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böll THEMA

CLIMATE CHANGE AND JUSTICE

ON THE ROAD TO COPENHAGEN

SPECIAL TIPS

Publications on Ecology

Climate Change Violates Human Rights. By Theodor Rathgeber. Published by the Heinrich Böll Foundation. Berlin, November 2009, 40 pages. Download at www.boell.de/publications

Toward a Transatlantic Green New Deal: Tackling the Climate and Economic Crisis. Prepared by Hilary French, Michael Renner and Gary Gardner (Worldwatch Institute) for the Heinrich Böll Foundation. Published by the Heinrich Böll Foundation Brussels 2009, 36 pages.
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Climate and Trade – Why Climate Change Calls for Fundamental Reforms in World Trade Policies. A Study by Tilman Santarius. Published by the Heinrich Böll Foundation and Forum Environment & Development. Berlin 2009, 46 pages.
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Gender and Climate Finance: Double Mainstreaming for Sustainable Development. By Liane Schalatek. Published by the Heinrich Böll Foundation North America, May 2009, 30 pages.
Download at www.boell.org

Greening the European Neighbourhood Policy. A Handbook to Assess Implementation of the Action Plans in the Field of the Environment. Published by WWF-World Wide Fund for Nature (formerly World Wildlife Fund) and Heinrich Böll Stiftung EU Regional Office Brussels. Brussels 2009, 80 pages. Download at www.boell.eu

Toward a New Climate Network: Transatlantic Solutions for a Low Carbon Economy. Final report of the Transatlantic Climate Policy Group. Washington 2009, 51 pages. Download at www.boell.org

Large Scale Hydropower, Renewable Energy and Adaptation to Climate Change: Climate Change and Energy Security in East and Horn of Africa. Published by the Heinrich Böll Foundation and AFREPREN/FWD. Nairobi 2009, 104 pages.
Download at www.hbfha.com

Contested Waterscapes in the Mekong Region – Hydropower, Livelihoods and Governance. Edited by François Molle, Tira Foran and Mira Käkönen. London, April 2009. Supported by Heinrich Böll Foundation Southeast Asia. ISBN 9781844077076

Concepts

The Greenhouse Development Rights Framework: The Right to Development in a Climate Constrained World. A report by Paul Baer, Tom Athanasiou, Sivan Kartha and Eric Kemp-Benedict. Published by the Heinrich Böll Foundation, Christian Aid, EcoEquity and the Stockholm Environment Institute. Revised second edition!
Berlin, November 2008, 112 pages, photos.

ERENE: European Community for Renewable Energy. A feasibility study by Michaele Schreyer and Lutz Mez. Edited by the Heinrich Böll Foundation. Berlin, November 2008, 94 pages.

Fairness in Global Climate Change Finance. Policy paper by Andrew Pendleton and Simon Retallack. Edited by Institute for Public Policy Research and supported by the Heinrich Böll Foundation, London 2009, 34 pages.

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Dossier at www.boell.de

COP 15: On the road to Copenhagen
At the UN climate conference in Copenhagen from December 7 to 18, a new global climate agreement must be reached as an important step toward a new global climate governance under the UN. With this web dossier the Heinrich Böll Foundation provides its latest international publications and a wider range of background information on the ongoing UN climate negotiations "On the Road to Copenhagen."

Blogs and Websites

www.klima-der-gerechtigkeit.de/en
The blog offers sources for background information and current commentary on national as well as international climate policy decisions.

www.climatefundsupdate.org
Climate Funds Update provides information on the growing number of international funding initiatives designed to help developing countries address the challenges of climate change. The funds will be tracked over the next crucial year in the lead-up to the UNFCCC Conference of the Parties (COP) meeting in Copenhagen. Sponsored by the Heinrich Böll Foundation and ODI.

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Green New Deal

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CLIMATE AND JUSTICE

Photo: Bettina Keller

Copenhagen must lead to a breakthrough. That is the consensus of NGOs around the world as they prepare to put pressure on policymakers and delegates of the UN climate conference in preparation for and during the conference itself. Some will be working with climate diplomacy in the conference rooms, others with action and protests. As different as their strategies may be, their goal is the same.

Reputable scientists and governments no longer question the existence of climate change and its consequences. Its effects around the globe are already too obvious. The observation by Dirk Messner of the German Development Institute (DIE) in this journal's interview can almost pass for conventional wisdom today: "If we do not reach the global turning point with regard to greenhouse gas emissions by 2015 to 2020, the efforts needed to curb them will become so daunting that we will hardly succeed in maintaining the 2°C limit."

In the face of so much agreement, why is the leap from understanding to taking action so difficult? It is because most industrialized countries have failed to pursue the mitigation of their CO_2 output with enough vigor since Kyoto. Because the fossil-fuel lobby still has too much influence over policymakers. Because climate change and its consequences became apparent just when the countries of the global South saw their first glimmer of hope of escaping poverty. Those countries are now insisting that it is their turn to enjoy the blessings of modern industrial societies.

Justice has become a key consideration in climate negotiations. It is not only a topic of discussion between North and South, but also within the European Union as the new members of the EU demand corrective justice – after all, they have already had their fill of deprivations in the past.

What is just? How fair is fair enough? In this issue of Böll.Thema, we compare two concepts – the Greenhouse Development Rights and the Per Capita Approach – that link the worldwide battle against global warming with the alleviation of economic injustice. These concepts raise not only questions of ethics, but also of feasibility and enforceability.

The industrial countries bear double responsibility: not only do they need to take reducing their own CO_2 emissions seriously, they are also called upon for the substantial financial and technological transfers needed to put developing and newly industrialized countries onto low-carbon development paths. Programs for adapting to the effects of climate change are also overdue. The choice of institutions to manage the requisite transfer of funds from North to South and the mechanisms needed to ensure that emissions trading does in fact lead to sustainable measures in developing countries are currently the subject of hot debate. This issue of Böll. Thema is a contribution to that discussion.

Attention is only gradually turning to political systems and institutions and their ability to respond to the challenges of climate change. We therefore explore the ways in which climate change and the promotion of democracy can help or hinder one another.

We also address a largely neglected issue: Do the effects of global warming impact women and men differently? Do women and men respond differently to the effects of climate change? And shouldn't the measures to adapt to climate change therefore make distinctions according to gender?

According to projections, establishing a low-carbon economy worldwide would require annual investments of $500 billion to $1 trillion over the coming decades. That may be a vast sum, but the cost of remaining inactive would be much higher. The transition to a world economy no longer based on fossil fuels will also create new jobs and services. And on closer inspection, many things are already happening in the South – in Costa Rica, South Korea, China, and even Rwanda. We have compiled a brief dossier on the forerunners in the South.

Decisions affecting new rules for the world economy will be made in the near future in a wide range of international forums, such as the next G20 summits. Copenhagen is set to be a milestone in international climate policy. The rules for fairness will be established there and the course set for a low-carbon world economy. We want to make our contribution toward those goals.

Barbara Unmüßig
President, Heinrich Böll Foundation

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www.boell.de

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"WE WANT TO FOUND A MOVEMENT THAT GOES BEYOND COPENHAGEN"

A BRIEF DOSSIER, COMPILED BY CONSTANZE WEISKE

International NGOs on their way to the 15th United Nations Climate Change Conference

350.org

The core team of this US youth organization is made up of 18 young people worldwide that mainly organize creative actions. The name 350.org refers to the goal of reducing atmospheric CO_2 levels to less than 350 ppm.

1. **What does climate justice mean to your organization?** Our mission is to inspire the world to rise to the challenge of the climate crisis – to create a new sense of urgency and of possibility for our planet. What that boils down to is basic human rights – rights to water downstream from the Himalayas where the glaciers are now disappearing, rights to food where the Sahara is expanding and ruining cropland, rights to national survival where entire island nations are now making evacuation plans.
2. **What are your goals for Copenhagen?** To make sure that every political body entering those negotiations understands the mandate from people across the world to create a binding global treaty in line with the science. To use the opportunity to knit together the global movement that will be there to respond if Copenhagen fails to steer us toward safety. We need a global movement to respond to a global political process, and that it is important work regardless of what deal is made.
3. **Do you have specific actions planned for Copenhagen?** Our plans for 350.org actually come ahead of Copenhagen on October 24th – United Nations Day. We want to send delegations off with the strongest possible message that people in every corner of the world – every city, every park, every mountaintop, every ocean beach – is telling them to cut a deal that meets the science.

EcoEquity

A commission of experts for environmental economics, justice, energy, and resources based in Berkeley, California.

1. Climate justice means a global emergency climate transition that is fair enough to actually work. One that lifts up the poor at the same time that it drives extremely rapid decarbonization. In practice, this means that the global rich have to pay.
2. Our goals are a decisive breakthrough, one that unlocks the process. In practice, we believe that this will only be possible if the Annex 1 countries put a substantial finance and technology package onto the table.
3. A new study. Continued education campaigns within the climate movement and outside of it.

Aprodev

An umbrella organization founded in 1990 consisting of 19 European groups with a Christian background (Brot für die Welt and church organizations in the German federal states). Its focus is on development aid policy.

1. Climate justice means agreeing on a climate regime that can rapidly reduce global emissions and prevent dangerous climate change, whilst respecting the right of poor countries to development.
2. Commitments by richer countries to provide adequate and predictable public finance for climate actions in developing countries; significantly upscaled technology cooperation and increased support to help developing countries deal with the adverse effects of climate change (adaptation).
3. In the run-up to Copenhagen, Aprodev is actively lobbying for an ambitious EU position in the UNFCCC negotiations.

IndyACT

The League of Independent Activists is a worldwide alliance that was founded in Lebanon in 2006. IndyACT also includes IndyWomen, an action group of Lebanese women campaigning for equal rights.

1. Climate justice means taking ambitious, strong, and urgent actions in all countries.
2. IndyACT's goal is to make sure that Arab countries support a strong and just deal in Copenhagen, and that oil-exporting states like Saudi Arabia do not obstruct, delay, and weaken the negotiations as they did in the Kyoto Protocol.
3. We are conducting several workshops for youth, media, NGOs, government agencies, and academics on climate policy and the negotiation process. We are also conducting a public campaign to raise the urgency of climate change, and to push our leaders to strongly and positively engage the negotiation process.

Glossary

[1] **350 ppm** (parts per million)**:** The level of carbon dioxide in the atmosphere at which the effects of climate change are still considered to be manageable. We are currently at 389.42 ppm.
[2] **Mitigation:** Reducing greenhouse gas emissions.
[3] **Adaptation:** Adjusting to the effects of climate change.
[4] **UNFCCC:** United Nations Framework Convention on Climate Change.

TNC Europe

The Nature Conservancy was founded in 1951 in Arlington, Virginia, as a traditional environmental NGO. The organization has more than a million members in all 50 US states and is active worldwide. Its primary focus is on protecting forests and biodiversity, as well as maritime ecosystems.

1. Climate justice means helping the poorest developing countries adapt to the inevitable consequences of climate change. This is not just a matter of ensuring adequate resources for international funds that could, for example, benefit island countries in danger of being submerged. We want to link climate adaptation with sustainable development instead of relying exclusively on technological adaptation.
2. TNC advocates a climate protection agreement that is binding under international law to keep the worldwide temperature increase below 2°C. As this will not be possible without rain-forest conservation, we must ensure that the protection and sustainable use of tropical forests is more attractive to the business communities in developing countries than investments in soybean and oil palm plantations or cattle farming. In addition to a massive increase in public funding for the protection of tropical forests, we propose successively integrating forest protection into the worldwide carbon market.
3. Together with our partners around the world, we want to present major regional climate adaptation projects to demonstrate that the protection of sound ecosystems in endangered regions contributes to sustainable socioeconomic development.

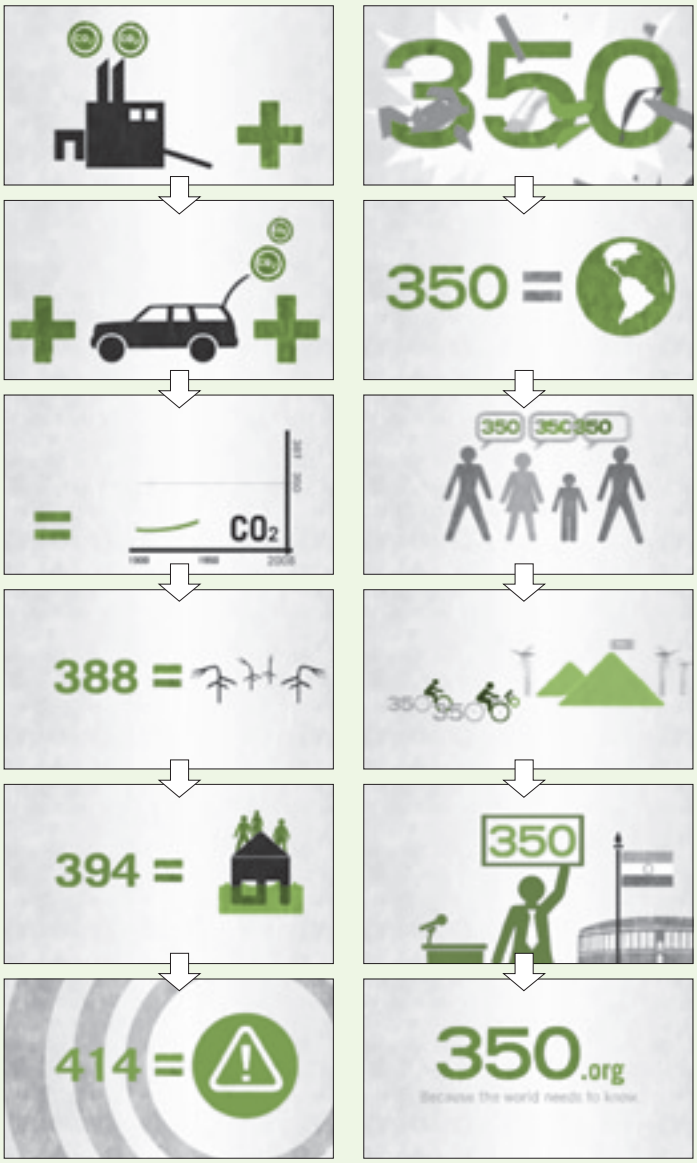
Friends of the Earth

The world's largest grassroots network was founded in Amsterdam and currently has over two million members in 77 countries.

1. In order to obtain climate justice, we first need to ensure that: UN climate agreements do not end up promoting the interests of big business.
2. A strong and just outcome in Copenhagen would mean that wealthy industrialized countries (as listed in Annex I) would have to commit to:
   - cutting their emissions by at least 40 percent on 1990 levels by 2020 through domestic actions alone (i.e., with no offsetting).
   - appropriate financial transfers for adaptation and mitigation to the developing world that are managed by the UNFCCC and not the World Bank.
   - ensuring that forests are not included in carbon markets, and deforestation mechanisms must exclude plantations and support land rights.
3. We will have a team of lobbyists inside the negotiation halls for the duration of the COP and in particular focus on eliminating all forms of offsetting from the international climate agreement. We will also continue to support the Bolivian government's progressive stance on repayment of the climate debt and urge other nations to join this initiative. We will organize a mass street mobilization on December 12 called the Flood for Climate Justice and are aiming to get thousands of people into the streets of Copenhagen. We will continue to participate in Climate Justice Now! and other progressive networks to build and strengthen the global climate justice movement beyond Copenhagen.

"THE ATMOSPHERE'S CO_2 LEVEL MUST BE BROUGHT BACK UNDER 350 PPM!"

350.org is planning a central day of action on October 24th – United Nation's Days. Mountaineers will be taking 350 banners up the Alps, while 350 scuba divers descend to the Great Barrier Reef. Cycling teams will be riding 350 kilometers to spread the word. "Our mission is to create a global movement by making so much noise that we can no longer be ignored. Why October 24th? Because that still leaves us a narrow window of time to exert pressure in the run-up to Copenhagen."



VIDEO STILLS FROM THE WEBSITE WWW.350.ORG/DE

ON THE AGENDA IN COPENHAGEN

BY LILI FUHR AND TILMAN SANTARIUS
HEINRICH BÖLL FOUNDATION

Climate negotiations have long since outgrown their role as pure environmental conferences. They have evolved into forums for determining the rules of fairness in world society. It is no coincidence that nearly all parties now emphasize the need for a "fair deal" and for "distributing the burden justly." The following is an overview of the current UN climate negotiations and their various topics with a special focus on justice.

ADAPTATION: PREPARING FOR THE INEVITABLE

It has long been clear that even highly ambitious climate protection goals will not be able to prevent all of the consequences of global warming. The adverse effects are already profound in developing countries in particular, with the most vulnerable groups such as women, the poor, and small farmers being hit the hardest. Without a focus on adaptation, climate policy can never be fair. While specific proposals have been made for adaptation measures in a Copenhagen Agreement and projections of the financing requirements are available, negotiations are nonetheless dragging on slowly.

Where are questions of justice especially relevant? It will not be possible to adapt to some of the consequences of global warming, such as the submergence of low-lying islands. Monetary compensation is essential in such cases. The largest emitter countries are avoiding that question, however.

A closely related issue is the financing of adaptation measures. Unlike development aid, this is not a matter of charity, but one of compensation. The funds must not be provided in the form of loans under any circumstances, and they must be seen as distinct from existing pledges of public development aid.

