



Policy Brief

The UNFCCC and Climate Politics after COP 15

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Copenhagen Fails

Going by the Bali Road Map, the negotiation process launched at the 2007 UN Climate Change Conference, COP 15/CMP 5¹ – henceforth, ‘Copenhagen’ – was supposed to conclude with two outcomes.

First is an amendment to the Kyoto Protocol (KP) that fixes developed countries’ (Annex I Parties²) collective and individual emissions reductions targets for a second commitment period after 2012.

Second is an agreed outcome on long-term cooperative action (LCA) that strengthens the implementation of the UN climate change regime beyond existing commitments and arrangements in the areas of mitigation, adaptation, technology transfer, and finance. Among the significant advances set to be part of the LCA outcome are a formal commitment by the United States (which refuses to ratify the KP) to measureable, reportable, and verifiable (MRV) emissions reductions comparable to its Annex I peers under the KP, and the provision of MRV financial, technology, and capacity building support by developed countries to enable MRV mitigation actions in developing countries.

Negotiations for these outcomes had been taking place in two separate venues: the Ad Hoc Working Group on Further Commitments for Annex I Parties under the Kyoto Protocol (AWG-KP), which started meeting in 2006, and the Ad Hoc Working Group on Long-Term Cooperative Action (AWG-LCA), whose work began in 2008.

Because of the persistent deadlock in the talks, Copenhagen produced neither of these outcomes.

To try to break the deadlock between the Parties and save the summit from ending without any agreement, the Prime Minister of Denmark (which held summit’s presidency) convened a meeting of a select group called Friends of the Chair in the final two days of the Conference (its high-level segment) to produce a draft agreement.³

Heads of government and other heads of delegations from about two dozen countries,⁴ North and South, were reported to have taken part in these meetings, with the UN Secretary-General present in some of them. Other member states and political leaders who were present in the summit were not invited. Like the official negotiations they were running parallel to, these meetings were rough and appeared to be headed for collapse. The meeting between US President Barack Obama and the heads of government of the BASIC countries (Brazil, South Africa, India, and China) in the evening of the final day of the summit is said to have salvaged the informal process. Hence, the Copenhagen Accord. It is, in the words of the Grenadian delegate who attended this meeting, a “compromise text.”

Because of objections from developing country delegates as to its legitimacy (the deal was crafted outside of the official two-track process, without the mandate of the COP), and to the undemocratic and non-transparent manner by which it was created, the COP decided to “take note” of the Accord and not adopt it as an official outcome.

Developing countries also object to the substance of the Accord. The level of ambition it represents stacks up poorly against the demands of science for urgent and drastic action, as well as the demands of equity for a distribution of burdens and benefits that reflects historical responsibility, and that is faithful to the principle of “common but differentiated responsibilities” (CBDR). Although not considered an official outcome, the Accord demonstrates what shallow consensus the world’s governments are able to build, even after two years of intensive negotiations. Its main features include:

- **A weakening of the multilateral regime for tackling climate change.** The Accord does away with the approach for international action wherein commitments are multilaterally-negotiated, internationally binding, and subject to international compliance. This is the approach for emissions reductions installed in the Kyoto Protocol. Under the KP, countries agree on an aggregate emissions target that is to be collectively met, on individual national targets that add up to the aggregate figure, and a common timetable and base year for comparability. The Accord replaces this approach with a looser emissions regime based on a collection of unilaterally-determined, non-binding, and non-comparable individual pledges not subject to international negotiation or compliance. Similarly, funding and other support commitments under the Accord remain voluntary with no mechanism to ensure compliance (**see last two points below**).
- **A weak shared vision.** The Accord agrees to a goal of limiting global mean temperature rise to 2°C and below – not enough to safeguard the survival of many vulnerable small island states and least developed countries. Moreover, the Accord sets no stabilization target for CO₂ concentration in the atmosphere, no target date for the peaking of emissions, and no medium- or long-term global emissions targets (2020 or 2050). It ignores the growing scientific consensus and political support behind the safer warming target of 1.5°C and below, and the goal of stabilizing CO₂ concentrations to 350ppm. The pathway to a 350 ppm goal, according to a recent report, requires emissions to peak by 2011 and drop to zero by 2050.⁵
- **A catastrophic emissions trajectory.** Developing countries demand Annex I Parties to commit emissions reductions against the base year 1990 by at least 45% by 2020, and by 85-95% or more by 2050 – reductions which, however bold, would only stabilize atmospheric CO₂ at 450 ppm.⁶ The Accord sets no internationally binding emissions reduction target for Annex I, collectively or individually. Instead, it called on them to individually submit to the UNFCCC Secretariat non-binding targets for 2020 on 31 January 2010. Analysis of their submissions shows that they amount to a mere 13-19% reduction of 1990-level emissions, and could lead to a 3.9°C warming by 2100 if fully implemented.⁷

