**GBEP Working Group on Capacity Building**

**for Sustainable Bioenergy**

***Scope of Work for Activity Group 6 on***

# *“Bioenergy and Water”*

**Scope of Work 2017**

**Introduction**

The GBEP Activity Group 6 “Bioenergy and Water” (AG6) aims to identify and disseminate ways of integrating bioenergy systems into agricultural and forested landscapes for improving sustainable management of water resources, including wastewater. This includes sharing knowledge and experiences on landscape management and design, best management practices, as well as on policies and instruments supporting bioenergy implementation that contribute positively to the state of water. With the support of the IEA as a GBEP partner, IEA Bioenergy Task 43, assisted by Task 40, is co-leading the Activity Group (AG6 lead: Göran Berndes supported by Uwe R. Fritsche) and contributing to the work defined in the workplan.

As a core activity between 2015 and early 2016, the AG6 developed a report collecting Examples of Positive Bioenergy and Water Relationships, in order to showcase innovative examples of how bioenergy systems (in both the feedstock production and conversion phases) can produce positive impacts on the status of water. The report aimed to inspire and support other bioenergy producers by disseminating knowledge and experience. Furthermore, two webinars were held in 2016. The first one (6 April) focused on Africa, Asia and the Pacific, and Europe, and the second one (25 May) focused on the Americas. These webinars provided further dissemination of the examples collected in the report as a way to inspire participants to build on these examples together with other bioenergy producers in their respective countries.

**Scope of Work 2017**

The **2017 Scope of Work** builds further on the integrative understanding of bioenergy and water that formed the basis for activities in 2015-2016. The aim is to seek synergies with other initiatives within GBEP, to contribute to SDG implementation, and to continue collaboration with IEA Bioenergy and interested partners.

The 2017 Scope of Work is based on the outcome of the AG6 workshop organized during the GBEP meetings in Rome, 29 Nov - 2 Dec 2016, as well as contributions from AG6 members following this workshop.

**In summary**, the planned activities and deliverables are:

* Contribution to the GBEP TFS work on indicators (especially ENV Subgroup) and in particular to the proposed mid-2017 Workshop of the TFS on SDGs and GBEP Sustainability Indicators;
* Preparation of a “memo” on SDGs implementation and bioenergy/water, with a *focus on policies and tools* (e.g. best practices) to realize synergies between sustainable bioenergy implementation and sustainable water resource management, considering linkages to biodiversity, land use, livelihoods, and rural development; and
* AG6 event during the 2017 World Water Week (Stockholm, 27 August – 1 September 2017) to disseminate AG6 results to a broader audience.

**Work plan and timetable**

Planned activities and deliverables for AG6 in 2017 are further described below.

* ***Contribution to the GBEP TFS work on indicators***

The GBEP Task Force on Sustainability (TFS) Environment Subgroup (ENV) expressed informally its interest in having AG6 preparing input to the ENV discussions on the water-related GBEP Sustainability Indicator (GSI), i.e. GSI 5 and 6. The ENV will decide on its 2017 workplan by end of February, and it is expected that the water-related indicators will be discussed in a virtual ENV meeting planned for early July. AG6 members would be either invited to join this meeting, and/or prepare written input.

As the **SDG** indicator development is relevant for the GSI, AG6 participants are encouraged to take note of the SDG-GSI linkages paper (draft expected for April/May 2017). This draft is to be discussed during a workshop (tentatively scheduled for early July 2017 in Bonn, Germany) which may be an interesting opportunity to also discuss respective water-related SDG and GSI issues for those who participate.

# *Memo on SDGs implementation and bioenergy/water*

This memo aims to raise awareness of how bioenergy systems can support the implementation of SGDs that have linkages with energy and water, i.e., primarily SDG 6 - *Ensure Availability and Sustainable Management of Water and Sanitation for All* and SDG 7 - *Ensure access to affordable, reliable, sustainable and modern energy for all*.

The memo will focus on policies and tools (e.g., best practices) to realize synergies between sustainable bioenergy implementation and sustainable water resource management, considering linkages to biodiversity, land use, livelihoods, and rural development. The memo will also help to raise awareness about the GBEP sustainability indicators on water.

It is proposed that the AG6 members nominates and appoints a number of experts that engages in a working group, including also the AG6 co-leads and the GBEP Secretariat.

