

Bioenergy and livelihoods

Felix Creutzig

MCC, Feb 28 2013



Livelihoods in the IPCC

- Rhetorically captured in special report on renewables
 - “taking livelihood considerations into account”
- Not modeled in climate stabilization models
- Unclear what it means
- Huge case-study literature in human geography
- Attempt to conceptualize this literature for comprehensive assessments

Global

Drivers and mediating factors

Biofuel
markets

Market
interlinkages

Place-specific

**Drivers and
mediating factors**

Production
model

Land tenure

Livelihood: flows

Mean
income

Distribution
of income

Mean food

Distribution
of food

Livelihood: assets

Mean access
to land

Distribution
of access to
land

Mean
financial,
social, etc.

Distribution
of financial,
social, etc.

Global

Drivers and mediating factors

Indonesian
blending mandates
& demand









Demand from
the EU and the
US

Place-specific

**Drivers and
mediating factors**

Oil palm
plantations with
nucleus estate &
smallholders

Land acquisition
by trans-migrant
workers

	Mean outcome	Distribut. outcome
Income		
Food		
Land		
Assets		

Livelihood in climate models, the known unknowns

Livelihood aspect	Benefits	Harms
Income	Higher total income	Reduced purchasing power of non-farm poor Exclusion when insufficient capital available for investment
Food	Higher security with higher income	Reduced food access for non-farm poor Reduced food production in subsistence farming
Land	Higher land rent for formal land owners	Reduced access to land and ecosystem services, particularly for non-farm poor or those without land titles
Other assets	New education, health and production infrastructure Higher savings	Social conflicts Indebtedness Detrimental health impact from chemical applications

Summary of possible livelihood outcomes from bioenergy deployment. Blue color denotes aspects considered by integrated assessments, notably Golub et al. 2012. Brown color denotes livelihood outcomes not included in integrated assessments. Creutzig, Hunsberger, Bolwig and Corbera, under review

Bioenergy for the rural poor?



Bioenergy ~~for~~ makes the rural poor!



Keep value gain locally,
and make bioenergy
useful, e.g. by
cooperatively owned and
operated biorefineries

A global policy framework that prioritize local energy use

