

The Future of Democracy in the Face of Climate Change

Paper One

Democracy and climate change: why and what matters

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About the author and acknowledgements

Halina Ward is Director of the Foundation for Democracy and Sustainable Development (FSD). FSD is a small charity, launched in September 2009, which works to identify ideas and innovative practices that can equip democracy to deliver sustainable development.

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This paper draws heavily on ideas initially tested in blog posts on the website of the Foundation for Democracy and Sustainable Development. It too is a work in progress. The paper forms Paper One of the Foundation for Democracy and Sustainable Development's project on the Future of Democracy in the Face of Climate Change, which aims to develop scenarios for the future of democracy and participatory decision-making in the face of climate change to 2050 and 2100. It is funded by FSD with the additional support of a Future of Humanity grant from the Foundation for the Future (www.futurefoundation.org).

Any mistakes or omissions are my own.

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Introduction

Democracy, the dominant organising political system of the early twenty-first century, could be about to come under strain in ways that it has never before confronted.

Environmental and social challenges like climate change are accelerating faster than the ability of current forms of democracy to cope. And if democracy is to survive the challenges of the twenty-first century, it will likely have to outperform any currently or potentially competing political system in relation to those challenges.

With formidable environmental and natural resource challenges just around the corner, the increasingly clear and present danger is that democracy will not prove resilient in the face of climate change; that the half of the global population who today are privileged to live in some form of democracy may find democratic rights and freedoms undermined and eroded. A 'too little, too late' approach on the part of elected representatives will guarantee that outcome.

Manmade climate change - the result of a global warming process caused by increasing levels of greenhouse gases such as carbon dioxide in the atmosphere - could prove to be the single greatest threat to democracy as we know it.

During 2010, the Foundation for Democracy and Sustainable Development aims to develop scenarios that can help to answer the question "*How might democracy and participatory decision-making have evolved to cope with the challenges of climate change by the years 2050 and 2100?*"

This paper explores why this central question is important. The paper is grounded in the present, and largely in Anglo-American experience at that; but it points also to the potential scale of the changes that could lie ahead over the next 90 years. It is a work in progress; an evolving baseline problem statement for our enquiry into the future of democracy in the face of climate change.

The present can only offer the faintest guide to what lies ahead over a one hundred year timeframe, and scenarios for the future must always be approached as stories rather than predictions. Even so, it is useful to reflect briefly on where we find ourselves as we embark on the challenge of exploring the future.

About democracy

The word 'democracy' emerged out of the two words 'demos' (the people, or the community) and 'kratos'; (rule by, power, or authority).¹ The essential idea of democracy then is 'rule by the people', and one might then add 'of the people' and 'for the people'.

The term 'democracy' can be understood either as an essentially political construct (when it is a way of ordering decision-making in the political sphere), or as both a political and a social or organisational construct. In the latter case, it becomes possible to talk about 'democratic decision-making' within organisations of all kinds, including workplaces and businesses or non-governmental associations.

In our project, we are principally concerned with democracy as a political construct; but we recognise that the evolution of democracy for the future will be heavily dependent on social setting and context. For this reason, we cannot be dogmatic about considering democracy only in relation to political institutions or to the formal procedures of representative democracy such as elections, voting rules for the selection of representatives, or rights of enfranchisement. Ambitiously, our

project is designed to draw in insights from much broader ideas about participatory decision-making in the round.

Today, democracy as a political system is most commonly (though not exclusively) associated with the model known as 'liberal democracy', a very recent political system dating only from the eighteenth century. Liberal democracy offers a vision of rule 'by the people' which stresses the importance of individual liberties (freedom of the people), equality of all citizens, protection of citizens from state interference, and respect for private property.

Liberal democracy is by no means the only contemporary form of democracy, and it exists in many variations, including participatory democracy, deliberative democracy and social democracy.

There is also a distinct strand of thinking on 'ecological democracy' among political scientists who are concerned critically to examine what they see as systematic weaknesses in the ability of liberal democracy adequately to deliver environmental protection.

We explore some of the key strands in historical and contemporary visions of democracy in more detail in *Paper Two*.

The contemporary dominance of democracy as a political system is challenged from many sides. For whilst it has proven a remarkably tenacious idea in the political organisation of societies, the take-up of democracy has not accelerated in the way that many anticipated when the Berlin Wall fell 20 years ago. For example, *The Economist Intelligence Unit's Index of Democracy 2008* concludes, as at September 2008, that "*Half of the world's population lives in a democracy of some sort, although only some 14% reside in full democracies.*"²

If democracy has failed to take greater hold in a period where both the resource and environmental contexts have been relatively benign, how will it fare at a time of increasing resource squeeze, climate change and population growth?

Despite the fact that democracy as a political system has not yet reached even a majority of the world's population, there is no option but to seek to strengthen democracy for sustainable development. Liberal democracy has a number of serious deficiencies which are thrown starkly into relief by the challenge of climate change (and explored further in this paper). But simple 'democracy versus authoritarianism' comparisons too easily mislead. Some environmentalists, for example, are inclined to look pie-eyed at China's ability to move quickly and decisively to tackle urgent environmental and social challenges; envying the perceived success of China in making a low-carbon transition strategy work more effectively than efforts to date in many established democracies. But these idealisers of authoritarianism often fail to notice the huge difficulties faced by high level officials in China, too, as they attempt to get that giant country's environmental problems onto the political agenda.

Before the Copenhagen Climate Summit in December 2009, many commentators privately expressed their relief that China, once convinced of the risks, would be able to commit to decisive action easily, and unhampered by the kinds of constitutional considerations that might hold back even the most enlightened US President. But as FSDS trustee John Lotherington writes, "*the attraction towards authoritarianism as a means of saving the planet is dangerous, not just because of the tyranny it may let in, but because it represents a flight from politics which is in itself futile.*" And it is also important to recall that the power exerted by populist socialist leaders (such as

Venezuela's Hugo Chávez, or Bolivia's Evo Morales), or by those that are downright authoritarian, has a tendency to corrupt; to undermine the continual human and technological innovation that offers such great hopes for human and environmental progress, and to foster eventual social instability.

The lure of 'benign dictatorship' makes it all too easy to forget that democracy is the only political system that is able deliver respect for human rights on the scale that is necessary, ethically, to maintain the dignity of humankind. Indeed, the central idea of democracy – governance of the people by the people – is built into the Universal Declaration of Human Rights, which says, in Article 21(3), that:

"The will of the people shall be the basis of the authority of government; this will shall be expressed in periodic and genuine elections which shall be by universal and equal suffrage and shall be held by secret vote or by equivalent free voting procedures".³

As we develop scenarios for the future of democracy in the face of climate change, we shall be particularly concerned to point to the implications of those futures that allow democracy to thrive, to flourish, and to rise to the challenge of climate change.

The sustainable development challenge to democracy

Sustainable development is an important benchmark against which to measure the success of democracy as a decision-making system. For purposes of our enquiry into the relationship between democracy and climate change, sustainable development is both the process and the substantive goal against which the success of democracy and climate change adaptation and mitigation should be measured.

The essential idea of sustainable development is remarkably simple: integrating economic, environmental and social considerations in decision-making to ensure that we meet the needs of the present generation without compromising the ability of future generations to meet their own needs.⁴

The definition of sustainable development is easy to state, but sustainability (the end state of 'sustainable development') is proving much harder to deliver.

One reason is that almost without exception, the world's economies are directed towards economic growth. Too often economic growth is understood as a goal in its own right without further investigation of distributional issues, or enquiry into the trade-offs between economic growth at national, local and global levels respectively.

Sustainable development makes pursuit of economic growth more complex as a public policy task than it might otherwise be, because it calls for economic development (rather than growth) to be integrated with environmental and social considerations. And that, in turn, poses an inherent challenge for liberal democracy, because democratic liberalism is *itself* apparently ineluctably connected to economic liberalism.

Whilst 'prosperity without growth' is the goal associated with an eponymous book published in October 2009 (Jackson, 2009), 'democracy without growth' carries neither contemporary precedent nor visionary blueprint. Yet it seems unlikely that 'prosperity without growth' could be achieved in the absence of efforts to equip democracy for 'democracy without growth'.

One need only consider global responses to the financial crisis of 2008-10 to see how much disruption can result from an unplanned departure from the dominant economic growth paradigm in the world's democracies.

In the US, the rate of real economic growth slowed with the financial crisis from an estimated 2.7% in 2006 to 0.4% in 2008.⁵ This slowdown – of just 2.3% - caused enormous hardship and placed the US's rate of growth 193rd in the world, according to the US Central Intelligence Agency (though still ahead of the 18 countries that were at that point already in recession). In the United Kingdom, citizens are today resigned to the idea that they will be tightening belts to replenish the public coffers emptied by the bailout of a crumbling financial system for at least a decade to come.

At the same time as beleaguered governments in the world's established major economies struggle to steer a course towards renewed growth, environmentalists at the World Wide Fund for Nature warn that if everyone in the world adopted the average American way of life we would need not one planet but five to sustain us.⁶

This is inherently *unsustainable* development: there is only one planet.

In sharp contrast to the contemporary reality of economic development, natural resources use and population growth, governments around the world have also committed to take steps towards sustainable development.

Two global intergovernmental meetings: the 1992 UN Conference on Environment and Development (UNCED) and the 2002 World Summit for Sustainable Development (WSSD), laid a foundation for an ambitious set of principles and commitments; some (like the United Nations Framework Convention on Climate Change) legally binding, and others (like the Johannesburg Declaration or Agenda 21) principles or non legally binding blueprints for action. And whilst the popularity of the terms 'sustainable development' and 'sustainability' may have waxed and then waned, the concept has remained relatively high on the United Nations agenda.

