



Policy Considerations Developing *Integrated* Bioenergy and Food Systems

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An unbalanced drive to make the United States less dependent on foreign oil could easily make the U.S. more dependent on food from foreign sources, hamper conservation efforts and add relatively little to the net energy supply. Integrated food, energy and conservation policy is therefore needed to make wise use of available resources.

THE POLICY SETTING

The federal policy drive to develop bioenergy supplies has been largely unfocussed, uncoordinated and dominated by special-interest politics. Energy, food production and international trade each are impacted by a host of public policies and regulations and by substantial federal and state subsidies and incentives. To some extent, bioenergy production and food production are complementary; however, to a large degree bioenergy production will compete with food crops for the existing natural resource and human capital.

COMPLEMENTARITIES

Complementarities and synergies between bioenergy production and food and fiber production include

- A grass crop such as switchgrass grown in rotation with corn, peanuts, cotton and many other traditional crops grown in rotation, can increase yield and possibly reduce the intensity of pesticide use
- Biofuel production can generate by-products that are valuable as livestock feed and human food
- Opportunities to use traditional agricultural waste products such as sawdust, chicken litter, rice hulls & cotton gin trash as energy feedstock.

COMPETITION FOR LAND & WATER

While there are potential synergies between food and bioenergy production, at some point increased bioenergy production will compete with food production for land, water, and other resources. To avoid undesirable economic and environmental trade-offs, wise policy formulation will consider positive and negative trade-offs from increased bioenergy production.



POSSIBLE TRADEOFFS

- Higher food prices
- Reduced food security but increased energy security
- Higher demand for water, thereby affecting municipal and industrial use of water and future aquifer supplies.
- Land coming out of the conservation reserve for bioenergy production or returning to traditional food or fiber production
- Increased erosion and pesticide use in total
- Residual carbon sequestration
- Potential negative energy balance
- Positive or negative impacts on the trade balance

POLICY DEVELOPMENT

Historically, food and energy policy development has been disjointed, ignoring both synergies and interactions between the two industries. Given the critical nature of both food and energy to the economy, carefully thought-out integrated food and energy policy is needed to avoid unintended and undesirable consequences

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