



# SUSTAINABLE UTILISATION OF BIOMASS

Margareta Wihersaari, P.O.Box 35, FIN-40014 University of Jyväskylä, Finland  
margareta.wihersaari@jyu.fi

UNIVERSITY  
ALLIANCE  
FINLAND  
University of Jyväskylä  
Tampere University of Technology  
University of Tampere

**ABSTRACT: BIOMASS IN ALL ITS FORMS IS A VERY LIMITED RAW MATERIAL RESOURCE OF WHICH MANY ACTORS ARE INTERESTED. PRODUCTS PROVIDED BY FOOD, FODDER, FOREST AND BIOENERGY INDUSTRY ARE PARTLY PRODUCED FROM THE SAME RAW MATERIAL RESOURCES OR THE CULTIVATION OF THESE RAW MATERIALS ARE COMPETING FOR THE SAME LAND OR WATER RESOURCES.**

**“SUSTAINABLE UTILIZATION OF BIOMASS” (2009–2011) IS A FINNISH MULTIDISCIPLINARY, DISCUSSION PLATFORM (ARGUMENTA) FOR RESEARCHERS WITH DIFFERENT BACKGROUND – A SERIES OF SCIENTIFIC SEMINARS WITH INVITED SPEAKERS AND PARTICIPANTS – WHERE THE LIMITEDNESS OF FINNISH BIOMASS RESOURCES AS WELL AS THE PRIORITIZATION AND SUSTAINABILITY OF THE UTILIZATION OF THESE, ARE DISCUSSED.**

**THE AIM OF THE DISCUSSIONS IS TO FIND NEW SCIENTIFIC APPROACHES TO STUDY UPCOMING PROBLEMS AND QUESTIONS AND FIND SUSTAINABLE STRATEGIES AND SOLUTIONS OF HOW TO SOLVE THESE. THE PLATFORM ALSO AIM TO SHED LIGHT ON QUESTIONS THAT SHOULD BE PERCEIVED WHEN DEVELOPING AND EXECUTING ENERGY-, CLIMATE- AND NATURAL RESOURCE STRATEGIES.**

## INTRODUCTION

### Limited biomass resources needed for food, raw material and energy supply

The limited biomass resources are used within three main sectors: food and fodder supply, raw material supply for industry and for bioenergy production. The World population growth, the ascending standard of living, the continual increasing energy demand and urgent issues like climate change are already affecting the utilization of our biomass resources.

### Many sectors competing to use the same areas?

There will probably be several sectors competing of the use of our Finnish forest- agro- peat and water areas in the future. Additionally, a growing utilization of biomass resources will have environmental side effects which make the steering and administration a confrontational issue as well as scientifically a challenging question.

### Biomass strategies needed for decision making?

The sustainable utilization of biomasses is an issue important for the development of society and may have far-reaching consequences. Strategies regarding how to use our limited biomass resources in a sustainable way will be needed to support decision making.

### Argumenta Platform encourages multidisciplinary discussion and new research approaches

Research in this field is fragmented and different disciplines have studied the issue separately with very little interaction. To tackle this and encourage multidisciplinary approaches a Finnish Argumenta-platform, bringing scientists with different background together, is being built up during the next two years.

The communication language of the platform will mainly be Finnish. A few seminar sessions will though be held in English due to foreign invited speakers and the student training outcome (scientific writing) will be available in English.

## AIM AND IMPLEMENTATION OF THE PLATFORM

### Aim of the platform

The aim of the platform and the discussion seminars is to find new scientific approaches to study upcoming problems and questions, regarding the sustainable use of biomass, and find sustainable strategies and solutions of how to solve these. The platform also aims to focus and shed light on questions that should be perceived when developing and executing energy-, climate- and natural resource strategies.

### Implementation

The background work for building up the discussion platform has been started in Spring 2009. A full time platform coordinator, situated at the University of Jyväskylä, will from beginning of Autumn 2009 for two years be organizing the scientific seminars and assisting attending researchers and organizations, especially with cooperating and publishing the outcome of the seminars using both scientific and popular channels and forums.

### Preliminary seminar issues

During the seminars the hierarchy of biomass utilization will be one of the key discussion issues – also reflecting the main drivers and changes in biomass utilization during upcoming decades. Environmental aspects as well as climate change issues will also be covered during the seminars. Multidisciplinary approaches, sustainability indicators and instruments for researchers and policy planning will probably also be a “hot spot” hopefully leading to new research ideas.

# FINNISH ARGUMENTA PLATFORM 2009 – 2011

## KEY PARTNERS AND FINANCIER

The platform work is coordinated by the  
University of Jyväskylä, Department of Biological  
and Environmental Science.

- Key partners involved are the
- Finnish Environment Institute (SYKE),
- Finnish Forest Research Institute (Metla),
- MTT Agrifood Research Finland,
- Statistics Finland,
- Technical Research Centre of Finland (VTT),
- University of Joensuu.

The platform work is sponsored by the  
Finnish Cultural Foundation.

## ATTENDANCE

### Invited speakers and participants

To successfully reach the challenging goals of the platform participants with a broad and diverse experience from different universities and research organizations are of importance and invited. As continuity of participation is very important for the work, committed researchers aiming to attend the seminars regularly are encouraged before others. Each seminar aims to host about 40 scientists from 15–20 organisations so the amount of invited participants will be quite restricted. The first two seminars are planned to take place during Autumn 2009.

### PhD students

A course for a limited amount of PhD students from the University of Jyväskylä and Tampere University of Technology will be arranged parallel with the Argumenta-seminar sessions 2009. The aim of the parallel work is (i) to train students to collect scientific background material and will be used for enriching the discussions of the seminars, (ii) to introduce young students to experienced scientists and (iii) to encourage the discussion groups to publish the outcomes of the discussions. The students will get training in scientific writing and encouraged to write proceedings and scientific manuscripts together with the invited speakers and senior participants.

### Final seminar

A final seminar presenting the outcome of the platform work is planned to be arranged in Autumn 2011. This seminar will be open for everyone interested.

## FURTHER INFORMATION & DISCUSSION INITIATIVES

- THE OUTCOME OF THE WORK CAN BE FOLLOWED ON THE INTERNET PORTAL OF THE ARGUMENTA-PROJECT
- NEW DISCUSSION INITIATIVES OR OTHER IDEAS CAN BE SUGGESTED TO THE AUTHOR OF THIS PAPER. THEY WILL BE PRESENTED FOR AND CONSIDERED BY THE EXECUTIVE GROUP

## COMMUNICATION LANGUAGE

- THE COMMUNICATION LANGUAGE OF THE PLATFORM WILL MAINLY BE FINNISH. A FEW SEMINAR SESSIONS WILL THOUGH BE HELD IN ENGLISH DUE TO FOREIGN INVITED SPEAKERS AND THE STUDENT TRAINING OUTCOME (SCIENTIFIC WRITING) WILL BE AVAILABLE IN ENGLISH

Please contact:  
Associate Professor Margareta Wihersaari  
Department of Biological and Environmental Science  
Environmental Science  
Tel. +358 14 260 4174, Fax +358 14 260 2321  
margareta.wihersaari@jyu.fi  
www.jyu.fi/bioenv/en/divisions/ymp/

Updated 21.8.2009

# UNIVERSITY OF JYVÄSKYLÄ

