



Rural Transformation and Urbanization

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Report from Session Land – under pressures or dynamic changes?

Session leaders: Ewa Wredle, SLU; Madelene Ostwald, GMV (Chalmers/GU) and Linköping University; Ingrid Öborn, ICRAF and SLU

Reporter Daniel Ternald



Developing land cover change methodology by combining remote sensing observations and pastoralist understandings

Patrick Wennström

Participants in the session. Photo by Madelene Ostwald

Presentation

Through a case study in southern India, this study uses interviews, participatory mapping, and remote sensing to investigate how qualitative Geographic Information Systems methodology could be developed by comparing quantitative and qualitative data in order to highlight differences and similarities between them. Remote sensing findings showed that open land, which is an important source of livestock feed, has decreased while agricultural land and built-up land

have increased. This result corresponded quite well with the qualitative data although the pastoralists experienced the decrease in open land to be more extensive than remote sensing results indicated.

Post discussion

Questions regarding the study that were brought up were regarding the consensus of the pastoralists regarding geographic locations where degradation and shifts has occurred. Patrick explained that at the workshop with the pastoralists they were all given maps where they marked out the areas, and independently from each other they recognized and marked out the same areas.

The Role of Pastoralists' Innovations in Managing Land Constraints and Climate Shocks in West Pokot, Kenya

Deborah Muricho

Presentation

The current study assessed the level of participation in and contribution of afforestation, land terracing, enclosures, fodder growing and pasture conservation, post harvest use of fields for grazing and, crop and livestock diversification practices on households' revenue. The results from focus group discussion, key informants' consultations and individual household interviews showed that land tenure security augmented with extension training positively influence the application of these innovative land practices. Households practicing innovative methods reported higher mean annual revenues of USD 1800 compared USD 758 for non-adopters. The results also show that the use of innovative practices increases periods of food self-sufficiency considerably.

Post discussion

One question was related to gender, and whether she looked into gender differences in this study. She did control for the gender of the head of household in her setup when running the regressions, but did not focus on that further in the study. There was also a discussion regarding the direction of causality of ownership of a farm and the effect on different practices. Deborah explained that those people who had a land deed given to them are more likely to experiment with new practices, and therefore more likely to have a higher income and to be more food secure.



Landscape Restoration and Rural Transformation - Opportunities and Trade-offs. Keynote by Ingrid Öborn, ICRAF and SLU, Sweden. Photo by Madelene Ostwald

Land deals in limbo – impacts of stalled large scale agro-investments in Tanzania

Linda Engström

Presentation

The global debate around 'land grabs' for use in large scale agriculture has been heated, and a closer scrutiny reveals that many of these schemes remain stalled or have failed completely. Tanzania, majority of the planned investments never materialized, 35 planned investments for biofuels and food, and only five actually happened. Instead of treating stalled or failed large scale agricultural investments as if 'nothing happens', we need to pay more attention to what these investments do. Land deals in limbo create space for a range of land re-arrangements. This lead to the conclusion that the impacts of something that never happened indeed can be severe and will require more attention in academia as well as in policy debates.

Post discussion

What are the different ownerships forms of land in Tanzania? There are three types of land: land governed locally by villages, protected land and nature reserves (the most common type, now making up 60% of the total land area), and general land which is under state management. It is hard to say who has de factor right to the land. Village elders for example argue that they have the right to the land, but the government do not acknowledge that. Light was also brought to the fact that Sida was part of a huge investment in a "land grab" deal in Bagamoyo in Tanzania, which goes against all their own policies.

The modernization of agriculture through large-scale land acquisitions: the concretization of opportunities and threats to livelihoods in Mozambique

Juliana Porsani Jarkvist

Presentation

As large-scale land acquisitions (LSLAs) gained pronounced attention after the latest food and financial crises, they also become important object of analysis of an exponential scientific literature production. The study takes place in Mozambique, one of the countries most targeted by recent LSLAs and a country in which smallholder farming is a source of livelihood for approximately 70 percent of the total population. Based on 213 interviews with smallholders, they scrutinize the process and local implications of land loss driven by the acquisition of 20,000 hectares by a Chinese company operating in the Limpopo Valley. The analysis show that land loss was not accompanied by effective community consultation, and that envisioned benefits such as job creation and membership in an out-grower scheme tended to benefit the already better-off households, and that women are the more vulnerable group in this case suffering more from the effects of the LSLAs.

Post discussion

(out of time)

Farmer perceptions on legumes in smallholder farming systems in east Africa

Christine Watson (Tarirai Muoni)

Presentation

Better integration of legumes is a promising means of improving livelihoods and the sustainability of family farms.. A total of 265 farmers were interviewed in Democratic Republic of Congo (DRC) and Kenya. The results indicate that 40% of interviewed farmers could not clearly define what legumes are. Furthermore, 30% could give only a weak definition of legumes. The most frequently mentioned legume functions were provision of food, feed and income. Farmers in DRC rated food as the most important benefit from legumes while farmers in Kenya ranked food and income as their priority legume functions. She argue that if farmers had better knowledge about legumes and their functions then their integration in the cropping system would increase enhancing the sustainability of smallholder farms.

Post discussion

Discussion with the conclusion that regarding the importance of local names for plants etc. and localizing the interviews. Second question was regarding the soil nutrition retention and soil erosion prevention in mono-cropping vs inter-cropping.

