

URBAN ECOSYSTEM SERVICES



Welcome!

Licensing Information

Assessment

1) Describe green space in urban setting

2) Problems & trends in urban areas [OPTIONAL]

3) Benefits of urban green spaces

4) Urban green planning terms [OPTIONAL]

5) Urban management considerations

6) Measuring urban green space benefits for management support

7) Evaluate impact of urban change scenarios

UNSA final group poster

To conclude

Consulted Literature

Index

Welcome!

Welcome to the e-module on **Urban Ecosystem Services** tailor-made for **Universidad Nacional de San Agustín de Arequipa (UNSA)** by **University of Twente-ITC!**

About the e-module

In this course, the following topics are covered:

- Describe green spaces in urban setting
- Understand benefits of green space in urban setting
- Understand urban management considerations
- Select options of measurement of urban green space benefits for management support
- Evaluate impact urban change scenarios
- Synthesis

Each topic starts with a 10-minute micro-lecture video which introduces the topic, highlights the most important aspects, and guides the reading and exercise. After this video, you will read material and test your gained knowledge with a quiz. The reading materials provided are short and are meant to show the key concepts and elements. Each reading part can have one to three recommended in-depth reading suggestions (adding 5h of reading time per learning outcome). This in-depth reading is optional and not part of the estimated course time! All suggested reading material is open access and made available. Each topic is closed off with a group assignment on Arequipa which will be discussed in an online meeting.

Each topic follows the same structure of teaching format, so you quickly get used to the learning environment. In the Index of this course you find an overview of all topics and concepts that will be addressed.

This course is based on a slightly broader e-learning module on [urban green spaces by Schwarz & Willems \(2021\)](#). All that content is also available here but the menu on the left indicates which learning outcomes we focus on (1, 3, 5, 6, 7). For some topics, the original course also asks you to do an exercise and provides model answers. We skip these exercises as we have tailor-made group assignments focusing on urban ecosystem services in Arequipa. Below, on the next slide, the following table summarizes the content scheduled for the UNSA course on urban

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Core Reading

In-depth Reading [OPTIONAL]

Exercise: UGS and ES [OPTIONAL]

Quiz

UNSA group assignment week 2

4) Urban green planning terms [OPTIONAL]

5) Urban management considerations

6) Measuring urban green space benefits for management support

UNSA group assignment week 2

Before the group work, please watch the pre-recorded micro-lecture on ecosystem services, read the core reading and answer the quiz. If you like, you may also watch [this brief video](#) about urban ecosystem services (in Dutch, English subtitles).

Since the core reading is on ecosystem services in general, please familiarise yourselves with different types of cultural urban ecosystem services. Here, we follow the Common International Classification of Ecosystem Services ([CICES](#)). According to CICES, cultural ecosystem services are “All the non-material, and normally non-rival and non-consumptive, outputs of ecosystems (biotic and abiotic) that affect physical and mental states of people” (Haines-Young & Potschin, 2018, page 10).

According to CICES, cultural ecosystem services are characteristics of living systems that enable:

- Activities promoting health, recuperation or enjoyment through active or immersive interactions
- Activities promoting health, recuperation or enjoyment through passive or observational interactions
- Scientific investigation or the creation of traditional ecological knowledge
- Education and training
- Resonance in terms of culture or heritage
- Aesthetic experiences
- Symbolic meaning
- Sacred or religious meaning
- Entertainment or representation
- Existence value (e.g., simply knowing that a species exists)
- Option (preservation in case one might use it later) or bequest (preservation for future generations) value

In your group, you are supposed to work again on the same three urban green spaces you already described in week 1. Prepare an English presentation on which cultural ecosystem services could be relevant for the three urban green spaces.

During the synchronous online meeting, we will discuss questions on the lecture and core reading. After that, each group will present their green spaces. The presentation can be held in Spanish.