

MASTER European Innovations for a Sustainable Management of Albanian
Territories, Rural Areas and Agriculture: Instruments, policies, strategies

Module description

D3.3 v.2

Module 4

Natural resources and environmental management

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Developed by:

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1. Description of the module- objectives, and procedures

1.1. DESCRIPTION OF THE MODULE

In this module the students will find the information on the following issues (a short explanation for each topic that is going to be discussed):

Topic 1 - History of the economics of natural resources and environment

Topic 2 - Circular economy, externalities and public goods

Topic 3 – Sustainable economics

Topic 4 – Natural resources (non renewable resources)

Topic 5 – Natural resource (renewable resources)

Topic 6 – Pollution and the optimal level of the pollution

Topic 7 – Instruments of pollution control

Topic 8 – Total Economic value (Methods of evaluation)

Topic 9 – Direct and indirect methods of evaluation

Topic 10- Environmental impact assessment

Topic 11 – Environmental impact assessment

Topic 12 – Regional models of environmental management (GIR and other as well)

Topic 13 – Regional models of environmental management (GIR and other as well)

Topic 14 – Participative approach on the environmental/ natural resources management

Topic 15 – Environmental approximation process with EU?

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1.2. LEARNING OUTCOMES

Successful completion of this module should enable students to:

- A deep understanding of property rights in the economics of natural resources and environment, the public goods, and its implications on the optimal use of the latter;
- Critically assess the use of the natural resources and the methods to achieve the best use of the natural resources;
- Deeply Understand and apply the methods of environmental pollution control in developing countries;
- Deeply understand and apply methods of actor-based management of the natural resources on a territory;
- Deeply understand and apply local and regional management of the natural resources through modelling tools;
- Have deep knowledge of the *acquis communautaire* on natural resources and environmental chapter, their level of implementation in Albania.

1.3. OBJECTIVES OF THE MODULE

The main objective of the module is to provide information on the economics and natural resources and environment, and the instruments for an optimal management on the local/ regional and national level. The module aims to provide information on the basic concepts of the natural resources and environment e.g. renewable vs. non renewable natural resources, and the optimal management, market externalities and the ways to internalise, instruments used to reach the optimum of level of pollution.

The module aims as well to find the methods evaluation and administration and the role of the local actors on the administration of the environment and natural resources.

1.4. PREREQUISITES

The prerequisites required to follow the module.

Basic information on economics is required.

1.5. STUDENTS OBLIGATIONS AND THE EVALUATION METHOD

The student will be evaluated for the work he/she has provided during the whole semester and from a final exam as it is explained on the table below:

Nr.	<i>(the evaluation grid is only indicative, the pair of lecturers will decide of the final module evaluation grid)</i>	Evaluation in %	Maximal amount
1	Participation on teaching hours	%	10
2	Midterm exams	%	
3	Individual research work	%	50
4	Final exam (written)	%	40

1.6. REQUESTS TO THE STUDENT

A. Instrumental skills

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B. Systemic skills

1.7. EVALUATION OF LEARNING (CALCULATION OF ECTS)

Nr.	Learning elements	Work (hours)
I	<i>Learning elements (in the institution)</i>	
	Theoretical class	
	Practical class	
	Individual/ team research project	
	Midterm exams	
	Total I	75
II	<i>Individual work from the student</i>	
1	Individual work	70
2	Preparation for the exams	5
	Total II	75
	Total (I+II)	150/250
	Numbers of ECTS	6/10

2. Calendar plan of the module

Date	Theoretical/ practical class	Teaching materials/ literature
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3. Content of the module

Topic one: History of the economics of natural resources and environment

Presentation of the module and information on the raise of the economics of natural resources and environment, the development and the main theories where the module is based up to date.

Topic two: Circular economy, externalities and public goods

Moving from the linear perception of the economy to the circular perception of the economy, introducing the concepts of the recycling and the absorption of the waste, the concept of the externalities (positive and negative) as market failure, public goods, and the ways to internalise the externalities.

Topic three: Sustainable economics

The concept of the sustainable economics the two dimensions of the (renewable and absorption) the case of the not renewable natural resources, and the sustainability box.

Topic four: Natural resources (non renewable resources)

The classification of the natural resources, the characteristics of the non-renewable resources and the rule of optimal administration (rule of Hotelling). The concept of the discount rate and its role on the optimal administration of the non-renewable resource.

Topic five: Natural resources (renewable resources)

Economics of renewable resources (cyclic – water) and the forest, administration and the models of optimal use of the renewable resources

Topic six: Pollution and the optimal level of the pollution

The economic concept of pollution, the zero pollution and the economic efficiency, the optimal level of economic pollution and the real pollution, the optimal level of the pollution.

Topic seven: Instruments of pollution control

Coase theory (application positive and negative characteristics), Pigouvian taxes (application positive and negative characteristics), transferable pollution permits (positive and negative characteristics).

Topic eight: Total Economic value (Methods of evaluation)

Economic evaluation of the environmental actives direct and indirect values, actual and future values.

Topic nine: Direct and indirect methods of evaluation

The list of damage evaluation methods, direct, indirect and hypothetical.

Topic ten: Environmental impact assessment

Environmental impact assessment the need of the procedure in Albania what to do and how to do this and the structure of an environmental impact assessment for an activity or investment.

Topic eleven: Environmental impact assessment

Environmental impact assessment the need of the procedure in Albania what to do and how to do this and the structure of an environmental impact assessment for an activity or investment.

Topic twelve: Participative approach on the environmental/ natural resources management

Topic thirteen: Participative approach on the environmental/ natural resources management

Topic fourteen: Participative approach on the environmental/ natural resources management

Topic fifteen: EU integration process for environmental chapter (Chapter 27 of the negotiation process) and the level of progress made by Albania

4. Planning of the practical teaching classes

Topic one: History of the economics of natural resources and environment

Presentation of the module and information on the raise of the economics of natural resources and environment, the development and the main theories where the module is based up to date.

Topic two: Circular economy, externalities and public goods

Moving from the linear perception of the economy to the circular perception of the economy, introducing the concepts of the recycling and the absorption of the waste, the concept of the externalities (positive and negative) as market failure, public goods, and the ways to internalize the externalities.

Topic three: Sustainable economics

The concept of the sustainable economics the two dimensions of the (renewable and absorption) the case of the not renewable natural resources, and the sustainability box.

Topic four: Natural resources (non-renewable resources)

The classification of the natural resources, the characteristics of the non-renewable resources and the rule of optimal administration (rule of Hotelling). The concept of the discount rate and its role on the optimal administration of the non-renewable resource.

Topic five: Natural resources (renewable resources)

Economics of renewable resources (cyclic – water) and the forest, administration and the models of optimal use of the renewable resources

Topic six: Pollution and the optimal level of the pollution

The economic concept of pollution, the zero pollution and the economic efficiency, the optimal level of economic pollution and the real pollution, the optimal level of the pollution.

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5. Individual research project (if applied)

The personal file should fulfil the requirements of an academic work of third cycle (general context, theoretical review, problematic and research questions, methodological approach, analysis, and conclusions and practical recommendations).

The points that have to be analysed, on the work:

- The general context of the work including the institutional and territory context of the assignment;
- The research questions
- Integration of the above mentioned questions on a general research topic, discussion and argumentation
- The methodological approach and justification of the selected approach
- A practical answer of the identified topic

Elements of practical file delivery and evaluation:

The assignment and the practical file should be delivered on the last week of the module, and should count for 50% of the total evaluation. The assignment should fulfil the format and context requirements.