

GBEP Working Group on Capacity Building for Sustainable Bioenergy (WGCB)

Activity Group 6 “Bioenergy and Water”

*Royal Swedish Academy of Agriculture and Forestry (KSLA), 26 August 2015
Stockholm, Sweden*

The Activity Group 6 met on 26 August 2015 at the Royal Swedish Academy of Agriculture and Forestry (KSLA) in Stockholm, Sweden. Argentina, Brazil, Egypt, Paraguay, USA and IEA Bioenergy participated in the meeting as members of the AG6. External experts from the following organizations also participated: Federal University of Pernambuco (Brazil); King Mongkut's University of Technology (Thailand); Stockholm Environment Institute (Sweden); Swedish University of Agricultural Sciences (Sweden); and University of KwaZulu-Natal (South Africa).

The objective of this meeting was to discuss the lessons learned from the AG6 Workshop on Examples of Positive Bioenergy and Water Relationships, held in Stockholm on 25-26 September 2015, and share views on GBEP's role in addressing the recommendations emerging from the workshop. The meeting also aimed to agree the next steps towards the WGCB meeting in November 2015.

Göran Berndes (IEA Bioenergy on behalf of IEA), Leader of the Activity Group 6, welcomed participants highlighting the extremely positive and relevant outcomes of the AG6 Workshop on Examples of Positive Bioenergy and Water Relationships (Summary in Annex). He then walked participants through the agenda of the meeting.

Overview of lessons learned from AG6 Workshop on Examples of Positive Bioenergy and Water Relationships

Uwe Fritsche (IEA Bioenergy) provided an overview of the lessons learned from the AG6 Workshop on Examples of Positive Bioenergy and Water Relationships. Presenters showed an encouraging variety of water-efficient and even positive-water-balance bioenergy options, both in terms of supply/feedstocks, and geographical distribution, and they highlighted the multiple environmental and socio-economic benefits of good bioenergy and water practices. However, significant barriers to “mainstream” such practices were identified. As emerged during the workshop, there is already a wealth of knowledge on issues surrounding the relationship between bioenergy and water. However, the science behind it still needs improvement. In particular, there is a need for improved data availability and quality, and for more in-depth knowledge on the implementation of effective enabling instruments/policies. Another issue that was raised during the workshop is that many practitioners in the landscape (e.g. farmers, foresters, waste managers, etc.) lack access to info/data, or consider those irrelevant for their practices. In addition, policymakers may be unaware of the opportunities, or deem other options more relevant or less complicated.

GBEP's role in addressing the recommendations emerging from the AG6 workshop

Göran Berndes, Leader of the Activity Group 6, moderated a discussion among AG6 members on GBEP's role in addressing the recommendations emerging from the AG6 workshop. The need for awareness raising and capacity building for all relevant stakeholders, especially in developing countries, was stressed during the discussion. The possible role of GBEP in this area and the related implications (e.g. in terms of resources) should be further discussed during the meeting of the WGCB in November 2015. As a first step, the importance of disseminating the results of the AG6 Workshop on Examples of Positive Bioenergy and Water Relationships was highlighted, both within and beyond the GBEP community. Once the conclusions of the workshop and the document containing all the submissions received in response to the call for examples will be publicly available, a webinar could be organized in order to reach out to interested stakeholders in addition to GBEP members. Social media could be explored as well as a means to raise awareness about the positive examples of bioenergy and water relationships documented in the call and presented at the workshop. In addition, the 'Virtual library' on the GBEP web-site could be used as a repository of relevant publications on the bioenergy-water nexus. In terms of possible future work, another idea that was discussed for further consideration during the forthcoming WGCB meeting is the provision of guidance on how to bring forward bioenergy and water in terms of enabling environment, e.g. policies. Finally, AG6 members agreed on the importance of linking the work of Activity Group 6 to that of Activity Group 4 ("Towards sustainable modern wood energy development"), as well as to the development of the Implementation Guide that will be prepared under the GBEP Task Force on Sustainability, in relation to the GBEP sustainability indicators # 5 ("Water use and efficiency") and 6 ("Water quality").