Who should receive this funding? And is this merely a question of the most vulnerable states, as represented by the governments taking part in the UN negotiations? How can endangered groups within those states be guaranteed access? And how will it be possible to insure against catastrophic climate-related damage?

A new climate agreement will not go into effect until 2013, yet the damage is already severe. The poorest developing countries have drawn up national action programs, but not even those urgent measures – which would cost only around $2 billion worldwide – have been financed.

MITIGATION: THE NORTH MUST CONTINUE TO LEAD

The industrialized countries must take the lead when it comes to ambitious emissions mitigation targets. They are responsible for the bulk of the greenhouse gasses in the atmosphere and remain the leaders in current per-capita emissions. The measures proposed to date are nowhere near enough to prevent dangerous climate change, however. Insufficient action on the part of industrialized countries will require more effort by developing countries – otherwise, the effects will be more pronounced and affect the poor most severely. Deep cuts in emissions on the part of industrialized countries are thus a fundamental condition for international justice.

How industrialized countries distribute their respective mitigation requirements among one another and how they ensure that poorer groups within their own countries do not bear an undue burden is also a question of justice. Is the United States, for example, currently doing enough? Since the end of the Bush era, we have witnessed a quantum leap in US climate policy. Nevertheless, it falls short from the perspective of limiting the global temperature increase to 2°C as a climate protection goal.

From a North-South perspective, the share of mitigation requirements borne within industrialized countries vis-à-vis that which they

can claim by financing international climate protection measures in developing and newly industrialized countries is also important. Considerable demand exists for this kind of North-South transfer. However, it must represent an additional obligation on the part of industrialized countries, not a selling of indulgences that would postpone the urgently-needed turnaround of energy policy in the North.

MITIGATION: HOW MUCH CAN BE EXPECTED OF THE SOUTH?

While the industrialized countries are called upon to take the lead, developing and newly industrialized countries can no longer sit back and do nothing. All countries must work to protect the climate, regardless of how poor they are – not only for the common good, but above all in their own best interests. Many climate protection measures are perfectly compatible with poverty mitigation – examples include solar cookers to eliminate the use of wood as fuel or the expansion of public transport to provide universal mobility. It remains clear that it is too early to expect commitments from most developing countries in Copenhagen. They should, however, also develop plans for implementing climate protection measures. On the basis of those plans, they can then request funding from the North to realize measures entailing additional costs.

The situation is different for newly industrialized countries. A number of them – such as South Korea, Saudi Arabia, and Singapore – should no longer be regarded as members of that group; in terms of per-capita income and emissions, they are now full-fledged industrialized countries. But even newly industrialized countries in which poverty is still widespread must commit to active climate protection policies in Copenhagen. A global consumer class has evolved in China, Mexico, Brazil, South Africa, and other newly industrialized countries that not only has the resources to significantly reduce its output of greenhouse gasses, but which must also take responsibility for its emissions.

The United States would like to see mitigation obligations imposed on those countries in absolute terms in Copenhagen. Yet the US is in no position to make such demands after failing to take action of its own in response to Rio and Kyoto. A mandatory cap for future emissions would be a conceivable solution for newly industrialized countries, however. Another option would be relative goals, linking emissions mitigation to a country's gross domestic product. China has already committed itself to such a goal. Newly industrialized countries could also commit to introducing a set of effective climate protection instruments such as eco-taxes, efficiency standards, emissions trading, and legislation on generating renewable energy.

CLEAN DEVELOPMENT MECHANISM: FAIRNESS ON THE CARBON MARKET

The Clean Development Mechanism (CDM) serves two major goals. Firstly, it is designed to grant Northern countries flexibility in meeting their emissions mitigation obligations – thanks to CDM, they can transfer them to countries of the South. Secondly, CDM is intended to finance a path toward sustainable development for the countries of the South through concrete projects and organize the transfer of climate-friendly technologies. In practice, however, CDM has shown significant shortcomings over the past 12 years. Above all, its ecological integrity has been the subject of criticism. An increasing number of scientific studies have shown that many CDM projects do not actually result in a net reduction of emissions. Does CDM even contribute to the sustainable development of Southern countries?

With regard to fairness, further deficits must be highlighted. Firstly, the regional distribution of CDM projects is extremely uneven. Around 80 percent of all projects are carried out in only five countries: China, India, Brazil, Mexico, and Malaysia. Most developing countries do not benefit. Secondly, CDM does not offer technology transfer incentives as was hoped; most projects do not even state that goal in their descriptions. It is therefore not surprising that CDM is up for consideration in the current negotiations.

Proposals range from CDM's complete abolition to fundamental reforms. With regard to the latter, various options are in discussion. These include the expansion of CDM from individual projects to entire sectors of the economy such as cement or steel (sectoral CDM). A further possibility would be the introduction of policies and measures at the national level (policy CDM). Such proposals focus primarily on developing new potentials for mitigation in the South, however. They appear unsuitable for achieving a more just distribution of private financial resources throughout the countries of the South and improving technology transfer via the carbon market. Direct financing of tropical forest protection would be especially problematic due to the tremendous mitigation potential that would be available at very low cost. That would in turn reduce the incentive to bring about fundamental changes in energy consumption in the industry and transport sectors.

FINANCING: WHO FOOTS THE BILL? AND WHO GETS THE FUNDS?

Mitigation, adaptation, and technological partnerships come at considerable cost. A global climate protection agreement will not be possible without a massive financial transfer from North to South. At its core, this is also a question of distributing burdens fairly: Which country should bear which share of the global costs? Estimating such costs is extremely difficult. The industrialized countries have undertaken to bear the full incremental costs – the additional cost over less expensive but less environmentally-sound investments – of all climate protection measures in developing countries. Should the countries primarily responsible pay the greatest share because they bear the most blame historically? Or should rich countries pay more than poor ones because they currently have the greatest financial resources?

Questions of fairness also arise when distributing those financial resources. Which country shall receive how much? The answers are not clear. Should China, Mexico, and Brazil receive funding because they have the greatest potential for mitigation and the money would thus be used most effectively for climate protection? Or should China receive little or nothing, because it is capable of making the transition without outside assistance? In that case, poorer developing countries and the least-developed countries (LDCs) would be entitled to the greatest share. A further problematic point is that the current discussion of financing climate-related measures generally ignores gender issues. Women receive little consideration in the development of modern financing mechanisms, even though it is common knowledge that they frequently have poorer access to markets and capital in developing countries than their male counterparts.

INSTITUTIONS: NEW WINE IN OLD SKINS?

Assistance in adapting, support for mitigation activities, reform of the carbon market, large-scale technology transfer – one way or another, climate negotiations will lead to increased international cooperation in the political and business arenas. But which institutions should organize that cooperation? Many of the proposals that

have been made by countries participating in the current negotiations involve establishing new institutions. Developing countries are arguing in favor of a new executive body to govern technology transfer, while the EU would like to see a central authority set up to monitor developing countries' national climate protection plans. A conflict has also flared up over which institution(s) should manage the more than €100 billion that may be transferred annually in the future. Many developing countries demand that a new, independent institution be established in which the North and South are equally represented – one that does not merely protect the interests of the donor countries. Most industrialized countries would prefer an expanded and reformed World Bank that would apply its decades of experience to the effective management of such vast sums. The discussion often neglects the most gravely affected communities and private businesses that should have access to the funds with a minimum of red tape and according to a fair distribution plan.

REPRESENTATION AND A SHARE IN DECISIONS: COMPLEXITY VS. DEMOCRACY

As the date of the Copenhagen climate conference looms closer, the negotiations themselves appear increasingly complex and involved. Various workgroups frequently hold parallel negotiations over complex technical details while the major political issues are decided elsewhere. That poses severe challenges for delegations from poorer developing countries. They often consist only of a small group of negotiators who rely on external sources for expertise. They often lack the backing of their respective governments, which fail to recognize what is at stake. Practical knowledge is rare. The small delegations are very limited in their ability to take part in the marathon of meetings and thus have little influence over its outcome – an unpleasant circumstance familiar to many negotiators from the WTO. The problem is aggravated by the fact that precisely those countries are not represented in the committees and forums in which major political decisions are made – not in the G8 or G20, nor in the Major Economies Forum of the 17 most important emitter states established by George W. Bush and continued by Barack Obama. As the cost and complexity of the negotiation process increases, the conflict between climate protection and democracy becomes more pronounced. And if even the governments of the South can no longer handle the flood of topics and meetings, how can those directly affected by climate change and civil society find an appropriate voice?

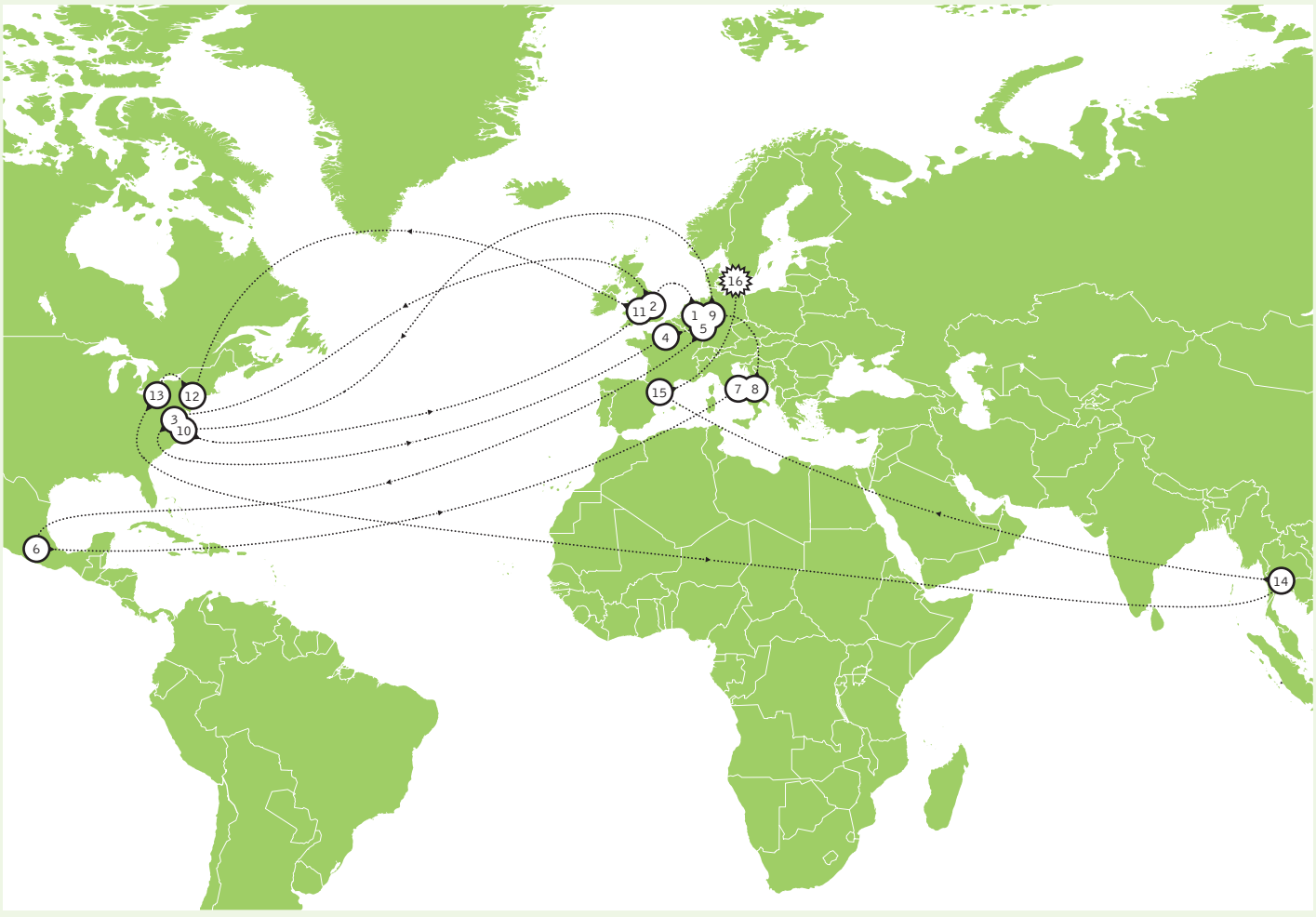
"As everybody knows, the nature has gone into bad shape. It must be renovated!" writes Ilkka Halso. The Finnish photo artist detaches objects in nature from their everyday context, using scaffolding and artificial light to enclose trees, boulders, cliffs, and meadows, rather than buildings and other human artifacts. Halso thus brings a sense of irony to illuminating the relationship between humans and nature, and how their roles have been reversed. Today it is nature – or what remains of it – that needs to be protected, repaired, and carefully illuminated so that it gleams like a collection of precious gems. Staged nature, poisoned romanticism.

"Untitled (2)" of the *Restoration* series (2000)

A MARATHON
THE INTERNATIONAL CLIMATE CALENDAR 2009

1	March 31 – April 8	**UNFCCC Climate Negotiations**	Bonn
2	April 2	**G20 Meeting**	London
3	April 27–28	**Major Economies Forum**	Washington DC
4	May 25–26	**Major Economies Forum**	Paris
5	June 1–12	**UNFCCC Climate Negotiations**	Bonn
6	June 22–23	**Major Economies Forum**	Mexico City
7	July 8–10	**G8 Summit**	L'Aquila
8	July 11	**Major Economies Forum**	L'Aquila

9	August 10–14	**UNFCCC Climate Negotiations**	Bonn
10	September 17–18	**Major Economies Forum**	Washington DC
11	September 21–22	**11th Renewable Energy Finance Forum**	London
12	September 22–23	**UN General Assembly**	New York
13	September 24–25	**G20 Meeting: Heads of State**	Pittsburgh
14	September 28 – October 9	**UNFCCC Climate Negotiations**	Bangkok
15	November 2–6	**UNFCCC Climate Negotiations**	Barcelona
16	December 7–18	**COP–15**	Copenhagen



Map: blotto/The PEW Environment Group

HOTSPOTS EVERYWHERE

BY MARC ENGELHARDT

Two years ago, the filmmaker investigated the effects of climate change on Africa and its inhabitants in his documentary "Hotspots". He has now revisited the locations of his film.

In 2007, I traveled through Africa together with my camerawoman Leila Knüppel. Our objective was to find out whether climate change was already making itself felt. That was before the Bali summit, and there was a sense of hope in the air at the time. Several industrialized countries had declared that they would take the positions of poorer countries more seriously than they had in the past. The objective of our documentary, which was commissioned by the Heinrich Böll Foundation, was to rouse the delegates and spur Africa's civil societies to put pressure on their governments, which often sat through the negotiations in silence. We all know what came then: delays, deferrals, and the fear of not reaching a deal in Copenhagen.

Not much remains of that once-palpable hope. Drought is threatening the Ethiopian highlands, where our journey once began. "We used to have a regular wet season," the farmer Ato Mulualem Birhane told us in 2007. "But for the last few years, it might come or it might not, and then it would either rain too heavily or at the wrong time." The rains have been failing throughout eastern Africa. Whenever rain would fall, it would be too little or too late. "Farmers used to have their own traditional knowledge about rainfall and the climate surrounding them," notes Negusu Aklilu of the Ethiopian Forum for Environment, who still uses our film in his work today. "But now, things happen that are beyond their traditional knowledge, and they can no longer predict rainfall patterns."

The results are devastating. The United Nations Development Program (UNDP) warned that droughts and other consequences of climate change are responsible for the once-again increasing number of malnourished children in Ethiopia. One out of three children that experience a drought before they reach the age of five suffer from malnutrition.

Families living in southern Ethiopia are especially hard-hit. There, where the pastoral Omo and Oromia drive their herds across the plains since time immemorial, scientists are noting an increase of often-fatal bovine diseases. "Among other things, we are observing new skin diseases that we haven't even been able to identify and which are becoming more prevalent during drought periods," explains Amsalu Aklilu of the Forum for Social Studies, which performed the study together with Cordaid. Ticks and other parasites are apparently becoming more widespread due to the increasing temperatures. Even camels – animals previously considered to be drought-resistant – are affected. The consequence is poverty for a population for whom livestock is the only form of security.

THE INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE (IPCC) PREDICTS THAT AFRICA WILL BE THE CONTINENT MOST SEVERELY AFFECTED BY GLOBAL WARMING.

