



FACT SHEET: BIOENERGY WORKING GROUP

The Bioenergy Working Group has the challenge of addressing vital questions related to bioenergy development. Bioenergy can contribute to economic growth, energy security, employment and rural incomes for developed and developing countries.

Extensive research has been conducted in the past few years and much progress will continue to be achieved by the efforts of many research and development (R&D) Centers of Excellence in Bioenergy around the world.

The first step in building a global bioenergy atlas is to compile and analyze the information already available on current agriculture systems and databases, such as those maintained by individual countries, international institutions or multilateral agencies. A wide variety of feedstocks can be used to produce bioenergy; it is essential to promote the best use of biomass with sustainable projects and initiatives that can be combined with best practices.

The Bioenergy Working Group is working in close cooperation with the Global Bioenergy Partnership (GBEP).

Progress since the First Clean Energy Ministerial

1) Activities Related to the Global Bioenergy Atlas

The Brazilian experience in producing and using bioenergy was enhanced with the consolidation of the model for identifying and evaluating the areas suitable for producing feedstock, known as “agro-ecological zoning.” A lot of work has been done with the consolidation of directions that could be a very useful starting point to define the methodology for developing the atlas, which will evaluate the suitable areas for bioenergy crops and the potential of bioenergy.

After the first Clean Energy Ministerial (CEM), the Brazilian government presented the agro-ecological zoning methodologies and results at the International Energy Agency (IEA) Roadmap workshop, “Sustainable Feedstock Supply for Bioenergy and Biofuels,” which concluded the technical discussions prior to IEA’s publication of the Biofuel Roadmap.

The Brazilian sugarcane agro-ecological zoning was coordinated by the Ministry of Agriculture, together with the Ministry of Environment, the Ministry of Mines and Energy, and the Ministry of Finance, with technical assistance from EMBRAPA (Public Enterprise of Agriculture Research). Following are some of the directives used to guide the sugarcane expansion:

- a) The indication of areas without any environmental constraints that are already degraded or under human use that have potential for sugarcane cultivation.
- b) The exclusion of the biomes of Amazon, Pantanal and Upper Paraguay River Basin for sugarcane expansion.
- c) The indication of degraded or pasture areas as preferable areas for sugarcane expansion, minimizing any competition with food production.

Besides the directives above, the following regions were excluded from the agro-ecological zoning for sugarcane: protected areas, indigenous reserves and areas with high conservation value for biodiversity.

Regarding palm oil cultivation for biodiesel production, the agro-ecological zoning follows the following directives:

- a) Indication of areas with potential for the plantation of palm oil.
- b) Expansion restricted to degraded areas and areas with previous human activities.
- c) Removal of native forests is strictly forbidden. Also, it is forbidden to use protected areas such as national parks, indigenous areas and conservation units.
- d) Climate risk evaluation for the areas with potential for growing palm oil.

2) **Activities Related to the Bioenergy R&D Centers of Excellence**

The Brazilian government mapped all research areas that are covered by the selected R&D Centers of Excellence in Brazil. The Brazilian government hopes to conclude, until the second Clean Energy Ministerial (CEM2) in Abu Dhabi, all necessary negotiations to offer its R&D Centers of Excellence in Bioenergy to all countries that join the Bioenergy Working Group. The research that is currently being developed in these R&D Centers covers all chains of production and use of bioenergy, focusing on efficiency and gains in productivity. Following are the research areas:

- a) Ethanol Research
 - Efficiency gains and quality improvement of raw material and supplies, such as planting, harvesting, transport, reception, preparation, crushing and industrial processes.
- b) Electric Energy Cogeneration Using Biomass
- c) Biodiesel Research
 - Efficiency gains and quality improvement of raw material and supplies, such as planting, harvesting, transport, reception, preparation and industrial processes.
 - Integration of public policies and local productive arrangements.
- d) Planning, Studies and Economic Analysis

Upcoming Activities

The following activities are planned under the Bioenergy Working Group initiative:

- A meeting in June 2011 with working group representatives and partners to discuss the technical aspects of the global bioenergy atlas. The meeting's main objective will be to define the requirements, restrictions, coverage and level of details of the atlas.
- A discussion about designating an international organization with expertise on energy, sustainable development and the environment for coordinating the technical activities related to developing the atlas.
- A list of R&D Centers of Excellence in Bioenergy.
- A workshop, in November 2011, for all participating countries to work on the identified fields of action of the Working Group.
- The launching of the "Biofuel Roadmap" by the IEA team of consultants with collaboration from government representatives, academia and the private sector.

Participants as of 7 April 2011

Participating governments include Brazil and Italy (co-chairs) as well as Sweden and Denmark. Discussions with IEA are underway regarding its participation in this initiative.