Sustainable development, as much as economic liberalism, has already hitched itself to democracy. UNCED and WSSD confirmed the links. Principles of public participation and of access to information are now as deeply embedded in thinking on how to define and deliver sustainable development as in thinking on how to deliver participatory representative democracy.

At WSSD, a number of governments also spotlighted a basic problem: if democracy fails to deliver the kind of social justice that is embedded in most people's conceptions of sustainable development, the result could well be an erosion of democracy. This insight delivered an almost poetic passage in the intergovernmentally agreed Johannesburg Declaration:

*".. unless we act in a manner that fundamentally changes their lives the poor of the world may lose confidence in their representatives and the democratic systems to which we remain committed, seeing their representatives as nothing more than sounding brass or tinkling cymbals."*⁷

Governments at WSSD recognised that sustainable development poses challenges for democracy. But what are they?

A first challenge is that of long-term thinking for genuinely sustainable development in the face of short-term crises and election cycles. This in turn can be linked to more general symptoms of

malaise in democracy within many European countries, exemplified by voter apathy, lack of trust in politicians, and the real-world obstacles to achieving genuinely inclusive participation in almost any setting. The “corporate social responsibility” movement invites businesses to adopt long-term thinking as the basis for their “business case” for sustainable development, but it is hard to get elected representatives to do the same thing.

A second major challenge concerns unrepresented interests: particularly the interests of those without voting rights (including nature itself, children and future generations), and those without an effective voice, including the most marginalised people in society. Here, there is a great deal of existing innovation to draw from in framing proposals on concrete ways in which to strengthen the ability of democracies to take account of unrepresented interests.

For example, experiments are beginning to take root in different parts of the world on institutional innovations that can help to integrate concern for future generations, or the environment, into parliamentary decision-making. Hungary’s newly-established Parliamentary Commissioner for Future Generations (informally known as the ‘Green Ombudsman’)⁸ is just one example (Ward, 2009).

A third challenge concerns the difficulty of making legitimate and accountable choices on trade-offs when it is difficult to see ‘win-win-win’ solutions that work for the economy, the environment and for society at the same time. A decision on use of natural resources that has potential to promote sustainable development at national level – for example in the case of wind power – may adversely affect the rights of community members closest to the ground. Yet sustainable development demands integrated thinking and action on economy, society and environment.

Ideas about ‘nested governance’ or ‘network governance’ (which will be explored in Paper Three) can inform evolving thinking and practice on how best democratically to make decisions about the levels at which sustainable development should be pursued, from the local to the global. But there is still surprisingly little shared understanding on how best to combine and integrate different levels of democratic decision-making for sustainable development.

In practice, the evolution of democracy has been so closely coupled to economic growth that decoupling, whilst much needed, is difficult. This is as much a challenge for those international agencies, such as the US Agency for International Development (USAID) that work to ‘export’ democracy through international assistance programmes as it is for national level governments.

Sustainable development, then, needs democracy. But democracy needs sustainable development, too. Social justice, environmental protection and economic development—done well—are likely to nurture and sustain ‘government by the people for the people’.

Climate science

Some key considerations

Changes in the earth’s climate can happen for many reasons, including volcanic eruption; earthquake; changes in solar output, and the trajectories of ocean currents and winds. For our work, what is most important is debate about anthropogenic (man-made) global warming.

Climate change and global warming are closely linked to the greenhouse effect. This results from the role played by the earth’s atmosphere (particularly ‘greenhouse gases’ within it; including carbon dioxide, methane, and water vapour) in keeping solar heat within the area bounded by the earth’s

atmosphere. If there were no 'greenhouse effect'; scientists have calculated that the Earth ought in theory to be frozen.

French scientist Jean-Baptiste Joseph Fourier calculated in the early nineteenth century that the earth's atmosphere is responsible for keeping in a portion of the energy that reaches the earth from the sun. This 'greenhouse effect' is increased when concentrations of greenhouse gases in the atmosphere increase. And concentrations of greenhouse gases including carbon dioxide and methane have increased as a result of human activities including the burning of fossil fuels; particularly since the industrial revolution. These increases have not been balanced by the functioning of a variety of natural 'sinks' for carbon dioxide, which include forests and other kinds of vegetation, soils and oceans.

At no time during the past 650,000 years has the carbon dioxide content of the air been as high as it is today. By early 2008, concentrations of carbon dioxide in the air stood at 387 parts per million (ppm).⁹ They are rising at about 2 ppm annually. Yet before the industrial revolution, carbon dioxide concentrations were about 280 ppm.

350 ppm has now become the emblematic number for a global campaign to commit the world to action to take concentrations of carbon dioxide below 350 ppm¹⁰ – considered to be the upper 'safe' concentration by many climate scientists.

The current widely accepted notional target of 450 ppm itself carries many uncertainties and would likely be associated with an average two degrees of warming worldwide compared to pre-industrial levels (as distinct to a 1990 baseline). Many policy-makers see 550 ppm as a more realistic goal given the major economic and lifestyle changes that are required to reduce overall concentrations of greenhouse gases in the atmosphere. But this would likely bring a global average temperature rise of 3 degrees by the end of the century compared to pre-industrial levels.

The international community has established a body specifically to review the global state of the art in climate science. The Intergovernmental Panel on Climate Change (IPCC) was established in 1988, ahead of the 1992 United Nations Conference on Environment and Development, "*to provide the world with a clear scientific view on the current state of climate change and its potential environmental and socio-economic consequences*".¹¹ Part scientific body and part intergovernmental body, the Panel operates through working groups and the voluntary contributions of thousands of experts around the world, producing periodic assessments of climate science and of the potential impacts of climate change.

The IPCC's most recent global review, the 'fourth assessment report', was published in 2007, and in that year the IPCC was also awarded the Nobel Peace Prize. The next, fifth assessment report, is due in 2014.

In November 2007, the Fourth Assessment Report of the Intergovernmental Panel on Climate Change concluded that "*warming of the climate system is unequivocal*". In the period from 1906-2005, the average global temperature increased by 0.74 degrees Celsius;¹² 0.8 degrees since 1880. However much subsequent debate there has been over elements of the IPCC's report; including claims about the rate at which Himalayan glaciers could melt; projected sea level rise; and data relied upon by scientists at the UK's University of East Anglia; the overall body of evidence on which this clear conclusion is based has not been seriously challenged. As Ian Christie writes, "*the chances*

of our injecting vast quantities of GHGs into the biosphere and not having any impact on the climate system are zero”.¹³

Models used in the IPCC's Fourth Assessment Report suggest that *if* the world continues to rely on carbon-based energy, *if* population growth continues at its current rate, and *if* 'dirty' technologies continue to be used, average global temperatures may increase by 6.4 degrees Celsius by 2100; the end point for our current project. Many scientists believe that warming by at least one more degree is already wired in.

The goal of confining global warming to an average of 2 degrees centigrade; acknowledged in the Copenhagen Accord; may itself be insufficient to prevent dangerous consequences. And it is also important to note that the range of temperatures represented by a *global* average may also mean dangerously high increases, significantly in excess of two degrees, in some parts of the world.

Whilst scientists are nearly unanimous on the link between increased concentrations of greenhouse gases and global warming; evidence on the possible range of impacts is less clear. The projected impacts of climate change are the subject of a later paper (*Paper Four*) in our project. For the time being, it is enough to highlight some of the key ways in which climate change could bite; affecting both patterns of human behaviour and social organisation, and the ecosystems of which all life forms part.

Richard Matthew and Anne Hamill (2009) helpfully distinguish between two kinds of effects. The first is connected to changes that have already begun to be felt; such as heatwaves, droughts and biodiversity loss. A second category of change is linked to currently unknown effects. Scientists worry in particular about various kinds of 'tipping points' or critical thresholds in ecosystems with dramatic and unforeseen effects; such as rapid glaciations or sudden gas releases from the huge reservoirs of methane stored in rotting vegetation and peat under the earth's permafrost.

Climate change will have major environmental impacts on the ability of the Earth to feed the inhabitants of an increasingly crowded planet, with some species becoming marginal or facing extinction and access to water and to food systems becoming increasingly strained. Acidification of the oceans as they absorb more carbon dioxide would make it difficult for some forms of sea life to survive. Climate change will have major health impacts; for example as a result of increasingly frequent extreme weather events (including heatwaves, floods and droughts); shifts in incidence and spread of infectious diseases; increasing skin cancers through exposure to UV radiation; and the mental health effects of increased social exclusion. And climate change will have wider social impacts; not least as sea level rises generate major impacts on human settlements in coastal areas; as changes in agricultural productivity and practices force migration; and as the impacts of climate change begin to generate major shifts or shocks in the global economy.

Climate science is developing rapidly. Perhaps most significantly, since the publication of the IPCC's fourth assessment report in 2007 there has been a significant upward revision of estimates on global sea level rises (ranging from 0.75m to 2m by 2100, an increase from the estimate of 18-76cm included in the IPCC's fourth assessment report).¹⁴

In November 2009, researchers at the University of South Wales Climate Research Centre issued their 'Copenhagen Diagnosis'; designed as a pre-Copenhagen update to the IPCC's fourth assessment report. Among other findings, they concluded¹⁵ that the IPCC's fourth assessment report had significantly underestimated the risks of climate change.

