Millennium Ecological Assessment provided unequivocal evidence for the reduction and loss of key distinct ecological habitats (Mooney et al., 2004). Elsewhere there is mounting evidence for the loss of species at all levels in ecosystems, again in an irreversible manner (Fahrig, 2003). The consequences are unknown.
- *Water supplies (Gleick, 1993a,b)*: more recent research has demonstrated that water supplies world-wide are under unprecedented stress, the hidden consequence of the 'green revolution' that saved the world from the Malthusian trap predicted earlier. In many locations water is being extracted from deep reserves faster than it is replenished (Ward, 2003).
- *Energy supplies*: in poorer countries, millions still die from cancers caused by cooking over wood fires (Bruce et al., 2000; Smith et al., 2000). More generally the scramble for fossil fuels has driven up petroleum prices already and seems likely to do so into the future. Renewable energy sources are not emerging fast enough and are not structured simply to replace our current power infrastructure and use patterns (Cassedy, 2000). Nuclear power has reemerged as a potential saviour to many policy-makers and indeed some environmentalists, even though the evidence suggests we should challenge the assumptions of energy forecasts (Smil, 2000). We have built a culture on cheap energy (Hall et al., 2003), it is not entirely clear what we would do without it.
- *Deforestation (Riitters et al., 2000)*: the loss of forests carries on apace (Barbier, 2001), both legally and illegally, in key places like the Amazon rainforest where an area equivalent in size to Belgium is lost each year. Economic and social pressures including population growth may contribute further stress (Pohari and Murai, 1999).
- *Food supplies (Hopfenberg and Pimentel, 2001)*: stresses and strains have appeared in the food production system, most notably of course with respect to meat. Following on from crises with respect to BSE in cattle and 'foot and mouth' in sheep, there is now the much-media covered bird flu problem. Natural fish stocks in some key resource areas such as the North Sea and the

China Sea are plummeting (Cook et al., 1997; Walters and Maguire, 1996). Fish farming, as with other forms of meat production, is only possible with ever-growing levels of chemicals, hormones and antibiotic drugs that find their way into people. In non-meat products disputes still abound over subsidies and with respect to falling prices for commodity crops such as coffee that leave many communities the victims of global market integration.

- *The second green agricultural revolution*: debates over GM foods have polarised opinion, with many environmentalists concerned with the ecological impact of reducing the number of varieties used in cultivation and the potential spread of resistant weeds, while others are concerned at the uneven power relationships exerted by agro-businesses.
- *Multinational companies and local powerlessness (Froud et al., 2006)*: both in established market economies and in emerging economies there are related concerns over the ability of large companies to move production, employment, wealth generation and markets. Local communities appear, and often in reality are, powerless in the face of these changes (Carr, 2005).
- *Wealth, ownership and the distribution of power*: in many economies wealth is becoming more concentrated in fewer hands. The emerging elite of stratosphere dwellers is increasingly disconnected from the masses, insulated by their wealth from many of the environmental and social problems around them. While capital has ever-greater freedom of movement, labour is ever-more restricted.
- *Militarism*: military spending continues to grow apace, despite the apparent end of the 'cold war' and the absence of a major conflict. Not only is this the case in the USA (in 2006 approaching $2 billion per day) but also in many countries that cannot possibly afford this expenditure, from Afghanistan to Zimbabwe.

The crucial question facing us now is, can our societies possibly construct a route, a strategy, of sufficient magnitude and pace to resolve the emergent crises that confront us? It would appear that, despite progress so far, the need for action is even more urgent and profound; that the situation is in danger of running away from us all. Scientists of global climate change have already warned of critical 'tipping points' beyond which changes can be irreversible, indeed some of these points have already been reached. But just as they apply to climate change, so they apply to other issues: these changes are not necessarily linear or bi-directional and therefore we allow them to happen at our peril.

A cautionary note could be sounded, however, in that portents of doom and enemies at the gate have long been a tactic adopted by those in power to enforce compliance, restrict debate and deflect attention from internal failings. A classic case in point could be the Bush administration approach to the petroleum-terrorism linkage, wherein no significant attempt has been made to reduce US consumption of oil or to recognise that decades of US 'diplomacy' in the Middle East in order to secure oil supplies has been instrumental in creating the conditions for terrorism to flourish (Jhaven, 2004).

