

Justice to cool the planet *

Oddly, the current global recession may be a blessing to the environment and the world, since less growth implies less stress on the environment and emissions need to be slowed down. Here's a golden opportunity to deliver on social and environmental justice which is a necessary condition for securing our path to sustainability. Developing countries, for instance, must avoid the unsustainable path taken by the industrial ones and shift to clean production and consumption at once. Only a fairer deal will lead to sustainability: a bail-out for the eradication of world poverty, rehabilitation of the environment, stabilization of the climate system is fair and mandatory. This will not be possible, however, until the rich change the way they produce and consume and learn to live within sustainable limits.

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The human signature on current climate change is much clearer now. What to do to undo what's done and avoid catastrophe is what the UN Framework Convention on Climate Change (UNFCCC) and its derivative Kyoto Protocol and accords are all about. Much, much more needs to be done but now, nearly two decades gone by, we're still debating and negotiating with no clear end in sight. Meanwhile even our best scientists seem to be missing on their estimates about how fast climate is really changing. The ice that melted in the Arctic Ocean just after the Interagency Panel on Climate Change (IPCC) went public with its Fourth Assessment Report (AR4) of 2007 tells us that also scientists can get it wrong. And before we know it we're past the dreaded threshold we've been told never to cross.

We know someone has got to give here. Yet nobody does. Not the rich because they think, wrongly, that they're being pressured unfairly to give up a lot. Not the poor either because they think they have always been on the giving end.

Game over?

Before we started burning fossil fuels and begin to build today's industrial society in the 1800s, CO₂ concentration in the atmosphere was 280 parts per million (ppm). When scientists began counting in the 1950s, this carbon concentration had already reached 315 ppm. When NASA scientist James Hansen first sounded the alarm bell on climate change in the late 1980s he established 350ppm as the highest affordable level, "if humanity wishes to preserve a planet similar to that on which civilization developed and to which life on Earth is adapted."

Trouble is, we are past that point already. It is 380ppm now, and counting. Our carbon footprint in the air is said to be increasing by about two parts per million each year.

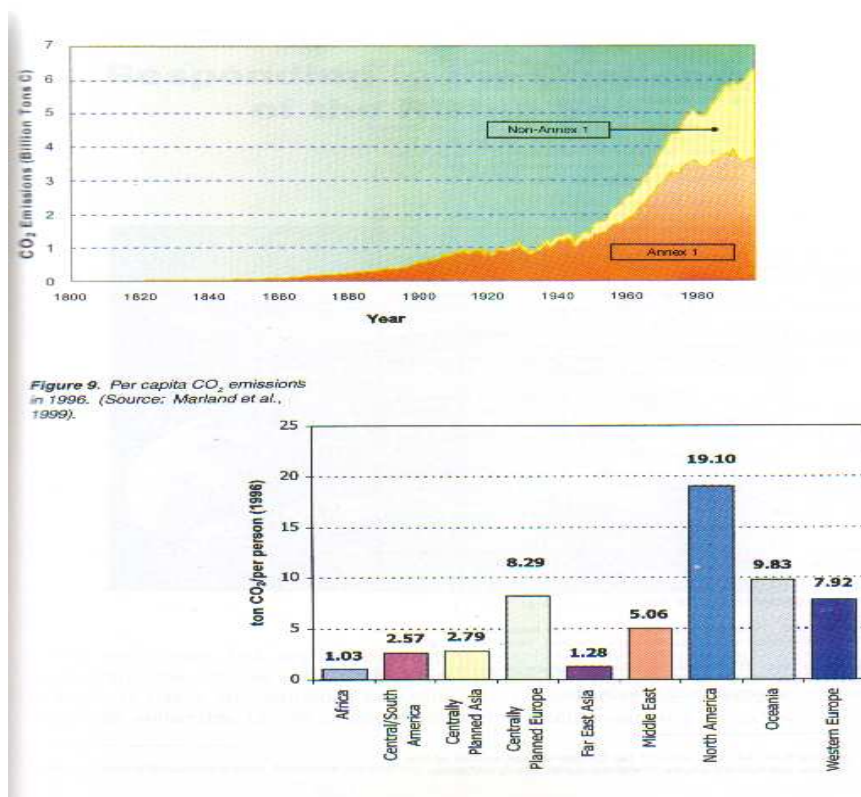
Which is actually the level of safety? There is no consensus on that yet. Some say 450 ppm. Others say that's not safe enough, it should be 350ppm. In the Poznan Conference of Parties (COP-14) in December 2008 Al Gore unsuccessfully tried to reach consensus around the 350 target.