The Copenhagen Diagnosis points to surging greenhouse gas emissions which would mean that even if global emission rates were stabilized at present-day levels, just 20 more years of increased emissions would give a 25% probability that warming exceeds 2°C, even with zero emissions after 2030. They highlight the rapid decline in Arctic sea-ice (about 40% greater than the average prediction from the IPCC's fourth assessment report climate models) and a wide array of satellite and ice measurements which now demonstrate beyond doubt that both the Greenland and Antarctic ice-sheets are losing mass at an increasing rate. As to the second type of unpredictable impact, when 'tipping points' are reached the full implications of which cannot be fully predicted, they argue that *"Several vulnerable elements in the climate system (e.g. continental ice-sheets, Amazon rainforest, West African monsoon and others) could be pushed towards abrupt or irreversible change if warming continues in a business-as-usual way throughout this century. The risk of transgressing critical thresholds ("tipping points") increase strongly with ongoing climate change. Thus waiting for higher levels of scientific certainty could mean that some tipping points will be crossed before they are recognized."*

The researchers give a clear estimation of the scale of the decisions required of people and policy-makers. They argue that *"If global warming is to be limited to a maximum of 2°C above preindustrial values, global emissions need to peak between 2015 and 2020 and then decline rapidly. To stabilize climate, a decarbonized global society – with near-zero emissions of CO₂ and other long-lived greenhouse gases – needs to be reached well within this century. More specifically, the average annual per-capita emissions will have to shrink to well under 1 metric ton CO₂ by 2050. This is 80-95% below the per-capita emissions in developed nations in 2000"*.

This relatively 'normal' process of science-based revision of estimates has occurred quite aside from media storms generated by the debate over the unauthorised release of emails and documentation from climate researchers at the University of East Anglia (dubbed 'climategate'); and the revelation that a claim that Himalayan glaciers could melt by 2035 was incorrect ('glaciergate'; both considered further below).

There is, it seems, no field of human endeavour that is immune from impact by climate change. The real risk is that it will be the most vulnerable and marginalised people on the planet who will bear the full force of the worst impacts of climate change.

Democracy must be capable of rising to these challenges. It must realise its promise of empowering all people, wherever it exists, to make meaningful choices in dignity about the course that their lives take. The carbon emissions of a minority of the world's population cannot be allowed catastrophically to harm the livelihoods and wellbeing of a majority who lack the resilience to cope with and adapt to climate impacts.

Climate science and the media: 'Climategate' and 'glaciergate'

"Climategate" focused on the November 2009 leak (or, depending on one's perspective, theft) of emails and other data from researchers at the UK-based University of East Anglia's Climatic Research Unit. Scientific analysis generated by the CRU had made a significant contribution to the body of materials that were reviewed in the IPCC's fourth assessment report.

In November 2009, some 160MB of stolen documents and 1000 emails were uploaded to various websites (at least one had itself been attacked by hackers uploading the data). The controversy quickly crystallised, not around the theft itself, but about the content of a small number of emails

which showed, it was claimed, misconduct on the part of one of the UEA scientists, Dr Phil Jones, who subsequently stood down as head of the CRU.

As at February 2010, a lengthy process to develop a still-disputed entry about the incident on the Wikipedia website (itself a useful albeit unscientific marker of the state of the debate) summarised that *“Some of the now widely publicised e-mails included discussions of how to combat the arguments of climate change sceptics, unflattering comments about sceptics, queries from journalists, and drafts of scientific papers. Allegations were made that the e-mails showed climate scientists colluded to withhold scientific information, [and] interfered with the peer review process to prevent dissenting scientific papers from being published.”*¹⁶

It also emerged that some of the raw data on which CRU had based their analysis had been destroyed. This was particularly concerning since requests made under the Freedom of Information Act to obtain some of that information had also apparently not been properly dealt with.

Commentators disparagingly dubbed ‘climate sceptics’ or ‘climate deniers’ seized on the “climategate” scandal to pursue their case that ‘warmists’ (as they in turn disparagingly label advocates of immediate action to tackle climate change) exaggerate the potential for dangerous climate change, or that processes of warming are a result of natural activities and processes that are independent of anthropogenic (human) actions.

By the time of the Copenhagen Climate Summit, there was significant concern that climategate could impact on the talks themselves. Contrary to the assertions of the Intergovernmental Panel on Climate Change that the basic climate science was not called into question by climategate, a spokesman from oil-rich Saudia Arabia argued that *“It appears from the details of the scandal that there is no relationship whatsoever between human activities and climate change”*.¹⁷ That an oil-rich country should take this position comes as no surprise. And in the end it seems unlikely that ‘climategate’ was to blame for the disappointing outcome of the Copenhagen Climate Summit.

The climategate affair rumbles on, with an announcement¹⁸ in January 2010 that the Parliamentary Science and Technology Committee would conduct an independent inquiry, additional to one announced by the University of East Anglia itself, into the ‘unauthorised publication’ of the data, including its implications for the integrity of scientific research. The Select Committee received oral evidence on 1st March 2010. Its report is now awaited.

Many environmentalists and proponents of precaution were aghast at the prospect that climategate could significantly hold back progress in Copenhagen. But there is certainly nothing inherently ‘undemocratic’ in the idea that the underlying assumptions and biases of climate scientists should be held up for public scrutiny.

For Ian Christie, the key lessons are that:

- “1) the science is not a 'done deal' and never can be;*
- 2) the science is a human process and inevitably bound up with values, worldviews and interests;*
- 3) climate science has implications of such scale and impact that debate and assessment of evidence must be as open as possible;*
- 4) those in the 'climate consensus' need to be far more sensitive to issues of social and cultural reception of their findings and to the poor level of media and public understanding of science”*.¹⁹

Climate scientists appeared in toe-curling exchanges on television and on the radio to exchange blows with their sceptical opponents (who were often lobbyists well trained in media communication). For whilst policymakers and members of the public might have a poor grasp of climate science and also of science overall (especially of uncertainty and risk), it is also the case that many scientists have a poor grasp of policymaking and public communications, and a hesitant or antagonistic approach to the media.²⁰ At the same time, public scepticism over climate change appeared to mount in countries, including the US and the UK, that were still struggling to cope with the aftershocks of the financial crisis and were poorly predisposed to massive public spending based on bad science.

Other setbacks were to follow. In January 2010, further controversy arose over what rapidly came to be known as 'glaciersgate'. It emerged that one of the most startling claims of the IPCC's Fourth Assessment report; that Himalayan glaciers could melt by 2035, was based on evidence that appeared to amount to little more than conjecture.

The source of the claim turned out to be a 1999 interview between the UK-based New Scientist magazine and an Indian climatologist who speculated that Himalayan glaciers might "vanish within 40 years as a result of global warming." The scientist cautioned that his data was neither published nor peer reviewed. The interview was cited in a 2005 report published by the NGO WWF and used as an advocacy tool. In turn, the claim was incorporated within the report of one of the three working groups behind the IPCC's Fourth Assessment Report; Working Group II. The IPCC works through three working groups. The first focuses on the physical science base for climate change. In effect, this working group provides analysis of the physical science base on which the other two working groups draw. Working Group II focuses on impacts adaptation and vulnerability. Working Group III focuses on mitigation. The differences between the three are significant in terms of 'climate scepticism' because Working Groups II and III address questions that inevitably demand a greater degree of subjective judgment (speculation even) as a result of their need to focus on evaluation of what could be the range of possible outcomes from (and therefore appropriate responses to) climate change based on the physical science base. A serious and credible attack on analysis from Working Group I would potentially undermine fundamentals of climate science. An error in the analysis of Working Groups II or III does not, but rather raises questions about the IPCC's methodological and procedural approach.

Drawing on what appears to be one sentence in the 3000 page analysis of Working Group II, the Intergovernmental Panel on Climate Change stated in its 2007 Fourth Assessment report that *"Glaciers in the Himalaya are receding faster than in any other part of the world and, if the present rate continues, the likelihood of them disappearing by the year 2035 and perhaps sooner is very high if the Earth keeps warming at the current rate."*²¹

As 'glaciersgate' broke, the IPCC was forced to admit that the claim was a mistake.²²

Climategate and glaciersgate put the role of scientific expertise in public decision-making under scrutiny as never before. And as the interpreters of science in such a situation are often not scientists but politicians or lobbyists, the 'gates' stand in the way of public decision-making based on fact and judgment rather than fiction and spin. It became apparent in the aftermath of climategate and glaciersgate that there was a risk that public views on climate change would be formed entirely on ideological grounds rather than on an attempt to apply values to an assessment of scientific evidence.

Under what circumstances could the voices of “climate sceptics” gain further ground? And what impact might that have on efforts to prepare citizens for the democratic innovations needed effectively to tackle climate change?

When we outlined our project proposal for scenarios work on democracy and climate change in July 2009, we wrote that *“given the legitimacy of the IPCC process, we will record and take account of the views of ‘climate deniers’ only in so far as these may be significant in shaping the relationship between democracy and climate change (e.g. because they become attractive to a voting mainstream for psychological, economic or other reasons)”*.

Today, the legitimacy of the IPCC process itself has been somewhat dented, with calls for its Chairman, Dr Rajendra Pachauri, to resign. The possibility that the IPCC’s credibility will not fully be regained or, worse, that it becomes incapable of filling its role as the globally authoritative source of third-party evaluation of primary climate science data needs now to be taken seriously as an issue of global climate governance.

For practical purposes however, there is little immediate reason to deviate from our view that we would take the Fourth Assessment Report, plus any major subsequent developments, as the starting point for analysis of possible climate impacts. A vast body of the IPCC’s work has not confronted any credible challenge; and where challenges have been raised they are more significant in terms of the relationship between ‘democracy and climate change’ than in terms of the facts and possible scenarios associated with climate change itself.