3 The failure of democracy

Well of course, much depends upon what is meant by the term democracy. There are many political systems in operation around the world that would lay claim to being democratic. Usually such a claim is further backed by other features, notably that of

'freedom of speech' and social mobility and by elaborate institutional arrangements. Debate may rage over whether one country is more democratic than another: whether the first past the post system is better than proportional representation, whether voting should be compulsory, whether all shades of political opinion are allowable, whether the party system is sufficiently democratic, whether local or regional representation is more important than national. The purpose here is not to enter a debate into the definition and content of democracy as such, other than to accept in broad terms the self-definition of democracy as it is found in countries as diverse as USA and India, to include not just the mechanistic process of voting in periodic elections, but also the related features of (albeit differing) degrees of freedom in which to conduct ones life. It also refers, as importantly, to the institutional and legal frameworks by which countries and communities within them are governed and managed. Indeed, such institutions and organisations, be they supra-national, national or more local are the social innovations by which change is mediated and articulated: if they fail then our societies also fail to adapt to changes in the world and are thereby more likely to collapse.

It seems on initial observation that, as far as sustainability is concerned, democracy fails (or does not sufficiently succeed) at all levels. The following is a random list of examples.

3.1 The macro level: democracy and liberal capitalism

In crude terms, the rise of liberal democracy and capitalism as espoused by the USA is the paradigm example of an unsustainable society. Average per capita incomes are very high, albeit hiding an extraordinary unevenness in the distribution of that income. The level of per capita material consumption exceeds any other society on earth, while emissions of carbon dioxide and other indicators of environmental burden are equally high. In addition, the society holds the power to unleash nuclear destruction on the world and frequently pursues military intervention in what is regarded as its strategic interests. Furthermore, the US frequently refuses to participate in international agreements and treaties convened to resolve environmental crises, most notably of course the Kyoto Protocol agreement. While many would take issue with the notion that the US is a 'true' democracy, the same comments with a somewhat diluted tone apply to the countries of Western Europe and Japan. At a scientific level we understand the problem of sustainability, we know that our cultures, our societies, are unsustainable, but translating this understanding into meaningful change seems impossible. The insatiable demand for growth in wealth, that investments should yield financial returns, powers these economies into a spiral of hyper-innovation and its inevitable accompaniment, the waste that is caused by the redundancy of people, machines, products, places and lives.

The underlying problem is perhaps that much of the assumptions and norms that are deeply embedded in liberal economic democracy are unchallengeable, inviolate and hence impossible to change. Thus, the only solutions that are acceptable are those that go some way to achieving a particular goal, so long as the essential status quo is preserved. It is political madness to run for office on a platform that says you will not make your electorate better-off financially or that you will make them pay higher taxes in the name of environmental improvements or that they have to make sacrifices even if their neighbours in other countries are not so doing. Progress is still measured in the parameters of gross domestic product per head and other material indicators, yet all the

evidence from research into happiness and contentment suggests that the old adage that 'money can't buy happiness' remains essentially true, even if it can buy considerable comfort to be miserable in.

3.2 International agreements

It is often the case that the most pressing of environmental problems are those that are manifest across international boundaries and therefore seem to call for agreed action by multiple countries and agencies to achieve some sort of resolution or amelioration (Dessler and Parson, 2006). On occasion, such agreements can be effective, with perhaps the phase out of CFCs being an example (albeit flawed, countries such as China still produce CFCs). International agreements are a sort of democracy writ large, an institutional arrangement whereby many societies and cultures try to reconcile their individual interests against the common good. Yet they have basic flaws: they take too long to create, they take even longer to disband even after their useful purpose has been served (e.g. why does NATO still exist?), they often reach a compromise at the lowest common denominator, they lack powers of enforcement and often the key parties concerned are not actually in the agreement. Too often these agreements are applauded for working at a political level, when they fail actually to resolve the problem.

