

Contraction and Convergence: the fair choice for climate change

by Aubrey Mayer

<http://news.bbc.co.uk/1/hi/sci/tech/4994296.stm> 18th May 2006

This week and next, government representatives attend UN talks in Bonn looking for the next step forward on climate change. In The Green Room this week, Aubrey Meyer argues that the effective and fair model they need already exists.

Contraction and Convergence secures survival by correcting fatal poverty and fatal climate change

The impact of climate change, it is generally agreed, will land hardest on the poor.

So perhaps it is time to listen to what people from the poorest continent, Africa, are asking for.

At the climate negotiations in Bonn this week, the Africa Group of Nations has called for the adoption of a concept called Contraction and Convergence - C&C, in the jargon.

They first made their call a decade ago. And with 12 million Africans currently facing drought and famine linked to climate, they have good reason to assert that C&C is right, that it is urgently needed, and ask: "For how long must Africa suffer at the hands of others?"

Contraction and Convergence is the only long-term framework for regulating greenhouse gas (GHG) emissions which does not make carbon dioxide production a luxury that only rich nations can afford.

It creates the social equity which Africa needs, and the carbon reductions which are in all our interests.

Global shares

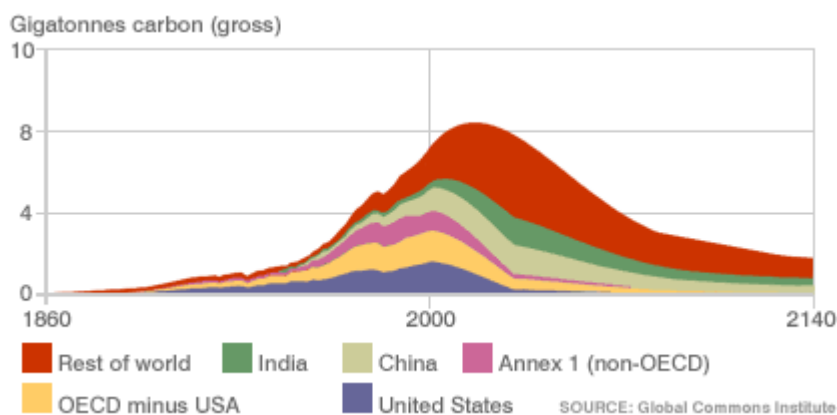
Contraction and Convergence is a straightforward model for an international agreement on greenhouse gas emissions.

It sets a safe and stable target for concentrations of greenhouse gases in the atmosphere, and a date by which those concentrations should be achieved, based on the best scientific evidence.

The atmosphere being a "global good", C&C declares that all citizens of the Earth have an equal right in principle to emit, and will actually be given an equal right by this future date, the individual allowance for each citizen being derived from the "safe" global target.

So from the grossly inequitable situation we have now, per capita emissions from each country will "converge" at a far more equitable level in the future; while the global total of emissions will "contract".

That is C&C in a nutshell.



Here is a numeric example based on current assessment of the danger.

A maximum, or "ceiling", of 450 parts per million (ppm) atmospheric CO₂-equivalent is set, giving rise to a future global emissions "budget" that contracts year-on-year to near zero by around 2080, to keep concentrations within that "safe" ppm ceiling.

The tradeable shares in this future budget are agreed as "one person, one share" globally, but moderated by a convergence to the global average of equal per capita shares over, say, 20 or 30 years as a compromise to ease the transition.

Poverty correction

The constitutional logic of C&C is unarguable; there are no grounds for defending unequal use of the atmosphere.

The economics are impeccable. C&C secures survival by correcting both fatal poverty and fatal climate change in the same arrangement.

So far, GHG emissions have been a close proxy for wealth. Per capita emissions in rich countries are now way above the global average, let alone a sustainable average; and in poor countries, way below.

Africans in particular have good reason to complain about this, as in no sense are they the authors of their misfortunes at the hands of global climate change.

Greenhouse gas emissions from industrial development in the West have been accumulating in the atmosphere for 200 years, and still today Africa's accumulated emissions are a fraction of the total produced by a country such as Britain.

The global account so far shows that 33% of people have 94% of the global dollar income and account for 90% of the global historical total of greenhouse gas emissions, while the other 66% of people have 6% of global dollar income and a history of emissions totalling 10%.

The ratio of poor to rich life value in all this is worse than 15 to one.