International environmental policy as well as much national environmental policy in countries around the world has embraced the so-called ‘precautionary approach’ (sometimes dubbed, with greater normative force, the ‘precautionary approach’). The precautionary approach posits that where *“there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation”*.²³

One logical response to ‘climate sceptics’ is for governments and civil society-based organisations to promote greater awareness of the value of ‘precaution’ as a guide to climate policy. The risk is that public scepticism about the trustworthiness both of politicians and, now, scientists, could effectively dampen the impact of a greater emphasis on precaution.

This points to the significance of wider efforts to build public trust in the institutions and processes of democracy (including trust in politicians); but it begs the question ‘how’?

The Copenhagen Climate Summit

Background

In his book *One World*, ethicist Peter Singer argues that how well we come through the globalisation process will depend on how we respond to the idea of living in ‘one world’.

The policy imperative of sustainable development tends to underscore the essential core of globalisation as ‘global interconnectedness’. Impacts of carbon emissions or environmental pollution do not stop at the borders of nation states; it is a commonplace that overconsumption in the world’s richest countries makes life more difficult for people elsewhere by quickening depletion of resources.

Yet it is almost a truism that our systems of governance – be they democratic or otherwise – have not caught up with the reality of this interconnected world. Our ethical sensibilities have to some extent been shaped by sustainable development – even if we don't call it that – but governments collectively have found it enormously difficult to rise to the challenge within established systems for global governance.

Nowhere was this more evident than in the December 2009 Copenhagen Climate Summit.

The Copenhagen Climate Summit was the fifteenth Conference of the Parties to the United Nations Framework Convention on Climate Change (COP15), and the fifth meeting of the parties to the Kyoto Protocol (MOP5). COP15 was to be the culmination of a process to develop a successor regime to the Kyoto Protocol, which had itself been concluded in 1997 as an adjunct to the 2002 United Nations Framework Convention on Climate Change; one of the outputs from the 2002 United Nations Conference on Environment and Development. The Kyoto Protocol entered into force in February 2005, but has always suffered from the fact that it has not been ratified by the United States, the world's largest emitter of greenhouse gases. The Protocol (or 'Kyoto' as it is often more simply known in climate circles) commits its parties to overall cuts of greenhouse gas emissions of 5.2% below 1990 levels over the period 2008-2012. But it is timebound, containing no commitments for the period beyond 2012.

The Kyoto Protocol does not contain any emissions reduction commitments for developing countries. But it does provide a variety of incentives for emissions reductions *in* developing countries; including through a Clean Development Mechanism (in which investors from richer countries make investments in low carbon projects in developing countries and are able to claim the credit); Joint Implementation (in which developing countries assist one another to make cuts and claim a share of the emission reductions) and carbon trading (a market-based scheme in which emissions allowances are traded between greenhouse gas emitters).

Democracy and climate change in the run-up to Copenhagen

There were great hopes that COP15 might put the world on track effectively to mitigate and adapt to man-made (anthropogenic) climate change. But it became apparent, in the run-up to Copenhagen, that even governments convinced of the risks of climate change faced major challenges convincing sceptical citizens (to whom of course, as democracies, they remained accountable) of the risks. For example, in October 2009, the Pew Research Centre in Washington reported that the percentage of Americans believing that there is solid evidence that the earth is warming fell from 77% in 2007 to 57% in 2009.²⁴

In the UK, opinion polls and analysis in the period leading up to Copenhagen had begun to highlight 'climate fatigue',²⁵ or a majority-held view that other countries and their citizens (China in particular), should take the lead.²⁶ Democracy itself was on occasion almost held up as hampering the progressive will of government. An editorial in *Prospect* magazine argued in October 2009, "*The real trouble is that, except in wartime, western democracies are not good at appealing to citizens' 'better selves' to make sacrifices for their own futures—it is distance in time more than place that makes it so hard to respond to climate change*".²⁷

Democracy presented other obstacles to progressive climate policy in the US. In the period immediately before the Copenhagen Summit, US President Barack Obama struggled to implement reforms to a system of healthcare that had failed a huge minority of that great country's citizens. And the constitution of the United States, second largest global emitter of greenhouse gases (the

gases known to have potential impacts on the climate), also presented considerable obstacles to pursuit of a progressive domestic agenda on climate change. As FSD trustee Ian Christie writes, “[t]he USA was designed by proponents of ‘small government’, determined to avoid over-mighty executive agency and to put in place checks and balances to prevent emergence of any authoritarian power. This system could well be dysfunctional in dealing with challenges on the scale of climate change and low-carbon transition”.²⁸

A critical problem is that the US constitution was designed to hinder a rise in ‘big government’; to place checks and balances in the way of concentrated power – or leadership, for that matter. Consequently, the constitution makes it difficult to achieve radical nationwide changes in law. Yet climate change demands radical action. If, as Ian Christie suggests, climate change this is a “*Big Government task – then the last country you’d want to rely on to take the lead is the USA. The evidence is that the USA can only rise to this kind of challenge and overcome its own legislative self-hindering in crisis is completely unignorable. Yet if we wait for that in relation to climate, the chances are that it will be too late for meaningful action*”.²⁹

The obstacles thrown up in the way of US government efforts to implement healthcare reforms need also to be considered alongside the enormous expectations placed upon Barack Obama by many commentators, to show ‘global leadership’ in Copenhagen. There is a tension between a frequently-expressed desire for ‘climate leadership’ on the part of elected representatives, and the democratic requirement for elected leaders to be accountable to citizens, many if not a majority of whom might be sceptical about climate change. Moreover, as Ann Florini puts it, “[w]hen decision-making reaches the rarified level of intergovernmental organisations... the threads of democratic accountability can be stretched very thin.”³⁰

The difficult balance between leadership and accountability is by no means the only pivot around which the relationship between climate change and democracy is shaped in representative democracy. In December 2008, UK Climate Secretary Ed Miliband argued that a “popular mobilisation” was needed to help politicians to seal an agreement in Copenhagen. “*There will be some people saying ‘we can’t go ahead with an agreement on climate change, it’s not the biggest priority’, he said “and, therefore, what you need is countervailing forces. Some of those countervailing forces come from popular mobilisation.*”³¹

As they went into the Copenhagen climate talks, many countries around the world had also been battling the effects of the financial crisis of 2008-10. Having averted catastrophe in the smooth functioning of the world’s financial system through massive state interventions, including nationalisations and injections of public funding, there seemed little appetite in Copenhagen to respond commensurately. In his statement to the Summit, President Hugo Chávez of Venezuela made the emblematic statement that (in translation) ‘*if the climate were a bank, [the rich countries] would have saved it by now*’.³²

Ed Miliband’s plea for mass mobilisation to back progressive leadership by elected representatives is understandable. But it is also at odds with the cries of NGOs in Copenhagen for ‘real leadership’ on climate change at a time of deep recession and evidence of faltering public concern for the possible impacts of climate change. The tension suggests not only that citizens must take greater responsibility, and become more active, in signalling their concerns to politicians; but also that politicians must be prepared to act to facilitate and enable the rise of a mass mobilisation in favour of strong action on climate change. As David Held and Angus Fane Hervey write in a 2009 (pre-Copenhagen) paper for Policy Network, “*good democratic leadership is not confined to policymaking*

alone – it also involves educating constituents about pressing issues that may not be obvious to them.”

Effective action on climate change demands that democracy deliver an elusive mix of political leadership, expertise, citizen responsibility and grassroots mobilisation. And elusive that magic mix has indeed proved to be.

COP15 outcomes

From 7-18 December December 2009, 192 governments and, in the later stages, 113 heads of state of met in Copenhagen to hammer out an international agreement on the steps needed to tackle and to stall the human and environmental impacts of climate change; and on the distribution of obligations, and funds, adequately to finance mitigation of, and adaptation to, climate change.

After late night discussions into the small hours of 19th December, governments departed. Some, including President Obama, departed sooner than others; in President Obama’s case to dodge a blizzard in Washington. The irony of an unusually early cold snap in Copenhagen, too, was naturally seized on by ‘climate sceptics’. But the *schadenfreude* of environmentalists tweeting with delight at the delayed flights of carbon-intensive travellers to the Copenhagen Climate Summit was matched by the far longer delays faced by many environmentalists who had deliberately travelled overland to Copenhagen as the snow brought chaos brought to European road and train travel.

So what were the achievements of the government negotiators gathered in Copenhagen?

The Summit failed to agree a successor regime to the Kyoto Protocol. That remains in force (for its parties, at least), until its built-in expiry date of 2012. It failed to deliver a legally binding agreement. And it failed to deliver a timetable within which a legally binding agreement should be concluded.

Formally, the chief output from the Copenhagen Climate Summit was a non-legally binding agreement, “The Copenhagen Accord”.³³ The Accord was initially negotiated among a small group of countries (the US, China, India Brazil and South Africa) on 18th December, at a time when there appeared to be a very serious risk that no deal would emerge from Copenhagen.

