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- **"Maritime Security - Strengthening Cooperation" in Wilton Park (19-22 January)**
- **"Ethics and Politics of Climate Change" in Utrecht (23-24 January)**
- **"Developing Adaptive Capacity for Climate Change in Asia's Coastal Megacities" in Bangkok (26-28 February)**
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## FORUM

### Global Bioenergy Policy for Sustainable Development

The WBGU report "World in Transition – Future Bioenergy and Sustainable Land Use"

*By Astrid Schulz, Research Analyst, Climate and Energy for the WBGU*

The incipient global bioenergy boom is giving rise to vigorous and strongly polarized debates. Supporters of bioenergy argue that bioenergy can help to secure energy supply and to mitigate climate change as well as create development opportunities in rural areas. Critics, on the other hand, maintain that growing energy crops will heighten land-use conflicts as food cultivation, nature conservation and bioenergy production compete for land, and that bioenergy is likely to impact negatively on the climate. WBGU aims to show that the sustainable use of bioenergy is possible and to outline how to exploit opportunities, while at the same time minimizing risks.

#### Gear bioenergy policy towards clear goals

The guiding principle behind the change of direction that is required in bioenergy policy must, in WBGU's view, be the strategic role of bioenergy as a component of the global transformation of energy systems towards sustainability. Firstly, the use of bioenergy should contribute to mitigating climate change by replacing fossil fuels. In the long term, bioenergy in combination with carbon dioxide capture and secure storage can even help to remove some of the emitted CO<sub>2</sub> from the atmosphere. Secondly, the use of bioenergy can help to overcome energy poverty. Some 2.5 billion people currently have no access to affordable and safe forms of energy (such as electricity and gas) to meet their basic needs.

#### There is a sustainable bioenergy potential

WBGU has undertaken a model-based estimation of the global sustainable potential of energy crops considering sustainability requirements with regard to food security, biodiversity conservation and climate protection. Bioenergy, however, includes more than the use of specially cultivated energy crops. There is a large potential in using wastes and residues. WBGU estimates the total sustainable technical potential of bioenergy in the year 2050 to be 80–170 Exajoule (EJ) per year. This represents around a quarter of current global energy use and less than one-tenth of the expected level of global energy use in 2050. This potential may amount to around a half of the sustainable technical potential, partly due to economic reasons or because the area in question is one of political conflict. In view of these figures the importance of bioenergy should not be overestimated, but the expected scale is nonetheless significant.

#### A global regulatory framework is necessary

The utilization of this potential should only be promoted if undesirable developments can be excluded. In particular, the use of bioenergy must not endanger food security or the goals of nature conservation and climate protection. Many of the current incentives, e.g. the modalities for determining contributions to commitments under the Kyoto Protocol or blending quotas for biofuels, may even promote bioenergy use that is harmful to the climate. In order to steer the sustainable use of bioenergy, WBGU proposes a global regulatory framework for a sustainable bioenergy policy. The key elements of such a framework are a revised UN climate regime with corrected incentives, the setting of sustainability standards, and accompanying measures to safeguard sustainability. This will be accomplished by strengthening and developing international environmental and

development regimes (such as the biodiversity and desertification conventions). Within this framework, WBGU formulates promotion strategies with the aim of furthering efficient, innovative technologies and increasing investment in necessary infrastructure – thus contributing to climate change mitigation and overcoming energy poverty.

### **Bioenergy should be used preferentially for electricity production**

For climate protection, mainly those bioenergy pathways can be recommended that avoid high emissions from land-use change due to the cultivation of energy crops. This applies to the use of wastes and residues, or to the cultivation of perennial energy crops on marginal or degraded land. Furthermore, biomass for energy should be used efficiently and replace fossil fuels with high CO<sub>2</sub> emissions, predominantly coal. This is best deployed in the electricity sector. The use of bioenergy geared towards the goal of climate change mitigation could thus avoid greenhouse gas emissions equivalent to 5-10 percent of today's total emissions. Therefore, WBGU recommends to use bioenergy for production of electricity and not to use it as biofuel for transport purposes. Instead, electro-mobility should be promoted.

### **Modernize bioenergy use in developing countries**

It is often overlooked that modern bioenergy currently plays only a small part in global bioenergy use, representing about 10 percent of the total. The lion's share – almost 90 percent of the total – is accounted for by traditional bioenergy, which involves burning wood, charcoal, biogenic residues or dung, mainly on inefficient three-stone hearths. More than 1.5 million people a year die from pollution caused by open fires. Simple technical improvements to stoves can - to a large extent - prevent the health risks posed by biomass use, while at the same time doubling or even quadrupling its efficiency. The process of modernizing traditional bioenergy use or replacing it with other – preferably renewable – forms of energy can therefore provide important leverage for poverty reduction worldwide, a fact that has been often neglected in the debate on bioenergy and development policy.