The rising climate-related mortality has led UK MPs to observe that this asymmetry, if uncorrected, becomes the economics of genocide.

Symmetry restored

Contraction and Convergence corrects all this.

Shares created by C&C are valuable because they are tradeable. A C&C agreement makes it possible for poor countries to finance their future defence against climate change and their "clean development", by trading their considerable excess emission shares to rich countries.

The rich countries would use their capital to retire their "dirty development", and put in place economies that are clean and geared to reduced consumption.

This is a "framework-based-market"; and organised this way, the trade marries poetic justice and economic efficiency into a plan which the British magazine *New Statesman* described this week as a "compelling logic that could, without exaggeration, literally save the world".

In Britain, five of the seven political parties support C&C, as does more than half the total number of MPs. There is a Private Members' Bill that seeks to put C&C on the statute book.

Internationally, the list of eminent individuals and institutions supporting C&C is already large and growing fast; and then there is the UN itself.

Most governments of the world have been bound since 1992, when they signed the UN Framework Convention on Climate Change (UNFCCC), to "avoid dangerous climate change" - to stabilise the rising concentrations of greenhouse gases in the atmosphere below a "dangerous" value.

The Kyoto Protocol was the first attempt at finding a mechanism to curb emissions from the industrialised world, emerging as an alternative to C&C.

It is now seen as completely inadequate. The UNFCCC executive has said since 2003 that "C&C is inevitably required to achieve its objective".

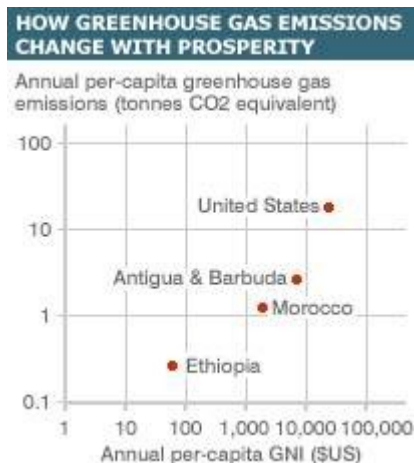
Was it this, and a keen sense of justice for Africa, that caused the Archbishop of Canterbury to observe: "Anyone who thinks that C&C is Utopian simply hasn't looked honestly at the alternatives"?

Will governments represented at the Bonn talks this week look at the alternatives and reach, finally, for C&C?

Now that the leading lights of the British government and the anti-poverty movement such as Tony Blair, Gordon Brown and Bono have bonded so publicly with Africa on climate change and poverty, and declared that its voice must be heard, perhaps Africa's call for C&C will at last be listened to.

It is the international agreement they seek, and that we all need to survive. □

Aubrey Meyer is director of the Global Commons Institute (GCI), an independent group concerned with the protection of the global commons



As a country's wealth grows, so do its greenhouse gas emissions

Bali Principles of Climate Justice

29 August 2002

P R E A M B L E

Whereas climate change is a scientific reality whose effects are already being felt around the world;

Whereas if consumption of fossil fuels, deforestation and other ecological devastation continues at current rates, it is certain that climate change will result in increased temperatures, sea level rise, changes in agricultural patterns, increased frequency and magnitude of "natural" disasters such as floods, droughts, loss of biodiversity, intense storms and epidemics;

Whereas deforestation contributes to climate change, while having a negative impact on a broad array of local communities;

Whereas communities and the environment feel the impacts of the fossil fuel economy at every stage of its life cycle, from exploration to production to refining to distribution to consumption to disposal of waste;

Whereas climate change and its associated impacts are a global manifestation of this local chain of impacts;

Whereas fossil fuel production and consumption helps drive corporate-led globalization;

Whereas climate change is being caused primarily by industrialized nations and transnational corporations;

Whereas the multilateral development banks, transnational corporations and Northern governments, particularly the United States, have compromised the democratic nature of the United Nations as it attempts to address the problem;

Whereas the perpetration of climate change violates the Universal Declaration On Human Rights, and the United Nations Convention on Genocide;

Whereas the impacts of climate change are disproportionately felt by small island states, women, youth, coastal peoples, local communities, indigenous peoples, fisherfolk, poor people and the elderly;

Whereas local communities, affected people and indigenous peoples have been kept out of the global processes to address climate change;

Whereas market-based mechanisms and technological "fixes" currently being promoted by transnational corporations are false solutions and are exacerbating the problem;