A classic example unfolding during the early years of the 21st century is that of fishing for cod in the North Sea, off mainland Europe. All the scientific advice is unequivocal, there should be a complete halt to fishing for cod (and frankly most other species) in the North Sea for several years to allow stocks to build up again and then a modest annual catch could possibly be sustainable (Myers et al., 1997; Walters and Maguire, 1996). Politicians, however, need also to consider their electorates and have decided in this case that an annual catch continue to be allowed (Sturcke, 2005). The catastrophic collapse of cod stocks off Newfoundland should be a clear example of the dangers, yet the advice goes unheeded (Myers et al., 1997).

International agreements are a vital arena or institutional mechanism with respect to global environmental issues and with related matters including militarism, trade and economic regulation. Too often, countries can opt out or escape from these mechanisms when they wish (e.g. as the US did with Kyoto and a host of other international agreements). In other cases, such as the IMF and World Bank, these institutional arrangements are to some critics as much a cause of the problems as a potential cure. And too often the search for consensus results in anodyne, vacuous and meaningless statements that command universal agreement precisely because they commit nobody to any action.

3.3 National politics

Firstly, it is notable how poorly the overt 'green' parties have fared in the electoral process in many democracies, notwithstanding Germany and some Nordic countries. Secondly, and related to this, conventional politics at a national level seems ill equipped to cope with matters relating to sustainability. Not least, the political process is too short-term and too concerned with wealth generation and distribution. While these are vitally important matters for a sustainable society and in themselves make a huge contribution to issues of environmental burden, the typically right-left-centrist approach makes it difficult for environmental issues to get a place on the agenda, a voice in the

process and a representation in the appropriate political forum. A relatively minor example of the failures that occur is that of the so-called fuel price escalator in the UK. The policy was introduced as one facet of strategy intended to help the UK meet its Kyoto targets on reducing carbon dioxide emissions, by increasing the price of fuel year on year over and above the rate of inflation. The policy was dropped after a few years in the face of protests by a (relatively limited and unrepresentative but militant and vocal) loose coalition of farmers, other rural interests and road transport companies.

Democratic politics at the national level seems to be a rather cumbersome, slow and imprecise device. Compromise is held up as a virtue, even though it may result in suboptimal solutions. It would seem, however, that some democracies are more equal than others. It is notable that Sweden, for example, has strong environmental regulation, but also high rates of public participation, high rates of innovation and intends to become completely free from the use of petroleum as an energy source.

3.4 Local politics

In the classic slogan we are supposed to think global but act local, meaning we are supposed to action in our own lives to make a difference. Yet so many problems appear utterly intractable at a local level, we are powerless in the face of them. We can achieve our petty victories, but what is the point in the larger scheme of things? As the example of congestion charging in Edinburgh made clear, parochialism does not necessarily mean a concern for the local environment. Put bluntly, what is the point in us say reducing oil consumption if the US does nothing? What is the point of my riding my bike to work every day if all my neighbours drive their cars? Alternatively, localities may not wish to be the repositories of large-scale waste incineration or (in the UK it would appear) of wind farms.

Fundamentally, local powers have been steadily eroded over the years by centralisation of political authority and by the broad sweep of economic events that are encapsulated in the concept of globalisation. Through these twin events, localities come to have declining, albeit contested, control over their own destinies. Perhaps in some form of post-Modernist hedonistic angst, individuals are able to subsume their alienation and lack of autonomy. Protest and local concern can be powerful and can make a difference, perhaps most potently in terms of conservation and the natural environment. What is rather less clear is how ‘local’ peoples’ lives really are and whether there is sufficient affinity at the local level to make a difference.

