

Editors' Note

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Concerns over current and future energy security, economic and social sustainability, and environmental impacts of traditional energy sources have led to a resurgence of worldwide interest in alternative, renewable forms of energy. Bioenergy is the most widespread and oldest source of converted energy, and research and development into its expansion in modern economies is rapidly expanding. Not only does bioenergy provide energy produced on local-to-regional scales, but many believe it can offset greenhouse gas emissions, provide additional support for traditional and new fiber production associated with a new bio-economy and transport system, and open markets for previously unvalued fiber in certain ecosystems. However, creating a viable bioenergy sector at appropriate scales requires addressing concerns over the sustainability of ecosystem services, including but not limited to effective capacity of fiber-producing systems, and the economic and social challenges related to the production, transport and conversion of biomass to energy.

It is with these issues and opportunities in mind that a workshop entitled 'Sustainability Across the Supply Chain of Land-Based Biomass' was jointly organized by IEA Bioenergy Task 43 'Biomass Feedstocks for Energy Markets' and the Long-Term Soil Productivity (LTSP) Study on 1-4 June 2010 at Thompson Rivers University (TRU) in Kamloops, British Columbia, Canada. The workshop was designed to consider all land-based biomass sources, from agricultural through agroforestry and short rotation crops to forestry. The indoor portion of the workshop was organized around two days of technical sessions with plenary speakers followed by concurrent and poster sessions providing an opportunity for submitted presentations. The main themes and subthemes for this workshop included: sustainability across the supply chain, focusing on economic sustainability of feedstock supply systems and supply chains; sustaining soils and plant productive capacity; and sustaining ecosystem services. Technical sessions and field tours provided workshop participants opportunities to share experiences, findings and directions on the environmental, economic and social sustainability of a secure biomass supply for bioenergy. Policy-makers, resource managers, forest owners, industry representatives, energy production professionals, energy users, scientists and researchers were able to exchange information and discuss production and use of forest biomass for energy as an integral part of sustainable resource management for multiple benefits.

This special issue of the International Journal of Forest Engineering contains six peer-reviewed articles and one technical note that were presented at the workshop.

Colleagues associated with IEA Bioenergy Task 43 and the LTSP Study appreciate the energy and enthusiasm that workshop participants brought to the indoor sessions and field tours. We are indebted to our local hosts for the high quality of the venue for meetings and accommodations at TRU and for the excellent and informative technical field study tours.

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