Whereas unsustainable production and consumption practices are at the root of this and other global environmental problems;

Whereas this unsustainable consumption exists primarily in the North, but also among elites within the South;

Whereas the impacts will be most devastating to the vast majority of the people in the South, as well as the "South" within the North;

Whereas the impacts of climate change threaten food sovereignty and the security of livelihoods of natural resource-based local economies;

Whereas the impacts of climate change threaten the health of communities around the world-especially those who are vulnerable and marginalized, in particular children and elderly people;

Whereas combating climate change must entail profound shifts from unsustainable production, consumption and lifestyles, with industrialized countries taking the lead;

We, representatives of people's movements together with activist organizations working for social and environmental justice resolve to begin to build an international movement of all peoples for Climate Justice based on the following core principles:

1. Affirming the sacredness of Mother Earth, ecological unity and the interdependence of all species, Climate Justice insists that communities have the right to be free from climate change, its related impacts and other forms of ecological destruction.
2. Climate Justice affirms the need to reduce with an aim to eliminate the production of greenhouse gases and associated local pollutants.
3. Climate Justice affirms the rights of indigenous peoples and affected communities to represent and speak for themselves.
4. Climate Justice affirms that governments are responsible for addressing climate change in a manner that is both democratically accountable to their people and in accordance with the principle of common but differentiated responsibilities.

5. Climate Justice demands that communities, particularly affected communities play a leading role in national and international processes to address climate change.
6. Climate Justice opposes the role of transnational corporations in shaping unsustainable production and consumption patterns and lifestyles, as well as their role in unduly influencing national and international decision-making.
7. Climate Justice calls for the recognition of a principle of ecological debt that industrialized governments and transnational corporations owe the rest of the world as a result of their appropriation of the planet's capacity to absorb greenhouse gases.
8. Affirming the principle of ecological debt, Climate Justice demands that fossil fuel and extractive industries be held strictly liable for all past and current life-cycle impacts relating to the production of greenhouse gases and associated local pollutants.
9. Affirming the principle of Ecological debt, Climate Justice protects the rights of victims of climate change and associated injustices to receive full compensation, restoration, and reparation for loss of land, livelihood and other damages.
10. Climate Justice calls for a moratorium on all new fossil fuel exploration and exploitation; a moratorium on the construction of new nuclear power plants; the phase out of the use of nuclear power world wide; and a moratorium on the construction of large hydro schemes.
11. Climate Justice calls for clean, renewable, locally controlled and low-impact energy resources in the interest of a sustainable planet for all living things.
12. Climate Justice affirms the right of all people, including the poor, women, rural and indigenous peoples, to have access to affordable and sustainable energy.
13. Climate Justice affirms that any market-based or technological solution to climate change, such as carbon-trading and carbon sequestration, should be subject to principles of democratic accountability, ecological sustainability and social justice.
14. Climate Justice affirms the right of all workers employed in extractive, fossil fuel and other greenhouse-gas producing industries to a safe and healthy work environment without being forced to choose between an unsafe livelihood based on unsustainable production and unemployment.
15. Climate Justice affirms the need for solutions to climate change that do not externalize costs to the environment and communities, and are in line with the principles of a just transition.
16. Climate Justice is committed to preventing the extinction of cultures and biodiversity due to climate change and its associated impacts.
17. Climate Justice affirms the need for socio-economic models that safeguard the fundamental rights to clean air, land, water, food and healthy ecosystems.
18. Climate Justice affirms the rights of communities dependent on natural resources for their livelihood and cultures to own and manage the same in a sustainable manner, and is opposed to the commodification of nature and its resources.
19. Climate Justice demands that public policy be based on mutual respect and justice for all peoples, free from any form of discrimination or bias.
20. Climate Justice recognizes the right to self-determination of Indigenous Peoples, and their right to control their lands, including sub-surface land, territories and resources and the right to the protection against any action or conduct that may result in the destruction or degradation of their territories and cultural way of life.
21. Climate Justice affirms the right of indigenous peoples and local communities to participate effectively at every level of decision-making, including needs assessment, planning, implementation, enforcement and evaluation, the strict enforcement of principles of prior informed consent, and the right to say "No."
22. Climate Justice affirms the need for solutions that address women's rights.
23. Climate Justice affirms the right of youth as equal partners in the movement to address climate change and its associated impacts.
24. Climate Justice opposes military action, occupation, repression and exploitation of lands, water, oceans, peoples and cultures, and other life forms, especially as it relates to the fossil fuel industry's role in this respect.
25. Climate Justice calls for the education of present and future generations, emphasizes climate, energy, social and environmental issues, while basing itself on real-life experiences and an appreciation of diverse cultural perspectives.