3.5 Corporate organisation

When considering the social innovations that structure our lives, the corporation should not be neglected. As with many social innovations, from religion to political processes to economic concepts like money, it is a form of collective belief, made true by the way in which we all agree to abide by the belief. On the one hand, corporations have self-evidently been very successful as social mechanisms to generate wealth and innovations. On the other hand, it is not at all clear how our current conceptualisations of the corporation are compatible with sustainability. Even where corporations do seek to follow a more sustainable path, the underlying logic of global finance tends to undermine that endeavour. The relentless focus on growth and short-term rewards makes corporations structurally conditioned to be poor custodians of our future. Obviously, this

is a major subject in its own right and one that is central to the resolution of sustainability. The point here is to note that corporations are just another social innovation of more or less utility when it comes to trying to survive as a society and as a culture into the future – and when the issues are important enough, there should be no aspect of our social innovations that should be regarded as sacrosanct. The collapse of communism and the decline of genuinely left-wing politics in the established capitalist countries has resulted in the primacy of the corporation, manifest in many ways from the escalating pay awards of board members to the generous profusion of inward investment incentives and the smoothing of international capital flows. The result has been economic prosperity and virtual environmental collapse. Two decades of Corporate Social Responsibility have not made any substantial impression on this picture.

3.6 NGOs, regulators and the industry of alternatives

Lest it be thought that this is a problem only confined to business and government, it has to be recognised that many in the 'business' of protest and advocacy are themselves caught within their own dynamic and structures and that this may render them less than useful in terms of confronting the challenges we all face. Universities and academic life are not immune either: witness the scandalous amount of time it takes to get many journal papers researched, written and then finally accepted and published – all for a minority audience more interested in career progression and internecine fights than global salvation. At the broad level, the NGOs were pulled into the 'partnership' framework established in Johannesburg in 2002, but were probably overly confident of their ability to make change happen and perhaps flattered at being invited at last to sit at the top table. Equally, like any institution, it is difficult for NGOs to separate out their own existence from the ends they seek to realise. That is, NGOs tend to assume that because their stated mission is important, so too are they important. From there it is a short step to the view that the continuation of the NGO is the critical task.

Indeed, over time an entire industry of alternatives has been created, involving various parties from regulators, politicians, pressure groups, journalists, academics and many more in an endless merry-go-round of committees and steering groups and learned bodies and forums and awards and prizes. The sense of involvement in the issues of the day, of contributing to transformation, is perhaps more illusory than fact – but beguiles the participants into being coopted and therefore silenced.

4 The military threat

This section considers the appeal that may arise from a 'strong government for a crowded planet' right-wing agenda (Barnet, 2000). In the US there has been some speculation on the emergence of new coalitions between the geo-strategists, the religious right and extreme environmentalists uniting around the themes of energy security, antiterrorism and survivalism. It is possible that those on the political right also would be empathetic to the notion that just as toxic materials may pollute the physical environment, so too could immigrants or other social 'undesirables' pollute society. It is interesting to consider that Hitler was both a vegetarian (and therefore something of a supporter of animal rights) and also keen to pursue a purist approach to social development in the sense of providing a clean environment for his (chosen) people.

Strangely, in the UK and other industrialised nations, the military has also been responsible for the preservation of certain environments, by designation and use as areas for military training. Unmolested by daily human traffic, unfarmed, without sprays for fertilisers or pesticides, they have become havens for natural wildlife. The military are thus the custodians of some of the most pristine environments on the planet. Such are the contradictions of contemporary life and one of the reasons why it is sometimes difficult to be unambiguous in the condemnation of one vested interest or another.

In part, the problem is that the dangers highlighted by the environmental movement can be utilised by those from the political right who favour an authoritarian response, neatly combining this response with the extinguishing of any underlying social (or socialist) concerns by those opposed to capitalist development. Of course, the military have long used the environment to pursue their ends; in this respect environmental warfare is nothing new. When Napoleon and later Hitler, ordered troops to invade Russia it was the long retreat of 'slash and burn' and the arrival of winter that effectively starved those armies into submission. When the US fought in Vietnam against the jungle-based Vietcong it was Agent Orange de-foliating spray that was used to remove the vegetation and thereby flush out the enemy. Wars are not only fought 'over' the environment and resources, but 'through' them. The military therefore fund large amounts of research into environmental issues, particularly now in the US under the 'Homeland Security' banner. In all manner of applications, the initial interest is often sparked by military concerns, from adaptive software, to hydrogen fuel cells or to understanding the dispersion of a deadly virus through a human urban population. While such measures are ostensibly for 'defence' there is a fine line between that and offence or the preemptive strike beloved of many cold-war warriors.

