

GBEP Side Event

Promoting Bioenergy Towards Sustainable Development And Climate Change Mitigation: The GBEP Challenge

UNFCCC – Bali, 12 December 2007



The GBEP event “Promoting Bioenergy towards Sustainable Development and Climate Change Mitigation: The GBEP Challenge” was held on 12 December 2007 during the first day of the high-level segment of the UNFCCC COP 13 and CMP 3. Over 40

delegates attended the event, which featured seven speakers and was followed by questions and a discussion.

Corrado Clini (GBEP Chair) illustrated the conflict of interests between energy security and climate security. He underlined how bioenergy can play a key role in meeting the short term Kyoto targets and also be effective in the long term by stabilizing CO₂. Bioenergy can help meet the increasing energy demand, be “carbon neutral” and play a key role in “decarbonising” the future global energy system. To ensure a sustainable development of biofuels Clini highlighted the role of labelling and certification, and stressed that sustainability criteria should not represent a way of introducing unnecessary trade barriers. Finally Clini provided an overview of the Partnership’s immediate programme of work mainly focused on: a) the GBEP Report; b) facilitating collaboration on bioenergy field projects; c) harmonization of GHG Methodologies for Transport Biofuels and for Solid Biomass; and d) awareness raising and information management.

Alexander Müller (FAO) outlined the main benefits and challenges of bioenergy. He pointed out that in estimating GHG balances the first step is to conduct a life cycle analysis, pointing out that a common understanding on GHG methodologies and measurements is critical. On this regard he underlined the valuable work GBEP is conducting through its GHG Task Force. Müller also focused on food security and the correlation between bioenergy and rising crop prices. Finally he summarised the key findings of the GBEP Report, and concluded that bioenergy growth can be managed in a way that is consistent with environmental, social and trade objectives.

Drew Nelson (US) focused on the United States biofuel policy and the work related to GBEP’s Task Force on GHG Methodologies. He summarised the President’s 2007 State of the Union Address, which contains the plan to reduce U.S. gasoline usage by 20 percent in 10 years. The goal of a major biofuel initiative (which includes bio-refinery projects and bioenergy research centres) is to make cellulosic ethanol available as an alternative competitive energy by 2012. The plan will help increase US energy security and address climate change concerns by stopping the growth of GHG emissions from transport. Regarding

the harmonization of GHG methodologies, the task force decided to develop a checklist of common elements to be included in a harmonized GHG methodology.

Jian Kejun (China) outlined the importance of biomass resources in China, which have the potential for playing a decisive role in China's energy supply. Biomass utilization ranges from traditional biomass use, ethanol (both corn and cellulosic ethanol) and biodiesel, to biomass power generation and biomass gasification. Jian summarized the Chinese Renewable Law, in effect since January 2006, which focuses on integration of the government's responsibilities and citizens' obligations, current demand and long-term development, domestic practice and international experience. The law also requires that by 2020 renewable energy will constitute a 16 percent share of total energy demand in China.

Simonetta Zarrilli (UNCTAD) gave an overview of the current biofuels market situation as well as the alternative scenarios. In the present market, biofuel accounts for one percent of total road transport fuel use. Ethanol and biodiesel production is rising swiftly, largely driven by high oil prices and stimulated by mandatory targets and subsidies. The technology scenario foresees a shift to second generation technologies which will have less impact on land use and on food security. The change in energy producing countries may also result in a redistribution of wealth from traditional energy producers such as the Middle East and Russia, to Latin America and Africa. *Jatropha* is perceived as a source of great promise as feedstock for large scale biodiesel production since it does not involve exceptionally large cultivation areas. Finally in the trade scenarios, she outlined that that unrestricted trade production is concentrated in Latin America, Africa and the US with a predicted bioenergy export of 18 EJ/year in 2050.

Debra Justus (IEA) highlighted how current IEA work concentrates on the transition from first generation biofuels to second generation biofuels, through an overview of current industry and RD&D activities, identifying existing biofuel pilot and demonstration plants and assessing the gap from market deployment as well as discussing implications for policy-makers and scenario modellers. IEA is also working on the lifecycle assessment of biofuels, and compiling a review of existing LCA of biofuels to identify best practices which will provide input to GBEP's Task Force on GHG Methodologies. She stressed how bioenergy has a high global potential, but needs to be managed carefully so that sustainable biomass production, trade opportunities and sustainable development can be attainable.

Mark Radka (UNEP), on the basis of presentations given by speakers, drew the following conclusions:

- All speakers noted the benefits that bioenergy can bring, including GHG emissions reduction, improved energy security, and rural development.
- There are possible drawbacks, however, such as risks to environmental security, food security, and negative economic impacts.
- Good government policies and wise investments rely on a good knowledge base.
- The path forward for sustainable bioenergy development is not necessarily clear; the knowledge base regarding bioenergy needs strengthening; for example there is ambiguity on the GHG benefits of biofuels and a common "language" doesn't yet exist.
- Sustainability and trade, as well as the engagement of NGOs, civil society, and the private sector, are crucial for sustainable bioenergy development.
- Bioenergy production is in the tropics, while bioenergy demand is concentrated in the north of the globe; this implies the need for good cooperation.
- Sustainability requirements have to be agreed internationally; if this is not done in an orderly manner the markets will do it anyway but possibly in a legally contentious, fractious way.
- There is great promise for cooperative work on bioenergy under the umbrella of GBEP.