

Sustainability Subcommittee 2009 Recommendations

Choice of Models

- The committee recommends that a unifying set of guidelines be developed for the creation and interpretation of predictive models used in guiding government decision making, which are:
- Science based, limited to data that is quantifiable and verifiable
- Allows comparisons of alternatives-(i.e. biobased and non-biobased)
- Flexible enough to provide broad guidance, but capable of assessing specific exceptions
- Broad enough in scope to address multiple impacts and trade-offs of environmental, social, or economic benefits
- Available for public use

Indirect Land Use

- The committee observes that sufficient data does not exist and interpretation of data is not conclusive to demonstrate the causal relationship between energy feedstock use in the U.S. and land use changes in other countries. The committee recommends that more sensitivity analysis, evaluation and validation of the current indirect land use models need to be done. [Meaningful measurable ?]
- Examples: Total U.S. crop acres are trending down as yield and supply are trending up
- Deforestation in Brazil is half of what it was in 2002 as renewable energy has doubled.

Water Use/Quality

- The committee recommends research and development to better understand the short and long term impact of agricultural water use, process water use, and output water volume and quality of biofuels, biobased products, and biopower for integration into the sustainability metrics. We further recommend that these findings be applied consistently across all energy sectors

Resource Conservation

- The committee recommends that there be sufficient R&D on the sustainable production of all bioenergy feedstocks to address regional and feedstock specific “resources of concern” including production, transportation, processing, and delivery of specific feedstocks and finished products.

Biopower

- The committee recommends that we significantly increase basic and applied research on the integrated use of biopower generation for heat, steam, and electricity and the use of other renewable energy as input energy for biofuels, biopower, and bioproducts.

Funding

- The committee observes that sustainability is a unifying theme among the goals we have discussed and recommends that a significantly greater dollar amount be allocated to the identification, understanding, and support of the crosscutting efforts relative to economic, environmental, and social sustainability. (\$ dollar amount?)

Economic Sustainability

- Prior to funding, all applied biomass research should be subject to an analysis that suggests potential economic sustainability.