### **Land-use management as new global challenge**

The sustainable use of fuels derived from energy crops can be an important component in the transformation towards sustainable energy systems with the potential to bridge technology until the middle of the century. By then, the growth in wind and solar energy production is likely to be highly advanced that sufficient energy will be available from these sources. At the same time, the pressures on global land use will have increased significantly, principally as a result of three factors: the growth in a world population, whose food consumption patterns are increasingly land-intensive; the increasing demand for land to crop biomass as an industrial feedstock; and, not least, the impacts of climate change. As a result, the cultivation of energy crops will probably have to be reduced in the second half of the century, while the use of biogenic wastes and residues will be able to continue. In view of these escalating trends, the problem of competing land use is a potential source of future conflict with implications ranging far beyond the field of bioenergy. Global land-use management is therefore a key task for future international policy-making and an essential requirement for a sustainable bioenergy policy.

*The flagship report "World in Transition – Future Bioenergy and Sustainable Land Use" is available at [http://www.wbgu.de/wbgu\\_jg2008\\_engl.html](http://www.wbgu.de/wbgu_jg2008_engl.html)*

*The Website of the WBGU provides additional information and reports: [http://www.wbgu.de/wbgu\\_home\\_engl.html](http://www.wbgu.de/wbgu_home_engl.html)*

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## POLICY & RESEARCH

### Days May be Numbered for the Ilisu Dam

The export credit guarantees provided by Germany, Austria and Switzerland for the contentious Ilisu Dam in southeast Turkey are under review. Government credits in the amount of approximately 500 million Euros insure the work of companies from the three countries on the dam – an approach that has been politically controversial in the past. At the end of 2007, Turkey needed to fulfil a total of 153 conditions, to which the export credit guarantees are linked. These included targets in environmental protection, local population resettlement and the preservation of cultural assets. After failing to make any progress, the three donor countries gave Turkey 60 days to comply, starting in October 2008, or run the risk of abandoning the project.

The hydroelectric power plant on the Tigris should serve as a storage power station to meet peak electricity needs. As part of a regional plan for hydropower development in southeast Turkey, it should generate approximately 3 percent of Turkey's electricity. Opponents of the dam say that the project does not consider European environmental and social standards. Aside from the irreversible environmental damage caused by the dam, Turkey's inadequate consultation with downstream countries - Iraq and Syria - is also criticized. The construction of the dam will affect the Kurdish population in particular, significantly impacting their main revenue sources in the region – agriculture and tourism.

Proponents of participation in the dam argue that minimum standards in the project can only be achieved through the credit guarantees, for example the preparation of environmental impact studies and higher compensation for those dispossessed. Statements from Austria's Foreign Ministry after the mid-December deadline, however, suggest that even this minimum target was not reached and that withdrawal from the project is pending. (*Anja Wittich*)

*For further information on the Ilisu Dam debate please see the German Bundestag [http://www.bundestag.de/aktuell/hib/2008/2008\\_197/01.html](http://www.bundestag.de/aktuell/hib/2008/2008_197/01.html) (German) and International Rivers <http://internationalrivers.org/en/node/3414>*

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### Global Witness: Due Diligence against Violence

The conflict in the Democratic Republic of the Congo (DRC) continues to escalate. In view of the significant contribution played by the sale of minerals in financing conflict activities, the Non-Governmental Organisation (NGO) Global Witness addressed a recommendation paper to companies, buyers, and governments. The report demands decisive steps to avoid conflicting parties' continued enrichment from the mineral trade and the resulting intensifying conflict dynamics. Rebel groups as well as members of the Congolese national army have been relying on both the abundance and the constant external demand of cassiterite, gold or coltan for years.

International efforts aimed at improving corporate responsibility have not yet succeeded. In the spring of this year, John Ruggie, the Special Representative of the "UN Secretary General on Human Rights and Transnational Corporations and other Business Enterprises," emphasized the need for concrete contributions of companies in conflict areas in his report "Protect, Respect and Remedy: a Framework for Business and Human

Rights.” However, as the recent violation of the OECD Guidelines for Multinational Enterprises by a British enterprise in the DRC indicates, the normative power of the international framework remains too weak.