Rajendra Pachauri, chairman of the UNFCCC Interagency Panel on Climate Change (IPCC) has said that without basic reforms by 2012 we may find the climate system spinning out of control and that global CO₂ emissions must start to decline by 2050. He has not made up his mind where to fix the IPCC's moving target.

So what happens now? The IPCC avoids prescription and limits itself to offering policymakers a portfolio of scenarios. Since 1990 it has drawn up forty such scenarios, built on four major storylines. These

scenarios are sorted out as to whether the future is focused on economic (denoted A) or environmental (denoted B) development and whether it is oriented on the global (number 1) or regional (number 2) level. For example, A1 is economic/global, A2 economic/regional, B1 environmental/global, B2 environmental/regional. The A1 scenario is further divided into three separate scenarios: fossil fuel intensive (A1F1); balanced between fossil and non-fossil (A1B); and a transition to non-fossil fuels (A1T). Business-as-usual (BAU), the scenario that assumes do-nothing on GHG emission reduction, is of course out of the question.

Figure 1. Annual, global emissions of carbon from fossil fuels and cement production, 1850-1999, and concentration of CO₂ in the atmosphere (ppmv, parts per million volume), 1850-2000. Source: Marland et al. 1999, Etheridge et al. 1998, Hansen and Sato 2000, Keeling and Whorf 1999, WI 2000a: 67, pers. comm. P. Tans, Climate Monitoring and Diagnostics Laboratory, National Oceanic and Atmospheric Administration, USA.



Meanwhile, the signs are mounting in short order, all pointing towards the worst-case scenario, which may come earlier than imagined. In August 2003 we saw the European heat wave kill nearly 15,000 in France and 35,000 in nine other European countries. This could happen again, and again. The recent California and Australian forest infernos alongside unprecedented floods elsewhere might become commonplace in many places. The prolonged droughts in major food producing countries could cause between 20 and 40 percent decline in food production in 2009. Erstwhile conquered diseases, like TB, malaria, and dengue fever, are already breaking out in many places.

One has to believe in miracles to say we will survive this one if we stay the current course and delay agreement on any of the suggested stabilization levels.

Justice in climate

But if we are to ‘perish’ (humans survived in past ice ages, too) it would better do in a fair way. A more evenhanded world probably stands a better chance to survive and adapt to climate change, no matter how it turns. A just world, with limits to growth (regardless of whether feared thresholds may have been crossed now), with equity between and within nations and communities, between men and women, between present and future generations, should be more resilient.

Climate justice derives directly from Art. 3.1 the UN Framework Convention on Climate Change (UNFCCC) establishing that countries should act “on the basis of equity and in accordance with their common but differentiated responsibilities and respective capabilities.” This principle is complemented by two other principles in the 1992 Rio Declaration and Agenda 21 – precaution and polluters pay. The first says that if you’re not sure about the benefit and consequences of what you’re going to do, just don’t. The second is obvious. Justice is also explicitly stated or implied in many UN declarations and agreements.

True enough, climate change spares no one, rich or poor. But the poor suffer more though they have less to answer for. Although developing, or so-called Non-Annex I, countries contributed far less to greenhouse gas emissions than developed or Annex I countries, they are destined to suffer more. The least developed countries (LDCs), who contributed the least in pollution, will suffer the most. The small island developing states (SIDS) might one day just disappear from the map.

The effort sharing in stabilizing greenhouse gas (GHG) concentrations in the atmosphere at whatever emission stabilization scenarios that may be decided – 350ppm, 450ppm, 550ppm, 650ppm – must be based on differentiated share of responsibilities for what happened and continues to happen and on differentiated levels of development.

