

GBEP Report to the G8 Muskoka Summit 2010

This report provides an overview of the work of the Global Bioenergy Partnership (GBEP) and its progress since reporting to last year's G8 Summit. In response to the 2005 G8 mandate (renewed in 2007, 2008 and 2009), GBEP initiated an international discussion on the issues related to bioenergy. Four 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 developed a common methodological framework for use in measuring and reporting greenhouse gas emissions reductions from bioenergy and is continuing work on development of a set of global, voluntary, science-based criteria and indicators as well as examples of experiences and best practices regarding the sustainability of bioenergy. GBEP has also published on its website collations of financing options and analytical tools currently available, the latter developed in collaboration with UNEP and FAO. In the upcoming year, GBEP intends to initiate work on facilitating capacity building and technology cooperation for sustainable bioenergy.

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 2007 G8 Heiligendamm Summit "to continue its work on biofuel best practices and take forward the successful and sustainable development of bioenergy". The 2008 Hokkaido Toyako Summit declared renewed support for GBEP's work and invited it to "work with other relevant stakeholders to develop science-based benchmarks and indicators for biofuel production and use." The 2009 L'Aquila Summit welcomed GBEP's work and "invite[d] GBEP to accelerate its work in developing science-based benchmarks and indicators for sustainable biofuel production and to boost technological cooperation and innovation in bioenergy."

GBEP membership

Over the last year, GBEP has continued to expand its membership, such that its Partners now comprise the following 21 countries and 11 international organizations and institutions: all G8 nations plus Argentina, Brazil, China, Fiji Islands, Ghana, Mexico, Netherlands, Paraguay, Spain, Sudan, Sweden, Switzerland and Tanzania, as well as FAO, IEA, Inter-American Development Bank, UNDESA, UNCTAD, UNDP, UNEP, UNIDO, United Nations Foundation, World Council for Renewable Energy and European Biomass Industry Association.

A further 21 countries are participating as observers (Angola, Australia, Austria, Chile, Colombia, Egypt, Gambia, India, Indonesia, Kenya, Lao P.D.R., Madagascar, Malaysia, Mauritania, Morocco, Mozambique, Norway, Peru, Rwanda, South Africa and Tunisia), along with the African Development Bank, Economic Commission for Latin America and the Caribbean, European Commission (which has announced its intention to become a Partner), European Environment Agency, IFAD, IRENA, the 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 sharing information and examples of good practice.

The main objectives of the Global Bioenergy Partnership are to:

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

GBEP's achievements in the last year

Over its last year of work, GBEP has made real advances in its current priority areas, which are:

1. facilitating the sustainable development of bioenergy;
2. testing a common methodological framework on GHG emission reduction measurement from the use of bioenergy; and
3. raising awareness and facilitating information exchange on bioenergy.

1. Facilitating the sustainable development of bioenergy

In June 2008, GBEP established a Task Force on Sustainability, under the leadership of the United Kingdom.

The Task Force is working to develop a set of relevant, practical, science-based, voluntary criteria and indicators as well as examples of best practice regarding the sustainability of bioenergy. The criteria and indicators are intended to guide any analysis undertaken of bioenergy at the domestic level with a view to informing decision making and facilitating the sustainable development of bioenergy in a manner consistent with multilateral trade obligations. A further aim of this activity is to identify synergies between the various current initiatives and encourage closer joint working and integration where possible to promote greater consistency and reduce unnecessary duplication.

The Task Force has provided a unique forum for discussion amongst governments and international organizations of the full range of opportunities and challenges presented by bioenergy. It has made significant progress in sharing the different perspectives of an increasingly diverse group of countries and organizations on the link between bioenergy and sustainable development and in identifying common ground. Partners and Observers have cooperated in tackling the scientific challenge of determining robust sustainability indicators that are practical to measure. An initial report is expected by November 2010 for submission to the G20 Summit under the Korean Presidency. The Task Force will then explore the possibility of piloting and consultation. Annex A to this document contains a more detailed progress report for this Task Force.