- **A redefinition of the equitable balance of obligations between developed and developing countries.** While it downgrades the status of developed countries' emissions commitments from legally-binding obligations to voluntary pledges, the Accord raises those of developing countries, tasking them to register their mitigation actions and submit them to international monitoring. This "upgrading" takes place in the midst of a long-standing deficit on the part of developed countries to demonstrate leadership by reducing emissions and providing adequate financial and technology resources to help poorer countries develop along a non-conventional, low carbon, and climate-resilient path. The Accord could lay the ground for greater emissions obligations from poor countries in the future, without the enabling financial and technology support from developed countries as a necessary precondition.
- **Inadequate, unpredictable, and non-additional funding for developing countries.** The level of funding developed countries pledge to mobilize for international climate action under the Accord – \$30 billion for 2010-12, and \$100 billion by 2020 – fall far short of the scale proposed by developing countries and development institutions (**see Table 1**). Inadequate as they are, these amounts – as is the case today – will not come from mandatory payments, but will be raised through a hotchpotch of public and private sources, including carbon markets and official development assistance (ODA). This means that climate finance will continue to be non-additional to pre-existing aid commitments, and unpredictable as well owing to its voluntary nature.
- **A fragmented and donor-driven financial architecture.** Under the Accord, funds will continue to flow from bilateral and multilateral Northern donor institutions which operate beyond the authority of the UNFCCC and its COP. Funding decisions and priorities remain the domain of donor governments, which control the delivery of funds with little or no participation from, and accountability to, developing country recipients. In the case of carbon offsets and other financing instruments, access to funds is conditional to the potential to deliver emissions cuts or savings for Northern buyers.

Table 1

Estimates of annual funding requirements for climate action (mitigation and adaptation) in developing countries, in billion US\$

	Amount
Group of 77 and China	0.5 - 1% of Annex I Gross National Product (278.82 - 557.64)
UN/DESA	500 - 600
UNFCCC 2008 Technical Paper	262.15 - 615.65
World Bank	400 (mitigation), 75 (adaptation)

Sources: South Centre, *Developed Country Financing Initiatives Weaken the UNFCCC* (Geneva: South Centre, 2009); UN Department of Economic and Social Affairs, *World Economic and Social Survey 2009* (New York: United Nations, 2009); World Bank, "Generating the Funding Needed for Mitigation and Adaptation," in *World Development Report 2010: Development and Climate Change* (Washington, DC: World Bank, 2009).

What now after Copenhagen?

Not achieving its goals, the UN Conference decided to extend the mandate of the AWG-LCA and AWG-KP to keep the negotiations going until the next climate change Conference in Mexico (COP 16/CMP 6), with the hope of concluding with the right set of agreements there.

The emergence of the Copenhagen Accord raises important issues that relate to its possible impact on the two-track process leading to Mexico, as well as on the UNFCCC process/regime itself.