Countries and peoples of the world can be sorted out as overconsumers or high emitters, underconsumers or underemitters, and sustainers or those living within sustainable limits. This classification corresponds respectively to (a) industrial countries which are all of OECD; (b) advanced developing countries like China, India, Brazil and other East and Southeast Asian countries; and (c) least developed countries like most of Africa.

In every country, rich or poor, however, we are to find that these categories share their circumstances: a rich Filipino in posh Forbes Park village, for example, must have the same lifestyle and therefore same CO₂ emission level as his American counterpart. The 600 or so million of non-poor, middle class, and rich Chinese and Indians would be a mix of sustainers and high consumers.

The excluded underconsumers or underemitters would be over 2 billion poorly fed, poorly educated, jobless, voiceless, lacking access to health care, water and sanitation, and living in degraded environments. They suffer more from the impact of climate change although they contributed little to it. They must have primacy in the right to development and should be the main beneficiaries of resource transfers between and within countries.

To avert catastrophe the deal is fair and simple: the rich in rich and poor countries must give up much more so that the poor and all of us may live sustainable lives.

Mitigation, the heart of justice

But how to implement that “fair share” principle? There are many proposals on the table, among them, for example, are the green development rights, common but differentiated convergence, contraction and

convergence by 2050, etc. They all come down to climate stabilization levels in the end.

High-emission countries must commit to drastic, deep and binding cuts on their GHG emissions from their 1990 levels and help developing countries with 'soft' money and clean technology. The contraction required from them is huge whatever the agreed emission stabilization scenario. This ranges between a 25 to 50 percent cut, or better, between 2020 and 2050. The reduction covers all six gases of the 1997 Kyoto Protocol – carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), hydrofluorocarbons (HFC), perfluorocarbon (PFC), and sulphur hexafluoride (SF₆) – which are translated into CO₂ tons equivalent (CO₂teq) in each country's GHG inventory.

Developing countries have a right to development, but this right should not be taken as license to pollute the environment. Right to development under the climate justice principle is not only about growing the economy; more importantly, is about satisfaction of basic needs leading to a decent level of security and well-being for all.

The authors of the greenhouse development rights (GDR) framework suggest an income of \$9,000 per person per year, a level into which all countries could converge. This would mean that developing countries, all of them falling below that line, should be entitled to transfers (ODA, technology, etc) and are allowed to increase their emissions as they shoot for that income goal.

What's really the equivalent carbon footprint of \$9,000 GDP per capita? Probably about 9 tons of CO₂ per person. In case rich countries agreed to come down to that level and poor countries succeeded to reach it, and considering world population projections of 7.6 billion for 2020 and 9.1 billion for 2050, imagine how much energy and carbon that would mean, even if our lives run on a mix of fossil fuels and renewable energy!

Against that income level the Millennium Development Goals (MDG) looks frail even if met by 2015 (something that at current pace is not going to happen). Developing countries must avoid the unsustainable path taken by industrial countries. The earlier they shift to production and consumption of clean energy the better for the planet and all of us. With sustainable agriculture and sustainable fisheries, conservation of water and forest resources, development of renewable energy and reducing poverty and inequality they stand a chance to adapt to climate change. A truly green revolution in both agriculture and fisheries and avoiding deforestation can contribute to carbon capture and reducing carbon footprint.

Keeping to one's carrying capacity is every nation's lookout. Stabilizing population at sustainable levels should be a particular concern for countries like the Philippines that will grow to over 100 million in 2020 and nearly 150 million by 2050.

Non-Annex 1 countries are spared from binding mitigation commitments but they can help, for instance, by levying a progressive carbon tax on their own rich overconsumers and by moving early on towards soft energy and low-carbon paths to development.

High-emission countries insist that justice is skewed in favor of advancing developing countries whose emission levels are rising fast. In the 13th Conference of the Parties (COP-13) in Bali, Indonesia in 2007 they suggested that binding emission reduction targets equally apply on the likes of China and India. Is that fair?

China and India are indeed tricky and problematic cases and tell a lot about the complexities of 'negotiating' justice. It is true China's emissions are rising fast because of its high growth levels and reliance on dirty coal. But the carbon concentration in the atmosphere we are talking about has been the result of a

continuous build up over many generations; for this build up China or India had relatively smaller contribution. Moreover, their carbon imprint, because of their current high growth, will only show later.