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

The GBEP Task Force on GHG Methodologies was established in October 2007 under the joint leadership of the United States and the UN Foundation to develop a common methodological framework for the use of policy makers and stakeholders when assessing GHG emissions associated with bioenergy and to make GHG lifecycle analyses more transparent. In June 2009, the Task Force published "Version Zero" of "The GBEP Common Methodological Framework for GHG Lifecycle Analysis of Bioenergy" for initial dissemination and testing. Comments received so far have been positive, as it is viewed as an opportunity for scientists and researchers to acquire a deeper comprehension of the needs of a lifecycle analysis (LCA). Users' feedback will allow GBEP Task Force experts to improve and refine the framework which may become a useful tool for domestic measurement, reporting and verification set out in the Copenhagen Accord, for bioenergy projects. "Version One" of the framework is expected by spring 2011. Annex B to this document contains a progress report for this Task Force.

3. Raising awareness and facilitating information exchange on bioenergy

GBEP's awareness-raising and information exchange activities have focused on the following areas:

- a. Development of GBEP's information material, including management of the GBEP website (www.globalbioenergy.org), which includes a database of bioenergy information, and collations of financing opportunities for bioenergy projects and programmes for developing countries and analytical tools to assess and unlock sustainable bioenergy potential;
- b. Participation in relevant international conferences and meetings focused on bioenergy as well as organization of specific GBEP events relating to its activities and programme of work;
- c. Organization of an international media campaign to promote GBEP activities, which has led to extensive media coverage of GBEP's activities, and publication of a quarterly GBEP newsletter.

New GBEP work

GBEP is planning to build on its current activities by finalising a report on voluntary sustainability criteria and indicators and finalizing Version One of "The GBEP Common Methodological Framework for GHG Lifecycle Analysis of Bioenergy". Alongside this work, GBEP has decided to start work through a new task force to facilitate capacity building and technology cooperation for sustainable bioenergy. In light of this work, GBEP will submit a report to the 2011 G8 and G20 Summits in France.

Annex A: A progress report of the GBEP Task Force on Sustainability

This report describes progress on the work of the GBEP Task Force on Sustainability and outlines next steps.

Introduction

It is generally acknowledged that bioenergy can make a significant contribution to meeting energy security and economic development goals, as well as helping to address the negative effects of climate change. There is also widespread recognition, shared by the G8 Leaders and reflected in commitments given at recent Summits, that if bioenergy is to have a viable long term future, it must be produced and used in a sustainable way, taking into consideration the economic, environmental and social pillars of sustainability. GBEP believes that it can play a valuable role in helping to build an international consensus on practical and effective ways of achieving this important and widely-shared goal.

To that end, in June 2008 GBEP established a Task Force on Sustainability, under the leadership of the United Kingdom, to:

- Facilitate an effective dialogue on the exchanging of experiences on bioenergy technologies, norms and regulations as well as the sharing of information, and data, experiences and best practices relating to sustainable bioenergy production and use;
- Develop a set of global science-based criteria and indicators regarding the sustainability of bioenergy. This will provide a useful platform for those engaged in current work on bioenergy sustainability;
- Develop an inventory of existing initiatives on sustainable bioenergy, with a view to identify and discuss commonalities and differences in approaches as well as issues requiring further consideration;
- Develop a final report summarising the work and conclusions of the Task Force as well as any recommendations to the Steering Committee for further work.

GBEP decided that the Task Force on Sustainability should prioritise its efforts on developing a set of global science-based, voluntary criteria¹ and indicators² regarding the sustainability of bioenergy in all its forms. This report focuses on that aspect of the Task Force's work.

Several current initiatives working to develop international sustainability criteria and indicators for biofuels and/or biomass feedstocks focus on certification schemes. The uniqueness of the GBEP Task Force on Sustainability lies in the fact that it is currently the only initiative seeking to build consensus among a broad range of national governments and international institutions on bioenergy sustainability and in the fact that the emphasis is on providing science-based measurements useful for informing national level policy analysis and development.

