

The Sixth Biomass-Asia Workshop, Hiroshima, November 18-20, 2009

Chair's Summary

We present the following summary as the compilation of our efforts on 'Research and Technological Development for Sustainable Biomass Utilization in Asian Countries'¹⁾.

1. Sustainability

Biomass utilization in Asia should be sustainable, and the sustainability should be proved by scientific evaluation methods. Biomass utilization in Asia should not be constrained by the current technological limits, and the goal should be achieved through continuous efforts for technological development.

2. Environment, Energy, and Food Security

Biomass utilization in Asia should contribute to solving environment and energy issues in cooperation mutually advantageous for Asian countries, however food security should not be compromised by developing biomass energy. Utilization of biomass resources of Asia should be conducive to the prosperity not only of Asian countries but of the whole world.

3. Regionality

Considering regionally specific conditions of energy, environment and economy, we shall develop advanced technology for biomass utilization through cross-border cooperation. We shall continuously exert our utmost efforts for creating novel evaluation systems, for developing innovative technologies, and building advanced biomass utilization systems. We should consider utilization regionally and technology globally.

4. Specific System for Biomass Utilization

Biomass utilization in Asia should be promoted for establishing specific systems acceptable to regional societies with biomass conversion in higher energy and cost efficiencies. We propose, upon full examination, the following complex models as regionally available systems.

- 1) Model for ASEAN Island Countries: Palm-Complex Model;
- 2) Model for ASEAN Continental Countries: Rice and Sugar Complex Model;
- 3) Model for China: Hybrid Agricultural Waste Utilization Model.

Annex: Action plans

The three models presented above will be demonstrated in appropriate countries with specific efforts. Moreover, we will apply these three models to “Biomass Industry Complex”²⁾ and “Asian Biomass Town”³⁾ concept.

a) Biofuels

We will develop innovative technologies for sustainable biofuels production from biomass resources abundant in Asian countries without sacrificing food security. And we will establish Asian standard of biofuels and methodology of biomass LCA in cooperation with Asian countries.

b) Certification / evaluation

Global-level certification/evaluation standards should be developed, by intensifying activities of creating evaluation methodology such as the ERIA WG (Working Group at Economic Research Institute for ASEAN and East Asia) and world-wide discussions on sustainable biofuels evaluation. Also, the analysis of major components of the biomass feedstock should be standardized.

c) Sustainable biomass production

The current framework should be continuously maintained and further developed to verify production methods and species as well as to develop highly productive plants through bio-technological innovation.

d) Network

For maintaining Biomass-Asia networking, it is important to establish a workshop management system, in which Asian countries host the workshop by rotation.

(NOTE)

1) ‘Research and Technological Development for Sustainable Biomass Utilization in Asian Countries’ is a research project funded by MEXT from 2007 to 2009. This is the second stage of R&D, following the three years’ activity conducted under the project of ‘ASEAN Biomass Research and Development Strategy’ funded by MEXT from 2004 to 2006.

2) Concept of integrated palm utilization developed by discussion of past Biomass-Asia Workshops.

3) a region, where, in a certain limited area, and in collaboration with all people widely concerned there, a comprehensive utilizing and promoting system of biomass from its generation to its use connected in an efficient process is established, and whose stable and suitable use and utilization of biomass is, or expected to be, carried out