China's emission level on average is still way below that of the US on a per person share. China is chalking up the world's raw materials but it is also accepting mountains of waste foreign countries reject in their own backyards. China is recycling the wastes of the world and doing sustainable agriculture and massive tree planting. China probably has the highest carrying capacity anywhere on this planet – meaning it feeds, shelters, educates, takes care of one of every six of humanity in a comparatively small space.

China produces cheaply for all of us but absorbs most of the carbon shit for it. Who's paying for that? But you may also ask, why cannot Beijing shift at once to clean production and produce long-lasting goods? If China can help bail out the global economy with its surplus money, why not spend it in cleaning up its own mess and shift to a low-carbon path of development?

US carbon emissions, a quarter of the world's total, remain at very high levels. Its per capita CO₂ emission level has seen little or no reduction at all since 1990. The World Development Report *Equity and Development* put it at 19.8 tons/person in 2004. Europe, Japan and other industrialized nations may have succeeded in cutting down but their efforts still falls short of the Kyoto Protocol's minimalist standard.

Annual global CO₂ emissions have not let up since 1990. To some this a sign of prosperity, meaning an indication that economies continue to grow. To others it is ominous, as it brings us closer to the no-no threshold.

Contraction and convergence efforts must result in stabilizing average global temperature below the 2-degree Centigrade level by 2050 – the threshold we are advised to respect or we are dead. This is not much time, obviously.

Adapt or perish

Poor countries cannot afford to wait for a dramatic mitigation to happen. They might perish before they could get justice. With or without assistance, they have to find ways to adjust to climate change before it's too late.

Projected impacts of climate change

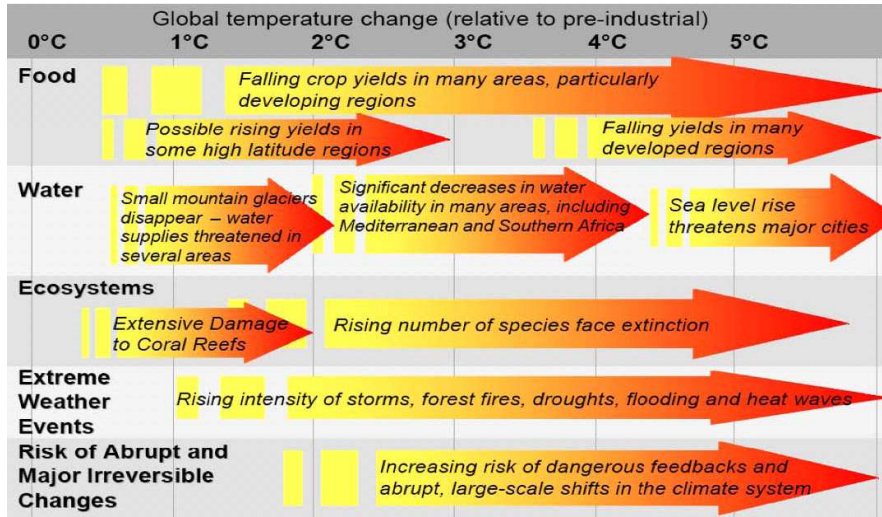


Figure 2. International Assessment of Agricultural Science and Technology for Development (IAASTD), 2008.

Deforestation which accounts for about 17 percent of the emissions has not only continued; it has been recently exacerbated by the rising demand for biofuels. Between 2000 and 2005 primary forests were lost at the rate of 6 million hectares a year. Biodiversity declined steadily along with it.

Some 200 million Asians were lifted out of poverty in one generation. It is an unprecedented achievement but it hardly closed the rich-poor divide, whether in China, in the Asian region or globally. It also happened at great costs to the environment and the climate system.

We now know for sure that extreme events, like storms, floods and droughts have devastating impacts on water resources, food security, agriculture, ecosystems, biodiversity, and human health. These events have been anticipated in all IPCC assessments but are now too common and happen everywhere and when least expected.

