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New Beginnings

Karen O'Brien

Welcome to the first issue of *GECHS News*, the semi-annual newsletter of the Global Environmental Change and Human Security project. This newsletter highlights research and activities taking place across the GECHS network, and profiles people and institutions working on diverse aspects of human security. Among the objectives of the GECHS project, one is to reach out to scientists, policy makers, and practitioners interested in environmental change and the implications for human security, and another is to increase research and activities related to this theme.

Each issue of the newsletter will be dedicated to a specific theme that should be of general interest to the GECHS community. In this first issue we focus on climate change – a process that represents, with little doubt, a challenge to human security for many. Framing climate change as a human security issue brings to the forefront questions about vulnerability, equity, conflict and cooperation, and sustainability. Inevitably, it raises questions about how society can and will respond to a changing climate. The GECHS project emphasizes research that takes up these questions, often from a social science perspective, and seeks to promote active dialogues with the policy and practitioner communities who are confronting and addressing climate change. Each newsletter will include a special section that presents perspectives of scientists, policy makers, and practitioners on one theme-related issue. In this first issue, we focus on climate change adaptation and development and the linkages between vulnerability and poverty reduction.

The aim of this newsletter is to expose readers to some of the new research and thinking on environmental change and human security. We hope that *GECHS News* inspires you to get involved with the GECHS project. If you have any questions or are interested in learning more about GECHS, please visit our website (www.gechs.org) or contact the GECHS International Project Office at the University of Oslo in Norway.



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Climate Change, Human Security, and Violent Conflict

Jon Barnett and W. Neil Adger

Human security is the condition when individuals and communities have the options necessary to avoid or adapt to risks to their basic needs and rights; have the capacity and freedom to exercise these options; and can actively participate in attaining these options (GECHS 1999). We argue that climate change can potentially undermine human security. The degree to which societies are vulnerable to climate change depends on the extent to which parts of the population are dependent on natural resources and ecosystem services, the extent to which the resources and services they rely on are sensitive to climate change, and their capacity to adapt to changes in these resources and services. But climate change risks are only a small part of the socio-political landscape that constitutes human security: equally other factors, such as poverty and violence pose risks to well-being and security and to the ability to adapt.

It is now well established that climate change poses significant risks to social-ecological systems in many parts of the world. We argue that these represent challenges and threats to human security. Some research has also suggested that climate change enhances the risk of violent conflict. In this article we suggest that there may indeed be linkages between this element of human security and climate change, but that these linkages are poorly understood and require further research.

Violence happens for a number of reasons, but key among them is that to varying degrees individuals choose to engage in violence (excluding those who are forcibly conscripted into armed groups). For example, agent-oriented studies from anthropology, development studies, and peace studies have shown that a common factor in



many internal wars is that armed groups are comprised of young men whose expectations for a better life have been frustrated due to contractions in their livelihoods. This makes joining an armed group a relatively more rational option to achieve some status in society, particularly when leaders are able to ascribe their poverty to the actions of other (ethnic, political, geographic, class) groups (Goodhand 2003). However, it may not be chronic poverty per se, but rather the perceived risk, or realization of, sudden poverty that increases people's propensity to join armed groups. In this respect the provision of aid, and importantly some certainty that aid will arrive, can help reduce the need for people to use violence to provide for their needs (Keen 2000). In many developed countries established and effective welfare systems perform this function, which in part helps explain why they experience relatively less frequent and intense violent conflicts than developing countries.

So, there may be some linkages between contraction in livelihoods and increased risk of violent conflict. The causes of livelihood contraction are often but not exclusively due to declining access to natural capital caused by, for example, deforestation, land degradation, natural disasters such as drought and flood, and population displacement for agricultural expansion, industrial development, or the building of roads and dams (Peluso and Watts 2001). Declining access to land, or rather to the returns from human uses of land, is seen as a key process that causes livelihood contraction and hence increases the risk that people will join armed groups (de Soysa et al. 1999). Other non-ecological factors such as the rolling back of State services and declining terms of trade also matter, and often interact with natural resource use and people's access to them in complex ways. War itself is a significant cause of livelihood contraction (Stewart and Fitzgerald 2000). These factors rarely operate in isola-

The relationship between determinants of human insecurity, violent conflict, and climate change

