

## **SWITCHING THE GOALS OF BIOFUELS PROGRAMS FROM COMMERCIAL TRANSPORTATION TO RURAL ENERGY NEEDS: AN AGENDA FOR INDIA**

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### Abstract:

As more countries turn to biofuels in response to concerns over climate change and oil depletion, problems associated with large-scale production of energy crops, such as deforestation and food insecurity, have emerged. India has also begun to pursue biofuels aggressively in an effort to reduce petroleum imports, recently setting the ambitious goal of meeting 20% of transportation fuel needs by 2017. Research is starting to question the feasibility, sustainability and fairness of a large-scale push for biofuels in India. While in theory, Indian biofuel policy emphasizes non-food crops, it is increasingly becoming apparent that the large-scale, intensive, high-input cultivation necessary for a commercially viable biofuel supply cannot materialize without significant negative impacts on food production and water resources. This study argues that in a country like India with an unfavorable land-population ratio, the push for large, commercial scale biofuels is ill-conceived and is setting the stage for much more serious land use and food production conflicts. Instead of pursuing biofuels for the commercial transportation sector, targeted promotion of biofuels for rural energy uses such as heating, lighting and micro-power generation is a much wiser option in the Indian context. Petroleum dependence of the commercial transportation sector is much better addressed through different sets of policies including energy efficient vehicles, smart transportation and land use planning. Besides, adoption of biofuels for transportation while aggressively promoting private automobile dependence is highly self-contradictory. Instead, limited and targeted biofuel development aimed at rural uses has the potential for creating multiple benefits including rural employment and development, reduction in rural kerosene and diesel use, and significant fiscal savings through avoided subsidies for kerosene and diesel. Small-scale biofuel production for local use is likely to have few impacts on land use; and would need minimal inputs to be viable. In combination with other low-impact technologies such as solar, micro-hydro, and biogas, biofuels have the potential to provide high levels of energy security in the countryside, and policy lessons learnt from such similar ventures can be adapted for the pursuit of such targeted biofuels development.