INTERNATIONAL FOOD
POLICY RESEARCH INSTITUTE
sustainable solutions for ending hunger and poverty

Responses to Question #1: Key Impacts of bioenergy production on food security at various levels

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Key Question to address

What are the key impacts (positive/negative) of bioenergy production on food security (& related issues) that should be assessed at international, national, and project/site levels?

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International level impacts

- Perhaps the most talked-about in the empirical literature, especially by organizations with their eye on the global picture (FAO, IIASA, IFPRI, World Bank, etc) – who try and put bioenergy within the context of all the other factors driving changes in world food security and poverty
- The ‘food price crisis’ was a key focal point for the discussion of bioenergy production and its role in the market dynamics which were observed
- Most of the effects that relate to international level impacts are put in terms of price and trade pattern changes

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Clear market linkages at international level

- The close connection b/w energy and agricultural markets has been demonstrated – although not all energy effects are biofuels-related
- The increases in maize prices due to US ethanol program (which decreased exports from US) were shown to have linkages to soybean and other grain markets – making feed prices go up
- The tightness of supplies (and decreased exports) means less food aid – even just through price effects, which strain limited aid budgets

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Negative effects at national level

- Depending on strength of price transmission, bioenergy-related price effects on int'l markets also affect national markets and consumers
- Bioenergy production and exports at the national level could have macro-economic consequences (such as appreciating exch rates) that affect the competitiveness of other ag (& non-ag) exports
- Competition for resources (like labor & land) could also affect other sectors negatively

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Positive effects at national level

- Bioenergy production projects can help to attract investments in national infrastructure that can help the competitiveness of the wider agricultural (& non-ag) economy by lowering costs
- Wage effects from bioenergy could be positive and poverty-reducing, as can the increased value of land (at least for some)
- In an import-substitution case, bioenergy could reduce the burden of costly imports and save (or even generate) valuable foreign exch.

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Negative effects at project/site level

- Displacement of populations from land (if tenure of land is weak or implementation is poor)
- The acquisition of land could drive up prices in a way that locks out locals from the markets
- The shift of labor from traditional cash and food crops could cause prices to go up and availability down, if linkages with outside markets are poor
- Could be negative consequences for water quality and soil fertility, if not managed properly. Impacts on species biodiversity could also occur

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Positive effects at project/site level

- Similar to the nat'l effects – there could be positive implications for employment and wages (from feedstock production or processing)
- The improvements in infrastructure that are 'crowded in' by bioenergy investments could have widespread benefits for local producers and sellers of food and non-food goods
- There could be positive spill-overs into the local agricultural sector, resulting from use of improved technology and inputs in bioenergy production

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Concluding Remarks

Tried to take in the potential good and bad at a variety of levels

Lots of the negative effects can be the result of un-intended consequences, while the positive effects might only be there if they are specifically targeted to happen, through project design – so the way in which bioenergy is implemented will matter a lot to these outcomes

Every change/shift/shock has winners and losers – so the main thing is to identify who the losers might be so we can think of how to better protect them (or offer safety nets)