

Ecosystem services assessment in agricultural and peri-urban areas

PhD Course, 3 ECTS

Date and location:

11th to 14th April 2023, in the historical centre of Paris (Maison des Ingénieurs de l'Agro, 5 Quai Voltaire, 75007 Paris)

Background

The concept of ecosystem services, the benefits that humans derive from nature, was initiated in the 1960s and then taken up on a large scale in research and public policy, following the publication of the *Millennium Ecosystem Assessment* (MAE) in 2005. This concept emphasises the multifunctional role of ecosystems and thus makes it possible to design integrative approaches to the diagnosis, evaluation and design of environments, production systems and public policies. It has thus become an essential concept for many research projects in the fields of ecology, agronomy and landscape management. Many doctoral students in the fields of agronomy and ecology are thus led to integrate this notion and its applications into the conceptual framework of their work, or even to develop specific research on the subject.

Objectives of the PhD Course

To present the conceptual and methodological bases for the evaluation of ecosystem services in agricultural and peri-urban areas.

Through the contribution of international experts from different disciplinary fields, the objective of this short course is to present the state of the art of ecosystem service assessment methods, while also highlighting their current limitations.

A field visit and a round table will illustrate the research questions raised and allow for a debate on possible approaches to valuing ecosystem services.

Targeted competences

- Mastering the concepts related to ecosystem services
- Biophysical and economic approaches to ecosystem service valuation
- Evaluation of ecosystem services in different agricultural and peri-urban contexts

Program

Built over four days with alternating lectures, visits and round tables, the module mobilises experts to present French and European experiences in the assessment of ecosystem services. The programme crosses disciplinary perspectives and fields of application and is open to international experiences. The whole module is delivered in English, according to the following framework

Detailed Programme

1. TUESDAY, APRIL 11TH

Morning

10:00 – 10:30 - Introduction and mutual presentation of participants

D. Montagne, AgroParistech and C. Walter, Institut Agro

10:30-12:30 - Soils and Ecosystem services in the context of the European Green Deal

C. Chenu, INRAE, head of the EJP Soil program

Afternoon

14:00 – 15:45 - Concepts of ecosystem services and classification

D. Montagne – AgroParisTech, UMR Ecosys

16:00 – 17:45 - Biodiversity and ecosystem services

G. Peres, Institut Agro Rennes Angers, UMR SAS

18:00-18:30 - Introduction to the objectives of the final discussion

D. Montagne and C. Walter

2. WEDNESDAY, APRIL 12TH

Morning

8:30 – 10:15 - Ecosystem services provided by urban soils, a lever to enhance urban planning.

G. Seré, Lorraine University

10:30 – 12:30 - Economic valuation of ecosystem services

Jean-Michel Salles, CNRS Montpellier

Afternoon

14:00 – 17:30 - Assessment of soil functions through an expert-based approach

Taru Sanden, Austrian Agency for Health and Food Safety

3. Thursday, April 13th

Morning:

8:30 – 10:15 - Mapping of ecosystem services

C. Walter, Institut Agro Rennes Angers

10:30-12:15 – Soil ecosystem services bundles across European agricultural landscapes

I. Cousin, INRAE Orléans, leader of the EJP Soil SERENA project

Afternoon:

14:00-18:00 - Visit of an experiment of urban agriculture

S. Boulanger - Joimel (AgroParistech)

4. FRIDAY, APRIL 14TH

Morning:

9:00 – 12:00 - ES assessment exercise

D. Montagne, AgroParistech

Afternoon:

13:30 – 16:00 – Discussion roundtable on the Ecosystem Service concept

Participants with D. Montagne, C. Walter and other experts

Contacts and application

- Contacts for application: Dr. David Montagne, david.montagne@agroparistech.fr
Pr. Christian Walter, christian.walter@institut-agro.fr
- Deadline for application: 20/03/2023 with a limit of 25 registrants
- This course is primarily intended for PhD students from EJP SOIL affiliated institutions but is open to other PhD students, post-doctorates or other researchers working within a European Community research organisation or university