

Translating Ideas into Action

Building a Global Consensus on Climate and Development

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Secretary General Ban Ki-Moon gave words to a growing consensus among policy makers and the public alike, in the North as well as the South, when he called climate change the “defining issue for our generation”. But the consensus over the challenge has yet to be translated into a consensus over action.

While the bulk of the attention is focused, correctly, on the details of the negotiations and the pros and cons of various actions, there is an urgent need to take a step backwards to look at a deeper issue, namely the factors that would help determine whether the countries of the world would be prepared to undertake the requisite actions, individually and collectively. This perspective can help identify the major gaps in knowledge where further research would be needed in order to nudge the process towards consensus and action.

The starting point of the analysis has to be the need to integrate climate and development action into a common framework. This is in part because the climate issue cannot be resolved without significant emission cuts in both developed and developing countries, because of which it is imperative to include the concerns of developing countries into the framework for action. Besides this, it is also clear that climate change has the potential to reverse and undo any of the gains made by developing countries through a half-century of economic growth.

The integration of climate and development will require the building of a consensus over at least five domains: scientific, technological, economic, ethical, and political. Of these, considerable progress has already been made on the first two, in large part because of the solid background work by the IPCC. However, there is a wide divergence of views, fueled in part by some partisan research activity, on the remaining domains.

Building such a consensus would require a combination enlightened leadership, at global as well as national levels, effective communication, relevant research, and civic engagement. The challenge for the United Nations leadership in particular is to bring the global community together into a concerted action program.

The imperative of consensus

Climate change is a global problem, which will require unprecedented global cooperation. The basis for action therefore has to be different from that

which prevails within national contexts, where a myriad of political processes enable interest groups to agree on compromise solutions. At the international level, the only meaningful option is to find the areas of consensus. Climate agreements are also affected by two other factors. First, the North and the South both need each other's cooperation to address the climate challenge. Neither group can solve the problem by itself. More importantly, neither party can impose a solution on the other by making non-cooperation very costly. In this regard, the emerging climate regime is fundamentally different from the trade regime in which no country has an incentive to be excluded from the system. In stark contrast, as currently constituted every country has an incentive to remain outside the climate regime.

The North-South dimension of the challenge is overlaid by what has been referred to as a deficit of trust between the two regions. This deficit refers to a failure to act on such consensus global agreements as the millennium declaration and the MDGs, the FFD, Agenda 21, and the Kyoto Protocol. Still, as is shown in recent game theoretic analysis (see van Ierland 2007), even in the presence of a trust deficit, cooperation between countries with different interests in the climate issue is possible, and more importantly, that such cooperation possibilities are enhanced by changes in such underlying factors as increases in the perceived costs of the impact of climate change and decreases in the perceived costs of mitigation (e.g., the costs of technological alternatives).

Second, this is perhaps the first instance that a global issue of such magnitude is being negotiated in full public eye. In contrast, the Uruguay Round of trade negotiations was conducted, in the words of former WTO Director General Mike Moore, "in the silence of public apathy". Public perceptions will create the overall environment within which climate negotiations will take place. There are indications that this is already happening. Changes in public perceptions in 2007 may have influenced governments to strive for a positive outcome from the Bali COP. More generally, the electoral mechanism is beginning to make an impact. The political winds of change are blowing against political parties and individuals who are opposed to climate action. This was a factor in the 2007 Australian elections, and seems to be one in the 2008 US elections. The upshot is that research and communications will be critical in the days to come, not only in identifying the pros and cons of alternative course of action, but also in shaping public opinion and consequently political positions and negotiating stances of different countries.

However, the relationship between research and public opinion, especially on politically sensitive issues, is not straightforward. In particular, the critical factor is the overall weight and balance of the research rather than single studies, no matter how definitive. Furthermore, the climate denial industry has flourished despite the paucity and poverty of its ideas, presumably because of financial and other support from industries that would be affected adversely by effective climate action. It would be prudent to expect a sustained effort by such groups to discredit any new research that has the capacity to bring about a reasonable consensus. What is needed, therefore, is not simply a set of studies that clarify specific issues or develop specific options, but the building of a *network* of professionals committed to addressing climate and development as an integrated challenge, and collaborating on a *program* of work that is oriented consciously towards the barriers to consensus.