Defined in the IPCC Third Assessment Report (2001) but already inherent in the agency's original mandate from 1988, adaptation refers to adjustment in ecological, social, or economic systems in response to actual or expected climatic stimuli and their effects or impacts. It refers to changes in processes, practices, or structures to moderate or offset potential damages or to take advantage of opportunities associated with changes in climate. Adaptation involves adjustments to reduce the vulnerability of communities and regions to climate change and variability.

The 2003 *Guidebook on the Adaptation Policy Framework* (APF) of the UNDP-Global Environmental Facility defines adaptation as “a process by which strategies to moderate and cope with the consequences of climate change including climate variability—are enhanced, developed, and implemented”. The APF includes seven components: defining project scope; assessing current vulnerability; characterizing future risks; developing an adaptation strategy; continuing the adaptation process; engaging stakeholders; and enhancing adaptive capacity. Decisions about how to use this framework will depend on the country's prior

work, needs, goals, and resources.

The IPCC describes the requirements that need to be met for a country to have a high adaptive capacity: a stable and prosperous economy; a high degree of access to technology at all levels; well-delineated roles and responsibilities for implementation of adaptation strategies; systems in place for the national, regional and local dissemination of climate change and adaptation information; and an equitable distribution of access to resources. Great! You would wonder which non-Annex I countries are ready for climate change.

Growing concern for adaptation has been boosted by decisions by the Conference of the Parties (COP). The Marrakesh Accords that came out of COP-7 delineated instruments and mechanisms for supporting adaptation. This agreement includes the creation of three new funds: (a) The Special Climate Change Fund under the UNFCCC for supporting the “implementation of adaptation activities where sufficient information is available”; (b) the Least Developing Countries (LDCs) Fund dedicated to the preparation and implementation of national adaptation programs of action (NAPAs), which “will communicate priority activities addressing the urgent and immediate needs and concerns of the LDCs relating to adaptation to the adverse effects of climate change”; and, (c) the Adaptation Fund set up under the Kyoto Protocol and getting advice from the Global Environmental Facility (GEF) on its operations.

Sustainable agriculture and fisheries, sustainable forestry and watershed management, and ecological waste management are adaptation paths that can help cool the planet.

A new approach for ensuring food security calls for a radical change in the way we do farming. Such view has long been advocated by farmers’ movements worldwide. Recently this got a strong boost from the International Assessment of Agricultural Science and Technology for Development (IAASTD) in a conference held in April 2008 in Johannesburg, South Africa. The IAASTD admitted to the shortcomings of the Green Revolution technology and recognized the critical role of indigenous knowledge and sustainable agriculture in attaining food security. The findings of the three-year IAASTD indicate that modern agriculture will have to change radically from the dominant corporate model if the world is to avoid social breakdown and environmental collapse.

The IAASTD report – opposed by the US, Canada and Australia – criticized genetic modification and the conversion of farmlands to biofuel production. The so-called GM technology was not the way to feed the world's poor. Growing agrofuels to feed cars in lands that should feed people will surely worsen world hunger and an already very fragile human security situation.

Although in negotiations on climate change adaptation has emerged as a key policy question we have yet to see it addressed forcefully in policy development planning at all levels. Building adaptive capacity, or meeting MDG targets, is very different from growing the economy and working for development as usual. It is about delivering social and environmental justice—a necessary condition for securing our path to sustainability.

Justice in finance and technology transfers

The climate convention states that rich countries are duty-bound to make transfers to developing countries, but nobody’s a beggar here. If poor peasants shifted to organic farming or if municipal fishers manage their coastal resources right, they’re doing it not only for themselves but for all of us. If a poor country takes care of its biodiversity, it is doing a great service to itself and to humanity. These efforts deserve to be compensated or reciprocated somehow through, say, carbon tax on the rich, untied ODA, unconditional debt relief, fairer trade terms, technology or other forms of resource transfers.

Financing climate stabilization requires huge money. In his Bali presentation of the Fourth Assessment Report IPCC chair Pachauri says “the cost of mitigation is really not all that much” which is estimated annually to be less than three percent of global GDP. Oxfam International has said that cost of adaptation for developing countries will be at least \$50 billion a year, in addition to the current ODA level which already includes funding commitment for the MDGs.