Factors affecting violent conflict	Interactions with climate change
Vulnerable livelihoods	Climate change impacts on water availability, coastal regions, agriculture, extreme events and diseases. It exposes livelihoods to risks, increasing their vulnerability. Vulnerability is affected by high resource-dependency, and is higher in more environmentally and socially marginalized areas. Some of these climate driven outcomes are long term and chronic (such as declining productivity of agricultural land), while others are episodic (such as floods).
Poverty (relative/chronic/transitory)	Poverty and relative deprivation are affected by the spatial differentiation of climate impacts and the sensitivity of places to them. Climate change may directly increase absolute, relative, and transient poverty by undermining access to natural capital. It may indirectly increase poverty through its effects on resource sectors and the State.
Weak states	Climate change risks are likely to increase the costs of providing public infrastructure such as water resources and urban infrastructure. So, it may decrease the State's ability to create opportunities and provide important freedoms, as well as decrease the State's own capacity to adapt.
Migration	Relocation, demographic and spatial changes are all adaptive responses to climate change. However climate change is unlikely to be the sole, or even the most important 'push' factor in migration. Large-scale movements of people may increase the risk of conflict in host communities.



tion. There are good grounds to suggest that climate change will result in contracted livelihoods for many people, including losses of land and declining returns from human uses of land.

There is therefore some basis to thinking that climate change may cause human insecurity, which may in turn increase the risk of violent conflict. However, while the connection between human insecurity and an increased risk of violent conflict seems reasonably strong, this is not by any means to suggest that either: a) the presence of widespread human insecurity, even when coupled with every other possible risk factor, means violence is more likely than not; b) that over history the majority of directly violent acts that have caused trauma and death have been committed by the poor; c) that the forms of structural violence that are the major cause of morbidity and mortality emanate from the decisions and actions of the poor; and d) that violent conflicts in developing countries are entirely local and caused exclusively by endogenous factors. It does suggest, however, that under certain circumstances, at the same time as it negatively affects human security, climate change may also increase the risk of violent conflict.

The previous table summarizes some of the ways in which climate change may undermine human security and may, in conjunction with an array of non-climate specific factors, increase the risk of violent conflict. It is important to stress that climate change will not undermine human security or increase the risk of violent conflict in isolation from other important social factors. So, while the table reduces our arguments it should not be read as a simple statement of the ways climate change can cause human insecurity and violent conflict. We also stress again that the set of climate change factors does not cause violent conflict, but rather merely affect the parameters that are sometimes important in generating violent conflict.

In this article we have outlined some of the potential linkages between climate change, human insecurity, and violent conflict. Yet understanding about these linkages is incomplete. More can be learned through empirical studies into the ways climate change may affect environmental changes in localities, and the extent to which people are vulnerable to these changes. There is also a need to investigate different groups' capacities to adapt to change, the limits of those capacities, and the potential for violent outcomes when these capacities fail. Such research can reduce uncertainty about the human dimensions of climate impacts, and enhance knowledge of adaptation strategies that reduce the risk of violent conflicts.

This article is adapted from Barnett, J. and Adger, N. 2005. 'Security and Climate Change: Towards an Improved Understanding'. Human Security and Climate Change. Oslo, 21-23 June. Available online at www.gechs.org/holmen.

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Mainstreaming Adaptation to Climate Change into Official Development Assistance:

Promoting Synergies or Diverting Money?

Richard J.T. Klein

Links between climate change and development are becoming increasingly apparent. It is now virtually certain that climate change is happening and that it is largely caused by human induced greenhouse-gas emissions. These emissions are driven by socio-economic development patterns characterized by economic growth, technology, population and governance. At the same time these patterns influence people's vulnerability to the impacts of climate change, which will in turn influence socio-economic development and thereby future greenhouse-gas emissions.

Adaptation and official development assistance

The links between greenhouse-gas emissions, mitigation of climate change and development have been the subject of intense study (for an overview see Markandya and Halsnæs, 2002). More recently the links between climate-change adaptation and development have been brought to light. In particular when seeking to enhance the capacity of people to adapt to climate change, the link with development is evident. Adaptive capacity is often limited by a lack of resources, poor institutions and inadequate infrastructure, amongst other factors that are typically the focus of development assistance (Smith et al., 2003). People's vulnerability to climate change can therefore be reduced not only by mitigating greenhouse-gas emissions or by adapting to the impacts of climate change, but also by development aimed at improving the living conditions and access to resources of those experiencing the impacts, as this will enhance their adaptive capacity.