Conclusions and next steps

The following next steps were agreed in preparation for the WGCB meeting in November 2015:

- A revised template for the good examples of positive bioenergy and water relationships will be prepared by the AG6 Leader with support from the GBEP Secretariat. This template will be **circulated to AG6 members by mid-September, with a one-week deadline for comments**;
- The aforementioned template will then be *sent to all of those who responded to the Call for Examples of Positive Bioenergy and Water Relationships*, giving them a **one-month deadline to fill it out** and provide the requested additional information related to the example submitted;
- The revised submissions will then be reviewed by the AG6 Leader with support from the GBEP Secretariat, and they will be included into a *joint GBEP – IEA Bioenergy document* that will be **uploaded onto the web-sites of both organizations by the end of 2015**; and
- All *workshop materials* (e.g. agenda, presentations, conclusions and video materials) will be **uploaded onto the GBEP web-site by the end of September** and will be circulated by the GBEP Secretariat to all Partners and Observers and other relevant stakeholders.

ANNEX

**GBEP Working Group on Capacity Building
for Sustainable Bioenergy (WGCB)**

**Activity Group 6
“Bioenergy and Water”**

**Workshop on
“Examples of Positive Bioenergy and Water Relationships”**
*Royal Swedish Academy of Agriculture and Forestry (KSLA), 25-26 August 2015
Stockholm, Sweden*

Under the framework of the Activity Group 6 (“Bioenergy and Water”) of the GBEP Working Group on Capacity Building (WGCB), GBEP and IEA Bioenergy held a workshop on “Examples of Positive Bioenergy and Water Relationships” on 25-26 August, 2015 in Stockholm, Sweden. The workshop, which was organized in collaboration with the Royal Swedish Academy of Agriculture and Forestry (KSLA) and Chalmers Energy Area of Advance, was attended by AG6 Members and External Experts, as well as additional experts from governments and academic institutions around the world.

The workshop was linked to a Call for Examples of Positive Bioenergy and Water Relationships that GBEP launched in April 2015. This initiative aimed 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 and to serve as a way to inspire and build on this knowledge and experience with other bioenergy producers. The submissions received in response to the Call for Examples were reviewed by Activity Group 6 and the most relevant among them were selected to be presented at the Stockholm workshop.

There was a high degree of diversity amongst the examples showcased at the workshop. They covered a broad range of feedstocks, technologies, practices and regions, and also addressed multiple issues. The examples were grouped and presented in four sessions:

- Session I: Bioremediation and Riparian Buffer Zones;
- Session II: ‘Waste’ to Energy and Water-Smart Processes;
- Session III: Agroforestry, Intercropping and Rotational Cropping; and
- Session IV: Controlling Growth of Invasive Species

For each example, the following information was provided: status of the project/practice/policy; positive impacts for water quality and availability; main drivers for the implementation of the project/practice/policy; key enabling factors; achieved outcomes; main challenges encountered; and potential replicability.

Participants expressed the importance and added value of the workshop, which they deemed extremely useful.

The following key messages and related lessons learnt emerged from the workshop:

- An encouraging variety of water-efficient and even positive-water-balance bioenergy options, both in terms of supply/feedstocks and geographical distribution, exist and were presented;
- There are significant barriers to “mainstream” such practices, though;
- A prerequisite seems an easily accessible repository of data on these practices by “trusted” actors. GBEP may have a role here;
- Capacity building is needed with regard to farmers and NGOs “in the field”. The socio-economic dimension must be addressed in that, and the broad diversity of farmers needs to be considered;
- “Water” is an important issue in many countries also at the political level, thus advice from IEA Bioenergy and GBEP might be taken up. Respective dialogue should be sought, possibly using the GBEP contacts for outreach;
- It was noted at the workshop that there are many situations where bioenergy output is associated with actions to address challenges such as soil erosion, water pollution and waste management. Based on this, it was proposed to consider reversing the sequence of the AG6 theme wording, i.e. from ‘Bioenergy and Water’ to ‘Water and Bioenergy’. This may also facilitate outreach, and respective acceptance; and
- Most of the best practices presented are “bottom-up”, but many policy makers view issues “top-down”. It should be considered to “translate” key issues into a broader (more “politically acceptable”) language, and highlight the potential of economic instruments in fostering sustainable bioenergy-water systems.