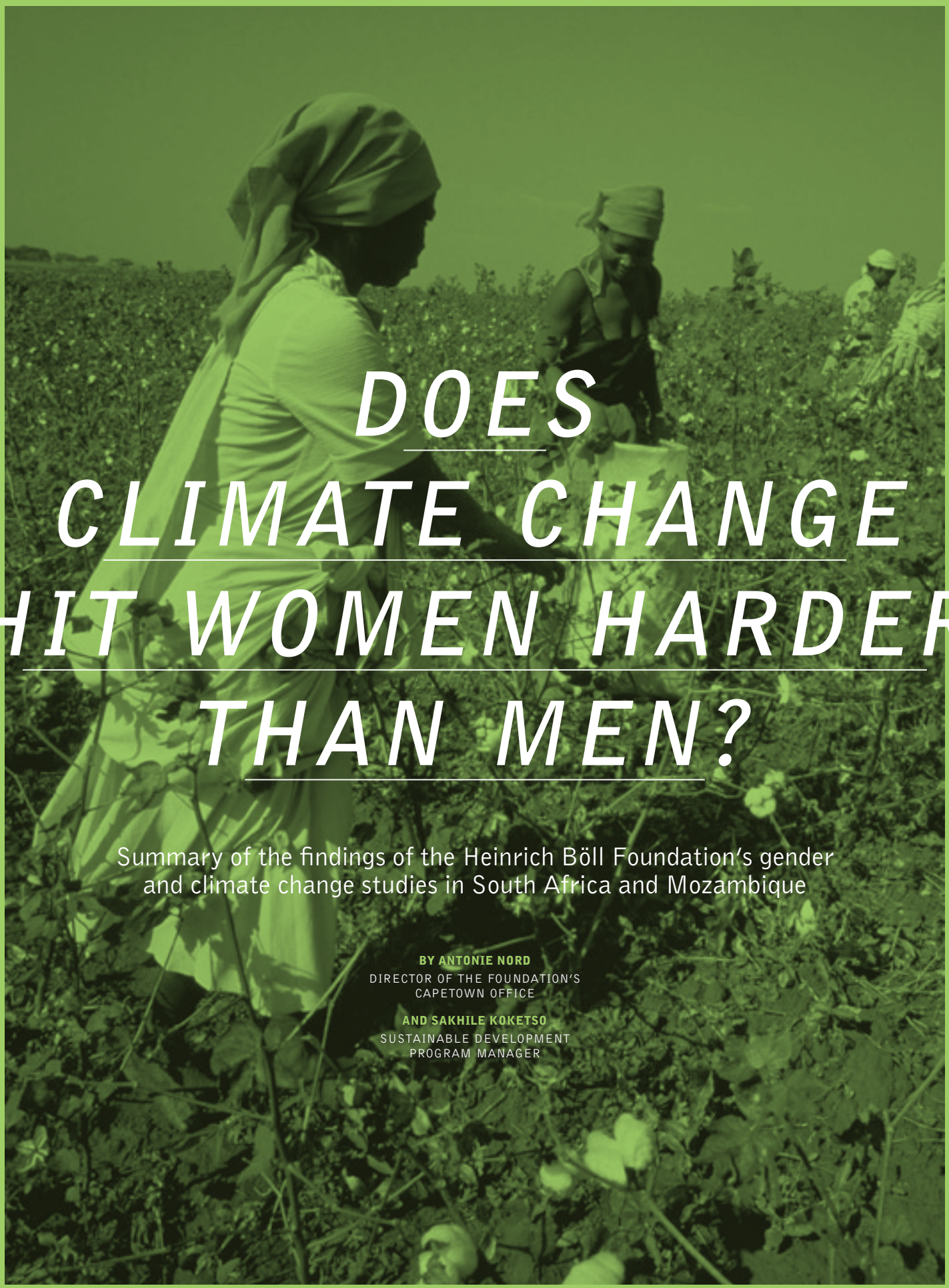
Peter Mireri of the environmental organization Friends of Lake Victoria has made similar observations. The increasing drought has had a severe impact on Africa's largest lake. Seventy percent of the water replenishing it is rainfall; rivers or streams feeding the lake are negligible. "And on top of this, the warmer climate is causing even faster evaporation."

In consequence, the number of fish in the lake are declining, above all because the spawning grounds are overheating. "The spawn in the shallows gets so warm that the fish never hatch."

The nets of the few that head out onto the lake from Kisumu often remain empty, and fishing boats rot away in the harbor. The inhabitants of Kisumu are among those losing out due to the drastic increase in the price of fish. In the slums and on the street, the dried and deep-fried bones of the Nile perch that have been filleted for export are often all that many can afford. "Of course, global warming is only one of several factors," Mireri notes. "But climate change is worsening an already-critical situation and finishing the lake off." According to the IPCC, Africa will be the continent most severely affected by climate change.

Meanwhile, at the hospital in Hoima in western Uganda, at least one child dies of malaria every day. Immunizations are not available. The physician Ediamu admits over 5,000 children every month. "We have always had malaria here, but it's now becoming steadily more prevalent," he explains. "It rains much more than usual now in the wet season." The larvae of the mosquitoes that transmit the disease develop wherever the waters do not run off. Malaria is also spreading to regions where it did not exist previously.

"We need more education," asserts the climate activist Negusu Aklilu, who lives in Addis Ababa. "Many people don't really understand what climate change means." He will continue to speak out in the run-up to Copenhagen: "Governments and civil society need to unite," he believes. To that end, he is working for the appeal "Africa Speaks Up on Climate Change" that was established two years ago. Its demands are still as urgent as ever, Aklilu explains.



DOES CLIMATE CHANGE HIT WOMEN HARDER THAN MEN?

Summary of the findings of the Heinrich Böll Foundation's gender and climate change studies in South Africa and Mozambique

BY ANTONIE NORD
DIRECTOR OF THE FOUNDATION'S CAPETOWN OFFICE

AND SAKHILE KOKETSO
SUSTAINABLE DEVELOPMENT PROGRAM MANAGER

Women are expected to be more vulnerable than men to the impacts of climate change. But there is yet insufficient knowledge about this. As a result policy and decision-makers are not well informed about the need for gender-differentiated policies. In support of mainstreaming gender into climate change policies, the Heinrich Böll Foundation commissioned research on gender and climate change in southern Africa with the hope of contributing to the much-needed knowledge to enable effective policies and actions that will benefit both men and women in southern Africa. The research included four country studies in Botswana, Mozambique, Namibia, and South Africa. A brief summary of the findings of the Mozambique and South Africa country studies follows.

MOZAMBIQUE

The research was carried out in two communities in southern Mozambique in the province of Gaza. The communities are both poor and rely heavily on subsistence agriculture, livestock production, subsistence fishing, and wild products such as wild fruits, grasses, and wood. These communities have been exposed to climate variability and extreme climate events such as drought and floods in the past few years. In addition there has been ongoing environmental degradation that has negative impacts on livelihoods. The impacts of extreme climate events and environmental degradation were used to extrapolate the potential impacts of future climate change and assess their current coping and adaptation strategies.

The study found that decreased productivity of agricultural fields has resulted in increased amounts of time spent in the fields, which is an increase in the burden of labor of women, who are traditionally responsible for agricultural production. Severe drought in the past two seasons has led to increased migration of men, which has caused an increase in women's responsibilities as they then have to take on men's tasks as well as their own. When men migrate they contribute little to household incomes and women are forced to find alternative livelihoods such as informal trade and beer brewing, thus increasing their workload. The study also found that tasks traditionally assigned to women, such as fetching water and collecting firewood, now require more time as women have to travel further to fulfill them. With all the time spent on increased tasks, roles, and responsibilities, women have little time to spend with their children, which sometimes results in disruption of family and community structure and in extreme cases children have to leave school to assist in tasks.

As can be seen from the above, men and women are impacted differently by climatic events and it is clear that this will be the case with climate change. It is also clear that women will be more severely impacted than men.

The causes for these differences are an unbalanced division of labor and the decision-making structures of the communities. At a family level, power relations deprive women of control over natural resources. Women are traditionally not allowed to inherit land, cattle, and other assets and they are thus dependent on husbands or male relatives. At a community level women's participation in decision-making institutions is poor, thus excluding them from decisions on how natural resources should be used.

In an attempt to adjust to the changing climate, women and men use different coping and adaptation strategies, some of which are not environmentally and/or socially sustainable. Some good coping strategies include the use of dry season crops during drought years and informal jobs, while some negative coping strategies include the brewing and sale of bread-based alcohol, which has led to social problems, and the unsustainable harvesting of wild products.

The study recommends that women and men's capacity to adapt to climate change can be strengthened in four ways:

1. implementation of existing policies and programs,
2. allocation of resources to rural communities,
3. capacity-building, and
4. the reinforcement of women's participation in local institutions.

SOUTH AFRICA

The research was carried out in two communities in eastern South Africa in the province of Kwa-Zulu Natal (KZN). These are typical poverty-stricken rural communities that are underdeveloped with limited basic services. They are further characterized by high levels of unemployment and low levels of education. The communities rely heavily on subsistence agriculture. They have been exposed to climate-related events and environmental degradation.

The study found that women work harder, because of their roles and responsibilities, to ensure household food security (during periods of harsh climate, which affects food security) while making sure that all other needs are being met. As a result of the extra workload, they tend to work longer hours than the men and men were reported to have more leisure time as compared to women. Elderly women also bear the burden of caring for children and perform household duties while younger women go out in search of seasonal work.

The above results seem to suggest that through socially constructed roles and responsibilities, women bear the most burdens of impacts resulting from climate variability.

The women in the communities studied have different coping strategies to these climate-related impacts, including informal trade, production of crafts, and informal employment, which is usually seasonal. Some of these strategies are positive, while others are negative. Positive strategies include the formation of agricultural cooperatives (although these are constrained by lack of resources), informal trade, and informal employment. Negative and/or unsustainable strategies include the reliance on state grants and use of wild products.

One of the interesting findings of this study was that gender roles are starting to change. Men have begun assisting women with tasks traditionally assigned to women and young men and boys are assigned household chores. This is true especially for female-headed households. Also, the women reported that they are involved in decision-making and that they are more financially independent than before (this is due to migration of men and the need to diversity their livelihoods).

The study strongly recommends that to effectively address issues of gender and climate change, focus must not only be on negative gender experiences but also assess and acknowledge progress that has been made in addressing gender issues and social changes that have taken place and lead to changes in gender relations. Lessons from positive experiences can be used to guide the way forward in achieve gender equality.

Mainstreaming gender into climate change is very critical and requires a holistic approach. While addressing issues relating to gender inequality, it is also vital to look beyond gender inequality and assess the different needs and choices that men and women make that eventually impact on their way of life and the way they respond to climate-related impacts.

POWER STRUCTURES INCREASE WOMEN'S VULNERABILITY TO CLIMATE CHANGE

BY LIANE SCHALATEK

When the full force of the tsunami struck the coastal regions of Banda Aceh in Indonesia, four times as many women as men were killed in the floods in the most badly-hit villages. How was that possible? And how are the statistics of this catastrophe of a lifetime linked to climate change and gender?

Global climate change has become a bitter reality, especially for the world's poorest – 70 percent of whom are women. Poverty makes people more vulnerable to the consequences of climate change. It increases the necessity of adaptation measures and at the same time makes implementing them more difficult. Events that once would have been categorized as disasters of the century are occurring more frequently and generally hit women and children harder. This not only applies to developing countries: in the United States in 2005, Hurricane Katrina had a devastating effect on African-American women in New Orleans. Seventy percent of the victims of the heat wave that hit Europe in 2003 were female. That had little to do with probability or personal misfortune and a great deal with the social norms and roles assigned to men and women. Power structures that put women at an economic and legal disadvantage and deny them a political voice make them more exposed to the negative effects of climate change wherever they may be.

In many societies, women are not allowed to leave the house without the company of a male relative, nor may they attend meetings of the village elders, excluding them from the discussion of topics such as disaster control. Dress codes and traditional standards of modesty often prevent women from learning to swim. They wear long, cumbersome garments, have never climbed a tree, and usually have small children on their backs or at their sides.

This systematic gender-based disadvantage is a recurring pattern in emergency situations related to climate change. The struggle for dwindling resources is also increasing the danger of civil wars and political instability. There again, women and children suffer the most, as the example of Darfur shows.

Climate change is contributing to the spread of tropical diseases such as malaria. In places where public health systems are poor or non-existent, it goes without saying that women are responsible for caring for the sick. Women often have no personal financial assets nor a legal claim to their house or property. As a consequence, they frequently do not have access to reconstruction assistance following a disaster.

Yet women are not only the most vulnerable, they are also the most important front-line force in the fight against climate change – both in adapting to changes and in preventing emissions. With their traditional responsibilities, they dispose over important instruments for moving forward and becoming a driving force for the transition to a future with a stable climate. The best-known example of this is the eastern African Green Belt Movement, in which groups of women are reforesting vast swathes of the barren Kenyan highlands. The movement, which was founded over 30 years ago by Nobel Peace Prize winner Wangari Maathai, is no longer an isolated case. Similar adaptation and mitigation projects in which women are taking the initiative and demonstrating leadership can now be found worldwide. In a project by Grameen Shakti – a subsidiary of Grameen Bank – rural women in Bangladesh have built thousands of solar home systems, installing and servicing the technology themselves. With the support of the Equilibrium Fund, women have planted hundreds of thousands of maya nut trees in Central America, providing a source of nutrition and income, as well as a valuable carbon reservoir.

A common thread in these projects is the aspiration to deliver more than a climate-related technical service such as renewable energy or reforestation by ensuring the long-term viability of communities and social systems in harmony with nature – and to achieve those ends through empowerment and equal rights for women.

VILLAGE WOMEN IN BANGLADESH ARE FIGHTING CLIMATE CHANGE WITH REFORESTATION.

Unfortunately, such initiatives are generally only supported by NGOs or international organizations with varying degrees of success, and in many cases, the role of women in managing natural resources goes unrecognized. Official international climate policy has been slow to recognize the gender dimension of climate change, incorporate it in mitigation and adaptation projects, and take it into consideration in newly-created instruments for financing projects related to climate change. Dozens of new climate funds have been established in recent years. Under the auspices of the Global Environment Facility (GEF), the World Bank, or bilateral sponsors, they promise billions for climate protection and adaptation. But so far, not one of those funds has a quota for women's projects. They lack both gender analysis and active representation of women's interests in their administrative and decision-making boards.

That is tragic and short-sighted. Indeed, men and women play fundamentally different roles in the battle against climate change – both in adapting and in preventing greenhouse gas emissions. Men and women are not equal in their energy consumption and consumer behavior, mobility, and use of natural resources. The assumption that climate change is gender-neutral indicates a dangerous knowledge gap in climate science that unnecessarily restricts our options for action and wastes an important share of humanity's potential for transformation. A fundamental change in behavior is the key to stabilizing our climate, however.

With regard to economic development, organizations such as the World Bank and UNDP have argued for years that gender equality and the empowerment and involvement of women is not just an ethical imperative, but also a matter of smart economics. To be successful in the long term, development organizations, policymakers and the international climate conferences of the United Nations must undergo a fundamental reorientation: it is essential that they no longer discuss climate change in primarily technical and scientific terms, but that they see it as a phenomenon rooted in human interaction. Men and women will then have no alternative but to address gender issues in the battle against climate change.

Monrovia Call to Action on Gender and Climate Change, March 8, 2009

" We call for greater numbers of women in positions of leadership – we have witnessed that more women results in better decision-making by governments and communities. (…) We commit to ensure that women will be present, and their voices heard, in all debates concerning climate change, with a particular commitment to women's participation in the global climate change summit in Copenhagen in December 2009.

We call for far greater urgency in addressing the mitigation and adaptation aspects of climate change – otherwise we risk undermining all our efforts to date on eradicating poverty and suffering. An acknowledgement of women's roles as powerful agents of change, and their greater vulnerability to climate-change impacts in many societies, must be demonstrated through women's greater role in climate change negotiations and incorporation of gender considerations in the new agreement, as well as in international, national, and local strategies and programs implementing this agreement."

The Global Gender and Climate Alliance (GGCA) is a group of 25 UN agencies and international civil society organizations working together to ensure that climate change policies, decision-making processes, and initiatives at all levels are gender-responsive.

Photo: FAO/Roberto Faidutti

SHOULD DEMOCRATIZATION AND CLIMATE POLITICS GO HAND IN HAND?

BY PETER BURNELL
FOUNDING DIRECTOR OF THE
INTERNATIONAL MAGAZINE *DEMOCRATIZATION*

The science of climate change and human responsibility, the economics of addressing the problem, the justice dimension and, even, implications for North-South relations have all received substantial exposure in public debate and specialized technical, policy, and academic literatures. We also hear about the imperative to "climate-proof" society, the poor, and even the state. Occasionally we are told the "right political framework" is needed, usually meaning an improvement on the Kyoto Protocol and national legislation for regulating energy use.

A surprising omission is a balanced inquiry into what climate change and its effects mean for democratization, and what democratization could mean for mitigating greenhouse gas emissions and climate adaptation. Democratization here means movement toward something like actually existing liberal democracy, present in many countries, not theoretical models of deliberative democracy, radical participatory democracy, or "eco-democracy". Just as global warming has become headline news, so another but more celebrated phenomenon of recent times has been a wave of democratization, starting in southern Europe in the 1970s, subsequently embracing Latin America, Central and Eastern Europe, and sizeable parts of Africa and Asia, too. Hardly less eye-catching, however, is the wave's recent slowing to a halt and, by some accounts, partial retreat.

Climate stabilization and democratization are both important; both are vulnerable; but do they matter for one another? Although the question needs more research, some preliminary observations can be made. One is that political transition from an undemocratic system lacking basic freedoms and the rule of law to consolidated liberal democracy can be an unsteady and protracted process, with uncertain outcomes. The requirements of nation-building and post-conflict reconstruction compound the political challenge. It is made even more difficult by the effects of climate change. Conversely, the traumas of political change can themselves impede a country's ability to act on climate change and its effects. The established democracies themselves remain on an unfinished journey of democratization. There is always scope for deepening and other improvement; and harm from terrorism and counter-terrorism, political corruption, popular loss of confidence, and rise of illiberal social sentiments are all salient threats. So, in the interdependencies of climate change and politics, implications follow both for newly emerging and old democracies, with the lines of influence connecting in both directions.

