**GBEP Working Group on Capacity Building**

**for Sustainable Bioenergy**

**ACTIVITY GROUP 4**

***Towards sustainable modern wood energy development***

*Draft 29 January 2013*

**Introduction**

During the 2nd meeting of the GBEP Working Group on Capacity Building for Sustainable Bioenergy (WGCB), Rio de Janeiro, HSBC Arena, 19 June 2012, UN Foundation informed the Working Group about an exchange of views with FAO and UNEP regarding the possible creation of a further Activity Group to be focused on woody bioenergy. The Working Group invited the UN Foundation, FAO and UNEP to continue discussing this matter with a view to developing a proposal/scope of work to be submitted to the next WGCB.

UNF, UNEP and FAO have taken the first steps regarding this possible AG by preparing the proposal/scope of work. This does not mean that they would automatically co-chair this AG, but their continued leadership is welcomed. The leadership by countries is strongly encouraged, as vast experience is available already in Sweden, Germany, the United States and Brazil and Vietnam, as well as drawing on activities ongoing on a regional level, such as by ECOWAS*.*

**Justification and Overall Goal**

Biomass-based energy currently makes up more than 75 percent of the global share of renewable energy, with trees and woody plants providing more than 80 percent of this biomass.

Traditional use of such woody biomass is the dominant source of energy for cooking and heating in developing countries. Yet, this practice is not necessarily sustainable; often it is energy-inefficient, takes up tremendous amounts of time of women and children collecting firewood, brings on considerable health hazards through indoor air pollution, contributes to climate change through emissions of short-lived climate pollutants, and contributes to deforestation and related adverse climate, biodiversity and other environmental impacts. Recent important initiatives have been put in place to address the challenge related to traditional use of woody biomass, including the Global Alliance for Clean Cookstoves[[1]](#footnote-1) and the Climate and Clean Air Coalition[[2]](#footnote-2).

Woody biomass is also important in other countries, mainly through co-firing in coal power plants, but also for dedicated (co-)generation and (industrial) heating plants[[3]](#footnote-3). Biomass power capacity globally increased from 66 GW in 2010 to 72 in 2011[[4]](#footnote-4). In Europe wood energy is expected to double, and triple in North America by 2030. Countries such as China, India and South Africa, among others, are also considering large-scale biomass co-firing.

The increase in the demand for woody biomass for modern energy services is driven, in OECD countries, mainly by the need to reduce CO2 emissions, fulfilling renewable energy mandates, diversifying energy supply. In response, there is great interest from the private sector in modern wood energy development already. In 2010, trade of solid biomass fuels (excluding charcoal) amounted to 18 million tonnes (300 PJ); more than 90% of this total consisted of pellets (120 PJ), wood waste (77 PJ), and fuelwood (76 PJ).[[5]](#footnote-5) This development is seen with concern in some developing regions, such as ECOWAS, where the main drivers are the need to improve energy access and security, and enhancing local livelihoods. Pressure from woody biomass for energy is seen in addition to existing pressures from traditional wood based industries

## This surge brings up some important challenges related to, inter alia:

## sustainable and secure biomass sourcing, including environmental, social, and economic considerations;

## carbon balance[[6]](#footnote-6) of woody bioenergy;

## direct competition for raw material, and ultimately land and water,

## soil quality, water quality and land ownership, and role and impacts of planted forests.

## energy efficiency and transfer of technical information.

Some of the above challenges require further research and discussion, while others can be addressed more readily through promotion of good practices. Supportive policy and institutional environ­ments are required to enable the sustainable development of this sub-sector, and foster effective public-private partnerships. GBEP can provide the platform for dialogue and exchange of good practices among experts and interested stakeholders, and foster a common understanding that could lead to the development of a framework for sustainability assessment and promotion of best practices.

Given this background, a GBEP Activity Group is seen as an appropriate mechanism to engage such collaboration. As a pilot, this Activity Group would reach out to the private sector, existing standards involved in timber/wood product certification, as well as the research community. Such outreach could lead to further expansion of GBEP membership to new P&Os, and hence constitute a co-benefit The engagement of new members to the Activity Group would be by invitation only, and, for the time being, restricted to this Activity Group. An initial list of suggested additional invitees would be established and be subject to agreement by all members.[[7]](#footnote-7)

**Proposed approach and activities**

Recognising the differences and inter-linkages between traditional and industrial use of woody biomass, a *“twin-track approach”* is proposed as a possible working framework for this activity group, i.e. sustainable production and use of woody biomass for both household and industrial energy purposes.

In both cases it is proposed to address issues and work focus based on respective value chains

* production of woody biomass (small-scale farmers, forestry management, etc.)
* processing of woody biomass (charcoal production, pellets, wood chips)
* use of woody biomass products (household use for cooking, industrial use for local markets, e.g. for electricity production on local, regional, national scale, export of woody biomass products)
* A mapping of the ecosystem context and the cross-cutting issues could be very useful to gain a common understanding of the overall context and would help to focus discussions;
* Food security as one of the main challenges for woody biomass as discussed for biofuels and inter-linkages between local, regional, national and international markets.