26. Climate Justice requires that we, as individuals and communities, make personal and consumer choices to consume as little of Mother Earth's resources, conserve our need for energy; and make the conscious decision to challenge and reprioritize our lifestyles, re-thinking our ethics with relation to the environment and the Mother Earth; while utilizing clean, renewable, low-impact energy; and ensuring the health of the natural world for present and future generations.
27. Climate Justice affirms the rights of unborn generations to natural resources, a stable climate and a healthy planet.

For organisations that have endorsed this, and more info, see:

<http://www.indiaresource.org/issues/energycc/2003/baliprinciples.html>

Just Transition: What the US has done for us

While the US is not world-renowned for being progressive on climate issues, Heidi Bachram finds that grassroots movements there have something to teach environmentalists.

The Black Mesa coal mine on Hopi and Navajo land in the US is about to close. This is a rare victory for local activists who have fought the mine, owned by Peabody Coal, for more than 40 years. Except this is not the end of the battle.

Local environmentalists threw another punch by demanding that funds from the closure be used to invest in clean energy to provide jobs for the now unemployed coal miners. The Black Mesa campaign groups state that: 'For years, the Navajo and Hopi people made major sacrifices ... The people provided labour, coal, pristine water and bore the burden of pollution. Now that the facility has closed, we have a right to ask the owners to help us make the transition to a better future, to repay the debt.'

As greens don't normally put themselves out for jobless miners, this may be a surprising turn of events. However, the unemployed are local people, mostly Navajo, and the principle of 'just transition' – building alliances between workers in polluting industries and affected communities – is strong in the US.

The local Black Mesa groups are affiliated to a national movement, the Just Transition Alliance, and its education and training director, Jenice L View explains: 'Companies will often drive wedges between workers and local communities, primarily by creating "job fear" and painting activists as the environmental bogeyman. Just transition principles bring those two parties together, building political power and identifying who the real culprits are – such as corporations and government institutions.'

The just transition movement was born out of community-based activism. Then, in 2003, mainstream NGOs and big unions in the US took some of these principles and formed the Washington-based coalition, the Apollo Alliance, under the banner of 'Three Million New Jobs, Independence from Foreign Oil'. This raised hackles among community-based campaigners concerned that the new coalition's concept of just transition was not necessarily progressive.

According to Tom Goldtooth of the environmental justice group, Indigenous Environment Network: 'Apollo Alliance's main focus has been on jobs and energy independence. It's very white and very top-down. This is a common problem with policy organisations that have no accountability to the communities that are directly impacted by polluting industries.'

'Just transition is a process, a principle and a practice, not a focused campaign,' says Jenice L View. Missing from the Apollo Alliance are those key elements of practice and process – a failing that could equally apply to climate initiatives in the UK. On this side of the pond, just transition is barely on the radar of climate campaigners. As Ashok Sinha, director of the recently formed Stop Climate Chaos coalition – whose members include the UK's largest environmental groups – accepts, 'Just transition is not at the forefront of our lobbying efforts.' Stop Climate Chaos has prioritised policy goals by focusing on getting the government to commit to a 3 per cent reduction in carbon emissions per annum.

While environmental groups give just transition low priority, unions have taken on-board some of the ideas, inspired in part by the movement in the US. Philip Pearson of the Trade Union Congress (TUC) explains: 'Just transition is at the heart of our policies on climate change and we want to develop a UK model. To us, just transition means developing industries around renewable energy to create job opportunities. But you have to have strong grassroots engagement. Action on climate change won't work if it's top-down.'

The US debate around just transition is well-developed, in sharp contrast to the level of discussion in the UK. Even so, grassroots activists do see its relevance. Norman Philip, a community organiser based in Grangemouth, a major Scottish petrochemical town, says: 'This is where America does it so much better. When NGOs don't use processes like just transition, communities and workers who are at risk from polluting industries while being economically dependent on them, feel ignored and isolated. That doesn't inspire them to sign up to campaigns on climate change.'

