

# EduBioMed

CAPACITY BUILDING FOR EDUCATION AND APPLIED  
RESEARCH IN MEDITERRANEAN UNESCO'S BIOSPHERE RESERVES

## What exactly a Biosphere Reserve consists of?

## The Edu-BioMed project's course

### Introduction to the course

[ENGLISH]



## About Edu-BioMed

The project aims to strengthen, ameliorate and upgrade academic activity at four Moroccan and Lebanese Higher Education Institutions (HEIs) in the context of Mediterranean Biosphere Reserves (BRs), in collaboration and through networking with BRs' stakeholders (citizens, visitors, managers and technicians), public administrations and EU Partners.

## Partners:

- [Universitat Autònoma de Barcelona](#), Spain (coordinator)
- [Université d'Aix Marseille](#), France
- [American University of Beirut](#), Lebanon
- [Université Saint-Joseph](#), Lebanon
- [Université Cadi Ayyad](#), Morocco
- [Université Mohammed V de Rabat](#), Morocco
- [MAB France](#), France
- [Association for the Protection of Jabal Moussa \(APJM\)](#), Lebanon
- [UNIMED – Mediterranean Universities Union](#), Italy

## More at

[www.edubiomed.eu](http://www.edubiomed.eu)

The online version of the course is at:

<https://www.edubiomed.eu/mooc/open-web-version-of-the-course/>



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## Welcome

### ***What exactly a Biosphere Reserve consists of?***

The objective of the Edu-BioMed course is to answer to this key question from a Mediterranean perspective. The course is developed under the framework of the project, whose main objective is to promote education and applied research in Mediterranean Biosphere Reserves.

Throughout the course, participants will learn about the case of Biosphere Reserves, special protected areas promoted under the auspices of the Man and Biosphere Program of UNESCO. Teachers are professionals in the field of environmental protection and education: university professors and researchers, NGOs representatives and Biosphere Reserve managers.

The Edu-BioMed course in numbers:

- 5 modules
- 1 Inspiring Talk
- 28 lectures
- 14 organizations involved
- 22 trainers
- 1 MOOC

## Whom is the course for?

The online course *“What exactly a Biosphere Reserve consists of? from a Mediterranean perspective”* produced within the Edu-BioMed project with the support of the Erasmus+ Capacity Building Programme of the European Union, aims to promote education and applied research in Mediterranean Biosphere Reserves and raise awareness on the management and relevance of the reserves.

The course content is composed of five modules, which explore different aspects related to Mediterranean Biosphere Reserves, exploring the role of the biosphere in an era of global change, and how Biosphere Reserves can serve to the understanding and managing of changes and interactions between social and ecological systems. Managers of the Reserves present case studies from the Med region as well as conceptual and methodological tools that are relevant in the field of conservation management.

### ***Target Audience***

The course is addressed to many different targets:

- Students developing skills on biodiversity, nature conservation, biosphere reserves and protected areas, territorial governance and more
- University educators (professors, lecturers) from several discipline, from environmental studies to Mediterranean geography, from sustainable tourism to natural sciences, etc.
- Researchers and professionals in the field of environmental protection
- Representatives and Biosphere Reserve managers, staff and practitioners
- Citizens, associations and the wider public with an interest in biodiversity and natural heritage protection
- Local communities living and working in the Biosphere Reserves
- Decision-makers at national and regional levels

## How to use the course

The course is designed as a learning journey for students and adult learners, who can navigate through the 5 modules and the many lectures and resources available. Videos, readings and activities are proposed by the 22 trainers involved in the production and delivery of the contents.

The course can be accessed in both English and French.

The online course *“What exactly a Biosphere Reserve consists of? from a Mediterranean perspective”* produced within the Edu-BioMed project Course is one of the main outputs of the project. The content and online activities are available under an open license that enables anyone to reuse, adapt, store and share those resources.

The entire course and each one of the modules are available as standalone units of content, so anyone anywhere can repurpose them according to their own needs. To facilitate the use of the course contents, and to support the sustainability of the Edu-BioMed course over time, it has been developed in different formats.

### Course Formats

#### PDF / WORD

The content of the course has been released as both PDF and Word files. The current document is the English version of the Edu-BioMed course.

#### HTML / Open Web

The open version is accessible through the Edu-BioMed project website: [Open Web Version of the Course](#)<sup>1</sup>.

### Terms of Use

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<sup>1</sup> [https://www.edubiomed.eu/?page\\_id=1620](https://www.edubiomed.eu/?page_id=1620)

## Presentation of the course



Link to video: <https://youtu.be/Wr4ZEQyaymo>

We are living in an era of global change. The Earth system is experimenting with deep transformations, on a planetary scale. The carbon, nitrogen and water cycles are altering; the climate is getting warmer; the population is growing; land cover is changing; the economy is globalizing; the urban is growing; the atmosphere, the soils, and the water bodies are getting polluted; the biodiversity is disappearing and getting poorer.

***The biosphere is in crisis. And since we are part of it, we should start caring for it, but seriously.***

During the last decades, nature conservation mechanisms, tools and practices have been put in place at various levels and scales. Governments, international organisms and civil society organizations have been working together, signing agreements and instituting environmental protected areas for the conservation of the biosphere and its bio-cultural diversity.