CLIMATE CHANGE'S DEMOCRATIC IMPACT

The political significance of climate change concerns democratization directly and indirectly. A firm proposition in political science is that economic development with equitable sharing of the benefits supports stable democracy. So where climate change harms development, the democratic prospect suffers, too. By harming the poor and women disproportionately, as the Global Humanitarian Forum[1] makes very clear, climate change obstructs the political equality that democracy demands. If climate change's costs overburden weak states, their capability to sustain liberal democratic governance is diminished. Where such consequences as water or food insecurities intensify social conflict and provoke violence, the pressures on democracy increase; grounds for authoritarian rule to maintain public order begin to look stronger. In OECD democracies, climate change may frame public policy increasingly in terms of energy and economic security and preserving territorial integrity against "climate migrants," thereby benefitting the military-industrial complex and at the expense of liberal humanitarian values and commitment to universal human rights.

HOW CLIMATE MITIGATION COULD AFFECT DEMOCRATIZATION

All the above gives cause for thought, but action to reduce greenhouse gas emissions adds further problems. For example, some thinkers worry about the threat mitigation measures could pose to free economic markets and individual freedom of choice, which underpin liberal democracy. State intervention can increase public bureaucracy in ways that defy democratic control. Political power will not be redistributed from corporations to the people; on the contrary, industrial interests well-placed to capitalize on climate action strategies, nuclear power for instance, could gain in political clout.

The electoral price of putting mitigation first, especially in developing countries where societies reasonably expect better material conditions, places a high premium on political leadership displaying considerable courage, powers of persuasion, and long-range vision. But these qualities are not over abundant even in rich democracies. To prioritize needful climate action, such leaders might have to go against the wishes of the people. This seems contrary to democracy; poor societies might be forgiven for wondering if a different form of rule would be preferable. Where oil and gas export revenues feature strongly in the public finances, climate change initiatives that undercut these streams will present costs of national adjustment. Countries like Nigeria and Iraq struggling to build democracies would be affected; if political chaos ensued in exporters like Russia, Saudi Arabia, or Sudan, western-style democracy may not be the obvious outcome. Finally, an international approach to climate mitigation dominated by the big powers and transferring decision-making, monitoring, and enforcement rights to global institutions, has consequences for national democratic self-determination.

WHAT DEMOCRATIZATION MEANS FOR GLOBAL WARMING

Although no necessary connection exists between liberal democracy and environmental responsibility, the customary view is that democracies are more environmentally inclined than non-democracies. However, the record of greenhouse gas emissions, dating from well before Kyoto and now that the climate effects are understood, paints a disappointing picture. Kyoto's weak targets are not being met by many democracies; fortuitous reasons explain exceptions like the UK. In recent years OECD democracies overall have increased total and per-capita CO_2 emissions. Adding responsibility for carbon emissions at the point of consumption not production – "carbon leakage" to countries like China and India that rejects mandatory targets – darkens the picture further. Public opinion in the democracies varies, but even where climate awareness is high, the evidence for wide popular support for decisive policies and lifestyle change is weak.

Certainly, differences exist between Sweden, say, and countries like Russia and Saudi Arabia, as the 2009 *Climate Change Performance Index*[2] shows for levels and trends of energy-related CO_2 emissions and climate policies. But the same study left the highest three places empty and awarded low grades to several democracies, like the United States, Australia, and Canada. France performed well by sourcing its electricity from nuclear power – an environmentally sensitive issue. The "democratic deficit" of the European Union makes it doubtful that democracy can claim the credit for EU climate leadership. And just as wealthy, established democracies find it difficult to rise to the challenge of climate mitigation, how much more challenging must it be for newly emergent democracies like Indonesia, South Africa, Mexico, or Brazil, let alone poor countries that are still "lost in political transition"? In contrast President Barack Obama told the US Congress that China has launched "the largest effort in history to make their economy energy efficient", an accolade that China's allocation of fiscal stimulus spending to investment in renewables enhances. Of course, China has much to gain from scaling back the need for future climate adaptation.

DEMOCRACY AND CLIMATE ADAPTATION

The Nobel Prize winner Amartya Sen famously argued that democracy is more likely than its alternatives to prevent famine, but can we be sure that democracies everywhere will shelter citizens from all the harm from climate change? The answer is no, for several reasons. Society's ability to afford the financial and economic costs of climate adaptation is important here; and as studies like *Climate Change as a Security Risk*[3] show, the state's strength and quality of governance are influential, too. But democracy does not uniquely guarantee development, a strong state, and good governance: on the contrary, democratization may even be dysfunctional. There may be countries where the interests of climate action suggest that investing in state capacity and governance should take precedence over undertaking the hazardous journey toward liberal democracy.

ADDRESSING CLIMATE CHANGE, PROMOTING DEMOCRACY?

Ideally, perhaps, progress toward stable democracy and tackling climate change should proceed together. But the chance that in some places political experimentation could retard the bold and urgent action now needed on climate change cannot be ignored. Similarly, in some places the unavoidable effects of a changing climate make democracy's advance more difficult. In order to be persuaded that more democracy is a solution to climate change, then politicians and peoples in established democracies must demonstrate a stronger commitment to reduce global greenhouse gas emissions and help developing countries of all political types address the burdens of climate adaptation. After all, assisting vulnerable communities to minimize the harm done by climate change offers no political certainties but may still be the most effective way to climate-proof everyone's democratic ambitions, in the longer run. The bottom line is that international negotiations in Copenhagen on a climate change deal must show an understanding of the significance for, and relevance of, democratization inside countries, not least in the developing world.

[1] "The Anatomy of a Silent Crisis." Human Impact Report Climate Change (Geneva: Global Humanitarian Forum, 2009. Available www.ghf-ge.org)
[2] Germanwatch and Climate Action Network Europe, The Climate Change Performance Index Results 2009. Available at www.germanwatch.org
[3] German Advisory Council on Climate Change, Climate Change as a Security Risk (London and Sterling, VA: Earthscan, 2007).

CLIMATE FINANCING AND THE WORLD BANK – THE IMF AND THE WORLD BANK TO THE RESCUE?

BY BARBARA UNMÜSSIG

WORLD BANK CHIEF ECONOMIST FOR LATIN AMERICA AND THE CARIBBEAN, AUGUSTO DE LA TORRE (2ND-L), ANSWERS QUESTIONS TO JOURNALISTS AT THE END OF A SEMINAR ABOUT DEVELOPMENT WITH LESS CARBON EMISSIONS AND CHALLENGES TO CLIMATE CHANGE, IN SAO PAULO, BRAZIL 2009.

Photo: Mauricio Lima/AFP/Getty Images

Independently from one another, the Intergovernmental Panel of Climate Change (IPCC) and the International Monetary Fund (IMF) have each come to a similar conclusion: The poorest countries and the poorest population groups will be the hardest hit by both climate change and the global economic and financial crisis. The World Bank, which wants to join in their rescue, intends to increase lending by about $100 billion over the next three years, and has initiated special programs to finance banking and trade operations. The World Bank also wants to take a leading role in climate financing, however. Just in time for the annual World Bank/IMF conference in Istanbul, Turkey, the Bank released its new World Development Report on "Development and Climate Change."[1] The report presents drastic scenarios to make the case that industrialized countries should provide significant levels of new financing to halt climate change in the southern hemisphere, implement clean energy technology, and adapt to climate change. According to the report, these countries will need hundreds of billions of dollars annually just for adaptation to climate change. The World Bank intends to steer as much of this money as possible into its own "pockets."

UNMET FINANCIAL NEED

It is not clear whether or how much of the financial resources for adaptation will materialize. And despite the high price tag on adaptation, only $10 billion[2] has been raised for developing countries. As far as need goes, this is a mere "drop in the bucket." What's more, most of this money – for instance, what the World Bank is channeling through the Climate Investment Funds (CIFs) – is in the form of loans to be repaid.

Developing countries have done little or nothing to contribute to climate change, but they are suffering the brunt of its effects. Therefore, it is unacceptable that these countries are being forced to take on debt in order to mitigate these effects. This undercuts all

efforts to promote equality for the world's present population and sustainability for future generations. A policy change is imperative in order to provide resources in the form of grants rather than loans.

In the run-up to the climate summit in Copenhagen, the European Union has promised only €15 billion per year to combat climate change in the southern hemisphere. Other industrialized countries have not yet committed to concrete numbers. This reality stymies the negotiations because the great majority of developing and emerging countries will not agree to reduce their own CO_2 emissions without the promise of massive financial transfers. In the classic struggle between industrialized and developing countries, the issue of financial transfer has become a very tough topic of negotiation.

CAN THE WORLD BANK PROTECT THE CLIMATE?

The other important subject relates to the problem with World Bank financing. Namely, how can developing countries find a way out of the global economic and climate crises if the World Bank imposes the same terms and conditions on its climate financing arrangements that it has imposed historically. These terms and conditions, which require that governments privatize and liberalize their economies within strict budget guidelines, have often failed to generate sustainable development. There are many reasons for these failures, but one is particularly important – that is, policies seldom succeed if they are imposed by external actors rather than through internal democratic processes. For this reason, it is legitimate to question whether the World Bank is the right organization to be protecting the global climate. In addition, the Bank continues to invest billions of dollars annually in fossil fuel-based energy operations in developing countries. Until now, the institution has been a part of the problem rather than the solution:

- A report from the World Wildlife Fund in the United Kingdom reveals that the World Bank financed 26 gigatons of carbon dioxide emissions from 1997 to 2007 – about 45 times the annual emissions of the United Kingdom.
- The World Bank Group [in addition to the World Bank, the Group includes private sector affiliates: the International Finance Corporation (IFC) and the Multilateral Investment Guarantee Association (MIGA), the investment guarantee agency]. The World Bank Group is one of the top three multilateral financiers of coal-fired power plants built since 1994. Together with the Asian Development Bank (ADB) and the European Investment Bank (EIB), the World Bank has collectively invested more than $11.7 billion in 58 fossil-fueled projects throughout the developing world.
- Last year, the World Bank and its partner, the ADB, approved $850 million in loans to finance a coal-fired plant in Gujarat, western India (the Tata Mundra project). As the first of nine planned plants in India, it would be one of the biggest new sources of greenhouse gases on Earth, emitting 26.7 million tons of CO_2 a year for the next 50 years.
- The Clean Technology Fund (CTF), one of the World Bank's CIFs to mitigate the effects of climate change, has also allowed the funding of coal-fired power plants to continue, even for those plants where the technology applied yields only marginal decreases in emissions. This sends the wrong signal for the use of scarce public funds.

The World Bank is financed with public resources, after all, and should do a better job at using the CTF to promote zero-emission technologies and investments.

COMPLETELY INCONSISTENT

While the World Bank Group proudly points to its best-ever year for financing renewable energy and energy efficiency – $3.3 billion in the last fiscal year, or 40 percent of its energy portfolio – these numbers do not tell the whole story, since the Bank puts large hydro dams and marginally cleaner fossil fuel technologies into this category as well. The calculation also includes carbon offsets or the emission reductions by developing and emerging countries that offset higher emissions by industrialized countries. This calculation is totally misleading because it includes the emission reductions by developing countries and not the increased emissions on the part of industrialized countries. As a result of these problems, the World Bank statistics on renewable energy and energy efficiency are not credible.

Rather than whitewashing its global role in renewable energies and energy efficiency, the World Bank should concentrate on helping developing countries transition from fossil fuels to clean technologies. However, the World Bank's policy in this area is inconsistent. On the one hand, the Bank is demanding new resources to mitigate the effects of climate change; on the other, it is pressing ahead with "business as usual" – even though, as a public financier, the World Bank ought to be in the vanguard.

Governments of emerging and developing countries and environmental and development organizations alike are arguing that the United Nations should be the body vested with responsibility for new financing for climate protection, under the terms of the Framework Convention on Climate Change (UNFCCC). The Convention should be the ultimate supervisory framework for administration of existing and future monies and should determine the criteria for climate financing.

NEW CLIMATE FINANCE ARCHITECTURE

The new post-Kyoto agreement must launch a new climate finance architecture within the framework of the UNFCCC. The World Bank is not a credible institution in this area and will not be until there is a sea change in the attitudes of its major shareholding countries. Since these major shareholders control the World Bank, but not UN bodies, it is unsurprising that at international environmental conferences, the World Bank is vested with greater and greater responsibility to manage resources for climate finance. As a result, the World Bank now hosts a hodge-podge of different, poorly coordinated funds earmarked for the climate and the environment.

Sooner or later, public funds to combat climate change will become available in unprecedented amounts. No matter which body ends up supervising these – the UNFCC, the World Bank, other multilateral development banks, or bilateral donors – they must meet the following minimum criteria:

- The resources must be provided as additional funds and may not be counted toward development-aid commitments.
- The financing should be provided in the form of non-repayable grants. Loans that add to a developing country's indebtedness should not be issued.
- Financing should correspond to the priorities of fighting poverty and preserving world ecosystems.
- Financial transfers should take into account social criteria (including gender).

[1] World Bank, World Development Report 2010: Development and Climate Change (The World Bank: Washington, DC, 2009). See www.worldbank.org/wdr2010

[2] See www.climatefundsupdate.org

"WE NEED A WORLD CLIMATE BANK"

How much money will have to be moved worldwide to limit climate change to a 2°C increase? What will be the scope of the North-South transfer? What will the funds be used for? Will existing international organizations be able distribute them equitably? An interview with Dirk Messner, Director of the German Development Institute (DIE) and Vice Chair of the German Advisory Council on Global Change (WBGU).

The global low-carbon economy will entail an enormous financial transfer from North to South. Just how costly will it be?
The relevant EU and UN committees agree that we will need €100 billion a year to assist developing countries in reducing their greenhouse gas emissions to limit global warming to 2°C. Germany's share would amount to around €7 billion. I should point out, however, that this will create new markets for climate technologies and services and green products. Germany and the EU are rather well-positioned in that respect. And if you compare those €100 billion to the billions being spent on the banking crisis, the amount no longer looks that daunting.

What would be the total cost of putting the global economy on a low-carbon basis?
Establishing a low-carbon economy worldwide would require annual investments of 500 billion to $1 trillion over the coming decades. While that's an impressive figure, it is not prohibitive – we are talking about one to two percent of global GDP. With this money, we would be innovating, creating future-proof jobs, and reducing our dependence on fossil fuels. If we do not commit to that investment, the damages resulting from climate change will prove significantly higher than the cost of mitigation. Climate protection is therefore good business for our societies.

To make it work, we need to rapidly improve our energy efficiency, convert energy systems, ensure the climate neutrality of our cities, promote electric transportation and cut greenhouse gas emissions in every sector of the economy. Protecting forests the world over is also vital. It comes down to no less than a third industrial revolution, as our current global economy is largely powered by fossil fuels, and we need to reduce global greenhouse gas emissions by over 50 percent by 2050. That conversion will take time, so it is crucial that we start immediately. If we do not reach the global turning point with regard to greenhouse gas emissions by 2015 to 2020, the efforts needed to curb them will become so daunting that we will hardly succeed in maintaining the 2°C limit.

"IF WE DO NOT REACH THE GLOBAL TURNING POINT WITH REGARD TO GREENHOUSE GAS EMISSIONS BY 2015 TO 2020, THE EFFORTS NEEDED TO CURB THEM WILL BECOME SO DAUNTING THAT WE WILL HARDLY SUCCEED IN MAINTAINING THE 2°C LIMIT."

DIRK MESSNER

Yet it may take five to ten years to achieve tangible mitigation effects.
Yes, it will take time until our educational systems have addressed those problems, our energy systems have been converted, our most important sources of energy are renewable, and the costs of those energy sources have come down. Take wind energy in Germany, which made a marginal contribution to our energy needs 10 years ago and which is now heading toward the 10-percent mark. The technologies are available, but it will take time for them to mature and be deployed broadly, for learning effects to take hold and for costs to drop rapidly. We cannot reduce the global economy's reliance on fossil fuels from 95 percent to 50 percent in a decade. That can

Photo: Deutsches Institut für Entwicklungspolitik

The German Development Institute (Deutsches Institut für Entwicklungspolitik, DIE) is one of the world's leading think tanks for development policy. DIE is an independent institution whose research findings actively support the formulation of development policy at all levels. DIE builds bridges between theory and practice and works within international research networks throughout the world.

be seen in the debate surrounding Desertec, a major solar project in the Sahara. It will take more than 10 years to build the systems and provide the necessary grid infrastructure. Nevertheless, the project is taking us in the right direction. It would be inadvisable and impossible to rely exclusively on solar energy as of tomorrow – but we need to establish the technology without delay. The fastest way to achieve breakthroughs in reducing greenhouse gas emissions is to improve energy efficiency. And we need worldwide decarbonization schedules to help us convert our economies at a rapid pace to prevent dangerous climate change.