Still, there is an innate appeal in totalitarian solutions because of two basic aspects of decision making: speed and the ability to ignore consensus. Some commentators have identified an inherent contradiction embedded within environmentalism, namely the tension between the diversity of democracy and the need for purposeful action (Dovers and Handmer, 1993), while others have argued that radical sustainability contains a strong challenge to liberal democracy (Davidson, 2000), but these are siren voices in the wilderness, largely ignored. The rise of right-wing ecology therefore can be seen as a response the notion that underneath the green surface of an environmentalist is the red inside of a socialist. In this respect, right wing ecology (Olsen, 2000) or what some have termed as ecofascism, (Biehl and Staudenmaier, 1995) is the ultimate in technofix, bringing together scientific elites with those in power and able to make such fixes possible at a social-political level. There have been some quite alarming indications of the willingness of the US to go it alone and to seek to secure its own interests (or what its leadership understands as the interests) over and above those of other countries. The isolationist tendencies of the country, magnified by the perception of terrorist threat lend themselves all to readily in alignment with fundamentalist Christian beliefs.

A modern Green Junta is unlikely to arrive with tanks on the streets and the overnight capturing of control. Rather, it creeps upon us through multiple small steps – each one justified by 'necessity'. It combines the national interest with a contemporary version of making the trains run on time, it highlights the external amorphous dangers, it makes dissent equivalent to being unpatriotic and antisocial. It clings to the tokenistic manifestations of democratic society while removing their substantive content.

The Green Junta is unlikely to be successful, centralised control rarely is, but the process of failure is likely to be painful to say the least – particularly for the poor and the vulnerable. For this reason alone it is important to be vigilant, to recognise the dangers and to continue to insist upon the need for humane, socially-just responses to environmental crisis. There are voices backing an alternative, including those that propose a reinvention of democracy on a small scale, integrating localism and environmentalism at the level of daily lives (Shutkin, 2000). There must be counter voices raised against militarism and its alliance with environmentalism.

5 Conclusions

It is customary for papers to have a conclusion, often in a prescriptive statement along the lines of necessary actions for change. Evidence is reviewed, theoretical frameworks are elaborated and progress is made. Such an approach is not appropriate here, in what by its very nature is a speculative piece of work. Doubtless, any properly trained political scientist would be appalled by the above analysis, as would those grounded in institutional theory, history or many other disciplines. Yet, after some 15 years of personal involvement in the sustainability process it still feels as though we are collectively not prepared to ask the really difficult questions about what happens next if (as seems likely) all our efforts to head off a crisis come to nought. The urgency generated by the original Club of Rome report, by Bruntdland and by IPCC appears so easily dissipated and negated.

Societies and cultures do fail. Sometimes they just wither away slowly, invisibly, melding into the landscape never to be seen again. Sometimes they implode in a spectacular fashion. At the very least, societal salvation must be best assured if all members of that society are able and willing to contribute to the solutions needed. Our impending demise is in this sense the ultimate in a social problem and it requires a collective solution.

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References

Andrus, J.K., Banerjee, K., Hull, B.P., Smith, J.C. and Mochny, I. (1997) 'Polio eradication in the World Health Organization South-East Asia Region by the year 2000: midway assessment of progress and future challenges', *Journal of Infectious Diseases*, Vol. 175 (Supplement), pp.89–96.

Barbier, E.B. (2001) 'The economics of tropical deforestation and land use: an introduction to the Special Issue', *Land Economics*, Vol. 77, No. 2, pp.155–171.

Barnet, J. (2000) 'Destabilizing the environment – conflict thesis', *Review of International Studies*, Vol. 26, pp.271–288.

Beaumont, P. (1994) 'The myth of water wars and the future of irrigated agriculture in the Middle East', *International Journal of Water Resources Development*, Vol. 10, No. 1, pp.9–22.

Biehl, J. and Staudenmaier, P. (1995) *Ecofascism: Lessons From the German Experience*, Edinburgh: A K Press.