1. Does the Copenhagen Accord signal the abandonment of the Kyoto Protocol?

Although it has no legal status under the UNFCCC (a point that then-UNFCCC Executive Secretary Yvo de Boer himself clarified) the Accord is still being considered a “political agreement” between the countries or heads of government that participated in the document’s creation, including those that have associated with it after. Association with the Accord can be taken to indicate, at the very least, a country’s agreement with its principles, and at most, willingness to be bound by its provisions and the obligations they create.

As discussed above (see Part 1), the Accord modifies the existing climate change architecture and the balance of emissions obligations inscribed therein, dovetailing the North’s position of abandoning the Kyoto Protocol and its developed/developing country distinction. This means that (1) the Accord builds formal consensus around this principle beyond developed countries, and that (2) it can be made the basis of the negotiating positions of those that associate with it in any future engagement in international climate policymaking, whether outside or inside the UN.⁸

This further means that, insofar as there is resistance to the Accord and the architecture and balance of obligations it creates, concluding COP16/CMP6 with an agreement that satisfies all Parties will all the more be difficult.

2. Does Copenhagen signal a shift of decision-making for global climate action away from the multilateral UNFCCC process?

Many Western observers have criticized the cumbersome pace and dismal achievements of the UNFCCC negotiations, which they attribute to the institution’s unnecessarily large membership, as well as its inclusive and consensual decision-making rules. In practice, however, how much the talks have progressed has been effectively in the hands of the largest current emitters across the North-South divide – Western Europe, the US, and the rest of the Umbrella Group⁹ on one hand (or the “carbon legacy economies”)

and the BASIC and the rest of the emerging market economies on the other (“carbon emergent economies”) – without whose participation a climate deal would not be possible.

In Copenhagen, a decision-making process parallel to the official negotiations emerged. It involved a far smaller group of countries, was exclusive, and was no less discordant than the 193-country talks, but was able to produce something tangible. More than a document, the Copenhagen Accord represents, at least to some, an emerging alternative process for discussion and negotiation, a new North-South alliance not bound by democratic procedures or UN principles.

Copenhagen then possibly signals a trend of decisions and deals increasingly being brokered and struck outside the UNFCCC towards smaller, more manageable groups of countries, potentially changing the landscape of the global climate regime. The 17-member Major Economies Forum on Energy and Climate (MEF) and the Group of 20 (G-20) are being identified as future sites of decision-making, in conjunction with or supplanting altogether the UNFCCC.¹⁰ These two groups, whose memberships are largely co-extensive, bring together established economic powers and historical emitters on one hand, and emergent economic powers and carbon emitters on the other. Collectively, they account for some 80% global GDP, and some 80-85% of current and cumulative carbon emissions.¹¹

Bilateral climate deals are also seen as potentially acquiring greater importance in the future: North-South deals on technology cooperation in exchange for commitments to slow down emissions, bilateral REDD deals with forest-rich countries in exchange for forest carbon credits, and so on.

With major decisions on emissions reductions and finance being made by major economies in MEF or G-20 meetings, the UNFCCC may be relegated to a “poor countries’ club”, whose main purpose is to assist small and poor countries in getting their share of help for adaptation or technology transfer. Meanwhile, unbound by the CBDR principle that has polarized Parties under the UNFCCC, the biggest carbon emitters across the North-South divide could meld into what Bill McKibben calls a “league of super-polluters”. Instead of continuing to “hide behind the poor”, Southern elites in emerging economic powers could join the North in a mutually beneficial collective retreat from a multilaterally-binding Kyoto-style emissions reduction regime, and adopt a weak and patchwork emissions regime as befits their carbon-intensive and profit-centered economies.