A perennial future? Solving agricultural challenges in sub-Saharan Africa through multifunctional perennial cropping systems

Elina Andersson

Presentation

This is an ongoing research project that studies the potential of perennial cropping systems to increase the resilience of Ugandan smallholder farming systems. Building on the latest developments in perennial crop breeding – with a focus on sorghum, rice and pigeon peas – and on participatory research methods, our aim is to investigate the ostensible social and environmental benefits of perennial cropping systems in smallholder contexts, as well as the various barriers that might be encountered during implementation. The main questions of the project are:

- *What is the potential of perennial cropping systems to sequester carbon and counteract land degradation?*
- *What social and economic benefits do perennial systems hold for smallholder farmers?*
- *Under what conditions are smallholder farmers likely to adopt perennial systems?*

And the potential benefits of increased perennial crops are:

Sustainability and resilience

- Reduced soil erosion (no bare soil)
- Drought resistance (deep roots)
- Less need for agro-chemicals (genetic diversity)
- Less need for synthetic fertilizer (natural N-fix)

Livelihoods

- Multifunctional - diversified income opportunities
- Levelled labour requirement
- Levelled income opportunities (intra- and interannual)
- Risk spreading

Post discussion

Perennials have tremendous potential in longer drought periods, but in the case that they do not make it, the consequence is bigger than annual plants. Whereas an annual plant's failure would result in one year's loss of product, which is bad as it is, but for perennials that do not survive, you can lose 2-3 years worth of product. The answer to this and the key is to find a good balance, and not only replace annuals with perennials. Another issue discussed is that it will be harder to bring the seed retailers around. They will make more money selling seeds for annual plants, so why should they support perennials. This was recognized as an issue, and the research team is working on possible solutions and incentives.

Post session discussion

Panel:

Ingrid Öborn, Patrick Wennström, Deborah Muricho, Linda Engström, Juliana Porsani Jarkvist, Christine Watson, Elina Andersson

“There is agreement among African countries that they will commit towards land restoration, but there is a worry about the costs it will incur”

Q1. Why do land restoration efforts lack motivational support, and how can these interventions gain funding opportunities?

They do not lack motivational support. There is an agreement among African countries that they will commit towards land restoration, but there is a worry about the costs it will incur. A lot of different forces of course play a role as well, but the biggest hindrance is most likely the costs. Right now most of the support comes from sources such as the Asian Development Bank and

others, and they are trying to bring in mechanisms for more support. So things are moving, but it is not there yet in order to have restoration as a part of the production. The governments are needed for this in the long term, so it is important to get them on board, both central and local governments.

“We always talk about the private sector, but the biggest land grabber is still the government.”

Q2. Which messages do you want to send to practitioners regarding private ownership?

The private sector is diverse, and it is all about intentions, and in the case of Mozambique the government has a fundamental role in decision-making. We always talk about the private sector, but the biggest land grabber is still the government. Another point raised was the need for the private sector to connect the farmers to the markets, and also how farmers can group up into cooperatives as an alternative to large scale agriculture, and with the governments help they can transition from subsistence farming.

Crop insurance is also an important tool to develop, but it might not be “profitable” for the government, and either way they are not where they need to be in terms of support structure. We need solid institutions before we can take that step. How can we make the relationships or the parties involved more inclusive?

Q3. There is a pressure on land, and a lot of dynamic changes going on. But they will only happen from greater participation and contextualized approaches to implement this, will this be enough to solve the issues?

If you simplify, this is the fourth time that large scale agriculture has been tried to be implemented. It failed the first three times, and this time is not looking as good as we hoped. The knowledge is not permeating through down to the practice level. We are aware of what things are needed, but they are not being implemented.

Q4. SSA is rapidly suffering from land degradation. For the alternative crop experts, my reading of the literature is that they are great if we can get the adoption rates up, but right now they are still low. Where do we go from here?

“We need bottom up and top down approaches. We have the SDG and the protocols, but it falls apart without commitments.”

Local farming groups play an important role in technology adoption, and soil fertility management. Uptake is higher among people who are part of farmer groups, and this tells us that farmers need to talk amongst themselves and organize themselves. But there is a risk to push too much responsibility onto the farmers without support structures in place.

It is crucial for the farmers to be part of community, and true partnership can arise with them and the private sector and NGO. The private sector could come in with the infrastructure for, for example, dairy chains and cooperatives, and together

sell the extension services, and the results can be very quick in creating market access and extension services.

It's a difficult situation to solve with only one approach. We need bottom up *and* top down approaches. We have the SDG and the protocols, but it falls apart without commitments. We need to keep pressure from up above as well, but at the same time to look at the bottom levels at the same time.

Another way to bring in money and structure could be to make clear connection between sectors, e.g. agriculture and sanitation. For example, urine as fertilizer has great potential, but it has failed before when entered from the side of sanitation projects, but to use from agriculture side might give a different perspective.

“...this is the fourth time that large scale agriculture has been tried to be implemented. It failed the first three times, and this time is not looking as good as we hoped.”



Session panel: Ingrid Öborn, Patrick Wennström, Deborah Muricho, Linda Engström, Juliana Porsani Jarkvist, Christine Watson, Elina Andersson. Photo by Madelene Ostwald.

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