Against this backdrop, Global Witness calls for stringent due diligence when buying and trading minerals from the DRC. The organisation asks companies, buyers and governments to require exact information about where the minerals came from and by whom and under which conditions they were produced. Should doubts remain regarding this information Global Witness is clear: refuse to buy the minerals or risk further aggravating the catastrophic situation in the region. (*Dennis Taenzler*)

*For the recommendations of Global Witness please see [here](#)*

*For more information on the activities of John Ruggie please see [here](#)*

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### **Violence as Adaptation Strategy: Somali Piracy**

Over 100 ships were attacked by pirates off the coast of Somalia in 2008. Germany and Europe hold strategic discussions about how combat missions can fight piracy, yet the root causes are often overlooked. The 1991 Somali state collapse led to massive illegal fishing along the coast. Many pirates are former fishermen and members of the Coast Guard. They were the first to take up weapons in an attempt to protest against these developments. As they had little success, however, they escalated to capturing ships and blackmailing ransom money, which proved to be a lucrative alternate source of income. This led to an increasingly “professional” image of piracy: small attack flotillas operate from a mother ship, and aside from rocket launchers, satellite telephones and GPS devices are used.

The pirates’ self-styled image has evolved to represent the defenders and protectors of Somali waters. However, potential consequences of their captures now include environmental catastrophes, as the attack of the Japanese oil tanker, Takayama, shows. The international community was forced to interrupt aid-deliveries, which most significantly affected the Somali population. On top of this, even the few remaining legal fishing companies withdrew their fleets from the area. This means a valuable source of income for the government is drying up, although members of that administration also seem to be involved in pirating operations.

Reactions to this piracy vary: ships are diverted to new routes, which dramatically increases transport duration and costs. Warships are also being deployed to the conflict region. A mandate is already in place: according to UN Security Council Resolution 1816 military action is allowed to halt piracy. However, measures against illegal fishing in regional waters – as one of the root causes of the conflict - have not yet been undertaken. (*Achim Maas*)

*For further information please see:*

*Roger Middleton: Piracy in Somalia. Threatening global trade, feeding local wars, <http://www.chathamhouse.org.uk/publications/papers/view/-/id/665/>*

*Chatham House: Illegal, unreported and unregulated fishing; 4th Chatham house update and stakeholder consultation,*

*[http://www.illegal-fishing.info/uploads/1\\_4thUpdateandconsultationmtgMar08.doc](http://www.illegal-fishing.info/uploads/1_4thUpdateandconsultationmtgMar08.doc)*

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## **The Curse of Resources - The Case of Venezuela**

The recent extreme fluctuations in oil prices can create serious problems for countries that are highly dependent on exporting oil. If the ruling elite derives its legitimacy primarily from such income they may lose their political power. Venezuela is a potential example of this kind of development. After assuming office in 1999, President Hugo Chávez was for a long time able to utilise growing state revenues based on rising gains of oil sales for systematically expanding his sphere of influence. Following his election, he projected himself as a man of the people opposed to the then prevailing system where petrodollars were cornered by the elite. The Venezuelan poor, who make up 80 percent of the population, did in fact directly benefit from the new policies. Chávez placed revenues from oil exports, which soon amounted to over half of Venezuela's budget, under his personal control and undertook extensive social programmes with these enormous sums.

This "socialism of the 21st century" project, however, increasingly came at the cost of democracy, as Chávez attempted to assume widespread control over all organs of the state. The first domestic setback to his presidency occurred in 2007 when he attempted to extend his term in office by means of a constitutional amendment. In autumn 2008, moreover, declining oil prices forced the government to impose unpopular austerity measures. Public support for Chávez consequently dipped, as evidenced in the regional and municipal elections at the end of November. While he did win in about three-fourths of the provinces, his political opponents were able to succeed in oil-rich Zulia as well as in Caracas with its huge slums. Thus, absolute dependence on oil revenues can prove to be a curse. (*Manuel Adams*)

*Further information is available at the Council on Foreign Relations:*

[http://www.cfr.org/publication/12089/venezuelas\\_oilbased\\_economy.html?breadcrumb=/region/254/venezuela](http://www.cfr.org/publication/12089/venezuelas_oilbased_economy.html?breadcrumb=/region/254/venezuela)

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## **CONFERENCE REPORTS**

### **"Seven Years to Act" – Climate Change as a Security Threat**

"We have seven years to act!" proclaimed Rajendra Pachauri, chair of the Intergovernmental Panel on Climate Change (IPCC). He could not have been any clearer in his opening statement to the "Climate Change as a Security Threat" conference in November. Numerous experts and an interested public attended this two-day event in the city of Freiburg, Germany. Along with the IPCC chair the list of distinguished guests included the German foreign minister, Frank-Walter Steinmeier, and other prominent speakers. They discussed security implications of climate change, its challenges to international relations, technological solutions and the growing importance of cities in fighting climate change.