Contribution to G8 commitments

The development of sustainability criteria and indicators for bioenergy resonates with the recognition given by the G8 Leaders in their Summit Declaration from Hokkaido Toyako to the "importance of sustainable biofuel production and use", as well as "for the broader use of biomass for fuel, heat and electricity". It responds directly to the invitation from the G8 Leaders to GBEP in 2008 "to develop science-based benchmarks and indicators for biofuel production and use",³ and last year "to accelerate its work in developing science-based benchmarks and indicators for sustainable biofuel production".⁴

¹ defined here as categories of sustainability factors, capacities or processes that are used to evaluate the environmental, economic or social performance of bioenergy production and use

² defined here as measurable outcomes of a criterion regarding bioenergy production and use; a means for measuring or describing various aspects of the criteria

³ G8 Hokkaido Toyako Summit Leaders Declaration, Hokkaido Toyako 8 July 2008: Paragraph 27.

⁴ G8 L'Aquila Summit Leaders Declaration, L'Aquila 8 July 2009: Paragraph 88e.

Progress

The Task Force has now been in existence for two years. During its first year, it clarified and reached agreement on the scope, purpose and use of the criteria and indicators; this was an essential step given the sensitivity of the issues under discussion and concerns about the implications for trade of any final agreement. In this regard, the Task Force agreed that the purpose of this work is to provide relevant, practical, science-based, voluntary sustainability criteria and indicators to guide any analysis of bioenergy that may be undertaken at the domestic level. When used as part of such an analysis, the criteria and indicators are intended to be used with a view to informing decision making and facilitating the sustainable development of bioenergy. Importantly, and in recognition of GBEP's status as a voluntary international partnership, the Task Force agreed that the criteria and indicators shall not be applied so as to limit trade in bioenergy in a manner inconsistent with multilateral trade obligations.

The Task Force also provisionally agreed on criteria and established three sub-groups – Environmental (co-led by Germany and UNEP), Social (led by FAO) and Economic and Energy Security (co-led by IEA and UN Foundation) – to undertake the detailed work on indicators for these criteria.

During its second year, the Task Force has worked with great intensity, with four Task Force meetings and one workshop on indicators in addition to much electronic correspondence. Task Force members have also participated in related non-GBEP activities on the issues of bioenergy sustainability and its measurement, which has led to fruitful cross-fertilisation. The work of the Task Force has stimulated close collaboration between national governments and international organisations and thereby truly pursued sustainable development through a global partnership.

GBEP's Partners and Observers include developing and developed countries, net biofuel exporters and net biofuel importers and bring a wide diversity of perspectives to the discussion. The Task Force initially considered a very large number of indicators and has worked hard to condense this set, taking into consideration the guiding selection criteria of relevance, practicality and scientific basis. The intention has been to create a tool broad enough in content to be of relevance to a diversity of national circumstances and application to all forms of bioenergy, while streamlined and flexible enough to be of practical use.

Areas of provisional agreement

Since the balance of the final product is important, and because GBEP works by consensus, no part of the content is considered agreed until the whole criteria and indicators framework is agreed. However, discussion to date has led to a high degree of provisional agreement on indicators covering:

- (a) environmental aspects such as lifecycle GHG emissions, soil quality, harvest levels of wood, emissions of non-GHG pollutants, proportion of water resources used, water use efficiency, water quality, conversion of nationally recognised areas of high biodiversity importance and ecosystems of national importance, and direct land-use change;
- (b) social aspects such as net job creation, wages, change in unpaid time spent by women and children collecting biomass as a result of switching from traditional to modern bioenergy services, size distribution of farms producing bioenergy feedstock, quantity and share of modern bioenergy used to expand access to modern energy services, change in mortality and burden of disease attributable to indoor smoke from solid fuel use, and incidence of occupational injury, illness and fatalities; and
- (c) economic and energy security aspects such as productivity, net energy balance, total domestic consumption and production of bioenergy, training and re-qualification of the workforce, change in diversity of energy supply due to bioenergy and diversity of bioenergy supply.