Recommendations

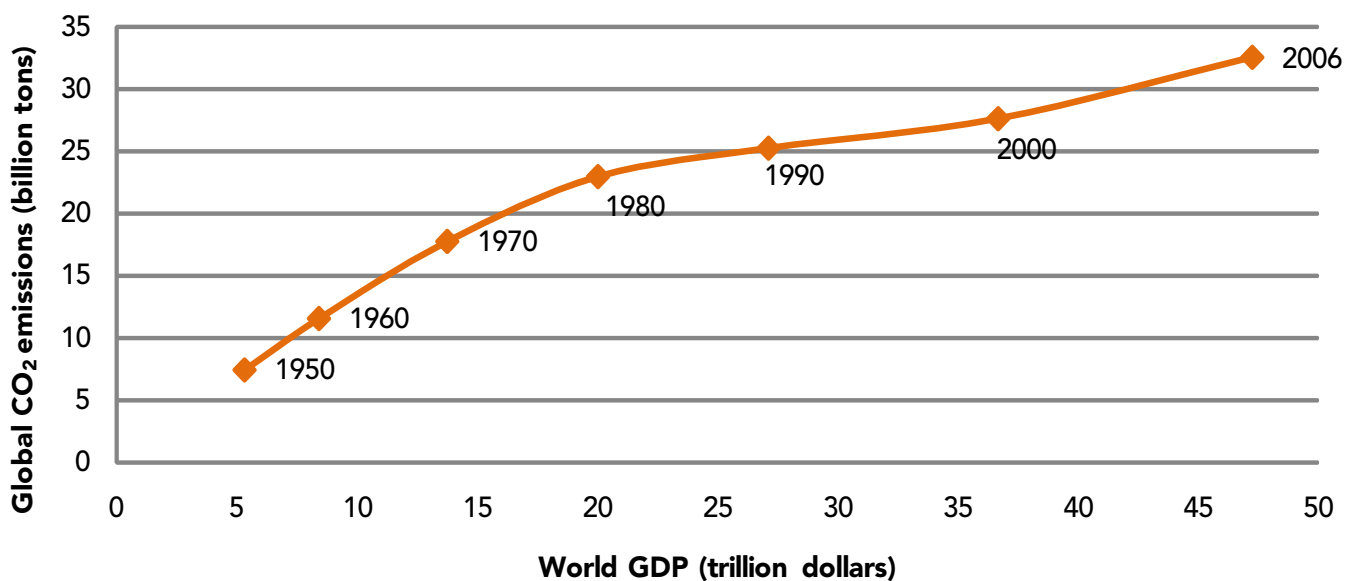
The shared attachment to the conventional profit-centered economic model by governments both of the North and the South poses an intractable political obstacle to the multilateral UNFCCC process and the pursuit of an ambitious, effective, and timely climate change agreement. This almost default commitment among governments and policymakers across the political divide trumps genuine international cooperation to confront climate change, one guided by the imperatives of science, sustainability, and justice. On the one hand, we witness Northern governments fall in line behind the United States as they move to abandon the Kyoto Protocol, and with it, the balance of obligations preserved in the CBDR principle that commits them to lead in reducing emissions. They come under the heavy influence of entrenched energy-intensive industries resisting bold measures that would hurt their profitability and competitiveness. On the other, Southern governments resist greater obligations in the face of dismal action and support from the North, pleading for equity and their right to development. But their pleas for equity are made on the basis of the dominant development model that is not only unsustainable, but has increased inequities and injustices in their own countries as well.

In the face of these developments, and despite its many problems, the multilateral process must be upheld. Today, that means the UNFCCC. The international negotiation and response to climate change must remain bound by principles of sovereign equality (and other UN principles that guarantee equality regardless of economic or political weight), uphold pro-poor development, and must foster genuine international cooperation. This process must strive for an architecture that is universal in scope, multilaterally agreed, and internationally and legally binding. An abandonment of the Kyoto Protocol would be a step back from this goal.

Nevertheless there has to be very important changes in the UNFCCC. Among them that we find important are the following:

1 The UN climate regime must deepen the agenda, from merely reducing emissions, to transitioning to an alternative model of development.