Domains of analysis and consensus building

To revert to the game theoretic analysis (van Ierland 2007), the possibilities of agreement are influenced by changes in perception of underlying cost factors (both the impact of climate change and of mitigation). Examining the domains that affect these cost factors can broaden this insight. These include: scientific, technological, economic, ethical, political, and policy instruments. Conversely, the probability of an agreement will be lower in the absence of a consensus in any of these domains. Such an absence of consensus constitutes a barrier to agreement and has the potential to create policy and political paralysis.

The barriers are quite significant. Opponents of climate action have claimed, first, that climate change is not real (the scientific barrier); second, that even if it is real, alternatives to fossil fuel technologies are either not available or are incompatible with the modern industrial structure (the technological barrier); third, that nothing should be done even if the problem is accepted as genuine and if alternatives are available, both because the costs of climate change are too low and those of mitigating it too high (the economic barrier); fourth, that notwithstanding all this, if any action is contemplated, it should be viewed as the responsibility of individual countries rather than a common global responsibility involving significant inter-country obligations (the ethical barrier); fifth, that the only policy option is that of voluntary action through the market rather than an explicit, unequivocal, and irrevocable set of commitments by the public sector (the political barrier).

Considerable progress has been made in building a policy and professional consensus around the first of these determining factors, namely the science of climate change (Box 1). Although the scientific profession had long concluded that climate change was a reality, and that it was produced by anthropogenic causes, the coverage in the mass media made it appear as if it was a contested terrain. This weakened public support for climate action, and enabled governments that were so inclined, to drag their feet on negotiations as well as domestic action.

However, initiating action on climate change will need overcoming other domains of resistance, and building a global consensus that encompasses technological, economic, ethical, and political dimensions.

The Ethical Framework

At Bali, it became very clear that the most significant impediment to concerted action on climate change was the absence of a common ethical framework that could bring the North and the South together. This is surprising at one level, since the ethical issues had been raised as early as the UNFCCC negotiations, and had been resolved to a great extent in the text of the UNFCCC itself. For instance, the language of common and differentiated responsibilities, burden sharing, the right to sustainable development, and the primary responsibility of the North to address climate change were all acknowledged and agreed in 1992. Yet, in the 15 years since then, the world community has not moved much closer to translating these ethical statements into a coherent program of action. The result is that some ideas that were discussed and dismissed many years ago have begun to make a come back.

Briefly, the ethical consensus achieved in 1992 included (a) the North is primarily responsible for climate change, (b) the North has far greater technological, financial, and institutional capacity to address climate change, (c) the South needs to continue to pursue sustainable economic, has a right to do so, and should be enabled to do so through access to finance and technology as needed, and (d) the appropriate

Box 1: The Scientific Barrier

Until recently, the scientific consensus over the prospects and causes of climate change was not communicated clearly to the public and policy makers. A handful of writers (e.g., Fred Singer, Fred Seitz, David Evans), reportedly funded by the fossil fuel industry (see the detailed expose' in Monbiot (2007), had made it their mission to undermine climate science. Although they were not able to publish in reputable, peer reviewed scientific journals, their views received extensive coverage in the international mass media out of all proportion to its quality or volume. As a result, the public was genuinely confused. A succession of public interventions between September 2006 and December 2007, most notably the Fourth Assessment Report of the IPCC, and the documentary *An Inconvenient Truth*, and the award of the Nobel Peace prize to their authors have turned the tide.

ethical framework is one in which the North is the first to take action, and is also responsible for providing financial and technical assistance to the South to enable it to take action as well.