Towards the end of his initial presentation, Pachauri stressed that while rising sea levels, droughts and floods might be hard to address with contemporary policy instruments, this would not make them less real. Politics, however, has been slow with adapting to these new challenges. While Steinmeier called the election of Obama an important signal,



giving international climate consultations a new dynamic, it is evident that a few opposing countries are enough to stop real progress at this level. But even beyond the international sphere, states are often lagging behind. Already available technological solutions are widely ignored. Eicke Weber, director of the Fraunhofer Institute for Solar Energy Systems (ISE), called on the German government to consistently move towards a sustainable energy transformation. Many innovations do not fail from the lack of technical know-how, but because of low political commitment.

Nevertheless, the overall message from Freiburg is optimistic. For example, Dieter Salomon, the city's mayor, stressed the importance of cities in fighting climate change effectively. New energy efficient houses and the refurbishment of existing living spaces can significantly reduce energy needs and emissions. Even pioneering cities like Freiburg, however, have yet to realize their full potentials. Grameen Shatki's director, Dipal Barua, showed that the private sector can greatly contribute to the fight against climate change, even in a politically difficult environment. His company provides micro-credits that spread renewable energy sources in Bangladesh and has had a considerable impact over the last years. These examples show that despite due critique, there are signs of hope. Climate consultations do not have to start from zero, but should build on a strong and diverse base of actors with innovative ideas to prevent the worst consequences of climate change from happening. *(Joeran Altenberg and Irina Comardicea)*

*An extensive conference report, as well as the presentations of the panellists can be found at <http://www.freiburg-konferenz.de/>*

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### **CSR and China – the New Player in African Commodity Markets**

China, the newest and large importer of primarily African commodities, is neither villain nor saviour for the African economies. This was the consensus at the conference entitled "Digging for Peace: Private Companies and Emerging Economies in Zones of Conflict," which took place in Bonn the 21st and 22nd of November. Participants at the conference, which was organized by the international campaign Fatal Transaction and the Bonn International Center for Conversion (BICC), underlined the need for "de-demonizing" China and taking a more nuanced view of Chinese activities and players in Africa. However, China has not yet played an active role in stabilizing or promoting peace in Africa. China's policy of non-interference is the main factor hindering such an engagement from occurring. A case in point is the close link between oil imports from the Sudanese, on the one hand, and Chinese weapon exporters to that country, on the other hand. However, it was emphasized that China has offered to build infrastructure in exchange for mining licenses, which are currently very attractive for many African governments. The sustainability and the social and environmental soundness of such agreements, however, are questionable.

The conference participants also questioned compliance with social and environmental standards by companies in the extractive industry, irrespective of whether they are from the West or Far East. Progress has fallen short of expectations and is – at best – discernible among companies with a global presence. The discussion on the role of international companies in conflict areas once again highlighted their social and environmental responsibility. However, there was insufficient debate on how to achieve this goal, especially with regard to possible sanctions when companies do not act

responsibly. Pointing to the role of African states, there were numerous references to the duty of governments to utilize their natural resource wealth for the welfare of their citizens. The discussion, however, tended to gloss over the fact that countries with fragile state structures have often limited options for state action. Yet, the discussion failed to cover how these specific circumstances could be politically addressed. (*Meike Westerkamp*)

Presentations and audio recordings from the conference are available at [http://www.bicc.de/events/resource\\_conference/content.php](http://www.bicc.de/events/resource_conference/content.php)

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### **A Fresh Attempt at Understanding Climate Change and Migration**

Although the relationship between environmental change and migration has been researched extensively, no answers to many key questions exist. The European research project, Each-FOR (Environmental Change and Forced Migration Scenarios), was launched two years ago to address this unfortunate situation. The initial results of a total of 22 case studies were presented at a three-day conference held in Bonn in early October.

"The link between environmental change and human security becomes immediately apparent when one looks at the issue of migration," stated Konrad Osterwald, rector of the UN University, at the opening of the conference. The experts agreed that climate change will be a significant cause of migration in the future. The rise in sea levels has already endangered coastal settlements. Escalating floods and droughts are resulting in the long term destruction of habitation areas and farm lands. The experts nevertheless did not feel that the linkages are monocausal. A combination of economic, environmental and security factors influence the occurrence of migration in varying degrees. Pinpointing the precise role of environmental changes, even as their significance becomes increasingly clear, will be virtually impossible.