Throughout this course, we will learn about the case of Biosphere Reserves, special protected areas promoted under the auspices of the Man and Biosphere Program of UNESCO. According to UNESCO: "Biosphere reserves promote solutions reconciling the conservation of biodiversity with its sustainable use. They are learning areas for sustainable development under diverse ecological, social and economic contexts, touching the lives of more than 250 million people."

## ***But...what exactly a Biosphere Reserve consists of?***

The objective of this course is to answer this question from a Mediterranean perspective and under the frame of Edu-BioMed, an international cooperation project co-funded by the Erasmus+ program of the European Commission, which main objective is to promote education and applied research in Mediterranean Biosphere Reserves. The project involves several organizations from Mediterranean countries, including universities and, of course, Biosphere Reserves management bodies.

You will have as teachers some professionals in the field of environmental protection and education: university professors and researchers, NGOs representatives and Biosphere Reserve managers.

The course is divided into **five modules**.

- In the first module, we will deepen our understanding of the role of the biosphere in an era of global change.
- In the second module, we will explain what a Biosphere Reserve is (and is not!)
- In the third module, we will see how Biosphere Reserves can serve to the understanding and managing of changes and interactions between social and ecological systems
- In the fourth module, Biosphere Reserve managers will take the stage and will bring case studies from the ground
- In the fifth module, we will provide with a few conceptual and methodological tools that are relevant in the field of conservation management

***And now... it is time to learn from Biosphere Reserves!***



## Inspiring talk: Biosphere Reserves as a lecture room



Link to the video: <https://youtu.be/Wr4ZEQyaymo>

### **Martí Boada – Universitat Autònoma de Barcelona**

Geographer, naturalist and Doctor in Environmental Sciences, Martí Boada is specialized in global environmental change, biodiversity, and environmental education and communication. He is scientific advisor for UNESCO in the MaB program and member of the Education and Communication Commission of IUCN and of the United Nations Global Forum 500. He was awarded several international recognitions and prizes. He is author or co-author of more than sixty books of scientific dissemination and about 140 publications of other kind.

### ***Transcript of the video***

*I started working in environmental education in Montseny Biosphere Reserve right in the year it was declared as Reserve, in 1978, when we opened the first environmental education school in Spain (and Europe).*

*It was clear then that one of the main functions of a Biosphere Reserve was this necessity to capacitate, to build capacity to understand the environment.*

*Actually, the Reserve, coherently with its principles, was a proof of the compatibility of conservation with local activity: the reality of natural history on one side, and of social history on the other.*

*We invented a methodology, because at that time it was a new concept, and we created the instruments for the understanding of how both the ecology and sociology of the territory was working.*

*Actually, a Biosphere Reserve is both a monitoring and experimentation area, but above all a university, a big lecture room, where we can learn the functioning of landscapes and society, and this is a very important requirement. To capacitate it would be needed to provide the learners - regardless of their education level: primary, secondary, higher - with instruments for landscape interpretation.*

*The experiences in a Biosphere Reserve relate to the capacity to comprehend these socio-ecological landscapes that are always hybrid: not an expression of nature from one side, and society on the other, but as a continuous interaction between them.*

*The importance in a Biosphere Reserve is to test valid and diaphanous methodologies for the interpretation of a landscape as a literary entity, as some authors say.*

*An oak, fir rather than beech forest expresses itself, calligraphically.*

*People who are in charge of communication, education, management in universities and institutions should be equipped with a toolbox - as in every other discipline where you equip with theoretical and methodological basis - that enables the understanding of this calligraphy, this grammar, this literature: this should be the first effort. And the Biosphere Reserve is the appropriate scenario.*

*The same functioning and management of a Biosphere Reserve should put the attention to these aspects and should not pose limits to the collaboration and partnership with academic institutions, right to build capacity and the understanding of the territory.*

*The collaboration agreements in the field of research - to perform Bachelor, Master, or PhD theses - is a very important component.*

*A Biosphere Reserve is a great scenario, a great classroom, and we should never lose sight of it.*

*In my professional journey in the field of environmental education - very much located in the Montseny Biosphere Reserve - I had the good fortune of meeting the mythical and great personality of Nelson Mandela in Pretoria, who told me: "do not ever forget that the main fight cause for the future of humanity is the environmental one", that the environment is not about some concerns about pandas and four little flowers, rather a dimension beyond the knowledge of the environment, one of social compromise...*

*... that it is necessary to work from an interdisciplinary perspective on our relationship with the planet - related to economy, energy, society - and that it is needed to subvert the imperant model.*

*It is one of the things that changed my perspective as a naturalist, towards going beyond conservation-ism.*

*We - academics, researchers and professionals in the field of environmental studies - are in a context that we cannot deny, a context of crisis that transcends the local and has a planetary dimension. It is a civilization crisis. We are talking about a climate emergency, in the context of a pandemic, therefore, we cannot forget about the critical situation.*

*Without fatalism, without alarmism: professionals, cannot forget that our goal is to transform society especially its existential dimension.*

*The planet is not just a world of biological curiosities, but also the vital scenario for human beings. For its monitoring and experimental nature, the Biosphere Reserve constitutes a space for compromise. Citing the ecologist Bellamy: "we cannot play the violin when our forest is on fire".*

*The Biosphere Reserve is without doubts a scenario where an orthodox-strict conservation coexists with the human activity: culture and nature in symbiosis.*