By 2007, all the elements of this ethical consensus have come under challenge from the research as well as the policy communities. First, considerable research has tried to show that the South is equally if not more complicit in the creation of the problem. The media has increasingly focused on the fact that the South now contributes more than half the aggregate global emissions and that China has taken over the US as the largest single emitter. The research community has tried hard to find some ways to parse the data that could show that the South has contributed equally in historical terms as well (for a recent version of the argument, see Wheeler 2007). Second, the concept of “major emitters” (Box 2) has re-emerged in the climate discourse, and has led to a weakening of the consensus both over who is responsible and who should be the first to take action. This concept

Box 2: The Myth of the Major Emitters

The idea of the so-called major emitters was first floated in a report produced by the World Resources Institute (WRI) on the eve of UNCED. WRI ranked countries on the basis of their aggregate emissions, and found, not surprisingly that the US, China, India, Brazil, Japan, and the big European countries (Germany, France, and the UK) were at the top of the list.

The WRI report was subjected to a devastating critique by Anil Agarwal and Sunita Narain in their landmark paper *Global Warming in an Unequal World* (CSE 1991). Besides taking WRI to task for using data selectively to attack developing countries (the deforestation data on Brazil was particularly problematic), Agarwal and Narain made three important distinctions: between aggregate and per capita emissions, between gross and net emissions (i.e., emissions over a certain threshold, in particular over the absorption capacity of the atmospheric and terrestrial sinks), and between luxury and survival emissions. They argued, first, that the only legitimate bases for comparing countries were either per capita emissions or net emissions, which meant that all developing countries were at the bottom of the list of emitters; and second, that any future action had to be designed in such a way as to protect the survival emissions of the poor rather than the luxury emissions of the rich.

This paper succeeded in setting the terms of the debate to the extent that the language of the UNFCCC explicitly embraced the idea of equity and sustainable development, and as a by product that no one seems to refer to the impugned WRI report any longer.

However, over time the concept of major emitters has crept back into use. The United States in particular has persisted with trying to make this the main framework for addressing climate change, and in so doing has sought expressly to downplay the concepts of per capita emissions, luxury emissions or net emissions. What is surprising is that the term has suddenly become highly popular among the mass media and civil society in the North.

This framework sidelines development by obscuring the critical distinctions over income and capacity. It also provides a convenient means of problematizing and slowing down the economic momentum in countries whose producers could prove to be a threat to their competitors in the North.

sidelines the development agenda by obscuring the differences in obligations (e.g., the priority of sustainable development in poor countries) as well capacity.

Third, a curious disparity has emerged between the strident and repeated calls for Southern country commitments over emissions and the silence over issues of finance and technology. A decade and a half after the adoption of the UNFCCC, there is no consensus over the practical implications of the commitment to financial and technological assistance. In the mean time chapter and verse have been written on the emissions obligations of developing countries.

Fourth, the basic ethical framework has shifted subtly from one that placed the right to development at the center towards one that is oriented mainly towards the right to emissions. It has to be acknowledged that in 1992, the two did not appear to be in conflict. But that was either because of the perception at that time, first, of greater optimism then regarding the availability of the “climate space” for development, and second, of a strong correlation between emissions and income across countries. Both these perceptions have changed dramatically. Today, it is clear that very little climate space is left for developing countries, and that all countries would have to cut their emissions drastically in order to respond to the climate challenge. The expectation that continued economic growth in developing country would be possible because their emissions could continue to grow is no longer tenable. Furthermore, as developed countries develop new

technologies to shift to a carbon-free economic system, the right to emissions will become meaningless for developing countries without the

The Myth of Per Capita Emission Rights

The history of the idea of equal per capita emission rights is linked closely with that of major emitters. Agarwal and Narain (1991) sought both to challenge the notion of major emitters and float the idea of per capita emission rights. They proposed a scheme based on a global threshold of emissions, allocated on a per capita basis to every individual on the planet. Rich over-emitters would have to buy the rights from poor under-emitters or pay a higher penalty. Such a scheme would serve three purposes: (a) it would give an incentive to over-emitters to reduce their emissions; (b) it would also give a similar incentive to low emitters to keep their emissions low; and (c) it would provide a transfer from rich countries to poor countries.