Currently, the UNFCCC's goal is limited to stabilizing atmospheric greenhouse concentrations, which it pursues by capping emissions. But this is like treating only the symptoms of a disease while the disease itself is allowed to fester. Addressing climate change demands far more than limiting emissions. Addressing climate change requires tackling the dominant, ecologically destabilizing economic model, through which the excessive dumping of emissions in the atmosphere – and other unsustainable patterns of energy and resource use – obtains. It is a model marked by the drive to profit,

Figure 1. CO₂ Emissions and GDP lock-step

Sources: Climate Analysis Indicators Tool (CAIT) Version 7.0, *Yearly Emissions, 1950-2006*; Angus Maddison, *Statistics on World Population, GDP and Per Capita GDP, 1-2008 AD, 1950-2006*.

accumulate, and expand limitlessly. It is a development model that equates human well-being with high levels of material prosperity and commodity consumption.

Limiting emissions without tackling the dominant economic growth model has failed, mainly because emissions increase in step with increased economic activity under this system. Between 1990 and 2007, global GDP more than doubled, and the value of the global trade in goods quadrupled. Accompanying this immense growth was a 30% increase in global GHG emissions, and an 11.2% increase in emissions of Annex I Parties (excluding Economies in Transition). It is quite clear that the profit system's unchecked expansion renders emissions regulation ineffective.

Therefore the global response to climate change must be principally concerned with changing the dominant model of development and transitioning to an ecologically sustainable system – one centered on improving the quality of life and ensuring the basic material and social needs of all, rather than on accumulation and overconsumption of the few.

The UNFCCC must become a climate and development convention recast to facilitate a transition to sustainability and not just emissions reductions. Such a convention should address at least three practical concerns:

First, what are the required changes in the social organization of production to ensure economic sufficiency, social equity, and ecological sustainability? The social infrastructure of industry, agriculture, energy, transportation, trade, and the whole economy must move away from privatized ownership and control towards more democratic, cooperative, and community-based forms of control and decision-making. This also entails redistribution and transformation measures involving a reallocation of the "environmental space" and productive resources within and between countries to ensure that the needs of all, especially the poor and marginalized, are met without breaching ecological limits.

Second, what are the technological and financing requirements of this transition to sustainability? Governments should promote scientific and technological development in the service of immediate and long-term social and ecological goals rather than short-term private corporate interests. Scaling down overproduction and elite overconsumption in the North while promoting sustainable development especially in the South can be facilitated by the transfer of financial and technology resources to the latter as reparations for their carbon and ecological debt to the latter. The carbon debt attributable to G-7 countries is said to be in the region of \$13-14 trillion per year in the 1990s.¹⁴ This gives an idea of the magnitude of the debt the North and elites have incurred in the course of their two-century-old model.

Third, how to uphold the right to development of poor countries in the context of climate change? While unbridled growth, reckless industrialization, and mindless consumerism drive climate change, the mass of humanity who reside in poor and underdeveloped countries still confront the dehumanizing conditions of poverty, hunger, unemployment, homelessness, lack of access to essential services, insecurity, and violence. Therefore underdeveloped countries must have the policy space, productive resources, and appropriate technologies to achieve pro-poor and ecologically sustainable development.

International development cooperation and North-to-South transfers would facilitate the long-term reorientation of Southern development away from the conventional resource-intensive growth model. This is especially important for developing countries whose economies are highly dependent on the extraction and export of minerals and natural resources, such as fossil fuels and timber, for Northern end-use. Finance and technology transfers would help these countries invest in the strategic diversification of their economies and development of their productive sectors.

Conversely, bilateral or multilateral trade and investment treaties as well as the policies, programs, and projects of international financial institutions and donors that straightjacket countries within the same growth and profit-oriented development framework must be reviewed, reinterpreted, or renegotiated to be consistent with the right to sustainable development.

Accomplishing all these would address not only the roots of the climate and ecological crises, but also maldevelopment and most social injustices within and between countries.

2 The CBDR principle's practical application must be strengthened by fixing measurable commitments and implementing more robust reporting, verification, and compliance mechanisms.