An agreed text was released to governments on the early evening of 18th December and almost immediately received the support of a larger group of countries including those of the EU. But consensus on the text did not prove possible. Countries including Venezuela, Sudan (which held the Chair of the G-77 and China Group of 130 countries within the negotiations), Tuvalu and Bolivia refused to sign on; and since Copenhagen others including Cuba, Ecuador and Pacific Small Island State Nauru have indicated that they will not do so either. In the early hours of 19th December 2009, after a long evening of discussion by tired negotiators at Copenhagen’s Bella Conference Centre, Sudanese Lumumba Stanislas Dia-ping memorably and shockingly described the Accord as “*a solution based on .. the very same values in our opinion that funnelled six million people in Europe into furnaces.*” He declared that the draft “*asked Africa to sign a suicide pact, an incineration pact, in order to maintain the economic dominance of a few countries.*”³⁴

The Copenhagen Accord contains 12 paragraphs of text which wrap a commitment to continue to cooperate with a view to ‘enhance our long-term cooperative action to combat climate change’, and to ‘cooperate in achieving the peaking of global and national emissions’ (to hold the increase in global temperature below 2 degrees Celsius) ‘as soon as possible’.

To the acute frustration of many, the agreement contains no targets. Instead of targets - or even a commitment to a year by which global emissions must peak - the Accord ends with two empty Appendices. Appendix 1 was to be completed by January 31st 2010 on the basis of voluntary economy-wide emissions target commitments to be made by 'Annex I' Parties to the UN Framework Convention on Climate Change (i.e. industrialised countries and 'economies in transition'). An empty Appendix II, also to be completed by the end of January 2010, was to contain a listing of 'nationally appropriate mitigation actions of developing country Parties'.

The Accord also incorporates a range of (non-binding) commitments on finance to 'enable and support enhanced action on mitigation'. These commitments are divided into two periods: a collective commitment by developed countries to provide "*new and additional resources, including forestry and investments through international institutions, approaching USD 30 billion for the period 2010-2012*", and secondly, "*in the context of meaningful mitigation actions and transparency on implementation*", developed countries commit to a goal of mobilizing jointly USD 100 billion dollars a year by 2020 to address the needs of developing countries. There is no commitment for this to be 'new and additional' finance, but Parties to the Accord agree to establish a High Level Panel to 'study the contribution of the potential sources of revenue' towards meeting these financing goals.

Two days after the 31st January 2010 deadline for emissions targets and mitigation actions had passed, the table of submitted commitments was very far from the scale of effort needed to contain temperature rise to two degrees above pre-industrial.³⁵ Commitments closely mirrored the indications that countries had already given in Copenhagen. An analysis from consultancy PricewaterhouseCoopers released on 3rd February calculated that the pledges made to the Accord amount to a reduction in carbon emissions of just under four GtCO₂e below business-as-usual levels by 2020. It warned that a further 16GtCO₂e reduction by 2020 would be required to move onto a "low-carbon pathway" based on a two degree average temperature rise.³⁶

55 countries accounting for 78 percent of the world's greenhouse gas emissions submitted reduction targets ahead of the deadline. A number of Appendix I countries submitted conditional targets. For example, "*Australia will reduce its greenhouse gas emissions by 25% on 2000 levels by 2020 if the world agrees to an ambitious global deal capable of stabilising levels of greenhouse gases in the atmosphere at 450 ppm CO₂-eq or lower*"; "*As part of a global and comprehensive agreement for the period beyond 2012, the EU reiterates its conditional offer to move to a 30% reduction by 2020 compared to 1990 levels, provided that other developed countries commit themselves to comparable emission reductions and that developing countries contribute adequately according to their responsibilities and respective capabilities*"; Russia (which submitted its target slightly late): "*the range of the GHG emission reductions will depend on the following conditions: - Appropriate accounting of the potential of Russia's forestry in frame of contribution in meeting the obligations of the anthropogenic emissions reduction; - Undertaking by all major emitters the legally binding obligations to reduce anthropogenic GHG emissions*"; United States: "*In the range of 17%, in conformity with anticipated U.S. energy and climate legislation, recognizing that the final target will be reported to the Secretariat in light of enacted legislation*".

"Nationally appropriate mitigation actions" submitted by Annex II countries also varied wildly. For example: "*China will endeavour to lower its carbon dioxide emissions per unit of GDP by 40-45% by 2020 compared to the 2005 level, increase the share of non-fossil fuels in primary energy consumption to around 15% by 2020 and increase forest coverage by 40 million hectares and forest stock volume by 1.3 billion cubic meters by 2020 from the 2005 levels*". In contrast, The Maldives pledges to "*Achieve carbon neutrality as a country by 2020*".

Discussion over the overall Copenhagen scorecard may be expected to continue for some very considerable time. But with preparations now beginning for COP16/MOP6, to be held in Mexico towards the end of 2010, it is clear that the commitments that made to date are very far from adequate to head off the risks of dangerous climate change.

Democracy and climate change after COP15

In the immediate aftermath of the Copenhagen Climate Summit, commentators focused in particular on five core themes that are relevant for our 'democracy and climate change' theme.

Intergovernmental democracy

First, the need, at the most generalised level, for the current model of intergovernmental decision-making to be reformed, since it appears at very best ill-equipped to cope with a global issue where almost every kind of stake (environmental, human rights, social, economic; survival even) is high for many countries.

This speaks to problems in the current state of 'global governance' and to the problems of intergovernmental democracy within the United Nations system itself. In the words of Chandra Bhushan, Associate Director of the Delhi-based Centre for Science and Environment, "*If we want to tackle climate change, we will need more democracy not less. Not only within countries, but also between countries*". That means achieving (at least) intergovernmental democracy in a system of global governance without a global parliament, where in principle one nation has one vote.

Middle and low-income countries, even large ones, often complain that they feel strong-armed in international negotiations, or that they are kept out of key discussions. Yvo de Boer, Executive Secretary of the UN Framework Convention on Climate Change until his forthcoming departure in July 2010, knows this too. For example, in relation to the crucial issue of 'who pays for climate change', he wrote (before the Copenhagen Summit) that "*If significant financial resources are to be generated for mitigation and adaptation, developing countries will want a representative say in how the money is to be allocated and spent. The governance structures have to function according to democratic principles, founded on equity.*"³⁷

Shifting negotiating alliances and power

Second, and related to this, is the role of China in the talks and the shifting balance of power between nations. Whilst it is important not to assess isolated comments as though they were the received wisdom of the world, it is perhaps significant for our purposes that at least the UK and US governments chose to blame China for what they saw as the failure of the Copenhagen talks.

UK-based activist and writer Mark Lynas, appointed climate change advisor to the government of the Maldives in November 2009,³⁸ wrote immediately afterwards:

"The truth is this: China wrecked the talks, intentionally humiliated Barack Obama, and insisted on an awful "deal" so western leaders would walk away carrying the blame...

China's strategy was simple: block the open negotiations for two weeks, and then ensure that the closed-door deal made it look as if the west had failed the world's poor once again."³⁹

Whatever the 'truth about China', it is clear from Copenhagen as well as wider reflection that any too-quick conclusion that China's democratic deficits could make global agreement on climate change more likely would be unwise. For China is as committed as any other country to avoiding

social unrest; and China is as committed to economic growth (and rapid economic growth at that) as any one of the world's democracies. Moreover, dispute between the US and China in Copenhagen over transparency in communication of emissions reductions (with China resisting US demands) hung heavy over talks at Copenhagen.

Copenhagen also saw visible shifts in negotiating dynamics between the world's richest countries and the so-called 'emerging economies' whose carbon emissions are set to rise rapidly as their economies grow. The EU and its constituent countries were strikingly not among those mentioned by President Obama when he announced in a press conference in the evening of 18th December 2009 that a base deal had been reached. It emerged that the core parties to what became the Copenhagen Accord⁴⁰ were the US, Brazil, South Africa, India and China.

India and UK-based analyst and activist Malini Mehra argues (in a piece for the BBC News Channel)⁴¹ that:

"A key lesson from Copenhagen is that the new world order simply does fit comfortably with the archaic systems and processes of the United Nations. The problem is not with the UN itself, but with its antiquated processes. Bloc politics at the UN are now at least a decade out of date, and have not permitted the creative emergence of hybrid coalitions from North and South. Copenhagen made depressingly clear that "political realism" has trumped "climate realism" and that the "G2" powers [China and the US] are incapable of providing global leadership."

Many of the world's poorest countries remained politically marginalised in the official climate talks; but it was clear both that important shifts had taken place. New patterns of alliances are emerging within and out of the G77. For example, the decision of African group leader, Ethiopian Prime Minister Meles Zenawi, to stand with France to support the EU-backed maximum two degree temperature rise (making a regional 3-3.5 degree rise the suggested likely reality for Africa) together with a 'quick-start' finance package of USD 10 billion fell far short of prior African demands. Prime Minister Zenawi's proposal was greeted with consternation and charges of a sell-out by many Africans,⁴² among them the Sudanese chair of the G77/China group, Ambassador Lumumba Stanislaus Di-Aping,⁴³ as well as African civil society groups.

Civil Society and NGOs as drivers of change

Third, the role of civil society or non-governmental organisations as drivers of change. It is now an established (and hard fought-for) maxim of environmental policy that environmental decisions – including at the international level – are best made with the full participation of interested citizens.

At international level, this maxim (which goes further than any globally agreed text but nonetheless builds on Principle 10 of the Rio Declaration⁴⁴) has for some time supported participation of non-governmental organisations and civil society groups as observers in intergovernmental negotiations; briefing negotiators, adding technical expertise, and bringing transparency to otherwise obscure negotiations between civil servants as often as elected politicians.

This civil society participation has not been without its problems; there has on occasion been fear that the structures of non-governmental organisations around the world and the potential dominance of larger groups simply reflect wider imbalances of bargaining power between nations. But in the climate talks, there is a remarkable coincidence of interest between the calls of civil society for climate justice and ambitious emissions targets, and the headline interests of more vulnerable nations.

