# Call for Evidence of Positive Bioenergy and Water Relationships

The Global Bioenergy Partnership brings together public, private and civil society stakeholders in a joint commitment to promote bioenergy for sustainable development. Its purpose is to provide a mechanism for Partners to organize, coordinate and implement targeted international research, development, demonstration and commercial activities related to production, delivery, conversion and use of biomass for energy, with a focus on developing countries. The GBEP **Activity Group on Bioenergy and Water** aims to identify and disseminate ways of integrating bioenergy systems into agricultural and forested landscapes for improving sustainable management of water resources, including waste water. This includes sharing knowledge and experiences on landscape identification and design, best management practices as well as on policies and instruments supporting bioenergy implementation that contributes 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-chairing the Activity Group and contributing to the work defined in the workplan.

Bioenergy and water are inextricably linked. Water quantity and quality (sometimes their temporal distribution) have been identified as emerging issues of concern in the bioenergy field. Yet, there is evidence that bioenergy systems can be designed and integrated to improve adaptation to water constraints and to optimise overall resource management. For example, effective planting including intercropping for bioenergy feedstock can support water quality improvements by trapping nutrients and sediment, filtering runoff and enhancing infiltration. Also, employment of technical solutions and best management practices in both feedstock cultivation/collection and refining phases can improve both the condition of water resources from both quantity and quality perspectives. Policies and other instruments can prove useful in encouraging the application of these practices among industry actors.

The GBEP Activity Group on Bioenergy and Water has launched an initiative to **identify cases of positive outcomes for bioenergy and water interactions**. We're writing to seek your participation in this initiative to catalogue and highlight world-wide examples of bioenergy systems, throughout all stages of production, which can produce positive impacts on the status of water**. We welcome information on crops and other feedstocks with bioenergy potential**, even if not yet used for bioenergy purposes, as well as information about policy initiatives that encourage technical solutions leading to positive outcomes for bioenergy and water.

The goal of this initiative is 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. Not only technical solutions should be considered, but also policies and other instruments that encourage the adoption of the solutions. Submissions will be reviewed by the Activity Group and those selected will be invited to make a presentation at the Activity Group Workshop on Bioenergy and Water, which will take place during the second half of 2015 (date and location to be confirmed). Selected submissions will be also compiled and published through the GBEP.

## The Call for Evidence

**A call for evidence and examples of good natural resource management to produce bioenergy that has positive impacts on the status of water.** Note that the spirit behind the call for evidence is not the mitigation of impacts caused by existing crops used for bioenergy e.g., by improving water quality treatment etc., but on using innovative approaches in integrating bioenergy into landscapes and existing systems that can demonstrate an improvement in natural resource management to benefit the state of water.

Case Studies/Examples could be relevant to soil stabilisation and productivity, flood control, infiltration rates, water filtration, hydrologic stability, reduction in nutrient and sediment export, vapour shift (non-beneficial evaporation to transpiration), water productivity, and other issues. Possible case studies might include (but are not limited to):

I. Integration of specific crops in key regions or landscapes and/or siting of crops, examples including, for example:
   a. Developing upstream degraded lands in rainfed watersheds to enhance green water use efficiency and minimize erosive runoff;
   b. Plantation of forest and bioenergy trees alongside roads and highways to reduce runoff and siltation load;

II. Modifying existing practices – cultivation and harvest:
   a. Mixed crop and livestock (agriculture-based);
   b. Alley cropping, rotation cropping and buffer plantations providing soil and water protection along with biomass for energy";
   c. Harvesting in Streamside Management Zones; and
   d. Bioenergy crop interplanted with existing managed forests.

III. Using 'waste' resources for bioenergy where such materials would pose a water quality risk in business as usual case (e.g., process wastewater discharge from industrial use used to produce biofuel or biofuel feedstock.).

IV. Implementing bioenergy systems that enable solutions to problems concerning water quality or access to water resources, examples include the use of local bioenergy sources to support water extraction for irrigation, hygiene, drinking, etc. in situations where energy access is scarce or non-existing.

V. Introducing innovative policies and other instruments that have been shown to encourage the adoption of best management practices for improving water resource utilization through bioenergy systems.

### Submission Guidelines

All information should clearly identify how the bioenergy system (or part thereof) can improve the state of water while also supporting the production of food and materials.
If you have any questions, please send an e-mail to: jessica.chalmers@winrock.org

Kindly use the template below to make electronic submissions to andrea.rossi@fao.org by May 8th, 2015.

| Template for Submissions | |
|---|---|
| **General** | |
| Contact name | *Please identify whether you are submitting as an individual or on behalf of an organisation* |
| Affiliation / Organisation | |
| Location of project/policy/practice | *Please identify the country and specific location within the country* |
| Other details | *Please provide any further relevant details e.g., organization description, size and type of investment (i.e. public, private or public/private), etc.* **[max. 100 words]** |
| Publications | *Please include the list of publications (if any) on the specific project/policy/practice described* |
| Link | *Please include the link to the project web-site (if any)* |
| **Details** | |
| Type of Example | *Please identify whether you are providing an example that is*<br>*i) A policy*<br>*ii) A practice or approach*<br>*iii) A specific project/activity* |
| Status | *Please specify whether the Example is currently being implemented and indicate start and end dates as appropriate* |
| Positive impacts for water quality | *Please provide a description of how the Example you are providing has produced or is expected to produce positive impacts for water quality* **[max. 500 words]** |
| Positive impacts for water availability | *Please provide a description of how the Example you are providing has produced or is expected to produce positive impacts for water availability* **[max. 500 words]** |
| Reasons or main drivers for implementing the project/practice/policy | **[max. 250 words]** |
| Key enabling factors | *Please describe the main environmental, social, economic and/or policy-related factors (if any) that enabled the implementation of the Example and contributed to its success* **[max. 250 words]** |
| Achieved outcomes | *Please provide information on the outcomes achieved for water quality and/or water availability* **[max. 500 words]** |
| Main challenges encountered | *Please describe some of the main challenges e.g., Policy , technical, financial, other* **[max. 250 words]** |
| Potential for scaling-up and replicability | Please discuss whether and under which conditions the Example could be scaled-up and replicated elsewhere **[max. 250 words]** |