While adopting a new development paradigm is the key to sustainability, there is still the immediate need to reduce global emissions of greenhouse gasses in order to arrest global warming. For this, the Kyoto Protocol or a new emissions reduction protocol needs to be given more teeth consistent with the principle of CBDR.

■ Measurable commitments

The goal of returning CO₂ concentrations to 350ppm must be adopted. The magnitude and rate of emissions reductions should be derived from this objective. A limit on the total amount of CO₂ emitted into the atmosphere between now and 2050, expressed as a global CO₂ (or carbon) budget, must be fixed. A recent report finds that the world has 420 GtCO₂ (billion metric tons) left to emit and budget between 2010 and 2050 to remain within the 350ppm guard rail.¹⁵ To remain within budget, global emissions have to peak by 2011, reach an annual rate of decline of 10%, and then drop to zero by 2050.

The global and all national mitigation efforts should be designed to proceed within the 40 years spanning 2010 to 2050. Prominent milestones must be put in place within this 40-year period; for instance, identifying years when annual emissions should peak, halve, and stabilize to around zero. The year 1990 should be observed as the common reference year for emissions reductions by all countries.

The global carbon budget must be equitably allocated among all countries, with each budget following rates of change, timetables, and interim targets consistent with the global pathway. A method to quantify and allocate mandatory contributions to the mitigation and financing effort based on measures of responsibility, capability, equity, and development needs must be put in place.

Assigning historical responsibility must take into account not just direct cumulative emissions of various countries but also their proxy emissions. This is to correct the official CO₂ accounting framework followed by the UNFCCC which currently ascribes all GHG emissions to the country where these were generated regardless of whether the associated output produced is for local consumption or for export.¹⁶ This understates the share of the advanced industrialized countries and overstates that of some developing countries. For example, the GHG emissions of a European TNC that operates a manufacturing plant in China and exports all of its output back to the EU would be counted entirely as GHG emissions from China.

This distortion is significant especially in the light of the globalization of production of transnational corporations (TNCs). For instance, Dieter Helm, Professor of Energy Policy at Oxford University, estimates that "if this carbon outsourcing is factored back in, the UK's impressive emissions cuts over the past two decades don't look so impressive anymore. Rather than falling by over 15 % since 1990, they actually rose by around 19 %."¹⁷

Therefore within countries, emissions caps should be imposed primarily on major corporate polluters according to their historical emissions.

In terms of the required scale of financial transfers for climate change mitigation and adaptation purposes, this must be in the neighborhood of at least \$500-600 billion, which is where estimates by the G77 and China, UN/DESA, and UNFCCC converge. This must be raised according to historical obligations of countries and TNCs. A People's Climate Fund (PCF) must be established

under the UNFCCC.¹⁸ Climate funds must be democratically-controlled, and allocated according to the development, adaptation and mitigation needs especially of poor and vulnerable communities and nations.

■ Implementation, verification, and compliance

Each country should be mandated to draw up a national decarbonization plan. This plan would outline a country's strategy for managing its emissions allocation through to 2050, for meeting interim emissions targets, and, in the case of developed countries, for fulfilling finance, technology, and capacity building obligations. It should identify and provide detailed information on domestic legislation, policy measures, and actions (e.g. restructuring energy and production systems) that demonstrate how a country will decarbonize and deliver support for international climate actions.

Developed countries should provide full-cost and technical support to developing countries in preparing the latter's national plans. Developing country plans should identify actions, legislation, and policies for adaptation and mitigation, and specify financial, technology, and technical requirements necessary to implement these.

Countries should report annually on their plans' implementation. Reports should include climate related policies, GHG inventories and projections, and progress in achieving mitigation and support targets. These reports are subject to annual review and verification. This ensures that no country falls out of compliance for more than year. Early warning triggers should be set up to flag a country if demonstrated to be "off course" in meeting a mitigation or support target. Countries in imminent non-compliance should explain how they intend to return to compliance, and be subject to greater international review and verification. In the event of non-compliance, a country will face heavy financial penalties payable to a People's Climate Fund (PCF), and be required to modify its decarbonization trajectory or raise its support obligations into subsequent periods to reflect its arrears.