How can developing countries even absorb the funding you call for in order to develop efficient initiatives and projects?
China, India, and Brazil are currently implementing new energy systems and building new cities from the ground up. Hundreds of cities designed to accommodate populations of 100,000 to 500,000 are currently on the drawing board in China, and half the buildings currently being built worldwide are being built in the People's Republic. The process of urbanization is going ahead either way, so we need to ensure that it progresses in a climate-friendly manner. The issue in China is not one of absorption, but of ensuring that investments are channeled into climate-friendly projects. China's government has stated that it wants to convert to a low-carbon economy, but that it cannot finance it alone and will need help in the form of technology transfers. The situation in India is similar. We are going to have to talk about that.

China is a newly industrialized country. What needs to be done to help poorer countries?
Our investments will be needed to eliminate their dependence on fossil fuels and help them adapt to climate change. We have experience in that from our development partnerships. For example, investing in building new infrastructure but not in maintaining it is pointless – sooner or later it will simply stop working. In the past, donor organizations far too often worked entirely on their own terms, rather than cooperating with the recipient countries' institutions. That backfired, because partnership is essential to ensure that changes are sustainable. We do have a problem in accelerating the pace of development cooperation in the face of the climate problem's magnitude and enormous time pressure, however.

How should the funds needed to prevent global warming from exceeding 2°C be distributed?
According to the calculations of climate researchers, the global greenhouse gas budget for the period from 2000 to 2050 is around 1,000 gigatons. In the past 10 years, we have already emitted around one-quarter of that amount. We still have 750 gigatons worldwide if we do not want to exceed a 2°C increase. We will need to allocate that budget according to a fair formula, and the WBGU[1]. One thing is certain: the budget for industrialized countries will be scant. We will need to purchase emissions credits from developing countries that emit less. For Africa or countries such as Bangladesh, that will amount to a North-South financial transfer. The global greenhouse gas budget would serve as the starting point for emissions trading and climate-related technology transfer.

Will existing international organizations be in a position to distribute emissions credits and funds effectively or will new worldwide financial institutions be needed?
The EU, and soon also the United States, will need a regulatory framework and institutions to implement and monitor their emissions trading. That monitoring should not be merely transatlantic in scope, but should become effective worldwide as soon as possible. We will soon trade in greenhouse gas certificates in the same way that we do in financial instruments today. Ottmar Edenhofer of the Potsdam Institute for Climate Impact Research describes such an institution as a "World Climate Bank."

Why not use the World Bank for that purpose?
The purpose of the World Bank is to finance and implement development projects in developing countries. The task of the UNFCCC is to coordinate the process of climate negotiations. What we need is a clearing house, a platform to manage the tightening supply of greenhouse gas emissions rights and monitor the legal instruments that we will need to introduce for that purpose. The funds that will then flow and the projects they finance in developing countries can then be handled by the World Bank and other development organizations.

How do you intend to prompt international discussion of your proposed solutions?
In September the WBGU has published a general proposal to show how a global framework for managing a limited global greenhouse gas budget could work. That proposal has been presented to the German government in order to promote progress in Copenhagen. Naturally, we are also in contact with teams of experts and climate advisors internationally – in the United States, Europe, China, and India. Representatives of the business community will also need convincing to ensure a breakthrough in Copenhagen.

Interview questions posed by Elisabeth Kiderlen

[1] WBGU, Solving the Climate Dilemma: The Budget Approach. See www.wbgu.de

CLIMATE JUSTICE VS. A FAIR DEAL IN COPENHAGEN

BY RODERICK KEFFERPÜTZ AND CLAUDE WEINBER

Negotiations for a post-2012 international climate change agreement are in full swing. Delirious negotiators are racking up their frequent flyer 'carbon' miles and this is set to continue as progress in the negotiations is moving at a snail's pace. This demonstrates the fragility of the climate talks. Negotiating positions are hardening and the rift between developed, emerging and developing countries is clearly widening.

In this context, the European Union is, among others, playing a crucial role as a consensus-builder. Its overall objective is to facilitate an international deal that keeps global warming below 2 degrees and includes all of the climate heavyweights ranging from the United States, Brazil, and Canada to China, Russia, and India, while maintaining the fragile consensus among the 27 member states. This role is not an unnatural one for the EU given its experience of shared sovereignty and compromise, and this is well-reflected in its negotiating position.

The European Union has committed itself to a 20 percent greenhouse gas reduction target by 2020, and has attempted to encourage similar pledges from other actors by promising to reduce emissions by 30 percent if they undertake comparable efforts. This represents a middle ground between China's call for a 40 percent reduction for developed countries and the emission reduction targets so far taken on board by Japan (8–9 percent by 2020 with a 1990 base year) and the United States (4–7 percent by 2020 with a 1990 base year) and is also the maximum that can be reached between the 27 EU member states.

A negotiating position that aims to present a climate regime signed and ratified by most states will at best produce a 'fair deal' and will leave little room for climate equity or justice. Successful consensus-building demands that everyone make concessions in order to meet halfway and reach a workable arrangement. As such, the European Union has also called on developing countries, including China, to commit to a 15–30 percent reduction in their emissions by 2020, measured against a yet-to-be-defined business-as-usual scenario.

The same goes for climate financing. At present the European Commission has suggested an annual sum between €2 bn and €15 bn. Whether it will end up being the upper end of that scale will clearly depend on the financial support provided by other developed as well as emerging economies. Simultaneously, the EU negotiating team has made funding for all but the least-developed countries (LDCs) contingent on the adoption of robust and verifiable low-carbon development strategies, which need to indicate the sums necessary for their proposed carbon abatement measures.

The European Union has also stated that climate change measures with low incremental costs or a net benefit in the medium-term but requiring large up-front investments, such as energy efficiency, should be covered by the countries themselves and not by EU funding.

Last but not least, the European Union finds itself incapable of adopting an equitable approach toward the climate change negotiations because each member state views equity differently. This is due to the fact that carbon emissions, levels of development, and climate awareness significantly differ from country to country. Here the divisions lie particularly between the old and new member states. While the United Kingdom and Germany have already announced 40 percent reduction targets and are willing, if needed, to open their checkbooks when it comes to climate financing,

PROGRESS AT CONFERENCES ENTAILS ENDLESS HARD-FOUGHT DEBATES IN PREPARATORY SESSIONS, AND EXASPERATION IS OFTEN THE ORDER OF THE DAY. THE SPANISH STATE SECRETARY FOR CLIMATE CHANGE, TERESA RIBERA RODRÍGUEZ, AT A CONFERENCE OF MINISTERS OF THE ENVIRONMENT IN PARIS IN JULY 2008.

THE GENTLE FIST OF A FRIEND: PRESIDENT NICOLAS SARKOZY PERSUADING HIS HUNGARIAN COLLEAGUE, FERENC GYURCSÁNY, IN A MEETING IN BRUSSELS IN DECEMBER 2008 ON THE EU CLIMATE PACKAGE.

energy-intensive countries such as Poland or Romania are unwilling to do so. Not only do these member states lack an awareness and appreciation of the scale of the climate problem, but in their eyes any constraints on their economic development are unacceptable. Having consigned the socialism of the Soviet Union to the dustbin of history exactly 10 years ago, the populations of the ex-Warsaw Pact countries want to fully enjoy the promised fruits of their peaceful revolutions. In this context, they consider demands for climate protection measures stymieing economic development as unfair, particularly as they already significantly reduced their emissions during the 1990s; never mind the fact that these reductions were thanks to the collapse of the majority of their industrial base and not due to actual climate protection measures.

These diverging views have led to tough and drawn-out negotiations inside the European Union. This took place particularly with the energy and climate package, which was significantly watered-down in order to bring on board the Central and Eastern European countries, and it continues to be the case.

Many member states, for example, are concerned that stringent obligations for developed countries will dramatically distort competition and lead to carbon leakage: the outsourcing of certain European industries (particularly energy-intensive sectors), to countries with no, or only very lenient, climate protection measures. This would lead to a loss of jobs and is considered by the majority of the political elite as unacceptable collateral damage.

As a result, the European Union is currently formulating a directive on energy-intensive industries and carbon leakage to have a backup plan in case the climate negotiations go awry. Such developments are not restricted to the European Union alone. The Waxman-Markey climate bill currently being negotiated in the United States includes similar provisions that would place carbon taxes against imports from countries without equivalent carbon emission controls to those in the US. The outcry against these measures from developing countries has been great and it is not unreasonable to assume that should these measures be implemented, we might be facing a global trade war.

International justice and climate equity therefore play only a marginal role for the European Union. While the EU adheres to the UNFCCC principle of 'common but differentiated responsibilities and respective capabilities,' which remains open to interpretation, its interest lies first and foremost in clinching an effective and inclusive agreement that binds everyone.

The European Union acknowledges that developed countries must take the lead in combating and adapting to climate change but in the eyes of the EU, this is a fight that all but the very poorest countries must participate in to some degree or another. If we are determined to have a dynamic climate regime that will potentially keep the temperature rise below the 2 degree threshold, then all major actors (US, China, Russia, India, Canada, Brazil, South Africa, Australia, the EU, etc.) will have to shoulder this new agreement.

For that to happen, the perfect will be sacrificed for the good, the just will give way to the fair, and the scientific imperative will yield to the politically feasible. This is the very fabric that made and continues to make the EU the success it is today.

LEADERSHIP VS. THE SKEPTICS

BY ARNE JUNGJOHANN

The US has learned its lesson from Kyoto

The US government has dramatically stepped up its global warming agenda since the inauguration of Barack Obama. In his first 8 months in office, the new president accomplished more for the cause of climate protection than his predecessor did in the previous 8 years. But implementing climate policies such as emissions trading means convincing the skeptics on Capitol Hill, and the outcome of the climate debate in the Senate will determine the government's mandate in Copenhagen.

Why? To understand the background, we need to look back to the year 1997, when President Bill Clinton signed the Kyoto Protocol despite its lack of domestic support. Members of the Senate, who are required by the Constitution to ratify international agreements with a two-thirds majority, felt passed over and set out to teach the White House a lesson. By passing the Byrd-Hagel resolution with 95 votes to 0, the senators raised a bipartisan voice against agreements that would harm the US economy while exempting major polluters like China and India. As a result, the US never ratified the Kyoto Protocol.

The Obama administration has learned from the mistakes of the past, however. It will only put offers on the table in Copenhagen for which it can count on the likely support of a majority in Congress – such as the goal of cutting emissions to 1990 levels by 2020. More ambitious goals seem – despite all scientific advices – politically unrealistic due to domestic resistance. It is hard to imagine a more favorable political constellation than the present one, with solid Democratic majorities in the House and Senate, and a new administration that has made clean energy a central element of its economic agenda. Yet the US political system is not only susceptible to deep-pocketed special interests, its structure also puts conservative rural states in a powerful position. And to get some of the few moderate Republicans to vote for a climate bill, dirty deals to promote nuclear energy and offshore drilling might be needed.

The current economic climate is also inhibiting greater ambitions. Even optimistic activists recognize that the United States is only just beginning to work on climate protection and will therefore need a while to catch up to Europe. In light of its current emissions (up 17 percent from 1990) and continuing population growth (also up by 17 percent from 1990), reducing emissions to 1990 levels in only 8 years is an ambitious goal which is quite comparable to what the EU aims to accomplish in the same period, however.

Major developing countries are a significant factor in the US climate policy debate. China in particular is seen as a powerful economic competitor that exploits the advantages of its lower environmental and social standards on the world market. At the same time, China has taken the place of the US as the world's largest polluter. This point of view conveniently disregards the fact that Beijing has more ambitious environmental standards than the US in a number of fields. Preconceived notions are hard to stamp out, however, and broad parts of the American public will only deem international climate policy negotiations to be fair if China also makes concessions for greater climate protection. Conservative forces in the US are just waiting for the opportunity to accuse President Obama of not being tough enough on China.

Until the last round of climate talks it was clear that the major obstacles for the US negotiating team were the level of ambition in terms of targets and the level of financial and technical support of developed nations to the developing world. Since the latest negotiations in Bangkok, however, the role of the legal architecture of a future climate treaty seems to be the latest concern for the US.

Many Americans will carefully scrutinize the performance of their government at the Copenhagen conference. It would certainly fuel the fires of the president's domestic foes if the international community were to punish the US for not acting aggressive enough to protect the climate.

President Obama will need a success in Copenhagen if he is to push ahead with climate policy reform against the resistance of doubters in his own country. There is no question that Europe needs to spur the United States to further-reaching climate protection measures. Europe should tread lightly, however, to avoid a backlash.

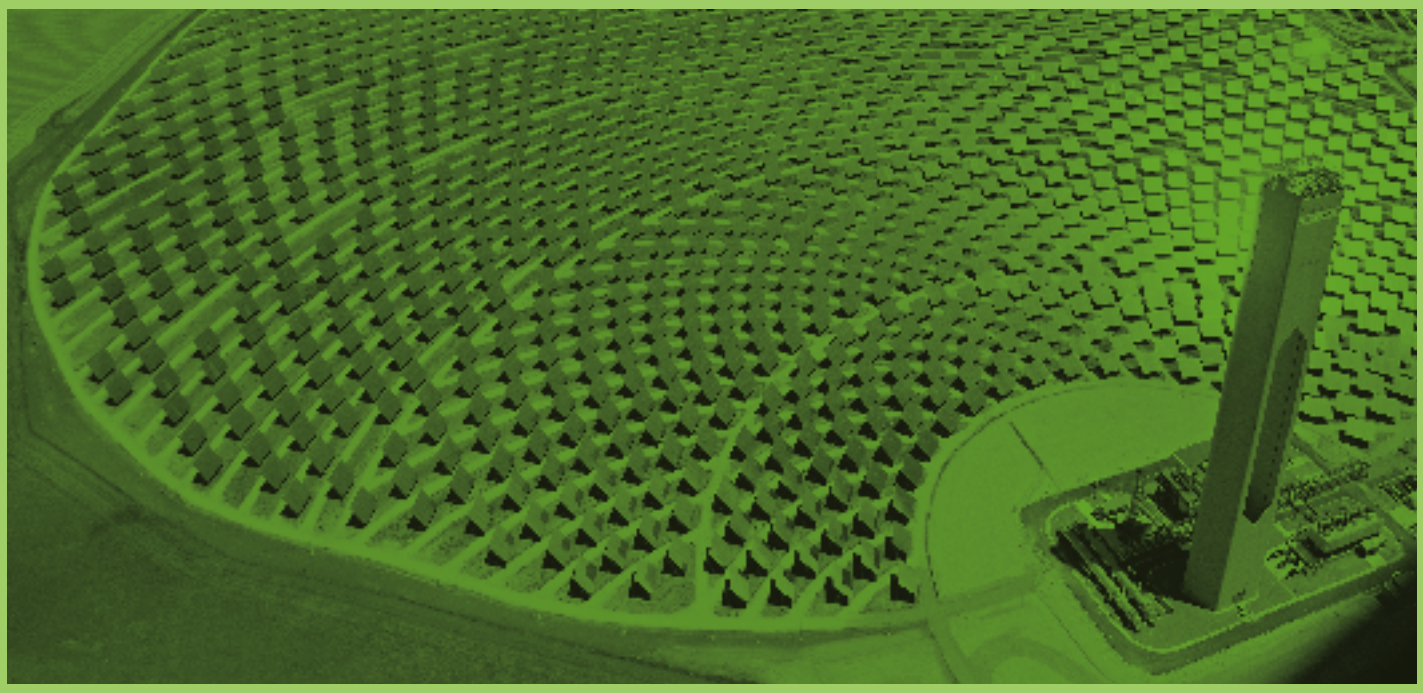
Toward a Transatlantic Green New Deal: Tackling the Climate and Economic Crises

Prepared by the Worldwatch Institute for the Heinrich Böll Foundation.
The publication is available at www.boell.eu

100% RENEWABLE SOURCES OF ENERGY

BY RALF FÜCKS

The next European megaproject



THE BIGGEST SOLAR TOWER IN THE WORLD IS LOCATED IN SOUTHERN SPAIN: THE 40-STORY CONCRETE TOWER COLLECTS SUNLIGHT FROM A FIELD OF OVER 600 HUGE MIRRORS – A MODEL FOR 'DESERTEC'?

Renewable sources of energy are tomorrow's big business – the leading technology of a green industrial revolution. Just consider the consortium of companies, including Münchner Rück, Allianz, Siemens, and RWE, which is planning to invest €400 billion in generating solar power in the Sahara. While a part of the power will be used for regional development, the remainder is projected to cover around 15 percent of Europe's electrical power needs. And although Desertec still faces numerous hurdles, the project can make an important contribution to supplying Europe with renewable energy. Not only is solar power generated in the desert likely to be economically competitive, thermal solar power systems also offer storage options that permit power to be supplied around the clock.

Nevertheless, we should not fall prey to the illusion that solar power from the Sahara is an easy answer to our future energy needs. If we intend to reduce the effects of climate change to a degree that will only just pass as tolerable, we have no alternative but to switch our power generation entirely to renewable sources. Reducing European CO_2 emissions by 80 to 90 percent will entail reducing emissions related to power generation to zero. Desertec will only be able to play a supporting role in that regard – it is crucial that by the middle of the century, the lion's share of Europe's electrical power will come from renewable sources within Europe itself. Nuclear power is not an alternative due to its inherent technical, military, and financial risks.