'Climate change is fought and lost in Grangemouth every day,' he continues. 'People here are on the front-line of the main source of the problem, the petrochemical industry. If we don't have communication and solidarity between fenceline communities, workers and environmental NGOs, then any work on climate change may fail the people most impacted.'

Heidi Bachram is a research associate at the Transnational institute project, Carbon Trade Watch. She can be contacted at [heidi\[at\]tni.org](mailto:heidi[at]tni.org)
<http://www.jtalliance.org/>
<http://www.tuc.org.uk/>

May 2006 Red Pepper, www.redpepper.org.uk

Permaculture – design for sustainable living

In our turbulent and fast-changing world, the challenges of making sense of what's going on and living as good a life as possible often seem difficult. Permaculture is an approach that has been developing since the 1970s and aims to help answer the question, 'but what can I do?'

Permaculture is a system of applied design that seeks to create and nurture sustainable lifestyles, communities and landscapes. It is a diverse set of practices, drawn from lessons from nature, and linked by the ethics of:

- * Care of the Earth
- * Care of people
- * Sharing resources to help others achieve their needs
- * And reducing consumption to levels that the Earth can sustain

Permaculture started off by looking at how to make agriculture sustainable through designing for permanence and stability. It was soon realized that to do this properly we also needed to ensure that our settlements are sustainable as well. So quite quickly, permaculture blossomed into a holistic design approach for creating sustainable systems that meet human needs on the least land area possible. The global vision of permaculture is a world where all species coexist peacefully. To do this we need to meet our own needs without reducing the ability of other species to meet theirs, so being highly productive with a smaller amount of land is crucial if we are to stem the tide of habitat destruction that is happening all around the world.

In learning about permaculture and applying it to our lives, many people are now demonstrating how sustainable lifestyles are much, much more than fads and fashions but part of a sea-change towards a more viable and healthy future. They are also showing how simple-to-learn design skills can help in making choices about what can and might be done. Permaculture thinking affects how and where you shop, as well as what variety of plum to plant.

Practical applications of permaculture range from creating productive backyards and green households, to transforming derelict inner-city sites into urban oases, to creating eco-farms and working with truanting kids in woodlands. It is being applied all around the world and has shown how schools in developing countries can be improved through rethinking how to make use of existing resources, how land wrecked by irrigation can be reclaimed and made productive, and how indigenous peoples can take the best of modern technology and reclaim control of their future. A project in the Jordan even demonstrates how we can re-green the middle-east, and create real peace and prosperity in what was the 'cradle of civilization'.

Many of the projects challenge the way things are currently organized and provide practical evidence that another way is possible. We can live sustainably, and permaculture offers an opportunity for each of us to make it happen. By applying the principles of nature we can re-design our localities to meet our needs, and change the way we think, so that we need less anyway. This can be a lot of fun, and create new opportunities for neighbourhoods to become friendlier and more beautiful places to live.

The Permaculture Association is the national charity that supports people and projects through training, networking and research. Through our growing networks, we share skills and design sustainable solutions for the communities in which we live. We can help you find courses, books and local contacts. For more information about permaculture, or the work of the Permaculture Association visit the website: www.permaculture.org.uk, phone us on 0845 4581805 or write to us at: BCM Permaculture Association, London, WC1N 3XX.

Andy Goldring

British Medical Journal 2006;332:1343-1344 (10 June)

Editorial: What health services could do about climate change

They must embrace sustainable development and reduce their ecological footprints

Advocates for action on climate change face two main challenges. The first is to make everyone aware of the enormity of the problem. The second is to persuade anyone that anything can be done about it. Ignorance is bad enough, but inertia—induced by despair, denial, or the hope of a miraculous technical fix—is even more dangerous.

Climate change, as Robin Stott argues in this week's *BMJ*,¹ poses grave risks to health.² It threatens the essentials of life. It brings drought, floods, storms, and extremes of heat and cold that can lead to famine, homelessness, dislocation, destruction of communities, the spread of disease, and even mass migrations and armed conflict as people vie with each other for land, water, food, and energy. And let's not forget the effects on mental health of anxiety, insecurity, and a sense of powerlessness as we watch the grass wither and the ice-caps melt.

