



1st TERI FES Forum on Climate Policy Dialogue

**Climate Change, Biodiversity and Food Security
in Marine Environments**

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THE TERI FES FORUM

The “TERI FES Forum on Climate Policy Dialogue” is a new format that invites policy makers and scholars from think tanks and academia in industrialized and developing countries to discuss key issues of global climate governance. Conference venues alternate between industrialized and developing countries. The launch of the Forum was held in Bonn in May 2008.

*The program of this year's Forum is available at www.fes-globalization.org

1 Background

Recent reports of the United Nations Intergovernmental Panel on Climate Change (IPCC) have spread awareness of the dramatic extent of the widely man-made climate change. Climate Policy belongs to the most urging, but also most ambitious structural objectives of today's politics. Climate Policy challenges are global by nature; accordingly they can be dealt with only globally and multilaterally. Even in acknowledging differentiated responsibilities and varying abilities, climate change can only be fought successfully, if the international community commits to combined efforts and agrees on a common perspective and a political agenda. How this international cooperation on climate policy is to be ensured, how it needs to be designed and what we can expect from it, these questions are among the most urgent ones of our time.

The “TERI FES Forum on Climate Policy Dialogue” introduces a new format to facilitate dialogue between selected key policy makers and experts from across the globe including industrialized, emerging and developing countries. The roundtable Fora focus on cooperation regarding mitigation, adaptation, and technological responses to human induced climate change. Noble Peace Laureate Dr. Rajendra K. Pachauri, Chairman of the IPCC and Director-General of TERI sees the TERI FES Forum as a “highly effective way of getting the message across and mobilizing society, given the short period of time left between now and the Conference of the Parties in Copenhagen at the end of 2009.” The Fora, jointly organized by *Friedrich-Ebert-Stiftung* (FES) and *The Energy and Resources Institute* (TERI) Europe, will be held alternately in industrialized, emerging and developing countries.

The launch event took place on May 13-14, 2008, at FES headquarters in Bonn in the run-up to the 9th meeting of the Conference of the Parties to the United Nations Convention on Biological Diversity (UNCBD) hosted by Germany. FES and TERI seized this opportunity to draw attention to the impact of climate change on biodiversity and dedicated the first forum to the in-

terrelation of climate change, biodiversity and food security in marine environments.

2 Climate Change, Marine Biodiversity and Food Security

Recent shortcomings of food supply led to riots in several countries and rose awareness to the pressing problem of global food security. Public attention however mainly focuses on the role of agricultural food production. Meanwhile it is often forgotten that the world's oceans are one of the largest food reserves on the planet. According to estimates of the Food and Agriculture Organization (FAO), globally some 200 million people depend on fishing and aquaculture. In a number of developing countries consumption of fish provides close to or more than 50 percent of total animal proteins. Especially the extreme poor lack livelihood alternatives to fishing and are extremely vulnerable to environmental changes. Marine fishery depends even more on biodiversity than terrestrial agriculture as it harvests the produce of wild marine ecosystems and rests upon natural infrastructure. Fish stocks in many places are exposed to over-exploitation and depletion by fishery. Climate change adds to this problem. Expected increases in water temperature and storm frequency destroy natural habitat, threaten marine biodiversity and endanger the viability of fishing as a sustainable human livelihood.

Knowledge about the impact of climate change on the world's oceans is still poor and the complexity of the marine ecosystem calls for intensified research. The first day of the TERI FES Forum brought together a selected group of experts in fishery and oceanography from Bangladesh, Cape Verde, Denmark, Ecuador, Egypt, India, Latvia, Malaysia, Mauritania, Namibia, Senegal, Sri Lanka, USA and Germany. Discussions focused on the impact of climate change on the world's oceans, the compatibility of biodiversity and food production as well as perspectives of fishery management and policy options. Fishery expert Keith Brander from the Danish National Institute of Aquatic Research highlighted the problem of over-exploitation and habitat loss as the main threats to marine biodiversity. Martin

Van Brakel from the WorldFish Centre emphasized that “the anticipated collapse in the World’s fisheries as a result of over-harvest, might even happen sooner as a result of the rapid growth of multiple stressors acting in combination.” He suggested that at least 20 percent of the world’s ocean should be protected from fishing. Currently less than one percent of marine areas are protected.