3 Strengthen the democratic participation of people's organizations and social movements in domestic climate policy-making and implementation. Strengthen/build science-based, democratic, and participatory national policy-and implementation processes

National climate policy making has heretofore been largely the domain of governments and policy circles who craft national climate policies and negotiating positions according to overriding conventional economic goals (growth) and influential industrial and financial interests. Policies and measures so created display an elite bias, seldom reflecting scientific imperatives for drastic action or popular demands for systemic changes. There is then a pressing need to make policy and implementation processes more science-based, democratic, and participatory.

Each country should be mandated to designate or establish, and multi-stakeholder national climate committee (NCC). Its task is to formulate a country's official climate policy, and draw up and oversee the implementation

of the national decarbonization plan (integrated with alternative development strategies, i.e. degrowth strategies for developed countries and sustainable development strategies for developing countries). The NCC should represent all relevant stakeholders, but especially marginalized sectors, communities, and grassroots organizations. It can receive financial resources from the People's Climate Fund, which communities and organizations can directly apply for. The NCC is responsible for making inclusive, bottom-up, and participatory annual internal/domestic reviews of its plans to track progress and evaluate implementation against goals. It is also responsible for mass information campaigns to inform people about national decarbonization and climate efforts, and encourage their active participation in them. An auxiliary body of scientific and technical experts will provide the NCC with timely information and advice on scientific and technological concerns to make sure policies are rooted in sound science.

The top-down and uncritical imposition of technical and scientific solutions to local populations, however, must be avoided. Local communities especially in the South have over time evolved knowledge and practices that are ecologically sustainable and climate-resilient. It is important to build on local know-how from different sectors and incorporate them into the body of science that informs policy-making. Community-led and context-appropriate programs also stand a better chance of producing positive and lasting outcomes. It is therefore crucial to develop the capacity of citizens, communities, and people's organizations to engage in local and national decision-making and implementation of climate-related programs through bottom-up planning approaches and the targeted provision of support. For instance, as much as 15% of PCF-allocated national funds can be earmarked for enabling community actions and capacity development.

ENDNOTES

1 Fifteenth session of the Conference of the Parties to the UNFCCC (COP 15) and fifth session of the Conference of the Parties serving as the Meeting of the Parties to the Kyoto Protocol (CMP 5).

2 The UNFCCC lists 41 Annex I Parties. These are industrialized countries that have historically contributed the most to causing climate change. They include (1) all members of the Organization for Economic Cooperation and Development (OECD) in 1992, the year the UNFCCC was created; and (2) former socialist republics transitioning to market capitalism (referred to as Economies in Transition or EITs – including Russia, and several Central and Eastern European countries).

3 Martin Khor, "Copenhagen: The Way Forward," *South Bulletin*, no. 43, 8 February 2010, 1.

4 In her intervention in the final plenary of the summit, Grenadian diplomat Dessima Williams said some 20-30 countries took part in this process. Some of them are: the US, United Kingdom, Germany, France, Spain, Sweden, Denmark, Norway, Russia, South Korea, Mexico, China, India, Brazil, South Africa, Colombia, Maldives, Grenada, Lesotho, Bangladesh, Algeria, and Ethiopia.

5 Paul Baer, Thom Athanasiou, and Sivan Kartha, "A 350 ppm Emergency Pathway" (Greenhouse Development Rights brief), 4, available from <http://gdrights.org/wp-content/uploads/2009/11/a-350-ppm-emergency-pathway-v2.pdf> (accessed 5 February 2010).

6 Maggie Zhou, "Path to Below 350 ppm," available from <http://www.securegreenfuture.org/content/path-below-350-ppm> (accessed 28 January 2010).

