PAN AMERICAN BIOFUELS AND BIOENERGY SUSTAINABILITY - AN NFS RESEARCH COORDINATION NETWORK

PAN-AMERICAN BIOFUELS & BIOENERGY SUSTAINABILITY

2ª RCN Conferencia Panamericana sobre
Sustentabilidad en Biocombustibles y Bioenergía
Buenos Aires, Argentina - Septiembre 13-16, 2016

**Summary of conclusions from the "2nd RCN Conference on Pan American Biofuels & Bioenergy Sustainability"[1]**

1. Modern bioenergy is a renewable resource with the potential to help achieve Sustainable Development Goals such as overcoming hunger and energy poverty around the globe. Society faces a shared challenge to realize the potential benefits of increasing modern bioenergy use from 23 EJ today to 93 EJ in 2030.
2. Acceptability of bioenergy is influenced by communications and public perceptions of costs and benefits. We need a better and widespread understanding of the science-based costs and benefits of bioenergy compared to fossil energy.
3. Sustainability has become an essential and indivisible part of modern bioenergy production and use.
4. Traditional biomass use linked to depletion of natural resources and other environmental problems must be clearly differentiated from sustainable modern bioenergy which offers increased employment, better water quality, reduced greenhouse gases and increased self-reliance in food and energy.
5. There is an urgent need to substantially increase the efficiency of biomass production and use for all purposes to achieve Sustainable Development Goals. Double and triple cropping systems, improved plant varieties, and new biomass conversion technologies are among many options available to increase system efficiency but applications are limited due to low market demand. Further, biomass's low energy density and high geographical dispersion make it essential to invest in efficient feedstock supply chain transport and logistics.
6. Increasing availability of satellite data, geographical information systems, and precision agriculture tools can support ongoing improvements in system efficiency as well as the monitoring required to confirm actual effects observed on environmental indicators.
7. Bioenergy involves economic, environmental, and social effects that must be measured and analyzed to encourage optimization and mitigate any negative consequences. The transformation and utilization of biomass for energy and other products is best addressed in a systemic and holistic manner with proper consideration of site-specific factors. Contextual issues define relative priorities among many options (multi-products, multi-markets, and multi-requirements).
8. Bioenergy initiatives need to increase attention to engaging producers of all sizes, especially small farmers.
9. Standards and certification schemes can be useful but may not always achieve intended results. There is a need for certification or other regulatory schemes to be practical, adapted to local needs, encourage small producer participation, and support continual improvement.
10. Improvements in productivity and environmental performance are occurring in both conventional and advanced biofuel production pathways. Incentives to continue development and improvements of innovative bioenergy technologies will yield economic, environmental, and social benefits.

The Conference included eight topical sessions and keynote presentations by Bruce Dale (MSU) and Glaucia Souza (University of Sao Paulo, Brazil). More information: **http://www.aiche.org/conferences/rcn-conference-on-pan-american-biofuel-and-bioenergy-sustainability/2016**

[1] Summary conclusions were drafted by Jorge Antonio Hilbert of Instituto Nacional de Tecnología Agropecuaria (INTA) Argentina and David Shonnard, Michigan Technological University - co-chairs of event; Bruce Dale, Michigan State University; and Keith Kline, Oak Ridge National Laboratory. This version of the summary reflects meeting notes and final revisions by Keith Kline.