University of Applied Forest Sciences Rottenburg
University of Applied Sciences

Module description
Assessment of Cultural, Social and Economical Values of Forest Ecosystem Services

Modul	DF.3 (in English)
ECTS credits	5
Teaching hours per week	3
Workload (in hours)	Classroom-based and self-directed study 150 hours
Module description	The module introduces cultural ecosystem services (CES) within the broader system of forest ecosystem services, in particular ecosystem services beyond timber production. Topics include definitions; distinctions between cultural values, benefits and services; CES such as recreation, knowledge, nature connectedness, identity, aesthetic and spiritual values; and international classifications (MEA, TEEB, IPBES, CICES). Emphasis is placed on how CES emerge through interactions between ecosystems, people and society, their effects and unequal accessibility. The module also considers CES-based marketable/tourism services and introduces empirical and economic assessment approaches. These assessment approaches include validation methods like the market price method, travel cost approaches, as well as contingent valuation.
Intended learning outcomes and course content	Intended learning outcomes: Students know (2) key concepts, types and international classifications of CES and explain how CES emerge through interactions between forest ecosystems, people and society. They can analyze (4), evaluate (5) and critically discuss societal effects and unequal access, identify opportunities for CES-based services, and select suitable empirical methods. Students further know (2) non-timber forest products based on ecosystem services. Students also gain an understanding of respective economic valuation approaches and can evaluate (5) their applicability and limitations for cultural and other forest ecosystem services. Course content: • **Foundations of cultural ecosystem services (CES):** definitions and the distinction between cultural values, benefits and services, set within the broader system of forest ecosystem services. • **Types and classifications of CES:** recreation, knowledge, nature connectedness, identity, and aesthetic and spiritual values, plus the international frameworks MEA, TEEB, IPBES and CICES • **Emergence and societal effects:** how CES arise from interactions between forest ecosystems, people and society, their effects and unequal accessibility • **CES-based services and products:** marketable services built on CES, and non-timber forest products based on ecosystem services • **Assessment and valuation approaches:** empirical methods and economic valuation (market price method, travel cost approaches, contingent valuation), including their applicability and limitations
Control	Case study project: Analysis of cultural ecosystem services in a selected forest area, including the application or conceptual design of an empirical assessment

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Prof. Dr. Monika Bachinger, Prof. Dr. Steffen Abele, Sustainability Management in Spatial Development

	method (e.g. participatory GIS, social media/geotag analysis, contingent valuation or choice experiment). Presentation of results (15–20 min) and short written report (approx. 5 pages).
Grading	☒ passed/failed ☒ by grade for degree programmes, if required
Prerequisite	Good English language proficiency Basic knowledge of ecosystem services or ecosystem valuation is helpful Basic knowledge of forest ecology and environmental economics is recommended. Preparation: Potschin et al. (2016) Routledge Handbook of Ecosystem Services; Champ et al. (2017) A Primer on Nonmarket Valuation and Thorsen et al. (2014) The Provision of Forest Ecosystem Services (Vol. 1);
Procedure, Teaching and learning methods	Lecture and seminar: 22,5 sessions (90 minutes) - 10% on the theory of ecosystem services - 30% on CES assessment: travel cost, contingent valuation (WTP/WTA), choice experiments, hedonic pricing, social-media geotags and participatory GIS - 25%Case studies on CES formation, societal effects, unequal access and tourism/marketable services - 25% on forest ecosystem services, including (non-timber) products - 10% excursion (approx. 5 hours/self-organized field trip for distant participants)
Lecturer	Prof. Dr. Monika Bachinger, Prof. Dr. Steffen Abele
Offer for semester	Advanced students of all programs admitted
Frequency and duration of the service	Duration of the module: one semester, module offered once per year, always in summer term, if minimum number of participants is given.
Number of participants	min. 8, max. 20 participants (additionally, up to 12 externals with online participation)

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