Plenty of potential exists for a turnaround in energy production, with hydroelectric power in mountainous regions, solar energy in Europe's sunbelt, wind and wave energy along the coasts, biomass in the forests of Scandinavia and in the agricultural regions of central and eastern Europe. At present, we only exploit 11 percent of Europe's potential renewable energy resources. Around 15 percent of European power needs are currently covered by "green power". In order to manage the leap to fully satisfy Europe's energy needs from renewable energy sources, a "grand project" – one that will also provide new momentum for European integration – will be essential.

The uneven distribution of potential renewable energy sources will require the development of a Europe-wide electricity grid to pool resources across the continent. For example, to offset calm weather conditions on the North Sea coast, Germany's power needs could be met with energy from Scandinavian hydroelectric plants or solar thermal plants in Spain, combined with flexible biogas plants and a wide range of decentral generating facilities across the country. An intelligent grid will provide the infrastructure for an internal European market for renewable energies. Promoting technical innovation will require transnational research and community pilot projects not unlike those practiced by EURATOM in the nuclear sector. In short, regulating and coordinating those challenges at the European level calls for a European Community for Renewable Energy (see www.erene.org).

Following the European Coal and Steel Community in the 1950s and EURATOM in the 1970s, the time has come for another major endeavor to propel our continent into the solar age. It is up to Europe to show the world that affluence, freedom, and a healthy environment belong together.

Photo: Paul Langrock/Zenit/laif

FRONT RUNNERS OF THE SOUTH

Developing countries relentlessly point to the industrialized North's historical responsibility for climate change. In their view, the price for the industrialized countries' wealth is atmospheric pollution that will affect the lives of coming generations the world over. The North should therefore take the lead in fighting climate change and leave the atmosphere's remaining potential to absorb CO_2 to benefit the growth of developing countries.

Despite all of the insistent rhetoric, however, countries of the South are already taking steps today – some of which are rather substantial. While Germany is only investing 13.8 percent of its economic stimulus package into climate-related projects, the figure in South Korea, for example, is 80.5 percent. A Green New Deal has been an official part of the government's program since January 2009. Costa Rica's goals are even more ambitious: the Central American state aims to become the world's first carbon-neutral country by 2021.

Böll.Thema asked experts in major, newly industrialized countries such as China, Brazil, India, South Africa, and Mexico, and in smaller countries such as South Korea and Costa Rica, to report on their country's progress in mitigating greenhouse gas (GHG) emissions and steps toward forest protection. And then there is a little country in the heart of Africa that has a surprise in store.

Costa Rica

by Lawrence Pratt — Costa Rica is a pioneer in the early implementation of greenhouse gas mitigation mechanisms. In February 1998, the Costa Rican government made the first official sale of Mitigation Certificates to Norway, for an equivalent of 200,000 tons of carbon. Almost one decade later, in June 2007, President Oscar Arias announced an initiative that would make Costa Rica the first carbon-neutral country in the world by the year 2021.

The president has acknowledged that this is an ambitious goal, and reaching it will require the help of all citizens and future governments. For this reason, the country is trying to implement a strategy that reaches beyond the public sector. A good number of private companies, academic institutions, and government organizations have already calculated their GHG emissions inventories and are taking actions toward reducing emissions, switching fuel sources away from fossil energy and compensating their remaining emissions, but there is still a long way to go.

At the same time, Costa Rican authorities are trying to regain the leadership they held in the early climate change negotiations regarding carbon sequestration in forests. During the UNFCCC Conference of the Parties (COP) in Bali, Costa Rica, and Papua New Guinea, supported by a coalition of countries with rainforests, presented a proposal to include the Reduction of Emissions from Deforestation and Degradation (REDD) in the new climate regime expected from the Copenhagen COP in 2009. Currently, Costa Rica and the other Central American countries are seeking to build capacities to be able to take advantage of new opportunities likely to arise from the much-needed inclusion of reduction of deforestation in global climate strategies.

China

by Chen Jiliang and Kimiko Suda — China is active in climate protection mainly for two reasons: to provide energy security to sustain the economic growth, which is vital to the social stability, and to protect the nation from the severe impacts of climate change such as reduction of agricultural production, water supply, etc.

The Chinese government has introduced legislations such as the Renewable Energy Law. National plans including an energy intensity target (20 percent reduction) of the economy and a renewable energy target for 2020 (16 percent including nuclear and hydro) have been set. (The renewable energy target has been renewed because the 2010 target has been achieved earlier.) A National Climate Change Impact Assessment Report and a National Action Plan on Combating Climate Change were published in 2007.

Besides the goal for renewable energy development, the energy-intensity target for 2010 is also a quantitative one. Such goals will be continually introduced in the next 5-year plan. President Hu Jintao has announced in the UN climate summit in September 2009 that China will make significant carbon intensity reduction goals for 2020. The number may come out in Copenhagen.

Photos: "The Horse in Motion» von Eadweard Muybridge

Glossary

[1] **REDD (Reducing Emissions from Deforestation and Degradation):** Deforestation and forest degradation account for 20 to 25 percent of man-made greenhouse gas emissions. Forest protection must therefore be covered by international climate talks. It is also a cost-effective way of contributing to climate protection.

[2] **Annex 1 countries**: Annex 1 of the Framework Convention on Climate Change of 1992 lists the countries that committed to reducing their greenhouse gas emissions to 1990 levels by the year 2000. They include all OECD countries (except Korea and Mexico) and all eastern European countries (except the former Yugoslavia and Albania). The term "Annex 1 countries" is therefore frequently used as a synonym for industrialized countries; "Non-Annex 1 countries" are generally developing and newly industrialized countries.

[3] **MEF (Major Economies Forum):** An initiative founded by President George W. Bush with the intention of holding climate negotiations parallel to the UN process, thus undermining it. President Barack Obama has adopted and continued the initiative, now with the official objective of supporting the UN climate talks.

Basically, China's climate change strategy can be summarized as a "2-side fight," which means on the negotiation table it will play tough in the political fight for the development right, and it will also fight hard to restrict the emission domestically for the sake of the nation's sustainable development. In the year 2009 the voice from the Chinese government has been moving in a positive direction. Words such as "peaking" and "carbon intensity" were mentioned on various occasions. Low-carbon economy is one of the hottest topics in the propaganda. Since combating climate change is something that does not conflict much with the government's policy, civil society can work openly on this issue. Most of the efforts from the civil society are aimed at promoting a low-carbon lifestyle. Also policy research and pilot projects on mitigation and the exploration of local adaptation policy are happening. There is a China Civil Climate Action Network (supported by the Heinrich Böll Foundation), which has started to play an active role in capacity-building and political debate. It is a network of more than 10 environmental organizations and keeps expanding. The youth are also active in campaigning and researching. The China Youth Climate Action Network are working on allying with global initiatives such as 350.org and Seal the Deal. The media have also created a lot of public attention on climate change and Copenhagen. The domestic atmosphere is also putting pressure on and encouraging the government to play an active role in Copenhagen.

South Africa

by Antonie Nord — South Africa was one of the first countries of the global South to present a strategy for reducing its greenhouse gas emissions, even though the Non-Annex 1 country is under no obligation to do so according to the Kyoto Protocol. Thanks to this initiative, South Africa has taken a leadership position among newly industrialized countries.

In July 2008, then-Minister of Environmental Affairs Marthinus van Schalkwyk presented a strategy paper that outlined a path for climate-friendly development. Historically, around ninety percent of South Africa's electricity has been generated by coal-fired power plants. With CO_2 emissions of roughly nine tons per capita, South Africa ranks among the top 20 emitters worldwide.

According to the strategy, the country's emissions will peak around 2020 to 2025 and be reduced gradually starting in 2035 through improved energy efficiency, investments in renewable sources of energy, carbon capture and storage technologies for coal-fired power plants, modernization of the transport system, and investments in nuclear energy. A carbon tax for industry and gas-guzzling luxury vehicles is to be implemented already in the near future. Internationally, South Africa has thus earned a moral leadership position that puts greater weight behind its calls to distribute the worldwide mitigation burden fairly.

Environmental groups lament its planned expanded deployment of nuclear energy, however. Experts also question the financial viability and manageability of CO_2 capture and storage technology. Labor unions, in turn, worry that the planned carbon tax will lead to price increases that will hit the 40 percent of South Africans that live below the poverty line hardest.

Brazil

by Thomas Fatheuer — It was Brazil's turn to shine: during the Poznan conference, Minister of Environment Carlos Minc launched the "National Plan on Climate Change" – a draft containing voluntary reduction goals. The plan was showered with praise. Al Gore noted that the country had now taken a leading position in the climate negotiations. Ban Ki-moon described the Brazilian economy as one of the world's greenest.

Brazil plays a special role among the emerging economies. According to its energy balance, Brazil is one of the greenest countries in the world. The favorable figures are due to the large share of hydroelectric power in its energy mix: Brazil obtains around 75 percent of its electricity from this low-carbon source. It is also increasing the share of biofuels it uses. With a 45 percent share of renewable energy in its primary energy consumption, Brazil is the current world leader – the OECD average is 6.2 percent.

Brazil's shining image becomes badly tarnished, however, when emissions from land-use change – i.e., deforestation – enter the calculation. Land-use change is the source of roughly two-thirds of its emissions. Incorporating them in the national balance puts Brazil in fifth place on the list of the world's worst polluters.

The central issue facing Brazil at the international conferences is therefore the destruction of the Amazon rain forest. The Bali Action Plan of 2007 recommends including the reduction of emissions from deforestation and degradation (REDD) in an international agreement, placing Brazil in the focus of negotiations. The country delivered an effective response to the attention with the "Plano Nacional de Mudanças de Clima," which it launched in Poznan. The plan stipulates reducing Amazon deforestation by 70 percent vis-à-vis the average of the years 2005 and 2006 by 2017. This move would reduce CO_2 emissions by an annual 4.8 billion tons.

Reaching those goals will require money. The government has set up an Amazon fund, to which Norway has already contributed $100 million. The German government intends to participate with $18 million for a start. The Brazilian government estimates it will require roughly $1 billion annually. Brazil has thus maneuvered itself into a comfortable position in the international talks – by stating its voluntary national goals in extremely ambitious terms, it can now demand financial support from the industrialized countries.

In Brazil itself, the position of the government is less comfortable. Doubts are being voiced about the feasibility of the plan's noble goals. In particular, a law to regulate land ownership has provoked criticism: with the stroke of a pen, it legalized all Amazon land holdings up to an area of 1,500 hectares. The majority of those holding are located on public property and occupiers therefore had no title to the land up to now.

The law was initially designed as a measure to provide legal security for small farmers, yet by expanding it to cover holdings of up to 1,500 hectares, it amounts to a massive transfer of public land to mid-sized and large companies – without the slightest environmental strings attached. It thus brought illegal deforestation within the law after the fact and created a perverse incentive for the future.

And that's not all: Brazil's Growth Acceleration Program includes plans for vast dams and the construction of additional roads in the Amazon region. President Lula da Silva clearly imagines that anything is possible in his vast country. Forest protection, huge projects, and agribusiness – there is room for everything. So far, the figures do not contradict that view. Indeed, deforestation has slowed in the past two years, but the economic crisis is likely to be partly responsible for this decline. What Brazil lacks is a consistent set of policies to realize the climate goals it announced on the international stage.

Elections are scheduled for 2010 and Lula is touting Dilma Rousseff as his hand-picked successor: As his Chief of Staff, Rousseff is responsible for coordinating the Growth Acceleration Program and is beyond any suspicion of sympathizing with environmental causes.

Mexico

by Ingrid Spiller — Mexico, a newly industrialized country, has been playing a largely positive role in the international climate conferences. President Felipe Calderón declared climate protection to be one of the most important on the international agenda, along with security and the war on drugs.

With its proposed global "Green Fund" to finance mitigation measures and technology transfer, Mexico has made a constructive contribution to the negotiations, and is continuing to promote the proposal in other forums such as the MEF, G20, and G8+5. However, voices critical of the advocated fund have since been raised within the G77, as Mexico has demonstrated little willingness to integrate the thoughts and suggestions of group members into its proposal. Mexico is among the Non-Annex 1 countries that have made relatively good progress in implementing the Kyoto Protocol. It will be publishing its fourth "National Communication" – the regular progress reports called for in the Kyoto Protocol – in the near future.

This is all being done largely without pressure from civil society. Only four or five groups take an active interest in the climate conferences at the national level, among them the regional office of the Heinrich Böll Foundation and Greenpeace. Other climate initiatives work largely in isolation, without contact to the global negotiation process. A movement as such does not exist.

Mexico is undertaking to reduce its CO_2 emissions by 50 percent by 2050, with emissions continuing to rise until 2015, followed by gradual reductions. The lion's share of reductions is set to be realized in emissions trading with the United States, which will ultimately reduce Mexico's contribution to global emissions mitigation in absolute terms. REDD and REDD plus are the next most important items on the Mexican agenda after the Green Fund, and Mexico is hoping for additional funding in that regard. On a national scale, however, measures to prevent further deforestation have not made their presence felt to any great degree.

India

by Sanjay Vashist and Michael Köberlein — Climate change was placed prominently on the national policy agenda only in 2007 after the release of the fourth IPCC report and before the G8 meeting in Heiligendamm, Germany. It was debated in the Indian parliament and the prime minister subsequently set up a council on climate change with prominent experts. Additionally the Indian government used this occasion to commence a climate change decision making process engaging many government institutions apart from Ministry of Environment and Forests which had the sole mandate afore.

India's GHG emissions are permanently growing and by now it is the fourth largest GHG emitter in the world. Still, it is unfair to call India an intransigent or obstinate actor in the international climate debate, since it accounts for less than 5 percent of GHG emissions whereas it compromises 16 percent of the world population.

India has always cooperated toward the achievement of a fair and equitable climate agreement and has accepted the responsibilities contingent to the Rio Convention, the Kyoto Protocol or the Bali Action Plan. But as the climate negotiations have been undercut by the G8 and G20, pressure on India to accept legally binding emission reductions in next climate change regime has augmented. Hence India is seeking to engage the world community proactively and is contemplating making unilateral mitigation cuts over the next two decades as part of its own development process without jeopardizing its economic growth and development goals. India has already endorsed the +2°C temperature rise limit until 2050 and will give details on its comprehensive National Action Plan on Climate Change (NAPCC) and domestic measures to curb its GHG emissions.

India believes that the UN Convention on Climate Change should be the basis of a new deal and all negotiating bodies should be mandated under the United Nations Framework Convention on Climate Change.

India is doing its part and following up on its NAPCC by outlining various "Mission" documents from its ministries, which will be implemented as India's domestic climate legislation in the future. Yet, India's domestic climate policies are driven more by adaptation imperatives and less by mitigation efforts. India in alignment with G77 & China position expects the developed world to agree to a 40 percent reduction in GHG emissions till 2020 from 1990 levels so that developing countries get appropriate atmospheric space required to develop. Furthermore, technological and financial support for its own mitigation and adaptation efforts is a must to cope with the scope of challenges the country is facing with regard to global warming.

The Mission documents are due to be released soon and – according to advance copies – the numbers envisaged are very ambitious on promoting energy efficiency and renewable energy, with a focus on solar energy. In addition to the Missions documents, the actions on climate change are being steered by prime minister's office through its council which ensures wider engagement and the highest political attention.

In the field of adaptation, India will make massive efforts toward afforestation, drought-proofing, flood protection, and the need to protect coastal areas and glaciers that feed India's river systems. Indian media and civil society assure that the issue of climate justice will also be addressed domestically. If India follows this path the country can be a progressive leader on climate change and a responsible partner in international climate change negotiations.

South Korea

by Young-Woo Park — The Republic of Korea (ROK) is currently not an Annex 1 party and has not yet set official targets for greenhouse gas emission reductions. However, Korea has been making substantial efforts toward achieving a low-carbon society. In January 2009, Korean President Lee Myung-Bak announced the Green New Deal, an ambitious program designed to create 960,000 new green jobs within 4 years. Around 80 percent of the ROK's $38 billion stimulus package has been earmarked for an environmentally friendly transportation system, green cars, ecologically sound villages, schools and residential areas, and other green investments.

The ROK intends to announce its medium-term greenhouse gas mitigation goals by the end of 2009. In the G8 Extended Summit in Toyako in July 2008, the ROK expressed positive views on a global aspirations goal of 50-percent reduction of global emissions by 2050.

The ROK has a plan to increase the ratio of renewable energy use among total energy use from 2 percent in 2008 to 11 percent in 2030 and 20 percent in 2050. The focus of the plan is on low-carbon green growth as a new driver for growth promoting green and clean energy. The government is preparing a nationwide emission trading scheme with a pilot scheme to be launched. Korea is actively participating in the negotiations with particular interest in technology transfer.

The ROK is a mountainous country with approximately 65 percent of its land area in forest cover. In the 1950s, forests suffered severely from forest clearing and degradation during and after the Korean War. After extensive nationwide tree planting efforts at the national level, the ROK succeeded in reestablishing its forest cover by the end of the 1980s. International organizations, such as the Food and Agriculture Organization (FAO), recognized the ROK as one of the best countries in reforestation.

Korea aims to strengthen regional and international cooperation on REDD initiatives in the context of the UNFCCC, including enhancement of sustainable forest management, wasteland restoration, and promotion of industrial forestation. In this regard, Korea recently proposed to establish an "Asian Forest Cooperation Organisation."

