

List of Proposed Master's Thesis Topics

International Management of Forest Industries (IMFI)	
Topics and further information	Contact and Geography
Forestry - Switzerland	
<p>Alternatives to pesticide use in the forest According to the Swiss forest law, pesticides-use in forested areas is forbidden. However, the law foresees various exceptions. The use of insecticides against wood-boring bark beetles on stored logs is possible even in certified forest. The thesis aims to research on different alternatives and their potentials for being put into practice in different Swiss settings.</p>	<p>Thibault Lachat Switzerland</p>
<p>Marketing & labelling Swiss agroforestry products There is need for innovative marketing strategies to improve the profitability of agroforestry systems. In Switzerland, for example, one of the key drivers of declining cultural landscapes is the low price of the tree products. In an attempt to increase profitability, several food products that originate from agroforestry systems are marketed with a label (e.g. Hochstamm-Suisse, Posamenten etc.). However, there is no overview of the various label products, the label conditions, the advantages and disadvantages of agroforestry label production and the quantities produced. Research tasks:</p> <ul style="list-style-type: none"> i) Identify innovative tree products and marketing strategies that could increase the profitability of agroforestry systems. ii) Create an inventory of agroforestry related label production in Switzerland, including an overview of label requirements, quantities produced, costs and prices (price difference to non-label products). This overview should be a basis for a Europe-wide inventory and overview of agroforestry label products. 	<p>Jan Grenz Switzerland</p>
<p>Ökosystemleistungen städtischer Bäume und Grünflächen und Minimalanforderungen an Art, Fläche, Anordnung, Qualität von grüner und blauer Infrastruktur: Fallstudie Bern Städtische Grünflächen und Bäume ("Grüne Infrastruktur") erbringen wichtige Ökosystemdienstleistungen. Gleichzeitig wird die zur Verfügung stehende Fläche immer geringer (verdichtetes Bauen). Wie lässt sich dieser Trade-off optimieren?</p>	<p>Oliver Gardi Switzerland (BE)</p>

Topics and further information	Contact and Geography
Forestry - International	
<p>The significance of non-timber products in Swiss forests through the ages The work would be done in tandem with an MSc student of a tropical country who would use a similar methodology to assess the significance of NTFPs and the change in their importance for nutrition, human health and other uses.</p>	Jürgen Blaser Switzerland (Togo, Ghana,..)
<p>Coppice silviculture and its importance in climate change adaptation Oak and Beech coppice forest management systems will be analysed in view of alternative forest management systems to respond to climate change challenges</p>	Jürgen Blaser Macedonia
<p>Gezielte Stammholzproduktion einheimischer Bäume in Tanzania Erarbeitung eines Konzeptes für eine gezielte Stammholzproduktion einheimischer Bäume in Tanzania vorbereiten. Inhalt der Master Thesis ist die Bestandesaufnahme vor Ort, sowie die notwendige Literaturliteraturarbeit zur Ausarbeitung des Konzeptes.</p>	Oliver Gardi Tanzania
Effects of WTO regulations on the forest sector	Astrid Zabel

Topics and further information	Contact and Geography
Crop production - International	
<p>Soil macrofauna providing ecosystem services: Are effects of habitat age confounding comparisons between natural and perennial agricultural systems in the humid tropics? Perennial crops grown in the humid tropics include oil palm, coffee, cacao, rubber and various timber and fuelwood species. These may be grown either on large-scale plantations or by smallholder farmers. Many studies have elucidated a reduction in ecosystem functioning as secondary forests are converted to perennial production systems (Norgrove and Beck 2016). Such studies predominantly rely on the use of chronosequences whereby the “reference system” of primary or old growth secondary forest is compared with systems converted from secondary forest, whether annual crops or perennials (Hartemink 2006). Often such studies do not take into account the ages of the converted system and these may be younger than the reference system and thus do not represent the maximum productive age of the perennial system. Therefore the “land-use-transformation” effect is confounded with the “land use occupation” effect as the time since disturbance is not controlled for (for example, see Bessou et al. 2013). The extent of primary forest cover is also increasingly being confined to isolated inaccessible fragments while secondary forest may have been subjected to multiple conversion events. Therefore when considering environmental impacts of converting forest to perennial systems a comparison with secondary regrowth of similar age and land use history is more appropriate. Here data will be compiled on soil macrofauna and the processes they mediate (litter decomposition, changes in soil porosity etc) in major perennial tree crop systems in the humid tropics where studies include</p>	Lindsey Norgrove Tropics

a same-age control. The aim to use these data to quantify separately the influence of land use change and land use occupation.	
--	--

Topics and further information	Contact and Geography
Cross-cutting questions - International	
<p>Supporting farmers with existing practices of on-farm tree cultivation in the endangered biosphere reserve around Inle Lake to generate economic benefits for the communities and the conserving the environment</p> <p>The Inle lake is an endangered biosphere reserve. Among other things the lake's surface has been shrinking from 270km² in 1934 to 160km² today as a result of deforestation, soil erosion and sedimentation. Pwe Hla is one of Inle lake's northern watershed areas. Agriculture dominates the region and land use practices such as tree coverage have a direct impact on the lake downstream. Farmers in Pwe Hla cultivate trees on their farmland while the neighbouring communities do not. On-farm tree cultivation (synonymously used with agroforestry) has many well-known benefits for farmers' livelihoods and the environment. At the same time it can be an effective afforestation method which is of particular relevance for watersheds such as Pwe Hla. Spreading existing practices of on-farm tree cultivation across the region, would generate significant benefits for farmers and the conservation of Inle lake. The hosting organisation is a local NGO</p>	<p>Alessandra Giuliani Myanmar</p>

Last updated: 25.09.2018 (kn1)