Adaptation and development are linked also because climate change poses a challenge to meeting development objectives. Successful adaptation to climate change would help to address this challenge and, as climate change intensifies, is likely to become increasingly important in official development assistance (ODA) and other activities aimed at eradicating poverty (e.g., Sperling, 2003). Adaptation would have to consider three distinct ways in which climate change can impinge on the success of development projects (Klein, 2001):

- The risk of climate change to the ODA project and its deliverables (such as water supply, food security, human health, natural resources management and protection against natural hazards);
- The vulnerability to climate change of the community or ecosystem that is intended to benefit from the ODA project;
- The possible effects of the ODA project and its deliverables on the vulnerability of communities or ecosystems to climate change.

Mainstreaming adaptation

As the links between climate change and development have become apparent, the term "mainstreaming" has emerged to describe the integration of policies and measures that address climate change into development planning and ongoing sectoral decision-making. The benefit of mainstreaming would be to ensure the long-term sustainability of investments as well as to reduce the sensitivity of development activities to both today's and tomorrow's climate (Klein, 2002; Huq et al., 2003; Agrawala et al., 2005). By its very nature, energy-based mitigation (e.g., fuel switch and energy conservation) can be effective only when mainstreamed into energy policy. For adaptation, however, this link has not appeared as self-evident until recently.

Mainstreaming would entail making more efficient and effective use of financial and human resources as compared to designing, implementing and managing climate policy separately from ongoing activities. Prospective efficiency and effectiveness gains provide a rationale to development agencies for analyzing the potential for mainstreaming adaptation to climate change in their development activities. Over the past five years, six development agencies have taken the initiative to screen their portfolios of development activities, generally with two goals in mind: (i) to ascertain the extent to which existing development projects already consider climate risks or address vulnerability to climate variability and change, and (ii) to identify opportunities for incorporating climate change explicitly into future projects.

A recent study by Klein et al. (2006) assessed the screening activities to date, focusing on both the results and the methods applied by the six agencies. They found that the agencies do consider climate change as a real albeit uncertain threat to future development, but that they have given less thought to how different development patterns might affect vulnerability to climate change. They also found that different approaches towards screening consider different types of challenges for the mainstreaming of adaptation to climate change (see Table 1).

The OECD is currently preparing a Declaration on Integrating Climate Change Adaptation into Development Co-operation, to be adopted at a joint development and environment ministerial meeting in April 2006. Whilst it is too early to comment on the contents of the declaration, the fact that such a declaration is being prepared is evidence of the importance that is now being attached to mainstreaming adaptation into ODA activities. The OECD declaration is expected to provide an impetus to all development agencies to consider climate change in their operations.



Table 1: Types of portfolio screenings and key challenges for the mainstreaming of adaptation (+++ = high level of attention, + = low/negligible level). For details see Klein et al. (2006).

Challenges	Review of policies and strategies (Norad)	Country case studies (OECD, DFID)	Programme and project review (World Bank, GTZ, SDC)
Range of adaptation options considered	++	++	+
Link to political processes	+	+++	+
Identification of synergies and conflicts/contradictions between poverty reduction and vulnerability reduction	++	+++	+
Identification of new challenges caused by climate change	+	+	+
Enabling proactive strategies	+	++	+
Attention to process of mainstreaming adaptation	+	+	+
Link to practical ODA activities	+	++	+++
Awareness raising on climate-development links	++	++	+++

Concerns

The above may give the impression that a broad consensus has emerged that mainstreaming adaptation into ODA is the most desirable way of reducing the vulnerability of people in developing countries to climate change. There is indeed an emerging consensus amongst development agencies, as will be reflected in the OECD declaration. However, concerns about mainstreaming have been voiced within developing countries and amongst academics. On the one hand there is concern that scarce funds for adaptation in developing countries could be diverted into more general development activities, which offers little opportunity to evaluate, at least quantitatively, their benefits with respect to climate change (Yamin, 2005). On the other hand there is concern that funding for climate policy would divert money from ODA that is meant to address challenges seen as being more urgent than climate change, including water and food supply, sanitation, education and health care (Michaelowa and Michaelowa, 2005).

A concerted research effort is needed to answer questions concerning the efficiency and effectiveness of mainstreaming, barriers to and opportunities for mainstreaming, the accountability of industrialized countries with respect to their commitments under the United Nations Framework Convention on Climate Change and, ultimately, the practical desirability of mainstreaming adaptation into ODA.