7 Kelly Levin and Rob Bradley, "Comparability of Annex I Emission Reduction Pledges," WRI Working Paper (World Resources Institute, Washington, DC: 2009), 2, available from <http://www.wri.org>; Sustainability Institute, "Copenhagen Accord Pledges Do Not Meet Climate Goals," press release, 4 February 2010, 1, available from <http://climateinteractive.org/scoreboard/press/copenhagen-cop15>

analysis-and-press-releases/Copenhagen%20Accord%20Submissions%20Press%20Release%204%20February%202010.pdf/view (accessed 5 February 2010); Martin Khor, "Copenhagen Accord Yields Poor Results in Mitigation Pledges," available from http://www.southcentre.org/index.php?option=com_content&task=view&id=1234&Itemid=287 (accessed 1 March 2010).

8 South Centre, "Comments on the Copenhagen Accord," informal note no. 52, available from http://www.southcentre.org/index.php?option=com_content&view=article&id=1216:comments-on-the-copenhagen-accord&catid=129:climate-change-&Itemid=67&lang=en (accessed 30 January 2010).

9 The Umbrella Group is a bloc of non-EU developed countries, usually made up of Australia, Canada, Iceland, Japan, New Zealand, Norway, Russia, and the US. They are described as laggards due to their strong advocacy of flexibility, the use of sinks, and weak international enforcement.

10 The MEF is a process started by the US Bush administration in 2007, under the name Major Emitter Meetings (MEM). The Obama government continued the process and relaunched it as the MEF in March 2009. The MEF consists of the US, Japan, Canada, Australia, the EU, Germany, France, UK, Italy, Russia, South Korea, China, India, Indonesia, Brazil, Mexico, and South Africa. The G-20, created in 1999, was announced in 2009 to replace the Group of Eight (G-8) industrialized countries as the preeminent forum among major economies for global economic and financial issues. It includes all MEF countries, plus Argentina, Saudi Arabia, and Turkey.

11 MEF countries account for 80.3% of world GDP in 2008, 81.5% of annual CO₂ emissions in 2006, and 84.2% of cumulative CO₂ emissions from 1906 to 2006. The extra three countries that make the MEF the G-20 raise these numbers to 83.3%, 84.2%, and 87.2%, respectively. World Economic Outlook (WEO) database, *Gross domestic product based on purchasing-power-parity (PPP) valuation of country GDP, 2008* (International Monetary Fund, October 2009) available from <http://www.imf.org/external/pubs/ft/weo/2009/02/weodata/index.aspx> (accessed 1 March 2010); CAIT version 7.0, *Yearly Emissions, 2006 and Cumulative Emissions, 1906-2006*.

12 WEO database, *Gross domestic product based on purchasing-power-parity (PPP) valuation of country GDP, 1990-2007*; World Trade Organization statistics database, *Total merchandise trade (imports and exports) 1990-2007* (World Trade Organization, n.d.), available from <http://stat.wto.org/StatisticalProgram/WSDBStatProgramHome.aspx?Language=E> (accessed 24 February 2010).

13 CAIT version 7.0, *Yearly Emissions, 1990-2007*; UNFCCC Subsidiary Body for Implementation, *National greenhouse gas inventory data for the period 1990-2007* (FCCC/SBI/2009/12), 21 October 2009, available from http://unfccc.int/documentation/documents/advanced_search/items/3594.php?rec=j&preref=600005460#beg (accessed 6 January 2010).

14 Andrew Simms, "Who owes who? Ecological debt: the biggest debt of all," October 2001, available from http://www.jubileeresearch.org/ecological_debt/Articles/Ecologist_climate_debt.htm (accessed 17 March 2010).

15 Baer, Athanasiou, and Kartha, *A 350 ppm emergency pathway*, 4.

16 This is also the accounting framework of CAIT version 7.0.

17 Dieter Helm, "Sins of Emission," *Wall Street Journal*, 13 March 2008.

18 IBON International, "Proposals for a People's Climate Fund," *The World Bank and Climate Change Finance* (Quezon City: IBON International, 2009), 9.