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**Integrated Carbon and Land Management for Poverty Alleviation: a Collaborative Project
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Over the next decades increasing oil and carbon prices will lead to a proliferation of energy crop cultivation initiatives. Many of these will be based in developing countries, and hence will affect some of the poorest people in the world. The capacity of such initiatives to alleviate poverty in the long term rests on their sustainability (both environmental and economic). Specifically, in some regions there is a strong possibility that changes in environmental and economic conditions will cause profitability to decline in the long term – particularly when the suitability for cultivation is borderline. From an environmental perspective, the exploitation of water resources in an unsustainable manner may permanently damage vulnerable ecosystems and ultimately deepen poverty. These issues have motivated a collaborative project - Integrated Carbon, Water and Land Management for Poverty Alleviation (ICWALPA), which asks whether the export of bio-fuel technology from Brazil to Ghana will alleviate poverty. This presentation will describe the initial results from ICWALPA - including the development of an integrated environmental and economic modelling framework and its application to sugarcane cultivation under scenarios of climate and technological change. Two contrasting case studies will be presented: the Sao Paulo region of Brazil (where there is an established sugarcane industry) and the Daka River region of Ghana (where commercial sugarcane cultivation is planned).

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