How the impact of climate change affects a country like Bangladesh that is mostly lying on the coastal level and thus highly sensitive to sea level rise was illustrated by Ainun Nishat, the Bangladesh Country Representative of the International Union for Conservation of Nature. Bangladesh economically relies to a large extent on agriculture in the coastal zone and fishing in the estuarine and coastal waters. Nishat stressed the lack of knowledge on environmental issues especially in least developed countries and the importance to break complex information down to formulas that are workable for local policy makers.

3 Policies for mitigation and adaptation

Mitigation of climate change requires drastic cuts in greenhouse gas emissions. The Kyoto protocol has stimulated the development of a domestic emission trading systems (ETS). Until now the EU ETS has been by far the largest effort to establish such a scheme. Rajendra K. Pachauri called for a global ETS that would decrease the cost of trading and mitigation depending on the degree of participation and inform market players and policymakers on the global cost of mitigation in a range of economic activities. Such a global ETS is currently slowly developing through emission credits generated by project-based mechanisms like *Joint Implementation* and the *Clean Development Mechanism*.

While mitigation of climate change is generally accepted as a global commons problem adaptation for a long time has been regarded as a challenge mainly for the local level. Inequalities in capacity to adapt to climate change now are becoming increasingly apparent. Poor countries are likely to suffer most from the impact of climate change but they usually lack capacities for adaptation. It was only recently that the global community recognized adaptation as a problem that needs to be addressed through international cooperation and requires large amounts of funding. According to the 2007/2008 Human Development Report, total financing for adaptation has amounted to around US\$26 million. Pledged funding in 2007 amounted to US\$279 million

for disbursement over several years. This is an improvement, but still a fraction of what is required. It represents less than one-half of what the German state of Baden-Württemberg will allocate to the strengthening of flood defenses.¹ Planning for climate change adaptation confronts governments in developing countries with challenges at many levels. The international community addressed the problem of adaptation at the United Nations Climate Change Conference in Bali 2007 and included an Adaptation Fund into the Bali road map to finance adaptation measures in developing countries.

Rajendra K. Pachauri emphasized the need of mainstreaming climate change issues into development policies. He called for increased North-South as well as South-South cooperation to support policy-making in developing countries. Even if it would be possible to stabilize emissions and peak the CO₂ level before 2015 a sea level rise of 0.4 to 1.4 meters compared to pre-industrial times has to be expected. Without effective adaptation, increased flooding and the degradation of fresh water fisheries are expected to lead to an escalation of socio-economic costs in coastal areas.

Adaptative measures would need to include

- the development of knowledge on impacts and vulnerabilities to climate change
- information and education to enhance the level of awareness and understanding
- the selection of culture sites
- the integration of adaptation into comprehensive plans for managing coastal areas.

An example for such measures on the local level was presented by Maria Teresa Vera-Cruz who gave some insights on technical adaptation in Cape Verde and the implementation of terrestrial and marine protected areas. Participants of the forum agreed that measure as Marine Protected Areas, Coastal Management and alternative fish supply through increases in aquaculture are feasible steps in mitigation and adaptation but can not be seen as a sole solution.

There was wide consensus among conference participants on the need of a comprehensive and integrated approach that engages researchers, Non-Governmental Organizations, governments and the private sector. Such an approach should allow for sustained and systematic global and regional monitoring to enable ecosystem based

¹ See: United Nations Development Programme (UNDP) Human Development Report 2007/2008 – Fighting Climate Change in a Divided World: 13.

management and also incorporate lessons learned from existing ocean climate observing systems, a point that was raised by Keith Alverson from the Intergovernmental Oceanographic Commission of UNESCO.

4 Linking Policies

An example for linking climate change with other policy areas was given by Moustapha Kamal Gueye from the International Centre for Trade and Sustainable Development (ICTSD). Gueye highlighted possibilities to enhance climate governance through linkages with trade policy. He illustrated the potential of fisheries subsidy reform in the Doha Round by arguing that international subsidies often give incentive for harmful fishing practices such as over-exploitation. Only recently the chair of the WTO Negotiating Group on Rules therefore issued the first draft of text banning a wide range of subsidies including subsidies such as income and price supports. The subsidies had historically been used to maintain excess capacity or unsustainable effort when biological or market conditions might otherwise discourage continued over-fishing. Gueye stressed that subsidy reform needs to go hand in hand with strengthening of management to reach a management system that is based on internationally recognized best practices for fisheries management and conservation of marine species.

