

Integrated Land Use Systems 2021 University Course

Albert-Ludwigs-Universität Freiburg





21 June - 09 July 2021 Freiburg im Breisgau, Germany

Integrated Land Use Systems

The rapidly growing world population and changing consumption patterns are placing increasing pressure on agricultural and forestry production systems. However, the classic intensification approach to increase the yield of food and biomass by genetic standardization, mechanization and application of agrochemicals has led to ambivalent results. In many places, negative environmental and social consequences have been observed such as soil degradation, eutrophication, decline in fresh water resources, loss of biodiversity, land-use conflicts, loss of employment, and rural-urban migration.

Against this background, Integrated Land Use Systems (ILUS), which combine different types of land uses and integrate several management goals, are gaining attention worldwide. It is assumed that ILUS, compared to classic production systems, provide a higher level of ecosystem goods and services, are less vulnerable to the risks of global change and market volatilities, and are better suited to the livelihood strategies of rural populations.

However, despite these promises, ILUS still play an minor role in most agricultural landscapes.

Our course intends to reflect upon social, environmental, and economic features of relevant land use systems and possibilities for broader diffusion.



Integrated Land Use Systems are considered to have less negative externalities on water, soils and other natural resources. At the same time, they aim to use natural interactions and processes to optimize the production system.

Target group

The courser is designed for international graduate students, consultants and land use professionals, as well as for young scientists working in the field of forest, agricultural, and environmental sciences, geography, rural development, land use planning, landscape ecology and other related fields of natural resource management.

The programme is open for applications from all countries.

Course aim

One goal is to familiarize participants with important ILUS (e.g., silvopastoral or agroforestry systems) as to obtain up to date expert knowledge and key competencies in the analysis of ecological, social and economic foundations and effects of ILUS. The participants will work into small groups conducting in-depth analyses of selected ILUS issues taking into account different geographical regions, socioeconomic settings and production objectives.

To prepare the groups for this task, experts introduce key aspects of ILUS from technical, environmental and economic perspectives, and present relevant insights from South-America, Africa, Asia and Europe. (Video) excursions to the surroundings of Freiburg will provide practical insights about the relevance, potentials and challenges related to the application of ILUS. Based on this input, the participants will gradually develop their own analytical work, which will be presented and discussed at the end of the module.



Top quality research, excellent instruction, and departments with tradition make the University of Freiburg one of the most attractive institutions of higher education in Europe.

Certificates

- Qualified Participation Certificate "Integrated Land Use Systems", issued by the University of Freiburg
- 5 Credit Points according to the European Credit Transfer System (ECTS), if the voluntary oral exam is passed

Qualifications & learning objectives

Having completed this course, participants are able to

- Describe and classify different types of ILUS,
- Explain the history of ILUS and particularly their recent emergence as possible and more sustainable alternatives to commercial tree and crop monocultures,
- Analyse the performance, potentials and limitations of ILUS with respect to environmental, economic and sociocultural considerations,
- Relate ILUS to specific issues and processes including contribution to food security, economic growth, watershed protection and biodiversity conservation,
- Critically reflect about the implications of ILUS in sustainable land use and rural livelihoods.

Dates and location

- Application deadline: 15 May 2021
- Course dates: 21 June 09 July (full time, **online** with live elements)



Both theoretical input and excursions that cover practical aspects to different ILUS are part of the course.

Freiburg University
 Faculty of the Environment and Natural Resources
 Tennenbacher Straße 4
 D-79085 Freiburg im Breisgau

Course fee

- 200.- Euro
- The fee covers lectures, study materials, copies, access to learning platform, (online) field trips
- Housing, living and travelling are not included in course fee, should we plan for physical excursions (pending Covid-19 restrictions).
- Participants pay prior to start of the course via bank transfer. Payment details are sent after acceptance.
- Unfortunately, we cannot provide scholarships for the course.

Admission prerequisites

Applicants need to have

- University degree (preferably MSc) in forestry, agriculture or a closely related field (minimum 30 ECTS in specific modules),
- Working experience for a minimum of two years in forest management, land use planning, agriculture, or related jobs,
- Excellent English language skills.

Freiburg

 Freiburg, "the green city" is a traditional but at the same time also a very young and dynamic university city. It is located close to the black forest, France and Switzerland and is considered to be one of the most attractive cities in Germany – especially in summer.



Freiburg, the green city close to the black forest.

- Many sustainability initiatives originated in Freiburg, and it is one of the European centres of renewable energy development and sustainability research.
- The *Albert-Ludwigs-Universität* Freiburg was founded in 1457 and is one of the oldest universities in Germany. Students can choose from over 150 programmes at 11 faculties. At present, 25,000 students are enrolled.

Is this course for you?

Application forms and updated information:

https://www.waldbau.uni-freiburg.de/news_events/ILUS

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