Areas where further discussion is required

Work will continue in order to agree on details, including methodological approaches to measurement, of indicators on the topics mentioned above. In addition, it is necessary for the GBEP Partners and Observers to continue to discuss a number of topics which require further consideration in order to reach agreement on how they should be addressed. These topics include food security, government support for bioenergy, trade (including change in foreign exchange balance), land rights, biodiversity, indirect effects of land-use change and national legal, policy and institutional frameworks. Resolution on these topics will be the focus of the Task Force's efforts over the coming months.

Next steps

The Task Force has achieved much in the last two years but there is still a large amount of work to do. In the coming months it will:

- seek agreement on an initial set of indicators;
- refine the supporting information for the indicators, such as descriptions of methodological approaches for their measurement;
- revisit and refine the sustainability criteria in light of the outcome of the work on indicators;
- publish a report that would include an initial set of criteria and indicators and supporting text (expected by November 2010 for submission to the G20 Summit under the Korean Presidency);
- give further consideration to how the work can be disseminated by consulting a wide range of interested parties and stakeholders, including through further outreach activities; and
- explore possibilities for piloting the agreed indicators and identifying suitable examples of sustainable bioenergy in action, linked to the agreed indicators, for dissemination.

Annex B: A progress report of the GBEP Task Force on GHG Methodologies

Overview of the GBEP Common Methodological Framework for GHG Lifecycle Analysis of Bioenergy

The Global Bioenergy Partnership (GBEP) Common Methodological Framework for GHG Lifecycle Analysis of Bioenergy - version zero - has been developed through collaborative work amongst GBEP Partners, comprising a wide range of national governments and international organizations. The Framework aims to provide a consistent and transparent mechanism to describe the methodology used to conduct a lifecycle analysis of GHG emissions due to bioenergy production and use. Through utilization of a questionnaire and description format by which to describe the methodology, the Taskforce aims to enable understanding of various lifecycle analyses and comparison between methodologies. The framework has been developed for several potential applications including governments that have implemented GHG emissions standards for biofuels, to support claims of GHG reductions by biofuels producers and manufacturers of products that use biofuels, and non-government organizations and roundtables for evaluation of GHG reductions included in their sustainability analyses of biofuels.

The framework is a flexible checklist which consists of 10 “Steps” of analysis. Steps 1 and 2 are simple checkboxes in which the user identifies the GHGs included in the LCA and the source of the biomass feedstock. In the case that the feedstock is waste material, further explanation is requested. Steps 3-9 walk through components of a LCA for bioenergy production and use, including emissions due to land use change, biomass feedstock production, co-products and by-products, transport of biomass, processing into fuel, transport of fuel, and fuel use. For each Step the framework presents a series of yes/no questions and checkboxes, with requests for further explanation where appropriate. Step 10 is the comparison with replaced fuel. In this Step the framework includes options for reporting LCA of fossil transport fuels and LCA of stationary heat and electricity production systems.

Contribution to G8 commitments

The G8 Leaders in their Summit Declaration from L’ Aquila 2009 recognised the importance of further developing sustainable bioenergy and alternative fuels and thus welcomed the development of a common methodological framework to compare the various existing methodologies dedicated to assessing GHG emissions of bioenergy systems in a transparent way.

Progress

As of May 2010, several countries as well as private companies and associations have provided the GBEP Secretariat with completed questionnaires and feedback. Results from these pilot tests have provided insights to the usability of the Framework and have identified possible ways in which to improve the Framework. Comments received thus far suggest the current Framework is a useful tool for documenting congruence and the completeness of LCA work. In the light of preliminary results, the Task Force agreed to examine the current version of the GBEP methodological framework with the main goal of improving the clarity of the document.

In order to define a clear and effective communication strategy to disseminate the GBEP Common Methodological Framework and collect more tests and comments, the Task Force agreed to make the Framework publicly available and electronically fillable through the GBEP website. In addition, the Taskforce agreed to establish a clearing house on the web site, which will include a compilation of the completed questionnaires, in order to allow users to compare across submissions, exchange documents and studies as well as to learn from other users’ experience. This activity will also aim to provide an easily accessible reference of examples for users considering the design of life cycle analyses for bioenergy.

The report is available on the GBEP website: www.globalbioenergy.org