

GBEP Report to the G20 Brisbane Summit 2014

This report provides an overview of the work of the Global Bioenergy Partnership (GBEP) and its progress since reporting to last year's G20 Summit. In response to the 2005 G8 mandate (renewed in subsequent G8 Summits), GBEP initiated an international discussion on the issues related to bioenergy. Eight years after its establishment and at a time of intense debate on bioenergy, GBEP is actively working to advance bioenergy for sustainable development, climate change mitigation and food and energy security. To this end, GBEP has recently defined a set of voluntary, science-based sustainability indicators for bioenergy. GBEP has also developed a common methodological framework for use in measuring and reporting greenhouse gas (GHG) emissions reductions from bioenergy. GBEP is currently working on capacity building activities and projects for sustainable bioenergy, including through the implementation of its sustainability indicators and methodological framework on GHG emissions.

GBEP was established to implement the commitments taken by the G8 in the 2005 Gleneagles Plan of Action to support "biomass and biofuels deployment, particularly in developing countries where biomass use is prevalent" and it was invited by the following G8 Summits to continue its work to facilitate a sustainable development of bioenergy. The G8 Camp David Summit in 2012 "Applaud[ed] the Global Bioenergy Partnership (GBEP) for finalizing a set of sustainability indicators for the production and use of modern bioenergy and [...] Invite[d] GBEP to continue implementing capacity building activities that promote modern bioenergy for sustainable development." (G8 Action on Energy and Climate Change, May 2012). In addition, also the G20 expressed support to the work of the Global Bioenergy Partnership (GBEP) and its set of sustainability indicators for bioenergy (G20 Ministers of Agriculture, Paris Action Plan, June 2011). Most recently, the G20 Leaders recognized "the importance of the sustainable and responsible production and use of modern bioenergy and the role played by the Global Bioenergy Partnership (GBEP) in this regard." (G20 Saint Petersburg Summit, September 2013)

GBEP membership

Over the last year, GBEP has continued to expand its membership, such that its Partners now comprise the following 23 countries and 14 international organizations: all G8 nations plus Argentina, Brazil, China, Colombia, Fiji Islands, Ghana, Mauritania, Mexico, Netherlands, Paraguay, Spain, Sudan, Sweden, Switzerland and Tanzania, as well as the Economic Community of West African States (ECOWAS), European Commission, FAO, Inter-American Development Bank (IDB), IEA, IRENA, UNCTAD, UN DESA, UNDP, UNEP, UNIDO, United Nations Foundation, World Council for Renewable Energy and European Biomass Industry Association.

A further 27 countries are participating as observers (Angola, Australia, Austria, Cambodia, Chile, Denmark, Egypt, El Salvador, Ethiopia, Gambia, India, Indonesia, Kenya, Lao P.D.R., Madagascar, Malaysia, Morocco, Mozambique, Norway, Peru, Philippines, Rwanda, South Africa, Thailand, Tunisia, Viet Nam and Zimbabwe), along with the African Development Bank, Asian Development Bank, Economic Commission for Latin America and the Caribbean, European Environment Agency, Global Environment Facility, International Civil Aviation Organization (ICAO), International Fund for Agricultural Development (IFAD), Organization of American States (OAS), West African Economic and Monetary Union (UEMOA), World Agroforestry Centre (ICRAF), World Bank, and the World Business Council on Sustainable Development. GBEP welcomes new Partners who wish to actively contribute to its programme of work and is working to facilitate the engagement of more developing countries.

Italy is currently Chair of the Partnership while Brazil is the Co-Chair. They are supported by the GBEP Secretariat, hosted at FAO Headquarters in Rome.

GBEP's activities

GBEP is a forum where voluntary cooperation works towards consensus amongst governments, intergovernmental organizations and other partners in the areas of the sustainability of bioenergy and its contribution to climate change mitigation. It also provides a platform for raising awareness, sharing information and examples of good practice on bioenergy.

The main objectives of the Global Bioenergy Partnership are to:

- promote global high-level dialogue on bioenergy policy-related issues and facilitate international cooperation;
- support national and regional bioenergy policy discussions and market development;
- favour the transformation of biomass use towards more efficient and sustainable practices;
- foster exchange of information and skills through bilateral and multilateral collaboration; and
- facilitate bioenergy integration into energy markets by tackling barriers in the supply chain.

GBEP's achievements in its current priority areas

1. *Facilitating the sustainable development of bioenergy*

GBEP is implementing the sustainability indicators for bioenergy in several national contexts.

In December 2011 GBEP published its report on sustainability indicators for bioenergy, providing an invaluable resource in helping countries assess and develop sustainable production and use of bioenergy. The 24 relevant, practical, science-based, voluntary sustainability indicators and their respective methodology sheets are intended to guide any analysis of bioenergy undertaken at the domestic level with a view to informing decision making and facilitating the sustainable development of bioenergy and, accordingly, shall not be applied so as to limit trade in bioenergy in a manner inconsistent with multilateral trade obligations. This report is the result of the work of the Task Force on Sustainability that GBEP established in June 2008 under the leadership initially of the United Kingdom and then (since November 2010) of Sweden.

The uniqueness of the GBEP Task Force on Sustainability lies in the fact that it is the only initiative seeking to build consensus among a broad range of national governments and international institutions on the sustainability of bioenergy and in the fact that the emphasis is on providing measurements useful for informing national-level policy analysis and development. The GBEP work addresses all forms of bioenergy. The GBEP sustainability indicators do not feature directions, thresholds or limits and do not constitute a standard; nor are they legally binding on GBEP Partners. Measured over time, the indicators will show progress towards or away from a sustainable development path as determined nationally.