Rwanda

by Marc Engelhardt — Fifteen years ago, Rwanda seemed beyond hope. Extremist Hutu militias had murdered over 800,000 Tutsi and moderate Hutu in only 100 days. The country was literally strewn with corpses. Hardly anyone imagined that the tiny state in the heart of Africa would ever recover from the genocide.

In fact, today's Rwanda is a model country in many respects – including environmental policy. President Paul Kagame, often criticized for his authoritarian style of governing, is well ahead of most of his fellow heads of state in taking climate change and its effects seriously. "Africa's economic growth depends directly on agriculture, tourism, fishing and the exploitation of natural resources," he explains. "And that will only be possible with effective environmental management."

The central issue is securing an ecologically sustainable energy supply for the country, which its government hopes will attain the status of a newly industrialized country by 2020. "Since November of last year, we have been pumping methane from the bottom of Lake Kivu to power a generator," explains Eva Paul, formerly of the GTZ – a German government organization dedicated to sustainable development – and now responsible for energy matters in Rwanda's infrastructure ministry. The project is a worldwide first. Bacteria decomposing organic matter in the dark depths of the lake are estimated to have produced 55 billion cubic meters of methane – the energy equivalent of 40 million tons of oil. For a country that until recently relied on firewood as its primary source of energy, this represents a quantum leap.*

"At present, two megawatts are being generated by the government-financed pilot plant at Lake Kivu," notes Ms. Paul. In a little over a year, the first full-fledged methane power plant is set to go online. "We've signed an agreement with Contour Global, a US company, to generate 100 megawatts by the end of 2010." That figure is nearly twice Rwanda's current total generating capacity of 57 megawatts.

And that's not all. A national energy strategy ratified in 2008 is promoting practically all types of renewable energy. Africa's largest solar generating system, which was recently installed near the capital, is a prototype for "island solutions." Schools and hospitals in off-grid locations are currently being equipped with photovoltaic cells. The 15,000 biogas systems being installed primarily in small farmers' latrines have the same goal. "Families conserve resources by cooking with biogas instead of firewood," explained coordinator Gerard Hendriksen.

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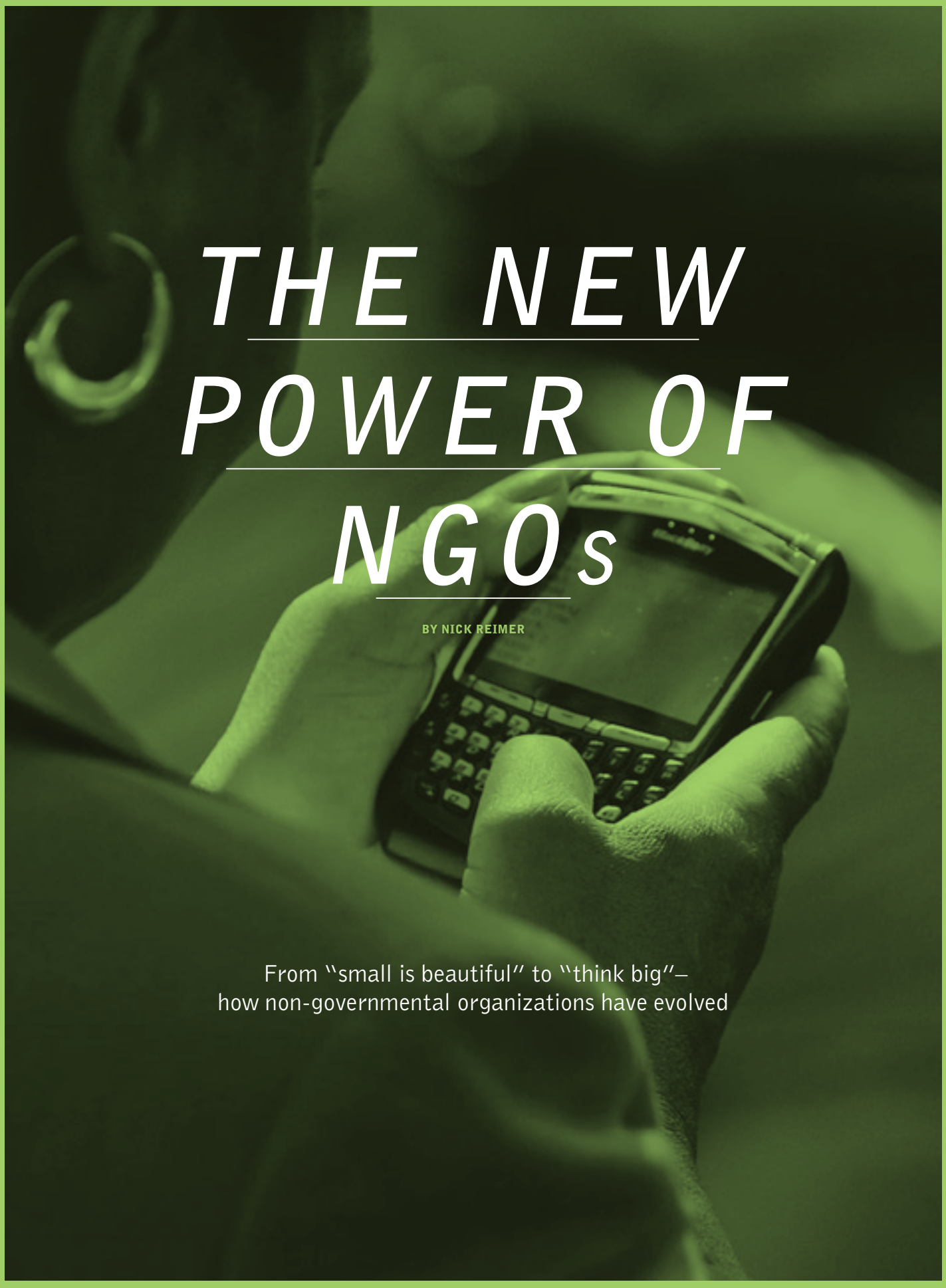
* **Editor's question:** Mr. Engelhardt, methane is a very hazardous gas – think of environmentalists' concerns related to methane emitted by the thawing tundra. Why is recovering it and using it as fuel being celebrated as an ecological step forward in Rwanda?
Author's reply: Ms. Kiderlen, if the methane currently bound in the lake were to be released into the atmosphere unburnt – through a geological event, for example – its effects would be the same as the methane from the thawing Siberian permafrost. From that vantage point, the Rwandan power station has added benefits by countering that danger.



THE NEW POWER OF NGOs

BY NICK REIMER

From "small is beautiful" to "think big" –
how non-governmental organizations have evolved

THE NEW WEAPON OF THE GLOBALLY ACTIVE NGO: THE BLACKBERRY

Photo: Alex Wong/Getty Images

A tightrope is stretched at a height of 50 meters from the Berlin Dom to the television tower. Klimabalance is the title of a performance with which acrobat Alfredo Traber is about to open the UN World Climate Conference. The tightrope is 620 meters long and 36 millimeters in diameter. Traber wears European size 40 shoes. His mission: to demonstrate equilibrium amid the insanity of worldwide development. Spectators wait with bated breath.

That was in March 1995. Delegates were assembling in Berlin for the first Conference of the parties to the Framework Convention on Climate Change. The meeting, also known as COP-1, marked the birth of international climate diplomacy. Apart from Traber's balancing act, however, the public took little notice of the event. Neither the media nor the environmental protection community responded with the slightest degree of excitement. On April 9, Berliner Zeitung reported: "The World Climate Conference closed on Friday after passing a last-minute motion to hold further negotiations on climate protection. After the motion was passed, protesters rushed the stage. They were ejected from the hall by security personnel."

Six years later, the mood had changed considerably: "The climate conference in Bonn is perhaps the last chance to agree on a climate protection plan," noted Karsten Smid three weeks before the conference opened in 2001. Together with other activists, the Greenpeace energy expert unfurled a banner in front of the US consulate in Munich that read: "Droughts, floods, storms – USA causes climate chaos." The protesters explained that they wanted to condemn the United States' stonewalling of international climate protection measures by shaming the "world cop" in public and around the world.

Without a doubt, the environmental movement's role in the UN climate protection process has changed dramatically over the past 14 years – both inside and outside the conference venues. In no other field are NGOs now so tightly integrated in the international policy development process as in climate diplomacy. This is due to both increasing specialization and the UN process itself.

From the Jamaican tourist board to the Chinese chamber of commerce to the Climate Action Network (CAN) – the number of organizations taking part in the conferences is growing yearly. In 2005, nearly 10,000 participants traveled to Montreal for COP-11. Two years later, 12,000 showed up in Bali, and nearly 16,000 gathered in the Polish town of Poznan. It is quite conceivable that 20,000 activists will be seeking accreditation in Copenhagen.

Various NGOs have set up their own organizational structures. Every COP therefore has its own nerve centers for business and industry nongovernmental organizations (BINGOs), trade union NGOs (TUNGOs), research and independent organizations (RINGOs) and, of course, environmental NGOs (ENGOs). The groupings all work to make their own marks on the conference with numerous side events highlighting the state of the art in fields such as electric mobility, building insulation, and technology transfer.

Fortunately, networking at the conferences goes a long way toward keeping the vanities of individual environmental NGOs in check. Members of CAN, for example, officially refrain from promoting their individual identities when interacting with the media. CAN's 450-member NGOs worldwide – 127 of which are based in Europe – share a headquarters and issue joint resolutions, press releases, and calls to action to move the climate protection cause forward in a coordinated manner. The role of smaller activist networks has become negligible.

Indeed, negotiators and policymakers welcome tactful lobbying work in the halls. During breaks in discussions of the insurance industry and climate-related natural disasters in Poznan at COP-14, German Federal Environment Minister Sigmar Gabriel consulted experts of the North-South organization Germanwatch for their opinions on the proposals as Germanwatch was already well-versed in the field.

By now, however, climate and environmental groups no longer limit themselves to trying to influence and give advice to policymakers and officials. At the UNFCCC in Bonn in June 2009, a broad coalition of environmentalists took the negotiations into their own hands for the first time. Scaling smokestacks, one-sided demands, and flyers became a thing of the past – instead, they presented a document entitled the "Copenhagen Climate Treaty." NGOs such as Greenpeace, WWF, Germanwatch, IndyAct, the David Suzuki Foundation, the National Ecological Centre of Ukraine, and other activists from 25 countries had spent eight months developing a proposal addressing the following question: How can a radical turnaround of global energy and development policy be achieved?

"Naturally, we couldn't do it solely over the phone," explains Christoph Bals, who headed the meetings for Germanwatch. The negotiations entailed five NGO climate conferences and numerous video conferences. "During our work we also realized the importance of reconciling interests," Bals adds. The result was a paper that delighted UNFCCC Executive Secretary Yvo de Boer. What set it apart from previous efforts? The NGOs, once grassroots movements, also provided a 78-page legal text in which they stated their demands in the arcane language of international policymakers – a paper that could only be distinguished from the output of government ministries by the nature of its content. Delegates were politely invited to copy and paste the text into their proposals.

The document lays out a scientifically founded, worldwide carbon budget and allocates it by country. It calls for the group of industrialized countries – above all the United States – to reduce their greenhouse gas emissions to 40 percent below 1990 levels by 2020. The target for 2050 is 95 percent. Appropriate measures are also expected of developing and newly industrialized countries. Furthermore, the NGO proposal incorporates an extensive adaptation package with reliable financial support projections and an international insurance mechanism for especially vulnerable regions. Between 2013 and 2017, the industrialized countries are expected to contribute at least €115 billion annually.

PS: In 1995, when Alfredo Traber went for his tightrope walk 50 meters over downtown Berlin to open the climate conference, Angela Merkel was the German Federal Environment Minister. Back then, Helmut Kohl – her boss – announced in 1995 that Germany would reduce its greenhouse gas emissions to 25 percent below 1990 levels by 2005. Germany might reach that goal by 2012. And our tightrope artist? Alfredo Traber fell, but he survived.

SOUND IN PRINCIPLE – OR FUNDAMENTALLY WRONG?

BY HANNO BÖCK

On the debate over amending or scrapping the Kyoto Protocol in Copenhagen

Imagine a climate change conference – and environmentalists are against it! In the run-up to the Copenhagen climate conference, an increasing number of activists are not interested in providing constructive criticism of the Kyoto/Copenhagen process, but reject it outright. The question is whether the process is essentially sound but does not go far enough, or whether its acceptance of market mechanisms is fundamentally wrong.

The debate is an old one, but past criticism of the UN climate conferences tended to come only from a barely audible minority. For example, Risingtide – an organization founded in 2001 and mainly active in the UK and Australia – categorically rejects market-based instruments such as the Clean Development Mechanism (CDM) as false solutions.

In 2004, grassroots groups from around the world issued the Durban Declaration on Carbon Trading under the title "Climate Justice Now!" In it, they criticize trading of emissions rights as being unsuitable for resolving the climate crisis. The declaration was supported by numerous small NGOs of the global South. As a consequence of the Durban Declaration, the Climate Justice Now! network was founded as a counterpart to the NGO-dominated Climate Action Network during the climate conference in Bali in December 2007. The new network is intended to provide a voice at conferences for radical grassroots groups. German leftist groups in the Klima!BewegungsNetzwerk network recently adopted the motto "Social transformation instead of climate change!" and are calling for the disruption of the Copenhagen summit.

RECENT SUGGESTIONS INCLUDE FOCUSING ON SELF-EXPLANATORY ACTIONS SUCH AS BLOCKADING A COAL-FIRED POWER STATION OR A HIGHWAY NEAR THE CONFERENCE. SUCH ACTIONS WOULD ALSO CONTRIBUTE TO OVERCOMING DIFFERENCES BETWEEN CLIMATE PROTECTION ACTIVISTS.

One of the central points of criticism of the Kyoto process concerns the flexible mechanisms, in particular CDM. The activists reject the idea of not reducing greenhouse gas emissions at the source, but offsetting them with measures in developing countries, as a new form of colonialism. Why should a company in Germany be absolved of its climate debt at home by investing in an industrial plant in India?

The specific structure of many CDM projects also raises questions: do they not simply create new environmental problems rather than solve them? The forest plantations that replace virgin rainforests are a frequently cited example in this respect. CDM projects are often put in place against the resistance of the local population – thus contradicting the basic idea of climate justice. In a recently published study, Friends of the Earth reached a sobering conclusion – that it is virtually impossible to document actual reductions of emissions arising from CDM projects. Friends of the Earth concluded that CDM projects were a fraud.

In addition to these aspects of the Kyoto Protocol, further objections arise with the criticism of capitalism. The discussion revives the ancient debate about the limits of growth, asserting that any approach to addressing the climate crisis based on growth-oriented economic principles is doomed from the outset. Experience has so far supported that view – any progress with regard to energy efficiency and energy savings to date has been canceled out by increasing consumption.

Photo: Getty Images

HOW FAIR IS FAIR ENOUGH?

Two climate concepts compared

Two models are currently being pitted against one another in the discussion of a fair climate regime: Contraction and Convergence (C&C) and Greenhouse Development Rights (GDRs). The controversy revolves around issues of fairness and feasibility, and the question of how fair is fair enough. Other approaches with the potential to mitigate emissions fairly are not in discussion at present. The debate over these concepts is vital, as having actors who are individually committed to ambitious goals but divided at the conceptual level could prove fatal for climate policy as a whole. The following is an overview of the core elements of both.

THE THEATRICALIZATION OF NATURE. HYPERBOLE AS THE SWAN SONG OF THE NATURAL. "KITKO RIVER" FROM THE *MUSEUM OF NATURE* SERIES BY ARTIST ILKKA HALSO.

Photo: Ilkka Halso: "Kitka River" from the series Museum of Nature

CONCEPT 1

"CONTRACTION AND CONVERGENCE (C&C) IS EASIER TO IMPLEMENT POLITICALLY AND HAS GREATER POTENTIAL FOR A GLOBAL COMPROMISE."

BY KATRIN KRAUS AND KONRAD OTT
GREIFSWALD UNIVERSITY

Concepts related to the architecture of future climate protection treaties must have the potential to prevent or at least limit dangerous man-made interference with the climate and distribute the financial burdens of climate policy fairly. They should also be suitable for implementation within the existing worldwide political situation – i.e., they should be acceptable and feasible. The fairness of a concept is therefore a precondition for its acceptance, and acceptance is, in turn, the key to its implementation. Yet a concept marked by great fairness may nevertheless prove unenforceable in practice and thus may not yield benefits for the environment. The four criteria by which a concept can be evaluated – effectiveness, equity, political acceptance, and political feasibility – are interrelated.

C&C was developed by the Global Commons Institute (GCI) in the early 1990s. C&C describes an approach for negotiating a global climate protection treaty. A first step is to determine a stabilization level for the atmospheric concentration of greenhouse gasses. In the second step, the global emissions budget resulting from that emissions ceiling is distributed over a period of years so that the per-capita emissions rights of all countries are roughly the same by the convergence year. An essential element of C&C is therefore the transition period in which global emissions are steadily reduced (contraction) while the emissions rights of individual countries, which initially corresponded to their actual emissions at the beginning of the period, are adjusted toward an equitable per-capita level (convergence). At the end of the transition period – i.e., in the

convergence year – all countries will have the same per-capita budget.