Brooks, T.M., Mittermeier, R.A., Mittermeier, C.G., da Fonseca, G.A., Rylands, A.B., Konstant, W.R., Flick, P., Pilgrim, J., Oldfield, S., Magin, G. and Hilton-Taylor, C. (2002) 'Habitat loss and extinction in the hotspots of biodiversity', *Conservation Biology*, Vol. 16, No. 4, pp.909–935.

Bruce, N., Perez-Padilla, R. and Albelak, R. (2000) 'Indoor air pollution in developing countries: a major environmental and public health challenge', *Bulletin of the World Health Organisation*, Vol. 78, No. 9, pp.1078–1092.

Cahill, M. (2001) 'The implications of consumerism for the transition to a sustainable society', *Social Policy and Administration*, Vol. 35, No. 5, pp.627–645.

Carr, M. (2005) *Bioregionalism and Civil Society*, Vancouver: UBC Press.

Carroll, C., Phillips, M.K., Schumaker, N.H. and Smith, D.W. (2003) 'Impacts of landscape change on wolf restoration success: planning a reintroduction program based on static and dynamic spatial models', *The Journal of the Society for Conservation Biology*, Vol. 17, No. 2, pp.536–554.

Cassedy, E.S. (2000) *Prospects for Sustainable Energy: A Critical Assessment*, Cambridge: Cambridge University Press.

Clapp, J. (2001) *Distancing Waste: Overconsumption in a Global Economy*, Tyneside: TIPEC Working Paper 01/10.

Cohen, J.E. (1997) 'Population, economics, environment and culture: an introduction to human carrying capacity', *Journal of Applied Ecology*, Vol. 34, No. 6, pp.1325–1333.

Cook, R.M., Sinclair, A. and Stefansson, G. (1997) 'Potential collapse of North Sea cod stocks', *Nature*, Vol. 385, pp.521–522.

Davidson, J. (2000) 'Sustainable development: business as usual or a new way of living?' *Environmental Ethics*, Vol. 22, No. 1, pp.45–71.

Dessler, A.E. and Parson, E.A. (2006) *The Science and Politics of Global Climate Change*, Cambridge: Cambridge University Press.

Diamond, J. (2005) *Collapse: How Societies Chose to Fail or Survive*, London: Allen Lane.

Dovers, S.R. and Handmer, J.W. (1993) 'Contradictions in sustainability', *Environmental Conservation*, Vol. 20, No. 3, pp.217–222.

Ehrenfeld, J.G. (2000) 'Defining the limits of restoration: the need for realistic goals', *Restoration Ecology*, Vol. 8, No. 1, pp.2–18.

Fahrig, L. (2003) 'Effects of habitat fragmentation on biodiversity', *Annual Review of Ecology, Evolution, and Systematics*, Vol. 34, pp.487–515.

Fenner, F. (1982) 'A successful eradication campaign: global eradication of smallpox', *Review of Infectious Diseases*, Vol. 4, No. 5, pp.916–930.

Fenner, F. (1988) *Smallpox and its Eradication*, Geneva: World Health Organization.

Froud, J., Johal, S., Leaver, A. and Williams, K. (2006) *Financialization and Stragety*, London: Routledge.

Fuchs, U. and Statzner, B. (1990) 'Time scales for the recovery potential of river communities after restoration: lessons to be learned from smaller streams', *Regulated Rivers Research and Management*, Vol. 5, No. 1, pp.77–87.

Gleick, P.H. (1993a) 'Water and conflict: fresh water resources and international security', *International Security*, Vol. 18, No. 1, pp.79–112.

Gleick, P.H. (Ed). (1993b) *Water in Crisis: A Guide to the World's Fresh Water Resources*, Oxford: Oxford University Press.

Hall, C., Tharakan, P., Hallock, J., Cleveland, C. and Jefferson, M. (2003) 'Hydrocarbons and the evolution of human culture', *Nature*, Vol. 426, pp.318–322.

Hopfenberg, R. and Pimentel, D. (2001) 'Human population numbers as a function of food supply', *Environment, Development and Sustainability*, Vol. 3, No. 1, pp.1–15.

Jhaven, N.J. (2004) 'Petroimperialism: US oil interests and the Iraq war', *Antipode*, Vol. 36, No. 1, pp.2–15.