Subsequently, the Global Commons Institute advocated the idea aggressively under the title of Contraction and Convergence, which became a major rallying point for the climate justice community. However, given a reluctance to impose an economic “shock” on industrialized countries, and perhaps also the legitimate concern that windfall financial transfers could lead to wastage and corruption, most Contraction and Convergence proposals sought to gradually ease in the rights allocations, starting at present day emissions patterns, and gradually converging toward equal per capita emissions over time.

In recent months, the idea has received a new lease of life by the endorsement of German Chancellor Angela Merkel.

However, much has changed since 1991. Then, a sustainable global emissions target was estimated to be much higher than it is today. As a result, every developing country could foresee both a space for development and financial resources from the sale of emission rights in the interim. This is no longer the case. The current projections of sustainable global emission targets (i.e., in which concentrations would peak below 450 parts per million and then gradually decline) are of the order of 8-10 billion tons of carbon dioxide for 2050, which on a per capita basis would equal the emission levels in least developed countries. In other words, without access to alternative technologies, equal per capita emission rights would provide a significant barrier for continued economic growth in developing countries.

This means that developing countries need to focus henceforth on what Baer et al (2007) call the right to development in a carbon constrained world, e.g., by gaining access to technologies that can enable them to maintain or enhance their economic growth without additional emissions.

right to access the same technologies.

The research community needs to continue to work on key issues in this debate in order to sketch the elements of an ethical framework that will allow developing countries to narrow the gap between their incomes and living standards and those in developed countries. This means a research agenda that includes at least the following themes:

1. Global development rights (*Sivan Kartha*).
2. Impact assessment of emerging proposals from a developmental perspective (??)
3. Who is responsible for climate change? This ought not have a bearing on the options for action, but can derail movement towards a

- consensus. One concrete example is the impact of trade. If instead of calculating emissions produced within countries, one examines the emissions footprint of the consumption in different countries, the answers would be very different.
4. The debate over efficiency and sufficiency. Is it possible to address the global climate challenge through a series of technological fixes, or will it be necessary to bring about large scale and unprecedented changes in life styles and values. (*Steve Rayner, Wolfgang Sachs, Steve Marglin*).
 5. Global governance and consensus building (*Adil Najam, Christine Loh*).

Economics and the question of costs

As the scientific consensus has begun to be acknowledged in policy and public opinion, the primary basis for opposition to climate action has shifted to the domain of neoclassical economics, largely but not entirely in the United States. This oppositional stance has three strands of analysis, (a) the costs of climate change are not very high (Nordhaus, Tol, Lomborg), (b) the costs of mitigation are unacceptably high, and (c) that while the costs of climate change will fall mainly on developing countries, the costs of mitigation will be higher in developed countries—in other words that the benefits to costs ratio would be even more adverse if the policy choices of only the developed countries were to be analyzed.

While the climate denial industry in the scientific domain was lowbrow and widely disrespected by serious scientists, the deniers in the economics field are the high priests of the profession. They have tenure at top American universities, get published in the most prestigious economics journals, have considerable clout within their profession, and are the authors of widely used economic models, including those used in climate analyses.

An important opposition to this line of argumentation was provided in the Stern Review (Stern 2006), who tried to demonstrate, (a) that the costs of climate change far exceed those of mitigation, and (b) that the costs of mitigation are quite acceptable from a policy or political perspective. However, neoclassical economists criticized the Stern Review vehemently and almost unanimously, mainly on the grounds that its choice of discount rate was unwarranted.

Be that as it may, the debate over costs and benefits will continue to be relevant to climate action, insofar as it will influence policy makers in developed as well as developing countries. This calls for a concerted program of research in a number of key questions.

1. An economic model that takes climate as well as development seriously, including the impact of North South trade (*Frank Ackerman*).
2. Integrating economic models into long term scenarios (*Charlie Heaps, Paul Raskin*)
3. The relationship of costs and welfare, including the entire question of the discount rate and assessment of future costs, the distribution of costs between countries (*Steve Marglin, Sanjay Reddy*).
4. The costs of action in developed and developing countries, including the comparison of microeconomic and macroeconomic costs, the impact on public budgets, and the implications for international transfers (*Tariq Banuri*).
5. The Precipice Index, an attempt to capture the costs of inaction as well as action (*Alan AtKisson, Paul Raskin*).

