

## “Sustainability Criteria for Bioenergy: Challenges and Opportunities”

*Conclusions from the Conference in Bonn, Germany, 12-13 Oct. 2006*

**In October 2006, The United Nations Foundation and the German NGO Forum on Environment and Development convened an international conference on sustainable bioenergy. The prestigious venue of the former Parliament building and the newly opened UN Campus set the tone for a timely debate addressing the nexus of energy, agriculture, climate, biodiversity and international trade.**

The conference was the first of its kind to bring together a comprehensive program of speakers and participants representing backgrounds in business, government, international organizations, NGOs, grass roots organizations, research and academia. This diversity of backgrounds contributed to a rich exchange of ideas during Q&A sessions and the dynamic roundtable discussions on land use & livelihoods, trade, and climate that followed the presentations. Count Hermann Hatzfeldt, chair of the Forest Stewardship Council (FSC) in Germany, chaired the conference and guided participants through discussions covering the wide range of issues that frame the debate on sustainability.

The conference strove to balance perspectives from and opportunities for developed and developing countries. The high oil prices of the last few years have negatively affected both; however developing countries have been disproportionately impacted. Out of 47 of the world's poorest countries, 38 are net oil importers, and any advances they have made to reduce their debts has been obliterated by high energy prices. Many of these countries are well positioned to grow highly productive energy crops and stand to benefit not only from potential environmental improvements, but also from the social and economic opportunities offered by bioenergy.

The conference discussed wide-ranging strategies to promote access to reliable and sustainable bioenergy sources for people in rural areas. Some presentations focused on small farmers and the localized production approach for sustainable development. Others outlined the international efforts aimed at promoting sustainable bioenergy production for trade. The Global Bioenergy Partnership (GBEP), launched by the G8 in 2005, was presented as a major initiative for maximizing the global production of bioenergy. A discussion of the EU strategy on biofuels focused on balancing domestic production and imports as well as the impact of EU development policies on the production of biofuels in developing countries.

### *Geographic Diversity*

The Bonn conference provided an opportunity to present case studies analyzing differing applications for bioenergy. The Brazilian experience on ethanol highlighted not only its economic competitiveness and socio-environmental benefits for developing countries, but also the crucial role that strong policies can play in sustaining bioenergy programs and boosting private sector participation. In Europe, where sugarcane is not an option, producing biogas may be more efficient and effective application than liquid fuels. Illustrating the versatility of biogas, Austrian farmers use a system that feeds purified biogas into natural gas pipelines and use the mixture of biogas and natural gas to fuel vehicles. Participants debated the replication of different models along with the importance of adapting bioenergy initiatives to local conditions.

### *Transfer of Technology*

Linked to the issue of development and trade is the transfer of technology. As advances are made in producing biofuels, one type of bioenergy, countries will have to decide whether or not to develop using readily available first-generation technology or waiting for what is currently the more expensive second-generation technology. Technology transfer is not limited to industrial applications and Suani Coelho, Deputy Minister of Environment of the State of Sao Paulo, pointed out the importance of agricultural innovations. Brazil has developed over 400 varieties of sugarcane that are regionally adapted to maximize yield efficiencies. She argued that this local adaptation approach, combined with transfer of technology, could provide the basis for creating bioenergy initiatives in other developing countries.

### *Trade and the Private Sector*

Dr. Harsha Singh, Deputy Director-General of the World Trade Organization (WTO) emphasized a number of steps under consideration by the WTO that could be taken to advance the dialogue on bioenergy. The main issues to address in market access include:

- The application of bioenergy for the permissible subsidies under the WTO Agriculture Agreements “green box”,
- The need to eliminate tariff and non-tariff barriers, the possible classification of biofuels under “environmental goods”, and finally,
- The need for a clear sustainability certification scheme developed in accordance with the WTO framework.

Representatives from the private sector also shared their perspectives, emphasizing the commercial viability of bioenergy and the opportunities for profitability. They stated that the private sector will continue to be forward-looking and innovative on the opportunities of the bioenergy industry.

### *Socio-Economic Impacts*

Environmental and social impacts of bioenergy were a key concern in the conference. Issues such as deforestation, soil depletion, food security, and displacement of populations were all discussed. The need for defining sustainability exists for both large- and small-scale bioenergy projects. A case study on Indonesian palm oil plantations illustrated potential impacts of expansion on remaining rainforests and the likely need for large-scale resettlements. Similarly, the importance of careful long-term planning in transitioning from food crops to biomass was stressed based upon the economic vulnerability of small farmers.

### *Conclusion*

The conference concluded with the Chairman’s call to action to continue international dialogue moving toward to an integrated framework for a productive approach on bioenergy. Many issues still require action including balancing small-scale decentralized production for local markets with development of global markets, setting strong policies at the national level, addressing food security, integrating sustainability into all levels of development, and advancing trade dialogues to facilitate market access. Increasing energy demand, the necessity for reducing poverty and new technological advances present a perfect opportunity for integrating bioenergy into a more robust energy paradigm.

Conference presentations and further information are available at [www.forumue.de/bioenergy](http://www.forumue.de/bioenergy)