Acknowledgements

Parts of this article are taken from Klein et al. (2006). Any credits should therefore be shared with my co-authors; any blame should be laid on me. This article benefited from discussions with representatives from development agencies at the GECHS workshop on Climate Change and Poverty, which took place in Oslo in January 2006. Presentations are available at www.gechs.org/oda.

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Climate Policy After Montreal What Can Development Agencies Do?

Lorenz Petersen

The mood after Montreal

According to delegation reports and NGO publications the general mood afterwards was good: commentators from governments to environmental NGOs felt the 11th Conference of the Parties to the Convention on Climate Change and the first official meeting after ratification of the Kyoto protocol in December of 2005 was a success. The Climate Convention Secretariat spoke of it as an “historic event”. Business leaders were slightly more skeptical pointing out to that what came out was rather “general”. The feedback from developing countries I picked up was also more subdued. While the interest in participating and discussing climate change was strong in almost all quarters, many of the developing country issues remained unresolved.

Results

But let's first look at the concrete results Montreal did bring: The Kyoto Protocol is in place with all the detailed rules for the implementation of the flexible mechanisms, the so-called Marrakech

Accords. The Clean Development Mechanism, meant to attract investment from the developed world in the developing world, is going to be strengthened financially and institutionally. Agreement has been reached on a “Compliance Mechanism” how to check whether the Kyoto obligations have been implemented. Importantly, there is a “road map” on how the process of discussing the climate regime after 2012 will be organized. Even the US and Australia will be talking about the future of the convention – albeit on a completely non-binding, non-committing basis.

Development related topics on the Montreal agenda

In the field of adaptation to climate change a five-year work programme has been agreed, by which some felt this critical issue from a developing country point of view has been rather put off. This impression was reinforced by the ongoing debate on where the funding for adaptation, particularly for vulnerable poor developing countries, should come from. The international financial instruments cre-



ated for this purpose are still to a large degree not operational because of disagreements over institutional questions within the international community. Developing countries have also reiterated their call for further capacity building support. A subject moving into center stage by China and India, among other countries, is and will be the transfer of technologies for addressing the issue of limiting greenhouse gas emissions. This discussion is going on both inside and outside climate change convention circles. A lasting effect was created by the initiative of Papua New Guinea and other developing countries proposing to include avoided deforestation into the climate regime, which is so far not possible. The discussion of how this could be put into practice is currently in full swing.

Climate issues from a “southern” perspective

For the international climate policy process to keep its credibility, industrialized countries have to do much more in terms of real achievements in reducing emissions. As long as industrialized countries remain at the rather disappointing level of performance in reducing greenhouse gases, developing countries will find it difficult to accept obligations to limit or even reduce their emissions. Without emission reductions in dynamically evolving economies of the South in the short- to medium-term there will be relatively little hope to reach any of the climate policy objectives of the convention. From a developing country perspective this is also a question of fairness: the polluter pays – the polluter in this case being the countries of the Northern hemisphere during the last 200 years. Vulnerable countries of the developing world expect to see support for adapting to climate change. Given the scope of the adaptation challenge in many vulnerable countries this support cannot be limited to development assistance but must include international financial resources and support for implementing innovative policies that create incentives for effective risk management measures.

Agenda for action in development co-operation

From my view this leads to the following areas of action where co-operation with our developing country partners can make a difference:

- Further developing and scaling up adaptation approaches for developing countries with co-operation amongst donor agencies, NGOs and researchers
- Developing innovative mechanisms for financing risk management beyond ODA sources



Sinking Groundwater table due to climate change in the Atakora Donga in Northern Benin West Africa threatens livelihood of the poor rural population. Photo: GTZ.

- Contribute to practical solutions for integrating avoided deforestation into the climate change regime
- Continue to support political dialogue processes for a fair future climate regime
- Continue capacity building in the CDM field

With the EU presidency in the first half of 2007 and the G8 presidency for all of 2007, Germany will have the challenge to help move the climate agenda along. Let's see what we make of it.



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A Recipe for Mainstreaming: Integrating Climate Change Adaptation into Official Development Assistance (ODA)

Thomas Tanner

A taste for adaptation

Issues have a tendency to simmer for a while before they cook, overcook, or boil over. 2001 was a landmark year in bringing the science and the reality of adapting to climate change to bear on the development community. The third assessment report of the Intergovernmental Panel on Climate Change was released in this year, while at the seventh climate change conference of the UNFCCC in Marrakech, decisions laid down a more detailed agenda for adaptation and established three new funds, all of which would help finance adaptation activities.