The institute also proposes global emissions trading and a cutoff year, after which the further development of the population will no longer affect global allocation. The latter proposal is designed to eliminate incentives for programs to increase birth rates. The concept thus allocates the remaining emissions rights equitably according to a protection goal to be established. Assuming 2°C is an acceptable goal, the convergence will permit maximum CO_2 emissions of two tons per person per year. For industrialized countries, that will mean reductions of 80 (Germany) or 90 (United States) percent vis-à-vis 1990 levels or massive purchases of emissions rights, benefiting poor countries with low per-capita emissions.

The concept of Greenhouse Development Rights (GDRs) was introduced in 2004. The following elements are central to GDRs:

1. The GDRs concept initially specifies a emergency emissions pathway that reflects alarming new research findings and is very likely to limit global warming to 2°C. According to that path, CO_2 emissions should peak in 2013, then decline by up to 6 percent per year. By 2050, they would be 80 percent below 1990 levels.
2. GDRs defines a global development threshold with an income limit of $7,500 purchasing power parity. GDRs recognizes the right of individuals with lower incomes to development – those who are poor by definition would not have to contribute toward climate protection. Individuals with higher incomes – the global consumer class – should bear the costs of mitigation and adaptation. Intranational income distribution would thus serve as the basis for the global distribution of climate protection burden.
3. The burden would be distributed according to a Responsibility and Capacity Indicator. Capacity is defined as income exceeding the development threshold, while cumulative emissions since 1990 arising from an income exceeding the threshold are the measure of responsibility. Both elements are weighted and used to calculate the indicator.
4. The Responsibility and Capacity Indicator states mitigation obligations for industrialized countries that would exceed 100 percent within a few years. The EU, for example, would be required to curb emissions by 140 percent by 2030. Industrialized countries have a double mitigation obligation – domestically, and in poorer countries. They would thus be required to shoulder higher burdens than under C&C.
5. Two options are available for implementing the concept. The first involves global emissions-trading based on national business-as-usual (BAU) emissions paths, which are revised and renegotiated at regular intervals. The second is based on a regular estimate of global emission mitigation and adaptation costs. The national shares of those costs are then calculated using the Responsibility and Capacity Indicator and the funds are collected at the national level as a climate income tax. At the global level, the money is then allocated to a climate change fund to finance mitigation and adaptation measures. Unlike C&C, a GDRs regime would not allocate scarce emissions rights, but would distribute the burden of fighting climate change, including the necessary adaptation measures. Due to the horizontal nature of adaptation programs, those costs could increase virtually infinitely, however.

Results of the comparison of both concepts

The two concepts differ in their objectives and scopes. While the authors of GDRs intend to solve the global poverty crisis together with the climate crisis, C&C focuses exclusively on climate. For C&C, mitigating poverty tends to be a welcome side effect. While GDRs would apply the Responsibility and Capacity Indicator to emissions reduction and adaptation, C&C only deals with reducing emissions. In that respect, C&C is incomplete. The results of the comparison are summarized below for each of the criteria.

Political feasibility – In terms of political feasibility, C&C has a significant advantage in that it only requires two questions to be answered – the stabilization goal and the duration of the transition period. C&C is therefore much easier to negotiate. In a GDRs regime, many individual issues would be subject to negotiation, such as the development threshold, the year from which responsibility for past emissions would be assumed, and the formula and weighting used to calculate the Responsibility and Capacity Indicator. Above all, the regular development and negotiation of national BAU scenarios reduces the clarity of the GDRs concept and increases the volume of data it requires. The simplicity of C&C arises from its low data requirements (population figures and national emissions), making it more manageable. A C&C regime also provides long-term planning security for all countries.

Equity – Ethically justifying C&C requires viewing the capacity of the atmosphere to absorb greenhouse gasses as common property. Assuming that the equal distribution of such resources is intuitively the most attractive solution – why, after all, should any particular group have a higher moral claim to them? – then equal distribution is the solution to be preferred. The favoring of countries with high emissions implied by the transition period can be justified ethically by the time those countries will need to transform their infrastructure and lifestyles. With regard to the principle of difference, it may be noted that C&C does not force the poorest countries to shoulder the climate protection burden and lets them distribute their income from emissions trading.

The developers of GDRs also regard the atmosphere to be common property, but call for equity with regard to the right to development rather than identical emissions rights. In doing so, they emphasize that they see this as the right to personal development, and that they only reduce personal development to its economic dimensions to facilitate calculating the Responsibility and Capacity Indicator. GDRs imply a global redistribution of existing income: any disposable income above the development threshold is potentially available to finance global climate protection. In the case of GDRs, the presupposed emergency ethic justifies the earners' lack of rights to income exceeding the development threshold. The economic consequences of GDRs are more difficult to assess than those of C&C.

Political acceptability – C&C has been endorsed in recent years by the German Chancellor Angela Merkel, the EU, and several developing countries, while the GDRs concept has not been accepted by any country to date.

In a C&C regime, developing countries with low per-capita emissions are not required to contribute toward climate protection and can dispose freely over their income from emissions trading. Developing countries with per-capita emissions close to the global average would soon have to depart from their BAU development path or purchase emissions rights, however.

GDRs would require rich inhabitants of developing countries to contribute toward climate protection to keep the emissions for which they are responsible from being lost in their country's average. While this requirement is equitable, it may be contrary to realities on the ground, as the rich are also politically influential and the shares of newly industrialized countries are borne by broad sections of their populations.

Both concepts require substantial payments by industrialized nations. As C&C does not specify exact target values, it provides a degree of leeway that could permit industrialized countries to accept it. A more distant convergence date and a higher stabilization target could, for example, reduce the burden on countries with high per-capita emissions.
In the case of GDRs, it is important to note that the required double obligation could reach dizzying levels for industrialized nations.

Positive effects for the environment – The two concepts differ in that C&C is neutral with regard to the stabilization level, while GDRs dictate an ambitious emissions reduction path. It remains doubtful, however, whether GDRs can achieve greater reductions that a C&C regime due to three serious risks inherent to GDRs:

1. C&C has the advantage of being suitable for relatively quick implementation, while GDRs are complicated and encompass controversial detail issues that require time-consuming negotiation. This contradicts the urgency of the ambitious climate policies stressed by GDRs.
2. While the limited loading capacity of the atmosphere is central to C&C and economic development is thus only permissible within that natural limit, the GDRs concept gives national development ambitions priority and attempts to harmonize them with natural limits only in a subsequent step.
3. The GDR concept uses disposable income as its standard for a decent life and grants all of the planet's inhabitants the right to the resources they need to live as members of the global consumer class. However, as popular as the idea of sustainable consumerism may be, the fact remains that the lifestyle of the global middle class is both energy and resource-intensive, and as the main cause of the climate crisis, it cannot be practiced over the long term by all of Earth's nearly 6.8 billion inhabitants. A global GDRs regime would run the risk of legitimizing the infrastructure projects that developing countries would need to realize a Western lifestyle for their populations as a whole. It would not be possible to reconcile such development with safe ecological limits.

CONCLUSION

As we have shown, the GDRs concept achieves poorer results according to all criteria. In comparison to GDRs, C&C is easier to implement politically, has the greater potential for global compromise, is based on a less contestable ethical foundation and has greater potential to change public awareness and behavior in the long term. Overall, C&C is the concept to favor. While the image of a divided world central to the GDRs framework may describe the present reality accurately, it does not provide a long-term vision for overcoming the gulf between rich and poor, between North and South. C&C, by contrast, evokes the image of a global community united under the mounting pressure of the crisis to realize a cautious and sustainable management of the climate system. C&C should nevertheless give greater consideration to the fact that conventional development paths involving increasing economic growth and consumption of fossil fuels will not be feasible for many countries in the future. C&C should recognize the responsibility of rich countries to support the poor in adapting – not out of charity, but out of justice.

This article is based on a dissertation submitted by Katrin Kraus to Greifswald University in 2009: Contraction & Convergence and Greenhouse Development Rights: a critical comparison between two salient climate-ethical concepts. The complete document (in German only) is available at www.boell.de/thema

CONCEPT 2

"THE GREENHOUSE DEVELOPMENT RIGHTS MODEL IS THE FAIREST WAY TO DISTRIBUTE THE BURDEN."

BY TILMAN SANTARIUS

Emissions mitigation goals designed to avert dangerous disturbances of our climate are currently being negotiated in international climate conferences. What constitutes a fair share of the burden? Just how deeply should Germany and the EU, Japan and the United States, China, India, and the developing countries cut their emissions? And how much would they have to contribute in financial terms toward a just solution of the global problem? Countless proposals of how to distribute the burden have been made in recent years, and some of them are obviously fairer than others.

Human rights are the root of justice. Recognizing them is the foundation of all justice; realizing them must be the first and highest goal of a policy with the capacity for justice. The protection of human rights is the central theme by which the Greenhouse Development Rights (GDRs) model defines the distribution of the global burden.

The GDRs model initially defines a "development threshold." People whose income – regardless of whether they live in the North or South – is below that threshold are not expected to share in the costs of solving the global climate problem. The exact level of that threshold is, of course, open to negotiation. Empirical analysis of the income levels at which the classic plagues of poverty – hunger, malnutrition, illiteracy, chronic disease, etc. – begin to disappear could serve as an orientation. This can be deemed the point at which basic human rights have been realized – $7,500 purchasing power parity per person per year could serve as a suitable threshold in this regard.

People whose income is above that threshold should be expected to share in the costs of solving the global climate problem. The obligations of individual countries can then be calculated on the basis of their historical responsibility for climate change (the sum of their cumulated per-capita emissions since 1990) and their aggregate capacity (the sum of all individual incomes above the development threshold). Industrialized countries such as Germany, in which 95 percent of the population has an income exceeding the threshold and enjoys lifestyles that generate comparatively high emissions, should bear a greater burden than most developing countries, in which only a small share of the population has an income exceeding the development threshold.

THE REQUIREMENTS

What are the results of the GDRs model? As the world's richest country and largest polluter, the United States would have to bear nearly one-third of the responsibility; the EU would follow with around one-quarter. The German share would amount to 5.2 percent. China – as the world's most populous country and by now a fairly strong polluter in comparison to other developing countries – would be responsible for 7.4 percent. In total, the industrialized countries would bear around three-quarters, and the developing countries one-quarter of the global burden.

Allocating just over 5 percent of the global responsibility to Germany does not sound particularly radical initially. But calculating the actual emissions reduction that this would require of Germany if the 2°C goal were to be met changes the picture drastically: Germany's fair contribution would be an 84-percent reduction of its emissions vis-à-vis 1990 levels by 2020. It is quite

clear that such a goal will not be attainable through climate protection measures within Germany alone in such a short time. And that's also not necessary. The GDRs model only states that Germany's fair share of the global burden amounts to an 84-percent reduction. A significant part of the German mitigation goal and comparably high goals of other industrialized countries can also be realized in other countries.

The GDRs model results in a double obligation for the industrialized countries: to cut their domestic emissions significantly, and to provide extensive support for mitigation in developing countries. This double obligation of rich countries is the key to pursuing ambitious climate protection goals worldwide while guaranteeing the universal right to a dignified life.

The question that arises initially is whether this is not a completely unrealistic demand. A look at the costs reveals that the challenge would be quite manageable. What would it cost if Germany were to realize half of its GDR mitigation goal – nearly 350 megatons of CO_2 – outside of Germany via emissions trading? At an estimated €60 per ton of CO_2 in the year 2020, it would amount to €24 billion. That's certainly not peanuts – but considering what is at stake, it does not seem outrageous either. Not all emissions reductions in the South can be attained through emissions trading, however; additional mechanisms and instruments will need to be developed to moving an extensive global cooperation forward.

COMPARISON OF CONCEPTS

In comparison with the Contraction and Convergence (C&C) model, which distributes the global burden according to per-capita emissions rights, the GDRs model appears more equitable in multiple respects. Firstly, it distributes the burden on the basis of common but differentiated responsibility and respective capability. In that respect, it complies with the most important core principle of international climate policy. By contrast, C&C ignores that principle. Distribution according to per-capita rights may seem equitable. But why should people who have hardly contributed to climate change in the past only receive the same emissions rights as those who have enjoyed an affluent, emissions-intensive lifestyle for a very long time? The poor must be granted emissions rights that will enable them to realize their human right to a life with dignity. Identical treatment of people living in different circumstances is not just, nor does it represent equal opportunity.

It is simply too late for the C&C model. When the Global Commons Institute developed it in the early 1990s, it was still assumed that distribution based on identical per-capita rights would leave poor countries headroom for development. Since then, CO_2 has been released into the atmosphere at an unprecedented rate. Climate researchers have also since determined that deeper cuts will be needed than originally assumed to ensure that global warming does not exceed the dangerous threshold of 2°C. In 2050, it will only be possible to emit one ton of CO_2 per capita. As average emissions in developing countries currently exceed two tons, it would be imperative for them to throttle their emissions in absolute terms immediately if the C&C model were to be followed. But is it just to require poor people who hardly have the means to invest in climate protection – and who did not cause the problem – to bear a share of the mitigation burden? Shouldn't those people who have the resources and access to the latest climate-friendly technology carry the poor's load for them?

CONCLUSION

Even those willing to let equity take a back seat in favor of better chances of political realization are unlikely to consider the C&C model suitable. All signs speak against the developing countries accepting an agreement in Copenhagen that would soon subject them to absolute emissions reduction requirements. Raising this demand would be to risk the failure of the Copenhagen conference. Also, the double obligation of industrialized countries – which will also require them to support mitigation activities in developing countries – have long been the focus of current climate negotiations.

Admittedly, whether that support will reach the level called for by the Greenhouse Development Rights model is anyone's guess. That will probably be decided in the back rooms during the last night of the conference, and questions of equity will possibly no longer be the central issue.

The Greenhouse Development Rights Framework: The Right to Development in a Climate Constrained World.
A report by Paul Baer, Tom Athanasiou, Sivan Kartha and Eric Kemp-Benedict. Published by the Heinrich-Böll-Stiftung, Christian Aid, EcoEquity and the Stockholm Environment Institute. Revised 2nd edition! Berlin 2008, 112 pages

WHAT WE DO

Heinrich Böll Foundation's activities in the field of global environmental governance

As policy actor on its own ground:
We give impetus to climate policy action, for example for greater justice in the climate regime. The Greenhouse Development Rights Framework is one such innovative concept. It attempts to bring together climate protection, justice, and the right to development.

With the European Community for Renewable Energy (ERENE), the Foundation put forth its own proposal for the implementation of the necessary energy policy transformation in the North.

We analyze and comment on research and policy: our website and especially the blog www.klima-der-gerechtigkeit.de/en have become leading sources for background information and current commentary on national as well as international climate policy decisions. As policy actor, we promote clear stances on issues such as nuclear energy: The publication Nuclear Power – Myth and Reality provides a widely sought reference work that contains arguments against a dangerous nuclear trajectory.

As supportive policy network:
We facilitate knowledge transfer and information flow, for example through regional analyses and perspectives on climate change. One such example is "Africa Speaks Up on Climate Change," supported by Wangari Maathai: in an appeal and film addressed to governments in Africa and the North, African activists affected by climate change demand a greater voice for Africa in international climate policy.

We enable selected partners to take part in climate negotiations, and we also promote such participation locally through capacity-building workshops. Additionally, we offer trainings on climate change and politics to increase public awareness. This applies to state as well as civil society actors. In advance of the climate summit in Poznan, for example, members of the Nigerian delegation received training in negotiating techniques.

We organize dialogues: in our transatlantic climate work, we bring European experiences of renewable energy diffusion or the introduction of emissions trading into the current debates in the US. As regards new energy policy issues such as the large-scale expansion of energy networks or electromobility on the basis of renewable energies, exciting developments are taking place on both sides of the Atlantic. We are accompanying these with the Transatlantic Climate Policy Group.

We assist new media through the local production of alternative film types and distribution channels as well as new forms of communication such as Twitter.

We support organizations in their efforts to produce broad public awareness of the impacts of climate change and to create alliances against climate change.

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The Heinrich Böll Foundation as actor in international climate and energy policy

Through our worldwide regional positioning with 28 offices covering more than 60 countries, we have great political reach in all regions. The international network of the Heinrich Böll Foundation consists of partner organizations and individuals such as Green-allied movements, non-governmental organizations, think tanks and academic institutions, parliaments and ministries, all of whom share our values – sustainability, democracy and human rights, self-determination, justice, and gender-equity.

Self-understanding of the Heinrich Böll Foundation is based on four guiding principles:

1. A global energy policy transformation: The global temperature rise must be limited as far below 2°C warming as necessary, compared to pre-industrial levels, to avoid catastrophic climate change.

2. Just effort-sharing in the climate regime: Responsibility for climate protection needs to be strengthened. Efforts to mitigate and adapt to climate change must be shared among countries on a fair and socially sustainable manner.

3. Comprehensive support to the vulnerable: Population groups and countries worldwide already suffer from the consequences of climate change. Particularly the disproportionably-affected poor require not only support to adjust to climate change but also chances for human development.

4. Mainstreaming the gender dimension: We work actively for a gender-equitable coherent financial architecture and sustainable adaptation policy to achieve climate objectives.

www.boell.de