Call for Master's Theses

Terms of reference for master's students in the field of African smallholder agriculture
At TMG Töpfer, Müller, Gassner - ThinkTank for Sustainability, we work to empower sustainability transformations. Together with stakeholders from science, civil society, politics, and the private sector we develop innovative strategies for the implementation of sustainable development agendas.

Background: TMG’s accompanying research project on soil protection
TMG Research has been supporting the “One World – No Hunger” initiative of the German Ministry for Economic Cooperation and Development over the past four years with an accompanying research program. The program focuses on soil protection and sustainable land management (SLM) in five countries (Benin, Burkina Faso, Kenya, Ethiopia and India). Its overarching research question is “Which structural barriers hinder smallholder farmers from more sustainable land management and how can these barriers be overcome?”. These hindrances in general include, but are not limited to, land tenure, access to agricultural and other advisory services, technology diffusion and the gender dimension of these. In each of the five countries, action-research projects have been implemented that sought to pilot “social innovations” for overcoming the identified structural hindrances. Under the Kenya country work package, inaccessible extension services and land tenure insecurity have been flagged as key barriers to adoption of SLM. A household survey is currently underway to collect quantitative data on these issues. TMG Research offers master’s students to write their thesis in the framework of the data generated by the household survey in Kenya.

Collaboration in research and writing of scientific publications
TMG Research is seeking, in the immediate and medium term, collaboration with university professors and respective master’s students for joint data analysis and writing of research papers. We believe that enrollment of masters’ students is a mutually beneficial exercise and can form the basis for various forms of collaboration. In the long-term, TMG Research – as a newly founded Think-Tank in sustainability research – is also interested in building research and institutional partnerships with universities in topical areas of shared interest.

Who we are looking for
The master’s students should have academic background in agricultural or development economics, sustainability, environmental or gender studies. The students must have strong statistical skills and be interested in working with quantitative data as part of their master’s thesis dissertation. Excellent oral and written communication in English are required. Working knowledge in German would be an advantage. The students need to be able to perform tasks independently and at high quality.

Forms and conditions of student engagement at TMG Research
TMG Research is willing to take 1-2 master’s students at a time who would have the chance to witness the everyday reality of a highly dynamic research organization and to simultaneously gain professional experience. The options are to work on the thesis either full-time or part-time at the TMG office in Berlin. Alternatively, it can also be envisioned that students conduct the data analysis outside of TMG, either at their university or at home, so long as intellectual property rights of TMG Research are observed. Either way the topic of the master theses needs to be developed and agreed upon with TMG Research.
TMG Research staff can provide everyday supervisory functions and guidance on the envisioned outcomes. Official thesis supervision, however, would have to be guaranteed by a faculty staff with the confirming supervision rights and authority. Depending on the individual qualification, interests and situation of the students, the conditions on working hours, potential enumeration or covering of travel and other occurring costs can be agreed individually.

**Intellectual property rights and authorship regulations**

TMG Research is committed to acknowledging scientific work and merits fully, whether of junior or more senior researchers. Hence, all incoming master’s students will have authorship rights over papers they contribute significant writing to. Whether authorship is individual or shared with TMG Research staff will be decided case by case depending on individual contributions and degree of involvement in writing. TMG’s intellectual property of the survey data will always have to be acknowledged, as well as the contribution of each individual paper to the overall accompanying research project.

**Content and status of the cross-sectional data**

As one work package within the overall accompanying research program on soil protection, TMG Research is conducting a randomized survey of approximately 500 farming households in the western Kenyan county of Bungoma. Households have been selected by use of satellite imagery. The survey was conducted to gather evidence for several hypotheses worked on in the accompanying research program. Hence, it covers several topical areas (a more detailed indicative list of possible thesis topics can be found in the Annex):

1) Farming challenges of resource poor farmers
2) Agricultural extension in Bungoma: Its reach, effectiveness and topical focus
3) Intra-household access to land, intra-household tenure security and authority over land
4) Land leasing and its challenges, in particular with regards to land management decisions

Because TMG is strongly interested in the role of gender in agriculture-related topics, the goal of the on-going survey is to interview near equal number of males and females. Hence, the survey will allow for gender-disaggregated analysis in ideal ways.

The full dataset will be available in April 2019. The survey is undertaken using tablets, therefore no data-entry will be necessary. Data cleaning will be largely completed by April 2019.

