

**CAN
AGRICULTURE
FEED
THE WORLD?**

Scientific Student Conference 2011

Fenneke Brascamp
Judith van Niekerk

**Scientific Student Conference 2011
Euroleague for Life Sciences**

Can Agriculture Feed the World?

**Editors:
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Land-use Change in the Middle Hills of Nepal with Special Interest on Shifting Cultivation: Factors of Change and Local Perceptions

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Shifting cultivation or swidden agriculture is a common land-use in the tropics that involves temporary agricultural practice in forests after clearing and burning of indigenous vegetation. It has often been criticized for causing deforestation and biodiversity loss in many tropical developing countries, but at the same time it is also plays a critical role in the subsistence and food security of many rural farmers. Nepal, being situated on the foothills of Himalaya has been experiencing rapid land-use changes in the last years mainly due to changing government policy, local developments, growing concern about environmental issues and changes in local perceptions. The country is also one of the most vulnerable countries to climate change due to its fragile environmental and socio-economic context. In the middle hills of Nepal shifting cultivation is quite a common land-use practice amongst communities belonging to the ethnic group known as *Chepang*. We performed an exploratory survey in two mid-hill districts of Nepal, Jogimara and Chitwan, by interviewing 51 *Chepang* farmers to investigate their land-use practice, patterns and factors of land-use change and local perceptions associated with land-use(s). The study revealed that, although local land-use practices are changing rapidly in both areas, there exist differences in available land-use options between the studied districts. People from Jogimara reported less land-use options than the people from Chitwan. Educational and economic backgrounds of the households greatly influence households' land use decisions, preferences and access to different facilities like micro-credits from E-NGO's. Although, most of the interviewees hold strong perceptions about their indigenous shifting cultivation and its possible negative impact on certain environmental services and conservation of biodiversity, households' choice of more environmentally suitable land-use(s) was restricted by land-tenure and access to government support. The findings of the study emphasised the role of more equitable land-use options, access to government support and tenure security in allowing rural *Chepang* farmers to perform long-lasting, environment friendly land-use (here for example, terrace agriculture, community and lease-hold forestry) in the studied regions.



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