Such a framework could be provided for example by the FAO Code of Conduct for Responsible Fisheries. The attempt to develop an institutional linkage between the World Trade Organization and the Food and Agriculture Organization was however rejected by the majority of WTO members. An internal peer review mechanism is being considered.

Petra Bierwirth, chair of the Environment Committee of the German Parliament, presented the German strategy for biodiversity, a comprehensive strategy to implement the Convention. Still, she stressed, with 11% terrestrial habitats and less than 1% of marine areas protected, Germany hasn't done its homework either. To make progress, a coordinated EU marine protection strategy policy will be necessary.

5 A Comprehensive Approach

How climate change can be mainstreamed into development politics and what this means for national and international policy-making was addressed in a Public Panel Discussion entitled "Climate Change – A Challenge for International Cooperation". Heidmarie Wieczorek-Zeul, the German Federal Minister for International Cooperation and Development underlined that cli-

mate change is a question of social justice and that those who are least responsible will be hardest hit. "When it comes to climate change", she said, "we are all sitting in the same boat although apparently we are sitting on different decks." She emphasized that the reduction of carbon emissions and the fight against extreme poverty must not be seen as a question of either or. Only radical emission cuts and further investment in energy efficiency and the use of renewable energies in industrialized and developing countries can lead to sustainable development. As many countries lack appropriate means for adaptation, industrialized countries need to support developing countries through technology transfer and financial aid besides reducing their own greenhouse gas emissions. Rajendra K. Pachauri however highlighted that combating climate change is not only a question of costs and expenses. He pointed out the benefits of mitigation strategies and referred to the German leadership in the use of renewable energies that created new jobs, economic activities and benefits on the local level.

Ahmed Djoghlaif, Executive Secretary at the Secretariat of the UN Convention on Biological Diversity drew attention to the need of integrating climate policies and the fight against biodiversity loss, as climate change is likely to become the dominant direct driver of biodiversity loss by the end of the century.² To improve the prospects of adapting successfully to the challenges of the coming decades, the threats of biodiversity loss and climate change have to be tackled together. Biodiversity-based strategies for adaptation and mitigation can reduce the impact of climate change on human and natural ecosystems.³ The conservation of forests is particularly important since they contain 80% of all carbon stored in terrestrial vegetation. "The links between biodiversity and climate change run both ways: biodiversity is threatened by climate change, but proper management of biodiversity can reduce the impacts of climate change."⁴ Ulrich Kelber, who is responsible for the areas of environment and nature conservation in the SPD parliamentary group in the German Bundestag called for comprehensive strategies. Recent discussions on the use of biofuels and its consequences on food security showed that only an integrated approach can guarantee sustainability and efficiency. Kelber warned of looking for too simple

² See: Secretariat of the Convention on Biological Diversity, 2007: Biodiversity and Climate Change, 4.

³ See: Secretariat of the Convention on Biological Diversity, 2007: Biodiversity and Climate Change, 10.

⁴ Secretariat of the Convention on Biological Diversity, 2007: Biodiversity and Climate Change, 8.

solutions. An integrated approach would also need to address inconsistencies in the international trade system. A point that was raised by Peter H. Katjavivi, Ambassador of the Republic of Namibia. He claimed that existing global trade regimes and agricultural policies play a major role in the current food crisis and that there is urgent need to create a fairer global trading system that can enhance rather than hinder the ability of developing countries to fully participate in the world market.

6 The way forward

Protecting marine biodiversity and the nexus of biodiversity and climate change was also discussed at the 9th meeting of the Conference to the Parties (COP) to the Convention in Biodiversity in Bonn. Some important achievements were made at this meeting: The launch of the LifeWeb initiative at the High-level Segment which aims at providing additional funding. An agreement could be reached on criteria for the designation of protected areas which will foster the objective of creating a global network of marine protected areas by 2012. With regard to the impact of climate change on biodiversity an expert group was appointed to elaborate recommendations on the incorporation of biodiversity protection into the Reduced Emissions from Deforestation (REDD) process of the United Nations Framework Convention on Climate Change (UNFCCC).⁵ In spite of these achievements civil society organizations criticized the conference outcome as “mixed results” as no significant progress could be made with regard to the question of biofuels and on banning the trade in illegally logged timber.

⁵ See: German Ministry of Environment, 2008: Key Results of the 9th meeting of the Conference of the Parties to the CBD in Bonn.

More information is available on
www.fes-globalization.org

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