Rich countries are bailing out the big banks that brought on us the current global financial mess. It is but fair for developing countries to ask for an equivalent bail-out for the eradication of world poverty, rehabilitation of the environment, stabilization of the climate system.

Annex 1 parties agree climate change is the most serious threat to sustainable development but their action, up to now, has been simply disappointing. Decisions that truly matter for eradicating poverty and redressing global disparities take too long, often ending up in insufficient or even negative net transfers laden with heavy strings.

Moreover, real additional transfers from the rich to the poor imply deep cuts from their end. But this will not be possible until the rich themselves begin to dramatically change the way they see the world, how they produce and consume. In other words, they must give up on their unsustainable lifestyle.

Slow down, cool the earth

What scenario can cool an overheating planet and spare us from disaster – 350, 450? Whichever, the storyline will be the same: we all must slow down. Strictly speaking, scenarios are not predictions; they are a range of possibilities that can lead to different alternative futures. As the future is inherently unpredictable, there is no certainty on what will come out of the action of so many. However, scenarios are useful because one of the causes of unpredictability and uncertainty is human agency – or the possibility of it – to change the course of events. The future is shaped by what we believe it will be and by what we do to make it happen. Complex interactions produce outcomes not to everyone’s liking.

Oddly, the current global recession may be a big blessing. Perhaps, the deeper it cuts and the longer it lasts the better for all of us. Less growth implies less emissions and less stress on the environment. Cleaner production and universal reduction in per capita consumption means less carbon footprint and – maybe – healthier living. Perhaps, all these will happen regardless of what comes out of the climate negotiations in Copenhagen and beyond.

Do we have the time to save ourselves? Maybe yes, maybe not. In any case, let it not be said that our generation did not do enough for justice.

References:

18. Durning, Alan. Asking how much is enough in Lester R. Brown et al. The State of the World 1991. New York: W.W. Norton, 1991.
19. DeCarbonnel, Eric. Catastrophic Fall in 2009 Global Food Production. February 9, 2009. Market Sceptics.
20. GermanWatch. From Poznan to Copenhagen. 2009
21. Hohne, Niklas and Moltmann, Sara. Distribution of emission allowances under the Greenhouse Development Rights and other effort sharing approaches. Heinrich-Boll-Stiftung, Germany, 13 October 2008.
22. [Http://esa.un.org/unpp/pk0data.asp](http://esa.un.org/unpp/pk0data.asp).
23. IPCC Fourth Assessment Report 2007. UNFCCC.

24. International Assessment of Agricultural Science and Technology for Development (IAASTD) Report, Johannesburg 2008.
25. McKibben, Bill. *Carbon's New Math*. National Geographic, October 2007.
26. McKibben, Bill. Think Again: Climate Change
[Http://www.foreignpolicy.com/story/cms.php?story_id=4585](http://www.foreignpolicy.com/story/cms.php?story_id=4585)
27. Oxfam International. Oxfam Briefing Paper on Adapting to climate justice 20 March 2007 draft.
28. Serrano, IR. Report on Adaptation in COP-9 in Milan. In the Netherlands Climate Change Studies Assistance Project. Philippine Rural Reconstruction Movement (PRRM), December 2003.
29. _____. ADB and Poverty in Asia in *Bankwatch*, publication of the NGO Forum on ADB (<http://www.forum-adb.org>) May 2006. Quezon City, Philippines.
30. _____. ADB and poverty in Asia in Bankwatch, NGO Forum on ADB (<http://www.forum-adb.org>) May 2006. Quezon City, Philippines.
31. _____. ADB and food security in Bankwatch, NGO Forum on ADB, vol. VI no.2, second quarter 2008. Quezon City, Philippines.
32. UNDP/GEF Guidebook on Adaptation Policy Framework 2003. UNDP, New York, NY.
33. United Nations. UN Framework Convention on Climate Change (UNFCCC). 1992. New York.
34. United Nations. The Millennium Development Goals Report 2007. United Nations. New York.
35. World Bank and Oxford University Press. *Equity and Development* World Development Report 2006.