

Climate Risk Assessment

Course description

Subject leader: Borbála Gálos, Ph.D., associate professor

Lecturer: Borbála Gálos, Ph.D., associate professor

Institute: University of Sopron, Faculty of Forestry, Institute of Environmental and Earth Sciences

Course code:

Credit points: 4

Evaluation: oral exam / written exam / mid-term grade

Instruction hours/week (lecture + practice): 2 + 1

Language: English

Course content

Climate variability and climate change. Climate extremes and their quantification. Observed extreme events and impacts. Projected frequency and severity of extremes and expected impacts. Sensitive and vulnerable regions and ecosystems, affected physical assets and infrastructure. Resilience, resistance, recovery, adaptation capacity. Integration of climate change into Environmental impact assessments. Risk assessment. Essential databases. Sensitivity analysis, evaluation of exposure to climate hazards, vulnerability assessment. Risk identification, risk matrix. Scoping of adaptation options, making investments climate resilient. Decision making under uncertainty. Case studies. Monitoring networks, warning systems, decision support systems & related recent international research projects.

Required and recommended reading

Lecture materials are available in ppt.

Non-paper Guidelines for Project Managers: Making vulnerable investments climate resilient. European Commission, Directorate-General for Climate Action
http://ec.europa.eu/clima/policies/adaptation/what/docs/non_paper_guidelines_project_managers_en.pdf

EU Commission Staff Working Paper - Risk Assessment and Mapping Guidelines for Disaster Management <https://climate-adapt.eea.europa.eu/metadata/guidances/eu-commission-staff-working-paper-risk-assessment-and-mapping-guidelines-for-disaster-management>

IPCC 2013. Climate change 2013: Synthesis Report. Contribution of Working Groups I, II and III to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change
<http://www.ipcc.ch>

IPCC 2012. Managing the Risks of Extreme Events and Disasters to Advance Climate Change Adaptation (SREX) <http://www.ipcc.ch/report/srex/>