

Module	Natural Forest Management and Restoration in the Tropics
Module Number	BIW-MA-ABCD-07
Responsible lecturer	Prof. Dr. Sven Wagner sven.wagner@tu-dresden.de
Qualification Objectives	The students are familiar with the important management systems of tropical forests. They are able to apply methods of planning, implementation, monitoring and control for natural forest management and are able to use multifunctional strategies for the management of tropical natural forests.
Contents	Contents of the module are management systems for natural forest management in the tropics, elements for recording, planning, implementing, monitoring and controlling them, management strategies using decision-theoretic models, management of different forest formations, sustainable units and farms, production strategies and value chains for wood, non-wood products and environmental services of the forest, biodiversity management, integrated forest protection as well as firefighting in tropical and subtropical natural forests based on case studies.
Forms of teaching and learning	3 SWS lecture, 0.5 SWS exercise, 2 SWS seminar, 1 day excursion, self-study.
Requirements for participation	Knowledge of forestry disciplines at bachelor's level is required. Preparatory Literature: Lamprecht, H. (1989) <i>Silviculture in the tropics</i> . Deutsche Gesellschaft für Technische Zusammenarbeit (GTZ) Eschborn. Matthews, J. D. (1996) <i>Silvicultural systems</i> . Clarendon Press Oxford, Oxford. Johnson, E. A.; Miyanishi, K. (2001) <i>Forest fires. Behavior and ecological effects</i> . Academic Press, San Diego. Speight, M. R.; Wylie, F. R. (2001) <i>Insect pests in tropical forestry</i> , CABI Wallingford.

Applicability	The module is one of three elective modules in the Master's program in Water Security and Global Change, two of which must be chosen.
Requirements for the award of credit points	The credit points are earned when the module examination is passed. The module examination consists of a combined term paper of 30 hours and an exam of 90 minutes.
Credit Points and Grades	5 credit points can be earned through the module. The module grade is based on the weighted average of the grades of the two examinations. The combined term paper will be simple and the written exam will be weighted three times.
Frequency of the module	The module is offered every winter semester.
Effort	The total workload is 150 hours.
Duration of the module	The module lasts one semester.
Module-accompanying Literature	<p>Clemen, R. (1996) Making hard decisions. Duxbury Press, Pacific Grove.</p> <p>Ffolliott, P. F.; Brooks, K. N.; Gregersen, H. N.; Lundgren, A. L. (1995) Dryland forestry. Planning and management. Wiley, New York.</p> <p>Buongiorno, J.; Gilles, K. (2003) Decision methods for forest resource management. Academic Press, Amsterdam, Boston.</p> <p>Goldammer, J. G. (1993) Fire management. In: Pancel, L. (ed.) (1993) Tropical Forestry Handbook. Springer, Berlin, Heidelberg, New York, pp.1221-1268.</p> <p>Heikkilä, T. V.; Grönqvist, R.; Jurvelius, M. (1993) Handbook on forest fire control. Forestry Training Programme: Publication 21. Helsinki.</p> <p>Speight, M. R.; Wainhouse, D. (1989) Ecology and management of forest insects. Oxford University Press, Oxford.</p> <p>Watt, A. D.; Stork, N. E.; Hunter, M. D. (1997) Forests and insects. Chapman & Hall, London.</p> <p>Heyde, W. F. (1980) Timber supply, land allocation and economic efficiency. John Hopkins Univ. Press, Baltimore.</p> <p>Neher, P. A. (1993) Natural resource economics. Conservation and exploitation. Cambridge University Press, Cambridge.</p>