This coincidence of interest, however, has too often not extended to a willingness on the part of civil society groups headquartered in rich countries to put pressure on major developing countries; even though these are increasing both in economic power and emissions significance. Activist and commentator Mark Lynas argues that “[T]he complete lack of civil society political pressure on either China or India [further strengthened China’s negotiating hand in Copenhagen]. Campaign groups never blame developing countries for failure; this is an iron rule that is never broken.” In the tongue-in-cheek ‘fossil of the day’ awards screened nightly in Copenhagen by independent web-based media agency Avaaz, it is significant that no non-OECD country was ever awarded this civil society accolade of retrograde action.

Could Copenhagen, then, mark the start of a new generation of campaign pressure and tactics for global civil society? If so, what could that pressure evolve to look like? Will we see international global environmental groups, for the first time, blaming non-OECD countries for failure in global talks that have traditionally been measured against a narrative in which countries that are not members of the rich nations’ club, the OECD, are more critically scrutinised than before? Will we see international grant-making funds redirected to ensure that the volume is turned up on the voice of critical groups in those middle and low income countries whose economies are growing the most rapidly?

There is a risk that images of (mostly police) violence and mass detentions on the streets of Copenhagen run the risk of deterring many concerned citizens in Europe and North America from exercising their right to protest. That would be great pity, for it could stifle the birth of the kind of mass mobilisation that politicians such as Ed Miliband say is needed⁴⁵ to support government leadership on climate change.

But those same images are just as likely to radicalise others, fuelling further scepticism over the political will of elected national leaders to take seriously the wishes of citizens who favour ambitious action to tackle climate change. When the ejection of impressive news source Avaaz and of Friends of the Earth and Tcktck from the official talks⁴⁶ coincided with the ‘Reclaim Power’⁴⁷ climate justice march on Wednesday 16th December, it appeared that an entire army of officials had just scored an own goal. Battles that many NGOs considered fought and won may now need to be fought and won again.

Beyond Copenhagen, there is renewed pressure on civil society around the world to make its voice heard above the non-voting views of economic interests and politicians limited by short-term political priorities or (in some countries) crude opinion poll data. This is precisely the message that is emerging from larger non-governmental organisations: “we don’t have a real deal, and we’re not done yet”, is the essential message.

In Copenhagen it was striking that some of the most vulnerable countries; those that stood to lose their very nationhood from climate change, were among those that forged the closest links with civil society groups present in Copenhagen. The adulation and standing ovation given to President Nasheed of the Maldives⁴⁸ when he spoke to a packed meeting at the ‘alternative’ climate venue, Klimaforum,⁴⁹ and the chorus of tweeting that surrounded his public speeches during the conference, are a case in point.

Shifting the balance between local, national and global action going forward

Fourth, the balance between local, national and global action going forward. There was a huge political and psychological distance between the key issues and solutions debated during the official

negotiations at the Bella Centre (where the formal talks took place), and the belief in bottom-up locally owned and self-managed solutions that characterised many of the ‘unofficial’ side meetings for civil society at the Klimaforum⁵⁰ space and in a variety of other meetings spaces around the city.

Indeed, with the slow pace of progress in intergovernmental talks, it has become apparent that much more emphasis will now likely be placed on local level innovation to deliver climate solutions.

Commentators in the UK have been paying renewed attention to the groundswell of community-based activism⁵¹ that has sprung up over the last couple of years; activism that has taken shape away from the formalities of ballot-box decision-making or the stifling bureaucratic decision-making of some town halls.

This renewed call to ‘community-based local solutions’ is both valuable in practice and laudable as prescription; the more so when it builds community ties and hence the ability to remain resilient in the face of climate change.

And yet, a note of caution must here be sounded on two grounds. First, because it was noticeable in Copenhagen that the vision of ‘bottom-up’ decision-making that was articulated in many side events was not accompanied by a seamless vision of the role of national or even local government; or of the much-vaunted national level ‘leadership’ that became a war-cry of campaigners during Copenhagen (e.g. as in the slogan ‘politicians talk, leaders act’ effectively deployed by Greenpeace during COP15).⁵²

Related to this is the real-world fact that any failure of global democracy resulting from negotiating inequality between nations is necessarily also a failure of national government.

In the run-up to the 2002 Johannesburg World Summit on Sustainable Development, governments encouraged so-called ‘Type 2’ agreements to be tabled and to become a formal part of the Summit’s outcomes.⁵³ These were essentially voluntary agreements or partnerships between different stakeholders to tackle different dimensions of sustainable development. But there was a backlash from some potential ‘Type 2 agreement’ signatories, who accused governments of passing the buck to non-governmental actors instead of getting on with reaching a deal themselves.

There must be a risk that the same will happen now on climate change: that governments will seek to bring citizen and business-led voluntary action into a bigger intergovernmental tent at the expense of much-needed national level leadership. That is not in itself a bad thing, but must not become a substitute for effective action at the national and international government levels.

There is also the reality that politics is nowhere more personalised; nowhere more exposing, than at the local level. Any move formally to institutionalise a prioritisation of local level decision-making needs also be accompanied by efforts to tackle marginalisation and social exclusion in local level decision-making; to ensure that minority views are given due weight.

At the same time, it may be that there is a window of opportunity that could be filled by vibrant town hall activism. City mayors from around the world met at an event organised by the City of Copenhagen during the official COP15 talks; the Copenhagen Climate Summit for Mayors.⁵⁴ According to an informal email from one participant: *“This looked and felt like a team! They listened to each other’s plans, they openly encouraged plagiarism and replication, they fostered support for each other in a way that was uncontrived, open and positive. They discussed technical fixes, finance*

and resources, education and engaging citizens: they discussed mitigation and adaptation, economic opportunity and necessity: and they recognised they need to be leaders of substantial cultural change.”

Localism must not become a banner under which marginalisation or ‘business as usual’ decision-making by vocal elites become entrenched in public policy. And against the optimism of the Copenhagen Climate Summit for Mayors must be set an increasing tendency for ‘climate scepticism’; now a divisive party-political issue in the UK⁵⁵ and US at least, to divide communities at local government level. Already there is anecdotal evidence that at the level of (local) District Councils in the UK, the views of ‘climate sceptics’ are holding back action to mitigate and adapt to potentially disastrous climate impacts.

As the Copenhagen Climate Summit shows, climate policy is already shaping democracy. But some of the emerging impacts of this shifting relationship are viewed as problematic. UK proposals for a series of new “eco-towns” are one example.

The UK government’s commitment to promoting ‘eco-towns’ was adopted in 2007. Eco-towns are described by the UK Department of Communities and Local Government as “*new towns which are exemplar green developments of a minimum of 5000 homes. They will be designed to meet the highest standards of sustainability, including low and zero carbon technologies and good public transport*”.⁵⁶

But eco-towns proposals have attracted considerable opposition. And that opposition is far more significant in sustainable development policy terms than simple nimbyism (‘not in my back yard’ thinking) on the part of local people.

On announcement of a shortlist of four eco-towns in 16th July 2009, Housing Minister John Healey said that: “*the proposals can raise strong opinions, but climate change threatens us all.. With our commitment to the eco-towns we are taking steps to meet this challenge and help build more affordable housing*”.⁵⁷

But not all local authorities have welcomed eco-town proposals. For example, one Stratford-on-Avon spokesman said, in the early days of the eco-town shortlisting process, that “*the district council is very unhappy to have developments like this imposed on us by the government.*”⁵⁸ In Stratford-on-Avon, a local campaign group began a judicial review of the decision. And in another proposed eco-town at Ford in West Sussex on the South Coast of England, the proposed area had already been rejected as a site for new housing by the local council before it became the proposed location for an eco-town.

These objections to the UK government’s eco-town proposals reflect different views on how to operationalise sustainable development – and on who should bear responsibility for what. Another example is the frequent rejection by community members at local level of proposals to develop renewable energy technologies such as windfarms.

Looking forward, will local objections to development proposals that have potential to serve sustainable development at local and national levels simply be brushed aside in a rush to put in place effective national plans for sustainable development, including for climate mitigation and adaptation?

Alternatively, could a distinct trend towards greater decentralisation around the world learn better to manage the outcomes of ‘nimby’ reactions to efforts to pursue sustainable development at the regional, national and global levels?

In practice, even the negative responses of ‘nimbyism’ offer a resource base and a set of social networks that could potentially be harnessed for local level decision-making on environmental and social issues. For example, advocates of deliberative democracy sometimes contend that, given appropriate information and sufficient time collaboratively to reflect, citizens are more likely to value long-term collective gain against short-term pain. A 2009 project called The WorldWideViews Climate Change Dialogue, for example, has shown that when people are engaged in a much more proactive and deliberative way than is usual, concern about climate change, and interest in tackling it, tend to be magnified.⁵⁹

Public communication of science

This relates to a fifth major ‘democracy and climate’ motif in the run-up to Copenhagen; namely, the public communication of science. Issues surrounding public scrutiny of climate science are considered further in a later section of this paper. Suffice it to say that, whilst scepticism of scientific claims about climate change was a feature of a great deal of media coverage in the run-up to the Summit and subsequently; it appears not to have had any significant impact during the course of the negotiations themselves.

Events during the December 2009 Copenhagen climate talks brought to the fore many of the issues that lie at the heart of our enquiry into *The future of democracy in the face of climate change*. Whether those issues will explicitly be addressed as issues of ‘democracy and climate change’, however, is far from clear. The risk is that they are not brought together as aspects of a single problem (that of getting democracy to deliver effective action to tackle the risks associated with man-made climate change); and that democracy, as much as effective climate action, suffers as a result.