**The positions are to be filled by April 2019.**

TMG Research is an equal opportunity employer. Please send your application including a cover letter and a CV by e-mail to Anna Günther (anna.guether@tmg-thinktank.com). Deadline for application is 31st January 2019.

Please contact Ms. Olivia Riemer for further information and details on this position.

**Contact:**

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Annex A

Possible Thesis Topics and Research Questions

TMG Research, the recruited master’s students and their university supervisors will closely work together and agree on a concrete thesis topic. An indicative list of topics and research questions to be worked on based on the household data are the following:

A. Farmers’ Extension Needs

i. What are the agricultural extension service needs of (resource-poor) farmers?
   - Who is (mainly) reached by extension services?
   - How do practices, and approaches of extension services correlate with needs and capacities of different typologies of farmers?

ii. Conditions of application of knowledge on SLM practice
   - What are the (common) SLM practices undertaken by farmers?
   - What are the factors hindering adoption/informing choice of SLM (land sizes, land access, extension services)?
   - How do application of practices and promoted knowledge correlate with different types of farmers?

B. Intra-Household Land Tenure

i. How do intra-household land tenure arrangements impact land management decisions of different smallholder household members?
   - What are the intra-household land tenure structures/arrangements?
   - How do these arrangements impact access and use rights of different household?
   - How do different forms of access and user rights impact land management decisions?
   - What are the implications for SLM adoption and access to (or /demand for) extension services (e.g. selection as model farmer)?

C. Thematic Area: Land Leasing Arrangements

i. What is the role of land leasing as a means to food security for land-scarce/land-less households?
   - Who leases land?
   - What are the drivers for leasing land?
   - What are the conditions for (effective) land leasing? (e.g. security of lease, avoidance or management of conflicts; duration, payments...)
   - What are the (food security) impacts of land leasing?
   - How can extension services meet the needs of smallholder land leasers?
Annex B: Overview of topics and variables covered in the survey

Basic household and farming data:

- Wealth/poverty typologies of farming households in Bungoma
  o number of people living from a farm
  o size of land available to a farming household
  o average number of meals prepared/months (when average number not available)
  o amount of income generated from most important crops/livestock
  o amount of off-farm income (including remittances)
  o farming tools and other household assets

- Typologies of farm/cropping systems in Bungoma
  o all perennials on farm
  o all annuals on farm
  o all livestock on farm
  o three most important annuals in terms of area/food consumption/income generation
  o three most important perennials in terms of area/food consumption/income generation
  o most important livestock products in terms of area/food consumption/income generation

Farming and sustainable land management (SLM):

- Key challenges in smallholder farming in Bungoma
  o most important land-related challenges of farmers
  o most important challenge per annual/perennial crop/livestock product

- Spread and diffusion of SLM practices
  o familiarity with 24 SLM practices
  o sources of knowledge about 24 SLM practices
  o reasons for not practicing 24 SLM practices

Extension services:

- Reach and effectiveness of extension services
  o number and type of households reached by public and private extension services in the last year
  o number of farmers having participated in any sort of extension training
  o content of extension trainings offered in Bungoma
  o types of problems farmers seek extension assistance for
  o problem-solving rate when assistance is sought
  o perceived effectiveness of different methods of delivering extension messages
Land tenure and access, intra-household tenure security:

- **Methods/modes of accessing land in Bungoma**
  - modes of acquiring land per household
  - land allocation practices within households
  - duration of allocations within households

- **General tenure security in Bungoma**
  - amount of land under title per household
  - amount of land for which succession was/was not undertaken
  - perceived tenure security, depending on type of acquisition (inherited, bought, leased)

- **Intra-household access to land and tenure security**
  - amount of land controlled by men and women within a household
  - duration of allocation within households
  - perceived security of tenure in different forms of accessing/allocation
  - degree of control and decision-making over land for individuals in a household

- **Impact of tenure rights on land use practices**
  - restrictions on land management resulting from type of acquisition/allocation

Land leasing:

- **Importance of lease market for smallholder farming households**
  - number/sizes of pieces leased per household
  - duration of lease per piece
  - number of renewed leases

- **Conflict-proneness of lease market**
  - frequency of lease arrangements ending prematurely
  - reasons for lease agreements ending prematurely
  - frequency of conflict in lease arrangements
  - reasons for conflict in lease arrangements

- **Impact of lease security on land management decisions**
  - restriction on land use decisions in lease arrangements