Development agencies responded with the joint paper "Poverty and Climate Change: Reducing the Vulnerability of the Poor through Adaptation" (Sperling 2003). This highlighted the impacts of climate change on efforts to eradicate poverty and set out a common agenda for tackling vulnerability and adaptation issues in the context of ODA. Of particular significance, it made the case for the integration, or mainstreaming, of climate change adaptation within ongoing development assistance programmes, as well as national development plans and poverty reduction strategies, to which ODA was increasingly becoming aligned.

Nouvelle cuisine

More recently, the development community's palate has become much more accustomed to climate change as a topic. Yet much of the information on impacts remains focused on advocacy for national and global emissions reductions. Awareness of impacts on development priorities and poverty reduction remains comparatively low. This is compounded by the difficulties in prescribing a common response, which is frustrated by uncertainty at shorter time and space scales, and the need for locally appropriate responses. As a consequence, there is the tendency to focus ODA investments in areas where poverty reduction gains are perceived to be more certain or cost-effective.

Agencies and their partners should not underestimate the value of continuing to create information on impacts, vulnerability and adaptation that is tailored towards poverty reduction and specific development sectors. Early efforts to raise awareness across a broad base need to be reinforced. The job is not finished and our understanding is constantly improving. At the same time, the increasing interest of politicians can provide a strategic driver that can meet this enhanced awareness and foster significant change.

Eat up your greens

Despite the increasing press and political attention, in most countries climate change is still regarded as a chiefly environmental issue. It is commonly tackled by environment departments, who rarely wield significant power in institutional structures, both in developing country governments and in development agencies. This reduces the ability to influence plans and activities in climate sensitive sectors crucial to poverty reduction.

To be successful climate change coordinators, the environment departments, both north and south, will increasingly need to assume the role of information broker, rather than implementer. By ensuring that information on climate change impacts and vulnerability matches the decision-making needs of key sectors, it can be considered more effectively in the context of the multiple (and often competing) development priorities, including economic growth, health, governance and security, among others.

Cooking up narratives

There is common recognition that adaptation activities cannot be pursued effectively in isolation. However, where one narrative stresses the integration of wider development plans and priorities in adaptation plans and activities, the other stresses integration of adaptation into development plans and priorities. This distinction broadly divides the debate over adaptation in the UNFCCC. Developing countries stress the former narrative and argue that politically negotiated adaptation funds are distinct from ODA. Industrialized countries also make a distinction, arguing that these adaptation funds should be used to finance only the additional costs caused by climate change, over and above regular development activities.

UNFCCC adaptation funds remain important politically and for vital lesson-learning functions, but cannot cover all adaptation costs. A much greater impact can be leveraged if ODA and development strategies can integrate measures to improve resilience to climate change. Efforts of donor agencies and development partners need to continue apace, including portfolio screening, risk assessment, disaster risk reduction, improvements to data availability and science, and road-testing the integration of adaptation into projects and programmes. It is time to dish out the recipe on adaptation while it is still hot, but before it boils over.



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Activities in the IPO

The GECHS International Project Office (IPO) moved to the University of Oslo in July, 2005. Our first activity was an international workshop on human security and climate change. The two-day workshop was organized in collaboration with CICERO—Center for International Climate and Environment Research, and the Centre for the Study of Civil War at the International Peace Research Institute (PRIO) and brought together approximately 70 participants to discuss aspects of human security and climate change. The workshop was planned as a forum for formulating a new research agenda related to human security and climate change, and to broaden the network of scholars working in this field of inquiry. The agenda and presentations from the workshop are available online at www.gechs.org/holmen.

GECHS Associates Siri Eriksen and Richard Klein organized a workshop in January, 2006 to discuss climate-poverty links relevant to mainstreaming adaptation to climate change into official development assistance. Participants from development agencies and academia shared experiences and information needs, including the challenges of linking scientific research on vulnerability with development projects aimed at reducing poverty. The agenda and presentations from the workshop are available online at www.gechs.org/oda.



The IPO hosted an opening reception in March, 2006 which highlighted the diversity of perspectives on human security research in Norway.