Technology

A third area in which consensus would be needed is that of the technological response options. The Wuppertal Institute, the Rocky Mountains Institute, Natural Capital Solutions, Princeton University, and the Earth Institute in Columbia University have done considerable work in this area. However, a number of questions are still outstanding. These include:

1. The matter of scale. Much of the analysis has a built-in bias in favor of large-scale technologies (large hydro, nuclear, and carbon capture and storage). However, recent work by the World Future Council suggests that most progress has been made in countries that created opportunities for the medium scale sector to respond effectively, for example through the feed-in tariff approach to electricity generation (*Stefan Schurig, Miguel Mendonca, Wolfgang Sachs*).
2. The implication for the intellectual property rights regime. Some have argued that in the technologies currently under discussion (solar PV, wind, biofuels) IPRs do not pose significant barriers for developing countries. However, given that the costs of these technologies currently are far above those of comparable fossil fuel technologies, the expectation is that costs would decline rapidly through technical innovation as well as scale effects. If so, the expectation of future cost movements would create a significant source of uncertainty for developing country investors. This may necessitate a new look at the relationship between the IPR regime and climate action (*Ricardo Melendez, Martin Khor*).
3. The entire issue of institutions, both global and national. At the global level, the current move is towards the strengthening of the existing

arrangement under the aegis of development finance institutions (especially the World Bank, but also the GEF). This requires a continuous assessment of performance. Second, at the national level, the bulk of the work remains to be done. This could take the form, for example, of the green revolution infrastructure in developing countries (*Tariq Banuri*).

4. Precaution and safeguards. An emerging question with regard to the large-scale deployment of alternative technologies is their potential impact on human health and environmental sustainability. This is true of technologies that have traditionally been viewed as risky (e.g., nuclear), those that could create new and unanticipated dangers (especially geo-engineering options, including carbon capture and storage), and those most conducive to secretive methods (*Niclas Hällström*).

Politics and Policy

Perhaps the most significant gap in policy analysis is in the area of integrated national climate and development policies. Until such policies are developed effectively, it will be difficult to judge the value of particular instruments or potential for compromise and action. It is an urgent need to develop such plans and policies in concrete national contexts in order that the lessons learned can be made available more broadly. Although much media attention is focused on the so-called major emitters, equally important are the next group of countries (Emerging Asia, the N-11, sub-Saharan Africa).

The evolution of the climate policy discourse has followed an interesting trajectory, in which the instrument of choice is the creation and management of a new market in carbon emissions. While the experience with instrument this has been viewed favorably by some analysts, there are significant criticisms, from the perspective of overall impact, distribution, side effects, and economic development and poverty eradication in developing countries. This single-minded focus on a few market instruments has also obscured other key issues that are highly critical for success, namely the path dependency of policy, the question of policy credibility, and the role of the opponents of action. Until now, much mainstream analysis has glossed over the strong vested interests in the current choice of technologies and lifestyles. However, it is quite clear that unless the question of political opposition is brought explicitly into the analysis, the future trends will remain unclear.

A number of questions are raised from this perspective:

1. Integrated National Climate and Development Plans in selected countries (*Christine Loh, Li Lailai, Shiv Someshwar, Ambuj Sagar, Mozaharul Alam, Sitanon Jesdapipat, Cynthia Awuori, Hernan Blanco*).
2. An assessment of carbon trading (*Larry Lohmann*).
3. Path dependency and policy credibility (*Steve Rayner*).
4. The relationship of political opposition to policy paralysis (*Barbara Harriss-White*).
5. The relationship of the value of assets (e.g., fossil fuel reserves) and income streams of countries as well as corporations and shareholders, and their relationship to welfare issues, especially for poor countries. Potential financial mechanisms to separate the income stream from assets as may be done, e.g., in the case of forests.
6. The relationship of political opposition to the choice of large scale, including potentially dangerous technological options (*Niclas Hällström*).