Climate change and the wider challenges of preparing for resilient democracy

With December’s COP-15 climate talks in Copenhagen grinding to a halt without agreement on a way forward beyond 2010, how can we prepare our democracies for the near-inevitability that late action on climate change, when the costs of mitigation and adaptation are so much higher, will involve far greater incursions into personal liberties than might otherwise have been needed?

Governments acting alone cannot hope effectively to steer citizens to lasting mitigation and adaptation, however visionary they might be. Instead, democracy demands active citizen engagement; and climate policy demands much more than simply action by governments.

Grassroots movements such as the UK’s burgeoning Transition Town movement, which is based on community self-organisation to achieve greater resilience in the face of the climate change and peak oil challenges, offer a complement – and sometimes an alternative – to existing processes of representative democracy at local and national levels.

As such ‘self-help’ movements gain ground, an increasing challenge will be to find ways to incorporate them within our understanding of vibrant democracy working to tackle climate change. Tackling the climate challenge cannot be simply a question of policy measures and institutions: democracy itself will have to adapt.

There are at least three core difficulties here: first, democracies are notoriously bad at thinking long-term, since elected representatives feel tied to election cycles. Second, the most pernicious problem of sustainable development is that democratic governments have tended consistently to prioritise economic growth over environmental protection or social justice, often glibly assuming that the first guarantees the resources to achieve the second and third. Third, in recessionary times, electorates may well support growth-at-any-cost politics.

In March 2009, for example, polling company Gallup reported that *“For the first time in Gallup’s 25-year history of asking Americans about the trade-off between environmental protection and economic growth, a majority of Americans say economic growth should be given the priority, even if the environment suffers to some extent”*.⁶⁰ The majority was a slim one – but even so, 51% prioritised economic growth in 2009, compared to 42% the year previously.

The backlash in the US from some Congressmen-and-women and businesses alike against Barack Obama’s Climate Bill is evidence of the peculiar challenges facing US-style democracy in particular; where *“one hundred senators have the power to halt legislation”*.⁶¹

But there are also businesses that are willing to up the ante and challenge stereotypes about business lobbying in the process, by pressing for progressive policy and legislation. The US Climate Action Partnership, whose participants include businesses and leading environmental organisations, is one such grouping.⁶²

The specific challenges of climate change and democracy must also be tackled against a background of public disengagement with formal politics, and distrust of politicians. In the UK, an opinion poll by Ipsos Mori for the Royal College of Physicians published in October 2009⁶³ showed politicians and government ministers to be the ‘types’ of people least trusted generally to tell the truth in a list of sixteen which included the ordinary man/woman in the street. At a time of public scandal related to expenses claims made by Members of Parliament, just 13% of those people questioned said that they trusted politicians generally to tell the truth (down eight points from the previous year). Doctors emerged in first place, with 92% of those questioned generally trusting them to tell the truth.

However, polls and research which highlight public disengagement from formal politics mask a story of very considerable public engagement with political issues in many places and social communities. In the words of the UK-based Power Inquiry:

*“Contrary to much of the public debate around political disengagement, the British public are not apathetic. There is now a great deal of research evidence to show that very large numbers of citizens are engaged in community and charity work outside of politics. There is also clear evidence that involvement in pressure politics — such as signing petitions, supporting consumer boycotts, joining campaign groups — has been growing significantly for many years. In addition, research shows that interest in ‘political issues’ is high. The area of decline is in formal politics”*⁶⁴

The World Economic Forum’s Global Competitiveness Indicators also include data on ‘perceptions of public trust in politicians’. Interestingly, a table of responses based on weighted responses from an executive opinion survey (as distinct from a random poll) in the 133 countries in the Global Competitiveness Index for 2008-2009⁶⁵ does not show any obvious correlation between the ‘democracy’ ranking of a country and its ranking in terms of ‘perceptions of public trust in

politicians'. Whilst there might be only mild surprise that Singapore emerges in first place (with a score of 6.4 against the question "*How would you rate the level of public trust in the ethical standards of politicians in your country? (1 = very low; 7 = very high)*"), it is more surprising to find that Qatar comes third and the United Arab Emirates fourth, equal with Luxembourg and just ahead of Sweden Norway and Switzerland. China is ranked 26th, with Azerbaijan in 35th place and the UK and US in 41st and 43rd respectively.

Public trust in politicians is rated low in some countries that are among those conventionally considered among the 'most' democratic.⁶⁶

Against a background, then, of disengagement from formal politics and distrust of politicians, democracy will also face many wider challenges in the coming decades. Climate change is by means the only driver for change; it will exert impacts on the idea and practices of democracy alongside a range of other contextual factors.

As the centre of gravity of the global economy shifts towards Asia, for example, Asian forms of "democracy" may powerfully shape international institutions and their processes. A recent slowdown in the pace at which democracy is spreading worldwide could, however mistakenly, be exacerbated by an emerging 'envy factor' – that a certain degree of benign authoritarianism may actually have some positive benefits in tackling climate change.

Information and communications technology, including social networking tools and satellite imagery and data, will also likely exert a major impact on the future shape of climate change. For example, the spread of Internet-based forms of communication offers clear potential to empower democratic politics, (as it did, for example, during Barack Obama's Presidential campaign in the US). But it could also help make current short-term electoral cycles and styles look increasingly tired and illegitimate.

The internet and social networking are also shaping the practice of democracy. Citizens increasingly cluster around identities and senses of 'belonging' assumed in internet-based social forums and networks, rather than in what are often fictional ideas of 'nationhood' aligned with 'statehood' (see e.g. Florini, 2005).

The overall balance between different forms of democracy will continue to evolve, as it always has. And the mix between deliberative and participatory forms of democracy, direct democracy and self-organisation, and broader conceptions of representative democracy will both shape and be shaped by climate change.

How elected representatives factor evidence from independent experts and scientists into decision-making will be another key shaper; one that is both affected by, and affects, approaches to tackling climate change. The 'climategate' affair and the rising phenomenon of 'climate scepticism' are contemporary touchstones for this ongoing and evolving relationship.

The next forty and ninety years

The timeframes for our research project on 'the future of democracy in the face of climate change'; are forty and ninety years from 2010. We aim to draw scenarios for 2050 and 2100.

A day or a week is a long time in politics, and ninety years is an eternity. Clearly, a great deal could change in the relationship between democracy and climate change, and it is probably helpful already to highlight the scale of the changes that could potentially be experienced over that timeframe.

First, as the seismic shifts that followed the events of 11th September 2001, or the credit and financial crisis of the late 'noughties', or the rapid rise in the economic might of China (barely spoken about just ten years ago) show; one thing that is certain is that the unexpected will certainly happen. Whilst each of these events or processes was, with hindsight, foreseeable, none had entered the collective consciousness to the extent that they shaped the everyday awareness of even the most privileged people around the world.

Second, technological and communications developments will shape the relationship between democracy and climate change in dramatic and currently unknowable ways. One possibility, much-favoured by advocates of geo-engineering solutions to climate change, is that technology will evolve in ways that allow humankind effectively to mitigate the worst impacts of climate change. Even that possibility, however, is closely dependent on the outcome of public decision-making on issues like technology transfer, intellectual property, and licensing or permits.

Developments in information technology will also exert significant impacts on democracy more directly, as ideas of 'e-democracy' develop and social network-based communications that combine to create 'politics 2.0' are brought into focus, for good and for ill, as focal areas for the practice of 'democratic' (and undemocratic) decision-making. In essence, Politics 2.0 is the contemporary idea that social networking and electronic participation technologies will revolutionize our ability to follow, support, and influence political campaigns.⁶⁷ But how, and with what implications for fairness and equality, remain unclear for the time being.

Third, the potential impact of extraordinary leaders – such as Gandhi, or Hitler, or Nelson Mandela, should not be underestimated. It is hard currently to see such a great leader (for good or for ill) on the political horizon. But that is not to say that none will emerge. Already, The Elders, an independent group of eminent global leaders, brought together by Nelson Mandela, offer their collective influence and experience to support peace building, help address major causes of human suffering and promote the shared interests of humanity.⁶⁸

Fourth, linked to this, it seems likely that our conceptions of the relevance of 'future generations' in contemporary decision-making will change as we become more aware of the impact of drivers such as climate change, population growth or resource scarcity on the future of humankind. Whether this is something that will directly be factored into parliamentary decision-making or other forms of local or international governance remains an imponderable however.

Fifth, the future relationship between democracy and climate change will in part be determined by the changing shape of human values; by the evolving outcome of the competition between different worldviews that is seen so clearly in the current clash between so-called 'warmists' and 'sceptics'; and by the changing mix of ways in which we view ourselves, and are viewed by our elected leader, as consumers and citizens respectively.

As we begin to develop scenarios for the future of democracy in the face of climate change, we will consider these and other broader drivers of change in greater depth. This is the first of a series of papers. In the next three papers, we will review and describe:

- a) existing definitions of democracy and associated concepts
- b) key strands in current literature on the futures of 'democracy', 'democratisation' and 'governance for climate change' and sustainable development more generally
- c) essential characteristics of a range of existing climate change scenarios.