Johansen, A. and Sornette, D. (2001) 'Finite-time singularity in the dynamics of the world population, economic and financial indices', *Physics A*, Vol. 294, Nos. 3–4, pp.465–502.

Klare, M.T. (2001) *Resource Wars: The New Landscape of Global Conflict*, New York: Metropolitan Books.

MacKenzie, J.J. (1996) *Oil as a Finite Resource: When is Global Production Likely to Peak?* Washington, DC: World Resources Institute.

Meadows, D.H., Randers, J. and Meadows, D. (1972) *The Limits to Growth: A Report for the Club of Rome's Project on the Predicament of Mankind*, London: Earthscan.

Minniear, M.P. (2000) 'Forecasting the permanent decline in global petroleum production', *Journal of Geoscience Education*, Vol. 48, pp.130–138.

Mooney, H.A., Cropper, A. and Reid, W. (2004) 'The millennium ecosystem assessment: what is it all about?' *TRENDS in Ecology and Evolution*, Vol. 19, No. 5, pp.221–224.

Myers, R.A., Hutchings, J.A. and Barrowman, N.J. (1997) 'Why do fish stocks collapse? The example of cod in Atlantic Canada', *Ecological Applications*, Vol. 7, No. 1, pp.91–106.

Nienhuis, P.H., Buijse, A.D., Leuven, R.S.E.W., Smits, A.J.M., de Nooij, R.J.W. and Samborska, E.M. (2002) 'Ecological rehabilitation of the lowland basin of the river Rhine (NW Europe)', *Hydrobiologia*, Vol. 478, Nos. 1–3, pp.53–72.

Olsen, J. (2000) 'The global rise of right-wing ecology', *Earth Island Quarterly*, Vol. 15, No. 2, Accessed on 5 April 2006.

Pelletiere, S. (2004) *America's Oil Wars*, New York: Praeger Publishers.

Piel, G. (1994) 'AIDS and population 'control'', *Scientific American*, Vol. 270, No. 2, p.124.

Pohari, K. and Murai, S. (1999) 'Modelling for prediction of global deforestation based on the growth of human population', *ISPRS Journal of Photogrammetry and Remote Sensing*, Vol. 54, pp.317–324.

Rahmstorf, S. and Ganopolski, A. (1999) 'Long-term global warming scenarios computed with an efficient coupled climate model', *Climatic Change*, Vol. 43, No. 2, pp.353–367.

Riitters, K., Wickham, J., O'Neill, R., Jones, B. and Smith, E. (2000) 'Global-scale patterns of forest fragmentation', *Conservation Ecology*, Vol. 4, No. 2, pp.3–23.

Schmittner, A. and Stocker, T.F. (1998) 'The stability of the thermohaline circulation in global warming experiments', *Journal of Climate*, Vol. 12, No. 4, pp.1117–1133.

Shutkin, W.A. (2000) *The Land that would be: Environmentalism and Democracy in the Twenty-First Century*, Boston: MIT Press.

Smil, V. (2000) 'Perils of long-range energy forecasting: reflections on looking ahead', *Technological Forecasting and Social Change*, Vol. 65, pp.251–264.

Smith, K.R., Samet, J.M., Romieu, I. and Bruce, N. (2000) 'Indoor air pollution in developing countries and acute lower respiratory infections in children', *Thorax*, Vol. 55, pp.518–532.

Sturcke, J. (2005) 'EU agrees new fishing quotas', *Guardian Unlimited*, Available at: www.guardian.com, 22 December.

Van Djik, G.M., Marteijn, E.C.L. and Schulte-Wuelwer-Leidig, A. (1995) 'Ecological rehabilitation of the River Rhine Plans, progress and perspectives', *Regulated Rivers: Research and Management*, Vol. 11, Nos. 3–4, pp.377–388.

Walters, C. and Maguire, J-J. (1996) 'Lessons for stock assessment from the northern cod collapse', *Reviews in Fish Biology and Fisheries*, Vol. 6, No. 2, pp.125–137.

Ward, D.R. (2003) *Water Wars: Drought, Flood, Folly and the Politics of Thirst*, New York: Penguin Books.