The initial results indicate that the debate on the legal status of environmental refugees is taking up too much attention, particularly in potential target countries. So far, a large percentage of migrants remain in their own country and resettle elsewhere. Experts therefore feel that the approach to environmental migration needs to be proactive and integrated in development cooperation. Representatives of the International Organization for Migration (IOM) highlighted the urgent need for local and regional migration concepts. In times of climate change, it makes no sense to incur huge costs towards maintaining people in areas that are increasingly uninhabitable. Instead, migration needs to be viewed as a potential adaptation strategy, and decisive action is necessary. This point was also underlined by Janos Bogardi, director of the Institute for Environment and Human Security at the UN University: "All indicators are clearly showing us that environmental migration is a growing problem with global dimensions." (*Joeran Altenberg*)

*For the preliminary results of the research project, please see*

<http://www.efmsv2008.org/article/706>

*Further information on Each-FOR can be found at <http://www.each-for.eu/>*

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## UPCOMING EVENTS

Upcoming events are also regularly published at <http://www.ecc-platform.org/>

### **"Illegal Logging Update Meeting" in London (19-20 January)**

The thirteenth in the series of Chatham House Illegal Logging Update and Stakeholder Consultation meetings will focus mainly on the FLEGT Voluntary Partnership Agreements (VPAs) agreed and shortly to be agreed. It will provide sessions on Ghana, Cameroon and Malaysia, and an overview of negotiations under way elsewhere. There will also be a session devoted to the European Commission's proposal for a system of 'due diligence' for timber operators; and sessions on REDD and forest governance, certification, private sector activities and latest research.

Further information on the event is available [here](#)

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### **"Maritime Security - Strengthening Cooperation" in Wilton Park (19-22 January)**

Organized in partnership with the Royal United Services for Defense and Security Studies, this conference will address a range of critical questions relating to the effective delivery of maritime security. What is the evolving nature of risks and threats in the maritime environment? What are current gaps in the gathering, sharing and analysis of information concerning that environment, and how can those gaps be filled? How might bilateral, regional, and international legal frameworks for maritime security operations evolve? How can leading maritime powers and multinational organizations assist developing countries in building capacity for securing their coastal areas and Economic Exclusion Zones?

Further information on the event is available [here](#)

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### **"Ethics and Politics of Climate Change" in Utrecht (23-24 January)**

This two-day event focuses on the ethics and politics dimension of climate change. During the conference a number of researchers from Germany and the Netherlands will give lectures on philosophical, political, economic, and legal perspectives on climate change.

Further information on the event is available [here](#)

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### **"Developing Adaptive Capacity for Climate Change in Asia's Coastal Megacities" in Bangkok (26-28 February)**

This workshop brings together scientists, urban planners and representatives of disaster management agencies to review findings regarding climate-related risks for Asia's coastal megacities. These risks encompass sea level rise, extreme climate events, intensification of storms and storm surges. Participants examine potential vulnerabilities

and current coping mechanisms that better integrate science information, planning, development and disaster management. The workshop also considers means for improving networking and communication between urban planners/officials and the scientific community in order to enhance urban resilience and adaptive capacities.

Further information on the event is available [here](#)

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### **"5th World Water Forum – Bridging Divides for Water" in Istanbul (16-22 March)**

The World Water Forum is the main water-related event in the world, aimed at putting water firmly on the international agenda. A stepping stone towards global collaboration on water problems, the Forum offers the water community and policy-and-decision-makers from all over the world the unique opportunity to come together to create links, debate and attempts to find solutions to achieve water security. It is organised every three year by the World Water Council, in collaboration with the host country.

Further information on the event is available [here](#)

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## **IN BRIEF**

### **Climate Change and Food Security, EU goes Arctic, Conflict Barometer 2008 published**

Germanwatch, Diakonie Katastrophenhilfe und Brot für die Welt have presented a new study titled **"Climate Change Food Security and the Right to Adequate Food"**. The study shows that current trends in climate change will exacerbate the world-wide food crisis und systematically links the debate on food security with the climate debate. The study can be found [here](#).

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The European Commission adopted a Communication on **"The European Union and the Arctic Region"** which highlights the effects of climate change and human activities in the Arctic. Apart from setting out EU interests and policy objectives, the text proposes a systematic and coordinated response to rapidly emerging challenges. An overview is available [here](#).

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With the publication of the **"Conflict Barometer 2008"**, the Heidelberg Institute for International Conflict Research (HIIC) has presented its latest data and analyses concerning events and developments in the world of conflict this year. The report provides maps, trends and an in-depth discussion of regional developments. The Barometer is available for download [here](#).

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