If medicine is about saving lives, not just by last ditch interventions but by trying to avert illness, then working to alter patterns of behaviour that contribute to climate change could arguably become a priority for clinicians—as an urgent preventive measure. Debating the health implications of climate change may also be the best way to get the general public to take the problem seriously. Concepts such as "sustainable development" and "global warming" can strike the average person as either too daunting to consider or too distant to concern them. But we can all relate to the idea of risks to health that may affect ourselves, our children, and grandchildren. So there are good reasons to put climate change at the heart of the health agenda.

Likewise, the climate change debate belongs at the heart of health service management. The institutions of health care have enormous power to do good or harm to the natural environment and to increase or diminish carbon emissions. This applies particularly to the NHS, with its sheer bulk—still growing year on year. In 2006-7 the annual NHS budget in England is expected to be £83bn (€121bn, \$156bn), with a total UK health expenditure of £97bn.^{w1} NHS purchasing power is estimated at £17bn a year.^{w2} It is one of the largest employers in the world, beaten only by the likes of Wal-Mart and the Chinese army. It employs more than 1.3 million people^{w3} and runs 259 NHS trusts.^{w4}

Consider the huge amounts of food; furniture; medical, cleaning, and office equipment; road vehicles; and building materials the NHS has to buy—directly or indirectly—to keep itself going. Consider the great expanses of land it occupies, the vast amounts of energy and water it consumes, and the mountains of waste it produces every year. Ideally, an organisation committed to safeguarding health would deploy its powers and resources in ways that help reduce carbon emissions. In truth, most decisions are made with scarcely a nod to the needs of the natural environment. The Royal Society for Nature Conservation has assembled the evidence on the NHS's consumption of energy, materials, and water; generation of waste; and travel (see details on bmj.com).^{w5 w6}

There are some exceptions. For example, hospitals in Cornwall have set up a project to purchase food from local suppliers; Addenbrooke's Hospital in Cambridge has a "green travel plan" that encourages walking, cycling, and using public transport; a trust in North Glamorgan has cut carbon emissions and saved money by creative energy management. Such examples are chronicled in a web based guide on good corporate citizenship recently launched by the Department of Health to help doctors and managers in the NHS use their resources more wisely.³⁴

But good practice still depends on highly committed individuals innovating against the odds. Mean-while, the largest capital development programme in the history of the NHS has brought on a rash of largely unsustainable building. By 2010, more than £11bn is expected to have been spent on 100 new hospitals and more than £1bn on new primary care buildings.^{w7 w8} Most of the new hospitals will have large car parks and energy intensive air conditioning, heating, and lighting. They will often involve costly demolitions of buildings that might have been adapted at less cost in financial and environmental terms. Many will encroach on green field sites beyond urban centres, where access depends heavily on private cars. They will routinely use construction materials from unrenovable sources. They will produce almost unimaginable amounts of waste. And they may not ultimately be necessary, as demographic, technological, and policy changes alter the patterns of health care.^{w9}

The truth is that, despite an impressive array of official guidance,^{w10-w12} incentives in the NHS run in the opposite direction. "Efficiency" is what matters most, and it is still defined as what works best for the financial bottom line. "Value for money" is a limited concept that does not yet recognise virtue in farsightedness. NHS targets are geared towards improving clinical performance and cutting waiting times. No one gets fired for failing to reduce the carbon footprint of a hospital or clinic.

And so, in the name of health care, gargantuan sums of public money continue to be spent in ways that are careless of the physical and mental wellbeing of future generations. A longer term perspective suggests that this makes poor sense, not only for population health, but also for the business of running a national health service.

Anna Coote, *lead commissioner for health*

Sustainable Development Commission, Ergon House, London SW1P 2AL
(anna.coote@hotmail.co.uk)

References w1-w12 and details of the NHS's ecological foot-print are on bmj.com

Competing interests: None declared.

References

1. Stott R. Healthy response to climate change. *BMJ* 2006;332: 1385-90.
2. McMichael AJ, Woodruff RE, Hales S. Climate change and human health—present and future risks. *Lancet* 2006;367: 859-69. [[CrossRef](#)][[ISI](#)][[Medline](#)]
3. Sustainable Development Commission. NHS good corporate citizenship assessment model. www.corporatecitizen.nhs.uk (accessed 26 May 2006).
4. Department of Health. Sustainable development. www.dh.gov.uk/PolicyAndGuidance/OrganisationPolicy/EstatesAndFacilitiesManagement/SustainableDevelopment/fs/en (accessed 26 May 2006).

<http://bmj.bmjournals.com/cgi/content/full/332/7554/1343>