The work of the Task Force responds directly to the mandates GBEP received from G8 Leaders in the last few years and facilitates the implementation of Agenda 21 and the Johannesburg Plan of Implementation, and represents a contribution to the Sustainable Energy for All Initiative (SE4All) and to the post 2015 Sustainable Development Goals (SDGs). The annex to this document contains the agreed GBEP sustainability indicators for bioenergy. The full report is available at www.globalbioenergy.org.

2. *Testing a common methodological framework on GHG emission reduction measurement from the use of bioenergy*

In January 2011 GBEP released "The GBEP Common Methodological Framework for GHG Lifecycle Analysis of Bioenergy – Version One" for the use of policymakers and stakeholders when assessing GHG emissions associated with bioenergy and to make GHG lifecycle analyses (LCAs) more transparent. This report is the result of the work of the Task Force on GHG Methodologies that GBEP established in October 2007 under the joint leadership of the United States and the UN Foundation. The common methodological framework is in the implementation phase also through the GBEP's online GHG LCA clearinghouse. GBEP believes the framework may become a useful tool for domestic measurement, reporting and verification, as set out in the Copenhagen Accord.

3. *Facilitating capacity building for sustainable bioenergy*

In May 2011 GBEP established a Working Group on Capacity Building for Sustainable Bioenergy, initially co-led by The Netherlands and the United States of America and then (since December 2013) by Argentina and ECOWAS. The Group aims to raise awareness of the potential benefits of sustainable modern bioenergy building on the work previously developed by GBEP and to facilitate collaboration among its Partners and Observers. The Working Group has been focusing on the followings:

- ✓ *Sustainable Modern Bioenergy in the ECOWAS region.* Three forums were organized: in Bamako (Mali) to initiate a regional dialogue to support the development of regional and national bioenergy strategies; in Rome to discuss biomass resource assessment and mapping, and in Brasilia to discuss agricultural productivity and feedstock conversion, in order to further facilitate effective policy planning for a sustainable bioenergy sector in the region. This activity supported the development of a Regional Strategy on Bioenergy that was adopted by ECOWAS Ministers of Energy at the end of 2013.
- ✓ *Raise awareness and share data and experience on the implementation of GBEP indicators.* Two workshops were organized over the last year to share very interesting experiences and lessons learned from the pilot testing of the GBEP sustainability indicators in various countries. These events highlighted that the indicators are useful tools to catalyze flow of data from the bioenergy sector to research and government that will then use it to develop policies to guide the industry practices.
- ✓ *Study Tour for Capacity Building.* Bioenergy Weeks were held in Brasilia in 2013 and in Maputo in 2014 consisting in short training courses analyzing technical and public policy aspects of bioenergy development, in line with GBEP 24 indicators of sustainability. Experts from developing countries in the Americas, Africa and Asia had the opportunity to learn from positive experiences in the sustainable production and use of bioenergy that could guide the design and implementation of bioenergy policies in their countries such as: improve agricultural productivity, yield and infrastructure logistics such that more feedstock is available for food, feed, fibre and fuel.
- ✓ *Sustainable modern wood energy development,* to discuss sustainable production and use of wood energy for household and productive local uses, primarily in developing countries. A report has been developed to give an overview of the status of wood energy development in developing countries.
- ✓ *Discussions on capacity building and activities on bioenergy mapping.*

Annex: The GBEP sustainability indicators for bioenergy

In the below table, the set of twenty-four GBEP sustainability indicators for bioenergy, are set out under the three pillars, with the relevant themes listed at the top of each pillar.

PILLARS		
GBEP's work on sustainability indicators was developed under the following three pillars, noting interlinkages between them:		
Environmental	Social	Economic
THEMES		
GBEP considers the following themes relevant, and these guided the development of indicators under this pillar:		
Greenhouse gas emissions, Productive capacity of the land and ecosystems, Air quality, Water availability, use efficiency and quality, Biological diversity, Land-use change, including indirect effects.	Price and supply of a national food basket, Access to land, water and other natural resources, Labour conditions, Rural and social development, Access to energy, Human health and safety.	Resource availability and use efficiencies in bioenergy production, conversion, distribution and end-use, Economic development, Economic viability and competitiveness of bioenergy, Access to technology and technological capabilities, Energy security/Diversification of sources and supply, Energy security/Infrastructure and logistics for distribution and use.
INDICATORS		
1. Life-cycle GHG emissions	9. Allocation and tenure of land for new bioenergy production	17. Productivity
2. Soil quality	10. Price and supply of a national food basket	18. Net energy balance
3. Harvest levels of wood resources	11. Change in income	19. Gross value added
4. Emissions of non-GHG air pollutants, including air toxics	12. Jobs in the bioenergy sector	20. Change in consumption of fossil fuels and traditional use of biomass
5. Water use and efficiency	13. Change in unpaid time spent by women and children collecting biomass	21. Training and re-qualification of the workforce
6. Water quality	14. Bioenergy used to expand access to modern energy services	22. Energy diversity
7. Biological diversity in the landscape	15. Change in mortality and burden of disease attributable to indoor smoke	23. Infrastructure and logistics for distribution of bioenergy
8. Land use and land-use change related to bioenergy feedstock production	16. Incidence of occupational injury, illness and fatalities	24. Capacity and flexibility of use of bioenergy