Drawing on this background work, along with ongoing conversations and interactions with a range of individuals and organisations during our work, we will begin the task of developing scenarios designed to answer the question “*How might democracy and participatory decision-making have evolved to cope with the challenges of climate change by the years 2050 and 2100?*”

Comments

We welcome comments. Please feel free to email your views to Halina Ward at halina.ward@fdsd.org

Bibliography and further reading

Maria Adebawale *et al*, *Democracy, Environmental Justice and Sustainable Development. Issues and approaches for civil society in the UK: an emerging agenda*, online paper available for download from the website of the Foundation for Democracy and Sustainable Development, December 2009

Ian Christie, *How to confuse friends and alienate people: mixed messages and climate change ‘narratives’ in UK politics*, Green Alliance, November 2009

Ian Christie, *‘Climategate’: a salutary episode*, FDSO, December 2009

Robert A. Dahl, *On Democracy*, Yale University Press, New Haven and London, 1998

Ann Florini, *The Coming Democracy*, Brookings Institution Press, Washington DC, 2005

David Held and Angus Fane Hervey, *Democracy, climate change and global governance*, Policy Network Paper, 2009

Forum for the Future, *climate futures: responses to climate change in 2030*, October 2008

IPPR, *Consumer Power: How the Public thinks lower-carbon behaviour could be made mainstream*, Institute for Public Policy Research, London, September 2009

Intergovernmental Panel on Climate Change, *Climate Change 2007: Synthesis Report*, IPCC, 2007

Tim Jackson, *Prosperity Without Growth*, Earthscan Publications, London, 2009

Richard A. Matthew and Anne Hamill, *Sustainable Development and climate change*, in ‘Tackling resource challenges in the 21st century: avoiding worst case scenarios’, *International Affairs*, Volume 85 Number 6, November 2009

Peter Singer, *One World: the ethics of globalization*, Yale University Press, 2002

Halina Ward *Learning from the Hungarian Green Ombudsman*, e-law, journal of the UK Environmental Law Association, November 2009

Halina Ward and John Elkington, *International Democracy Day: work to do*, Open Democracy.net, 15th September 2009 (<http://www.opendemocracy.net/article/international-democracy-day-work-to-do>)

Halina Ward, *One world ethics, democracy and sustainable development*, presentation to Salzburg Global Seminar Board Weekend, June 2009

¹ In a 2006 paper, Josiah Ober offers a reframing of the original Greek meaning of ‘democracy’ in the fourth and fifth centuries BC. He argues that the word ‘kratos’ in the root of ‘democracy’ originally referred to ‘power’ or ‘enablement’ in the sense of ‘capacity to do things’ not ‘rule’.

² <http://graphics.eiu.com/PDF/Democracy%20Index%202008.pdf>

³ <http://www.un.org/en/documents/udhr/index.shtml#a21>

⁴ Drawing on the World Commission on Environment and Development’s 1987 report, *Our Common Future*, Oxford University Press

⁵ <https://www.cia.gov/library/publications/the-world-factbook/geos/us.html>

⁶ <http://www.oneplanetliving.org/index.html>

⁷ http://www.un.org/esa/sustdev/documents/WSSD_POI_PD/English/POI_PD.htm

⁸ See further Halina Ward (2009)

⁹ <http://www.esrl.noaa.gov/gmd/ccgg/trends/> and widely reported; e.g. in

<http://www.guardian.co.uk/environment/2008/may/13/carbonemissions.climatechange>

¹⁰ See www.350.org

¹¹ <http://www.ipcc.ch/organization/organization.htm>

¹² http://www.ipcc.ch/pdf/assessment-report/ar4/syr/ar4_syr.pdf

¹³ <http://www.fdsd.org/wordpress/wp-content/uploads/Climategate.pdf>

¹⁴ <http://climateprogress.org/2010/02/22/sea-level-rise-global-warming/>. See also

<http://wattsupwiththat.com/2009/07/30/new-study-agrees-with-ipcc-sea-level-rise-projections/> for a report of a study appearing to confirm the 2007 IPCC estimate, and later withdrawn:

<http://www.nature.com/ngeo/journal/v3/n3/full/ngeo780.html>

¹⁵ http://www.copenhagediagnosis.org/download/Copenhagen_Diagnosis_ES_English.pdf

¹⁶ http://en.wikipedia.org/wiki/Climatic_Research_Unit_hacking_incident

¹⁷ <http://news.bbc.co.uk/1/hi/8392611.stm>

¹⁸ http://www.parliament.uk/parliamentary_committees/science_technology/s_t_pn14_100122.cfm

¹⁹ Ian Christie, *Climategate: a salutary episode*, December 2009. Available online at

<http://www.fdsd.org/wordpress/wp-content/uploads/Climategate.pdf>

²⁰ I am grateful to Ian Christie for this point

²¹ http://www.ipcc.ch/publications_and_data/ar4/wg2/en/ch10s10-6-2.html

²² <http://www.telegraph.co.uk/earth/environment/climatechange/7031403/UN-climate-panel-admits-mistake-over-Himalayan-glacier-melting.html>

²³ Principle 15 of the Rio Declaration

²⁴ <http://people-press.org/report/556/global-warming>

²⁵ as for example in IPPR’s September 2009 report, *Consumer Power: How the Public thinks lower-carbon behaviour could be made mainstream*

²⁶ as expressed in a poll reported in the *Financial Times* on 19th October 2009

²⁷ <http://www.prospectmagazine.co.uk/2009/10/editorial-4/>

²⁸ <http://www.fdsd.org/2009/11/ecologically-viable-civilisation-now-hinges-on-the-workings-of-the-us-constitution/>

²⁹ <http://www.fdsd.org/2009/11/ecologically-viable-civilisation-now-hinges-on-the-workings-of-the-us-constitution/>

³⁰ Ann Florini, *The Coming Democracy*, Brookings Institution Press, Washington DC, 2005

³¹ <http://www.guardian.co.uk/environment/2008/dec/08/ed-miliband-climate-politics-environment>

³² <http://www.rnv.gov.ve/noticias/index.php?act=ST&f=3&t=115620>

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- ³³ <http://unfccc.int/resource/docs/2009/cop15/eng/l07.pdf>
- ³⁴ <http://english.aljazeera.net/focus/climatesos/2009/12/20091219174523761297.html>
- ³⁵ <http://unfccc.int/home/items/5264.php>. See also <http://www.businessgreen.com/business-green/news/2257137/un-confirms-55-nations-met>
- ³⁶ <http://www.ukmediacentre.pwc.com/Content/Detail.asp?ReleaseID=3571&NewsAreaID=2> and
- ³⁷ <http://en.cop15.dk/blogs/view+blog?blogid=992>
- ³⁸ http://en.wikipedia.org/wiki/Mark_Lynas
- ³⁹ <http://www.guardian.co.uk/environment/2009/dec/22/copenhagen-climate-change-mark-lynas?showallcomments=true#end-of-comments>
- ⁴⁰ <http://unfccc.int/2860.php>
- ⁴¹ <http://news.bbc.co.uk/1/hi/sci/tech/8490935.stm>
- ⁴² <http://www.opride.com/oromsis/ethiopia/537-ethiopia-meles-zenawis-climate-proposal-condemned.html>
- ⁴³ http://www.thenation.com/blogs/copenhagen/507050/ambassador_lumumba_what_do_you_i_really_i_think
- ⁴⁴ <http://www.unep.org/Documents.Multilingual/Default.asp?DocumentID=78&ArticleID=1163>
- ⁴⁵ <http://www.guardian.co.uk/environment/2008/dec/08/ed-miliband-climate-politics-environment>
- ⁴⁶ <http://www.guardian.co.uk/environment/2009/dec/16/friends-of-the-earth-barred-bella-centre>
- ⁴⁷ <http://www.oneclimate.net/2009/11/05/reclaim-power-push-for-climate-justice-16th-december/>
- ⁴⁸ <http://tckctck.org/stories/campaign-stories/maldives-president-nasheed-rallies-ambitious-deal-huge-crowd-klimaforum>
- ⁴⁹ <http://www.klimaforum.org>
- ⁵⁰ www.klimaforum09.org
- ⁵¹ <http://www.redpepper.org.uk/Transitional-demands>
- ⁵² See e.g. <http://www.greenpeace.org/international/news/letter-to-supporters091219>
- ⁵³ <http://www.wssd-and-civil-society.org/docs/WSSD%20-%20an%20assessment.pdf>
- ⁵⁴ <http://www.kk.dk/Nyheder/2009/December/ClimateSummitClosingEvent.aspx>
- ⁵⁵ See e.g. <http://www.anthonypainter.co.uk/2010/01/08/why-the-conservatives-are-more-divided-than-labour/>
- ⁵⁶ <http://www.communities.gov.uk/housing/housingsupply/ecotowns/>
- ⁵⁷ <http://news.bbc.co.uk/1/hi/uk/8152985.stm>
- ⁵⁸ http://news.bbc.co.uk/1/hi/england/coventry_warwickshire/7395957.stm
- ⁵⁹ See further <http://worldwideviewsuk.org.uk/>
- ⁶⁰ See <http://www.gallup.com/poll/116962/Americans-Economy-Takes-Precedence-Environment.aspx>
- ⁶¹ See <http://www.guardian.co.uk/commentisfree/2009/aug/23/eric-roston-climate-change-bill-obama>
- ⁶² <http://www.us-cap.org>
- ⁶³ <http://www.ipsos-mori.com/Assets/Docs/Polls/poll-trust-in-professions-topline-2009.pdf>
- ⁶⁴ See <http://www.commentonpower.org/>
- ⁶⁵ <http://www.weforum.org/pdf/GCR09/GCR20092010fullreport.pdf>
- ⁶⁶ See *Paper Two* for more on the ways in which democracy is measured
- ⁶⁷ http://en.wikipedia.org/wiki/Open_source_political_campaign
- ⁶⁸ See www.theelders.org