



Sveriges lantbruksuniversitet  
Swedish University of Agricultural Sciences

# SLUkurs

## Syllabus

**PFG0063 Forest Management, Land Use Change and Ecosystem Services in Degraded Tropical Landscapes, 5.0 credits**

## Syllabus approved

2018-04-06

## Subjects

Forest Management

## Education cycle

Third cycle

## Grading scale

Pass / Failed

The requirements for attaining different grades are described in the course assessment criteria which are contained in a supplement to the course syllabus. Current information on assessment criteria shall be made available at the start of the course.

## Language

English

## Prior knowledge

To be eligible, students need to be a registered PhD student in the field of ecology, conservation biology, forestry, or related field. Students are required to fund their own roundtrip travel from their home institution to Tawau, Sabah, Malaysia. Once in Sabah, travel and lodging expenses will be covered by the course.

## **Objective, including learning outcomes**

The overall objective of this course is to provide an in-depth understanding of the causes of land degradation as well as the trade-offs between biomass production for economic value and ecosystem services among a wide range of land use types in northern Borneo, Malaysia. This course is an intensive, two-week long field course that will include a combination of short lectures, field excursions and exercises, discussion of literature, and student-led presentations – all designed to facilitate close interactions among students and instructors.

## **Content**

"Forest Management Practices and Land Use Change in Degraded Tropical Landscapes" addresses key concepts and modern challenges in how to manage degraded tropical landscapes to balance the trade-offs between maximizing economic value while at the same time minimizing negative impacts to ecosystem services. In this course we will take an integrative approach that focuses on biodiversity, biogeochemistry, ecology, economic value, human health, and plant ecophysiology aspects associated with different land use types in northern Borneo. Specific topics include: 1) introduction to the causes of land degradation and forest management practices of degraded landscapes in northern Borneo, 2) overview of methods and experimental design to quantify ecosystem services and economic value, 3) understanding of how land use change influences biogeochemical processes, 4) assessment of biodiversity across different spatial scales within the different land use types, 5) awareness of restoration techniques and application of these techniques in the field. These general themes will be explored through discussion of literature that will be coordinated with short lectures.

## **Requirements for examination**

To pass this course you need to:

1. Attend all lectures and field-based activities
2. Be active in group discussion about the course literature and/or field excursions
3. Complete a writing assignment on a relevant topic to land use change and/or forest management practices in the tropics
4. Orally present an individual report on a topic relevant to land use change/and or forest management practices in the tropics

## **Additional information**

The course will take place in October 7-19, 2018, and will consist of a two-week long field excursion to different land use types in northern Borneo. The first part of

the course will be based Danum Valley Conservation Area, where students will get a firsthand experience of an undisturbed, pristine lowland tropical forest. During the second part of the course, we will travel to Luasong and the INIKEA Sow-A-Seed project area, where already established guest house accommodations provide the necessary infrastructure and is centrally located to visit degraded landscapes, large-scale restoration projects, and intensively managed exotic tree plantations.

**Responsible department**

Department of Forest Ecology and Management