Given the amount of information and experience already available on both tracks, a major principle would be to build on such knowledge to avoid “reinventing the wheel”. Therefore a first activity would be a stock-taking exercise on what is known and available, and identifying existing gaps for both tracks.

Specific aspects for each track are presented hereafter.

1. *Track 1: sustainable production and use of woody biomass for household energy purposes*

It is proposed to base the work related to this component on the proposals made by the Global Alliance for Clean Cookstoves (GACC) to GBEP in its letter dated 13 November, 2012, regarding both collaborative initiatives and activities in areas of mutual interest and information dissemination, events and publications to mutually promote each other’s work.

More specifically

1. Re: collaborative initiatives and activities

* Discussing options to build on GBEP’s analysis tools to increase their applicability for biomass (solid and liquid biofuels) for cooking;
* Capacity building is an area of focus for both the Alliance and GBEP. Some initial focus areas for capacity building may include: scaling up sustainable production of biomass-based fuels for cooking, incorporating women entrepreneurs in the fuels’ value chain, and reaching “the last mile” for distribution
* Facilitate the development of innovative partnerships, between GBEP and Alliance partners, to apply existing technology and methods for producing fuels for cooking.

1. Re: information dissemination, events and publications to mutually promote each other’s work

* As first step, GACC proposes connecting the relevant Alliance and GBEP points of contact for knowledge management in order to integrate the existing information and develop a plan for future updates, including for the Alliance’s online knowledge hub and the upcoming Clean Cooking Forum in Cambodia in March 2013.

Stakeholders to be involved in this track are those involved in both GACC and GBEP.

1. *Track 2: sustainable production and use of wood energy for industrial purposes*

While there was agreement that important lessons can be learnt and transferred from the work on biofuels more broadly, and the GBEP sustainability framework more specifically, there was no consensus at the GBEP November 2012 meeting in Rome regarding concrete activities for this track. Therefore GBEP P&Os agreed that the first step for this track would be to organize a maximum one-day brainstorming meeting outside or in the context of forthcoming GBEP meetings, to brainstorm about and decide what these activities should be. The meeting would involve all or a selection of GBEP P&Os, and a selection of other partners from the private sector (e.g. WBCSD and also some utility companies such as Vattenfal and ESKOM), relevant NGOs working on this topic (e.g. IUCN and WWF), and other relevant organizations such as GACC, the WB and relevant IEA Bioenergy Tasks.

**Modus of Operation**

* The AG4 will be open to GBEP Partners and Observers and to relevant experts and private sector actors involved in sustainable woody bioenergy issues or affected by its unsustainable uses.
* The AG4 will closely collaborate with other international agencies and initiatives, on information exchange and joint workshops.
* The work could start with a technical meeting under the GBEP auspices, involving some major private sector players, relevant governments and international organizations, as well as research community. The meeting would define in more detail the elements of collaboration needed to implement the approach suggested above-.
* Specific subgroups could be created as appropriate, recognizing the different target audiences and need for participating experts.
* In order to optimize lessons learned from the activities in both tracks, members of Activity Group 4 will share their experience as work progresses.
* Activity group 4 will regularly report to the Working Group on Capacity Building on the experience and understanding gained from the implementation of their work;
* We anticipate meetings of the activity group to be held in conjunction with the plenary GBEP meetings.

Given the extensive knowledge available through FAO, IEA and UNEP as well as many GBEP Partners (e.g. EU, Germany, the Netherlands, Sweden, USA, Brazil, Vietnam, ECREE), a broad inclusion of actors is envisaged.

The options for (co-)chairing the AG will be discussed after the overall acceptance of the new AG, and its scope.

1. www.cleancookstoves.org/ [↑](#footnote-ref-1)
2. http://www.unep.org/ccac/ [↑](#footnote-ref-2)
3. There is also rising interest in solid biomass for advanced liquid biofuels, and cascading or multiple uses (e.g. biorefineries), but this is at an early stage of development. [↑](#footnote-ref-3)
4. Ren21 – Global Status Report. [↑](#footnote-ref-4)
5. Ren 21 – Global Status Report [↑](#footnote-ref-5)
6. Current GHG accounting systems assumed that CO2 emissions produced when woody biomass is burnt for energy are accounted as zero, resulting in what is referred to as the ‘carbon neutrality’ assumption. However this is not always correct. Studies show that neutrality of emissions reductions that are achieved by substituting bioenergy for fossil fuels use are time-dependent, that is, they change over time and bioenergy is not always carbon neutral. While it is clear that all sources of woody bioenergy from sustainably-managed forests will produce emission reductions in the long term, different woody biomass sources have various impacts in the short and medium terms. [↑](#footnote-ref-6)
7. Potential new members include, as initially suggested, but are not limited to, FSC and relevant IEA Bioenergy Tasks, as well as selected private sector participants to the SE4All meeting in Guessing that expressed strong interest in sustainability of woody biomass, e.g. Vattenfall and ESKOM. [↑](#footnote-ref-7)