Renewable Energy, Climate Change, and Development

Kirsten Ulstrup

Climate change adaptation experts argue that adaptation has received too little attention as compared to climate change mitigation. While this may be true, there is still an urgent need to address climate change mitigation in more meaningful ways. Mitigation efforts up until now have in fact not reduced greenhouse gas emissions nor the threat of dangerous anthropogenic interference with the climate system. The mitigation process must therefore be reconsidered. We need a much larger focus on new renewable energy technologies – such as solar, biomass, wind, and geothermal energy – and we must look at mitigation and adaptation in an integrated way. This synergy may, in turn, help alleviate poverty in developing countries, as well as environmental problems in addition to climate change.

Renewable energy and developing countries

New renewable energy technologies are central to creating the low-emission society of the future, but to see those technologies only as mitigation options seems too narrow. These technologies are also relevant to sustainable economic and social development. In developing countries, there is a substantial need to improve energy supply and energy security both in urban and rural areas; and these

should not be considered only as isolated sectors with limited importance within the context of development or climate change adaptation. An improved energy supply and increased energy security are necessary (although not sufficient) for improvements to water supply, health, education, communication, information, employment and agriculture. The adaptive capacity of communities vulnerable to the impacts of climate change, can in all likelihood also be enhanced by such improvements.

As recently as 2002, during the Conference of the Parties to the United Nations Framework Convention on Climate Change in New Delhi, developing countries struggled to convince delegates from rich, industrialized countries of the importance of increased use of renewable energy sources as a means to economic and social development. There are several examples of how renewable, decentralized energy technologies can be used to adapt to harsh and worsening climate conditions. Adaptation is achieved through local improvements as a result of the increased energy provision itself, for example by water pumping and improved health services, and through the capacity of renewable energy technologies to turn local climate conditions into resources for the communities.

Energy supply is not just supplying energy

New renewable energy technologies have thus many advantages in addition to delivering energy. They make it possible to harvest rich natural resources like the sun, surplus biomass, wind, and geothermal energy, and are often well-distributed in the countries themselves. The diversity of new renewable energy technologies makes it possible to choose those energy sources which are most resilient to changes in local climate conditions. Moreover, the production and use of new renewable energy technologies generates significantly more employment than the fossil fuel sector, both when the renewables are used in decentralized, small-scale applications and in electricity provision directly to the grid. This helps communities and countries to diversify income-generating activities away from activities that are exposed to climate stress.

Renewable energy can also reduce the import of petroleum-based products and thereby limit a significant burden on national budgets. Solar, wind, bio, and geothermal energy technologies function well and are commercially profitable in many areas of application. They have an abundant potential for the future as the technologies are rapidly improving, and new possibilities are continuously emerging.



The management group of All India Womens Conference in February 2003. Photo: Kirsten Ulstrup.



Implementation – a common challenge to climate change mitigation and adaptation

Technology is clearly important within the context of climate change mitigation and adaptation, as well as in development in general, although an emphasis on technology alone does not suffice. A whole range of non-technological dimensions (e.g. social, political, economical, cultural, and equity frameworks) are involved in supporting a technological change on the scale that is needed now. Mitigation, adaptation, and development efforts can promote better and more sustainable solutions than those that have dominated thus far. But certain barriers make such changes too slow-going in both developing countries and rich, industrialized countries. These barriers include established knowledge systems, education systems, government regulations, routines, and institutions which support the established technological systems. Moreover, powerful vested interests are working hard to continue business as usual.

There is therefore a need to stimulate new policies and practices that support renewable energy systems. We should deal with the barriers and stimulate the new technological systems by increasing our cooperation around the world. In this way we can rapidly increase the renewable share of the world's energy supply. Developing countries have many interesting initiatives in this field, and these should be supported by rich industrialized countries to a much larger extent than today. This is much needed for poverty alleviation and adaptation to climate change, as well as for developing the low-emission society of the future.



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*Solar collectors for heat water supply at the headquarters of the All India Womens Conference in New Delhi.
Photo: Kirsten Ulsrud.*

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About GECHS

The goal of the Global Environmental Change and Human Security (GECHS) project is to promote an understanding and recognition of environmental change as an issue of equity, sustainability, and human security. Human security can be considered a state that is achieved when and where individuals and communities have the options necessary to end, mitigate or adapt to threats to their human, environmental, and social rights; have the capacity and freedom to exercise these options; and actively participate in pursuing these options.

Environmental changes resulting from both human activities and natural processes can pose risks to human security. GECHS situates these changes within the larger socioeconomic and political contexts that shape the capacity of communities to cope with and respond to change. Our research focuses on the way diverse social processes such as globalization, poverty, disease, and conflict, combine with environmental change to affect human well-being.

GECHS News

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