Bioenergy I Posters: Environmental, Economic, Policy, and Energy Balance Issues

Poster VI: Impacts of climate change to potential areas for energy crops: a case study of rice family crop

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Summary of: Impacts of climate change to potential areas for energy crops: a case study of rice family crop

- How much can energy crops be produced in the world?
- Potential areas for rice cropping in the Eastern Asia were estimated under the 3 climate scenarios for 2001-2099
  - Hadley Centre, CCSR/NIES (Japan), and MRI (Japan)
- The suitable and potential zones for rice cropping for 2001-2099 were extracted on the basis of potential limits of the air temperature and precipitation
- The total areas of suitable/potential zones increased by 11-19% in 2001-2099
  - > The potential production of a rice crop for biomass energy will increase from 3.7 Gt/year at present to 4.3 Gt/year in the 2090s
  - Assumptions:
    - Rice is cropped in 50% of total area of suitable/potential zones,
    - a high yield variety with 8 t/ha is cultivated, and
    - dry matter of plant body except ear is yielded 8 t/ha