Support and supervision of bachelor and master theses at the interface of Agora Agriculture and Humboldt-Universität zu Berlin

Information for students; updated 22/05/23 More topics to be added by the end of May

Agora Agriculture supports a limited number of bachelor and master students to write their theses on topics, which are scientifically interesting and relevant to Agora Agriculture's work. Thesis topics are proposed and supervised jointly by Agora Agriculture team members and Prof. Harald Grethe and potentially other supervisors from HU of Berlin and may be worked on in English or German. Students who write their thesis with us will get to know Agora Agriculture, benefit from the exchange and structure of the group format and have the motivation to write a thesis relevant to the political advisory work of Agora Agriculture. Group meetings and communication between master's students, Harald Grethe and Agora colleagues involved are coordinated and organized by Wiebke Nowack, who is about to finish her Ph.D. thesis at Humboldt-Universität and works on land use questions at Agora Agriculture.

Students who are interested to work on one of the proposed topics are welcome to send an email with their Transcript of Records, CV and a few sentences on their motivation/background to <u>wiebke.nowack@agora-agrar.de</u> (first come, first serve ④).

1. [MA/BA] Harvesting hedges - A systematic literature review of the economic utilization of hedgerows in agricultural landscapes

Abstract: Hedgerows are an important component of cultural landscapes in Europe and have evolved as part of traditional farming practices. In the context of changing production systems and politically driven land consolidation, many hedgerows have disappeared from agricultural landscapes. In recent years, hedgerows have received increasing attention due to their positive effects on biodiversity, carbon sequestration, and neighboring crops. Various policy measures now address their maintenance and expansion. Assuming that the demand for biomass is growing on our way towards climate neutrality, the question arises to what extent and under what framework conditions the biomass of hedges could be harvested without significantly impairing its ecological benefits. We look for a master's student who conducts a systematic literature review on the use of biomass from hedgerows. It could also be a topic for a bachelor thesis if the student is used to reading English literature, the scope would be narrowed down in this case. Of particular interest are yields and favorable growing conditions, harvesting frequencies and techniques incl. transport, quality and storage possibilities of the harvested product, potential value chains for hedgerow biomass, barriers preventing the use of biomass as well as implications for biodiversity and other ecological aspects.

Supervising person & team within Agora Agriculture: Wiebke Nowack, Team Land use in the bioeconomy

2. [MA] Permanent grassland without animal husbandry – A region-specific scenario for land and biomass use in a climate-neutral Germany

Abstract: Agricultural land use in climate-neutral Germany in 2045 may be substantially different from current land use. Today, the largest part of agricultural land in Germany is used to produce fodder and animal husbandry accounts for the largest part of GHG emissions from the agricultural sector. Where arable land is used to produce fodder today, crops for human consumption may be cultivated in the future. On permanent grassland, though, there are limited options if the grassland is preserved as such. We look for master's student who first reviews the academic literature on how permanent grassland can be used economically aside from grazing or producing feed and then applies the respective options to one specific region in Germany with a high share of permanent grassland. For this region, a land use scenario is to be developed including insights on what this alternative land use would imply in terms of income and employment provision, required infrastructure and to what extent the region-specific land use scenario applies to other regions. The work is explorative in nature, requires a certain degree of creativity and touches upon key questions currently dealt with by the team 'land use in the bioeconomy' of Agora Agriculture.

Contact person, team within Agora Agriculture: Wiebke Nowack, Team Land use in the bioeconomy

3. [MA] Wie framen agrarpolitische Akteure die zukünftige Nutzung trockengelegter Moore auf Länderebene?

Abstract: In Deutschland werden über 1,3 Millionen Hektar Moorfläche landwirtschaftlich genutzt. Der allergrößte Anteil wurde vor mehreren Jahrzehnten aufwendig trockengelegt, um für die landwirtschaftliche Nutzung zur Verfügung zu stehen. Heute ist bekannt, dass diese trockengelegten und landwirtschaftlichen genutzten Moore sehr viel Treibhausgase emittieren, 40 % der landwirtschaftlichen THG-Emissionen, und ihre etwa weitgehende Wiedervernässung zur Einhaltung der Klimaziele unabdingbar ist. Für Landnutzer:innen und -Eigentümer:innen hat dies weitreichende Konsequenzen, da es nur wenige und bisher wenig erprobte Nutzungsmöglichkeiten für nasse Moore gibt. Auf politischer Ebene ist eine Debatte dazu entstanden, wie trockengelegte Moore zukünftig genutzt werden können und sollen und welche politischen Rahmenbedingungen dafür erforderlich sind. Im Kontext der bundesweiten und länderübergreifenden politischen Debatte wurden drei dominante Frames identifiziert: Ein Umweltframe, der Wiedervernässungspläne primär im Kontext ihrer ökologischen und klimatischen Bedeutuna thematisiert. Ein unternehmerischer Frame, die der betriebswirtschaftlichen Chancen in den Mittelpunkt stellt und ein Frame. der Wiedervernässungsvorhaben als sozioökonomische Bedrohung deutet. Im Rahmen dieser Masterarbeit soll untersucht werden, inwiefern sich diese drei Frames in landespolitischen Debatten wiederfinden, sich Akteure ähnlich oder anders positionieren und einbringen und ob sich womöglich abweichende Frames erkennen lassen. Das Untersuchungsmaterial kann aus schriftlichen Dokumenten sowie aus verschriftlichten Tondateien bestehen. Methodisch wird eine qualitative Inhaltsanalyse vorgeschlagen.

Contact person, team within Agora Agriculture: Nahleen Lemke, Team Land use in the bioeconomy

4. Mapping of positions of European political groups on key food system topics, in advance of the 2024 EU elections

Abstract: European elections will be held in the spring of 2024. The results of these elections will shape the new European Parliament and European Commission, and in turn the European Union's (EU) priorities in the five years to come. During the 2019-2024 period, the EU has notably stepped up its work on food systems and sustainability. Going well-beyond traditional priority policies such as the Common Agricultural Policy (CAP) and food safety legislation. There is significant uncertainty about what the 2024 elections will bring: a continuation of this new attention, and maybe a stepping-up of ambition, or rather a stepping away towards other priorities and approaches. As European political parties gear up for elections, this provides a good opportunity to systematically assess their positioning on key topics related to food, agriculture, and land use such as the role of farm animals, food consumption-related challenges and, more generally, the role of agriculture in tackling climate change. Such an assessment will allow us to better understand what visions different political movements have for the future of food and what tensions and contravening narratives might exist within political families from different countries. Within the framework of a master thesis, one could apply qualitative content analysis to written documents and identify frames. Expected results will offer insights into what to expect for the direction of European policy after 2024, and which narratives could act as entry points for constructive debates with each respective group.

Contact person, team within Agora Agriculture: Nikolai Pushkarev, EU Policy for Food and Land Use Sectors