



# Master in Life Sciences

A cooperation between  
BFH, FHNW, HES-SO, ZFH

<b>Module Title</b>	<b>International Forestry</b>
<b>Module Code</b>	MSLS_AF-41
<b>Degree Programme</b>	Master of Science in Life Sciences (MSLS)
<b>ECTS Credits</b>	5
<b>Workload</b>	<b>100% Online:</b> 150h: Contact 84 h Group Exercise 24h; Self-study 42 h
<b>Module Coordinator</b>	<p><b>Name</b> Dr. Claude Garcia</p> <p><b>Phone</b> +41 31 848 55 72</p> <p><b>Email</b> <a href="mailto:claud.garcia@bfh.ch">claud.garcia@bfh.ch</a></p> <p><b>Address</b> Bern University of Applied Sciences, School of Agricultural, Forest and Food Sciences, Laenggasse 85, 3052 Zollikofen</p>
<b>Lecturers</b>	<ul style="list-style-type: none"> <li>• Dr. Claude Garcia</li> <li>• Dr. Mariana Melnykovych</li> <li>• Dr. Patrick Waeber</li> <li>• Dr. Sebastien Boillat</li> </ul>
<b>Entry Requirements</b>	Solid background in one of the following fields of study: Forestry, agriculture, natural resources management or environmental economics. The module is designed to acquire and translate knowledge in a disciplinary and interdisciplinary context.
<b>Learning Outcomes and Competencies</b>	<p>After completing the module students will be able to:</p> <ul style="list-style-type: none"> <li>• assess the role of forests and forestry in a global, regional, national and local development context;</li> <li>• understand ecological, social and economic challenges in the principal forest biomes (boreal, temperate, humid and dry tropics);</li> <li>• apply concepts, methods and tools to assess and implement sustainable forest management and forest conservation at landscape level in the various forest biomes and under different socio-cultural and economic conditions;</li> <li>• assess main potentials and constraints of forest management implemented globally, with particular emphasis on distinguishing between forest-rich and forest-poor situations;</li> <li>• analyse main forest policy and governance issues at national and international levels, based on the three pillars of sustainability (inc. application of C&amp;I);</li> <li>• position forestry and the forest industry in the wider national and international development context (including macro-economic policies, poverty reduction, food security, energy) and assess the industry's potentials and limitations;</li> <li>• link forests and forestry to the global externality agenda, including the provision of forest goods and services, poverty alleviation goals, climate change and REDD+, biodiversity conservation and the protective role of forests and trees.</li> </ul>
<b>Module Content</b>	The module will focus on the analysis of the main challenges for forests and forestry in a global policy and development context. These include the role of forests and forestry under changing environmental and social conditions; the analysis of the macro-economic context to conserve and manage forests globally; an understanding of global forest resource assessment (methods, definition, results); the biophysical and socio-economic conditions of managing and conserving forests in the major biomes; the concepts of sustainable forest management (SFM) in natural and man-made forests as well as at landscape level; REDD+; and global forest institutions.

	<p>Particular attention will be given to understand the various demands on forests and forestry by society now and in the future, including:</p> <ul style="list-style-type: none"> <li>• valuing forest goods (timber, NTFP) and services (soil, water, carbon, biodiversity);</li> <li>• forest resources and production of wood and non-timber forest products;</li> <li>• forest policy and governance;</li> <li>• forest and climate change with particular emphasis on REDD+;</li> <li>• forest and biodiversity conservation.</li> </ul>
<b>Teaching and Learning Methods</b>	<p>The module will be offered in an <b>onlineformat</b>.using an online strategy game on logging in central Africa as introduction and central thread. Students will learn to play and discuss the outcomes during the sessions.</p> <p>Interactive lectures with input by students; exposure of students to experienced resource persons from the international forest policy context, private sector and international NGOs through a targeted seminar; learning-team coaching in selected and targeted fields in small groups based on students' requests (e.g. for students with a solid forestry background); self-study on pre-defined themes.</p>
<b>Assessment of Learning Outcomes</b>	<ol style="list-style-type: none"> <li>1) Policy brief on an emerging issue in international forestry (40%)</li> <li>2) Oral exam: scientific discussion about selected themes in international forestry (60%).</li> </ol>
<b>Bibliography</b>	<p>Individual search by students; at the end of the module, each student will need to submit a commented bibliography, including an overall analysis. A selected list of references will be made available on each chapter presented.</p> <p>Main guidance on the topics: <a href="http://www.fao.org/forestry">www.fao.org/forestry</a> ; <a href="http://www.cifor.org">www.cifor.org</a>; <a href="http://www.itto.int">www.itto.int</a>; <a href="http://www.worldbank.org/forestry">www.worldbank.org/forestry</a>; <a href="http://www.unece/forests.org">www.unece/forests.org</a>; <a href="http://www.fcpf.org">www.fcpf.org</a>; <a href="http://www.wri.org">www.wri.org</a>; <a href="http://www.unredd.org">www.unredd.org</a></p> <p>References providing a general overview of the issues include:</p> <ul style="list-style-type: none"> <li>▪ Bastin, J. F., Finegold, Y., Garcia, C., Mollicone, D., Rezende, M., Routh, D., ... &amp; Crowther, T. W. (2019). The global tree restoration potential. <i>Science</i>, 365(6448), 76-79.</li> <li>▪ Blaser, J., Sarre, A., Poore, D. &amp; Johnson, S. (2011). Status of Tropical Forest Management 2011. ITTO Technical Series No 38. International Tropical Timber Organization, Yokohama, Japan.</li> <li>▪ FAO. 2020. Global Forest Resource Assessment 2020 (fao.org) interactive and reports</li> <li>▪ Garcia, C. A., Savilaakso, S., Verburg, R. W., Gutierrez, V., Wilson, S. J., Krug, C. B., ... &amp; Waeber, P. O. (2020). The global forest transition as a human affair. <i>One Earth</i>, 2(5), 417-428.</li> <li>▪ Geist, H. J., &amp; Lambin, E. F. (2002). Proximate Causes and Underlying Driving Forces of Tropical Deforestation. <i>BioScience</i>, 52(2), 143-150.</li> <li>▪ Malhi, Y., Gardner, T. A., Goldsmith, G. R., Silman, M. R., &amp; Zelazowski, P. (2014). Tropical forests in the Anthropocene. <i>Annual Review of Environment and Resources</i>, 39, 125-159.</li> </ul>
<b>Language</b>	English
<b>Comments</b>	The following sequences are compulsory for studentsGame sessions and sequences with guest lecturers.
<b>Last Update</b>	20.02.2024/ Claude Garcia