In support of this activity - and also the proposed AG6 event during the 2017 World Water Week - IEA Bioenergy Task 43 will produce a new report on *Best Management Practices for Agriculture Residue Uses for Bioenergy*. This report will complement the previous Task 43 report on *Best Practice Guidelines for Managing Water for Bioenergy Feedstock Production.*

Task 43 also plans to circulate a call for contributions on *Attractive Systems for Bioenergy Feedstock Production in Sustainably Managed Landscapes*. A similar format will be used as used by AG6 in 2015 and it is expected that several contributions will concern bioenergy-water linkages. Exact time plan and dissemination activities associated with the Task 43 call are yet to be specified, but the aim will be to develop synergies with AG6 work in 2017.

Finally, if AG6 gets approval for arranging an event during the 2017 World Water Week, this event can be expected to support the production of the memo.

This activity **will be initiated if funding can be secured that makes it possible to appoint a lead author** of the memo. The memo is expected to be developed within a 6 month period.

# *AG6 event during the 2017 World Water Week (Stockholm, 27 August – 1 September 2017)*

A proposal for an event during the 2017 World Water Week was submitted on January 18 (see Appendix). The proposal was submitted prior to approval of the 2017 Scope of Work, since the deadline for proposals was January 22.

Arranging events during the 2017 World Water Week is associated with a cost in the range EUR 30,000 – 35,000. In case of approval (expected in April 2017), AG6 needs to secure funding before finally agreeing to arrange the event. Additional funding may be needed for travel costs (invited speakers unable to cover such costs). A possibility is to invite other organizations as co-organizers to share the related cost.

**The AG6 leader will continue exploring funding opportunities to secure the organization of this activity**.

# Appendix: Proposal for an event during the 2017 World Water Week

**Event title:** Bioenergy, water and SDG implementation: experiences and linkages

**Conveners of the event:** GBEP Activity Group 6 "Bioenergy and Water" (AG6)

**Event summary**

The event addresses positive bioenergy and water linkages. Concrete examples will be presented and discussed and experiences will be shared from activities adressing SDGs implementation and bioenergy/water, with a focus on policies and tools to realize synergies between sustainable bioenergy implementation and sustainable water resource management.

**Classification of event (theme of topic):** Water-energy-food trade-offs

**Event description**

We propose to organize an event for the dissemination and discussion of outcomes from an initiative to collect examples of positive bioenergy and water linkages. This collection showcases innovative examples of how bioenergy systems - in both the feedstock production and conversion phases - can produce positive impacts on the status of water. The examples that have been documented so far cover a wide range of geographic locations, feedstocks, bioenergy pathways and practices. They come from 11 countries across six continents: Argentina, Australia, Brazil, China, Egypt, Germany, Italy, Mexico, Paraguay, South Africa and the United States of America. Each example includes qualitative and/or quantitative data on the positive impacts on water quality and availability, biomass/bioenergy production as well as any possible co-benefits that were observed.

The event will build on an integrative understanding of bioenergy and water, aiming to contribute to SDG implementation. Selected positive examples will be presented together with learning from activities addressing linkages between SDGs and the GBEP Sustainability Indicators, which are intended to guide 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.

**Event objectives and expected outcomes**

By disseminating knowledge and experience, we aim to inspire and support other bioenergy producers as well as actors facing challenges related to the management of water resources. The proposed event will also support the preparation of a publication on SDGs implementa­tion and bioenergy/water, with a focus on policies and tools (e.g., best practices) to realize synergies between sustainable bioenergy implementation and sustainable water resource mana­gement, considering linkages to biodiversity, land use, livelihoods, and rural develop­ment.

GBEP was founded in 2006 as an intergovernmental partnership based on the idea that bioenergy can significantly contribute to energy access and security, climate change miti­ga­tion, food security, and ultimately sustainable development. It brings together public, private and civil society stakeholders in a joint commitment to promote bioenergy for sustain­able development. GBEP now has more than 70 members.

GBEP Activity Group 6 identifies and disseminates ways of integrating bioenergy systems into landscapes to improve management of water resources. This includes sharing knowledge and experiences on best management practices as well as on policies and instruments supporting bioenergy implementation that contributes positively to the state of water. AG6 also serves as a vehicle for awareness raising on the GBEP sustainability indicators on water.