

M2. Environment Quality

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Module units

2.1 Environmental Quality - Air, Water and Soil

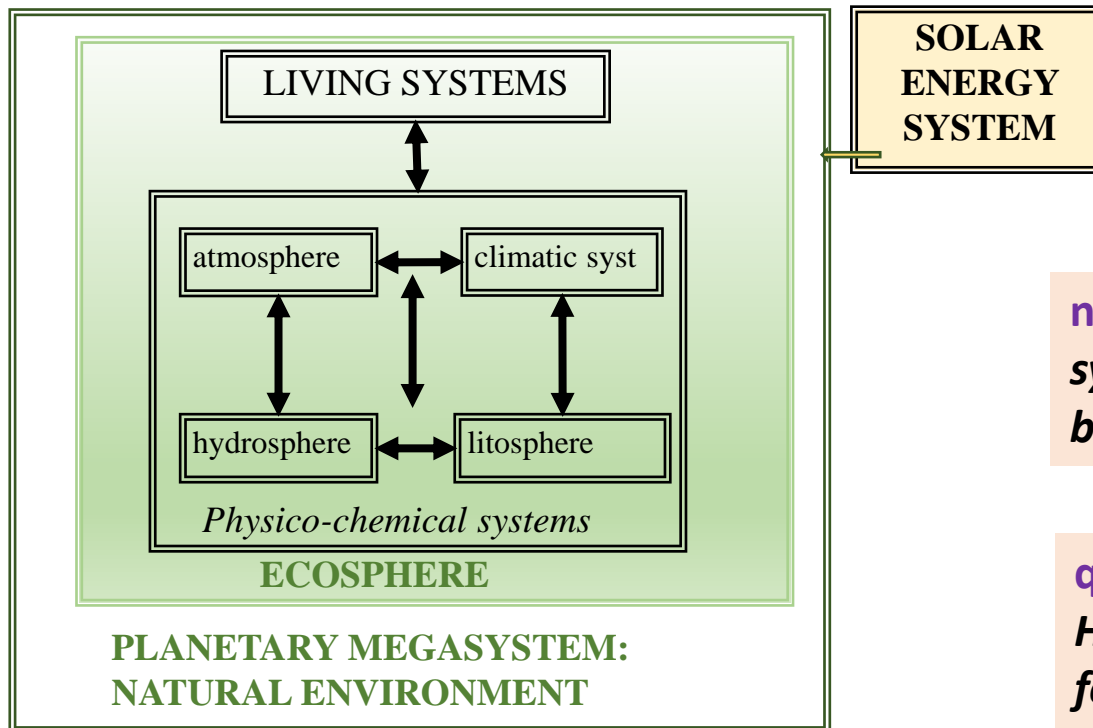
2.2 Legislation Related to Environmental Quality

2.3 Case studies in Romanian and Icelandic communities

Aim of the module

- To provide information to foster the learners' understanding that rural communities are part of and depend on natural environment.
- To provide information to explain environmental problems at local/global level
- To provide information on the air, water, soil monitoring and quality
- To provide information on environmental quality legislation

2.1. Basic information: natural environment

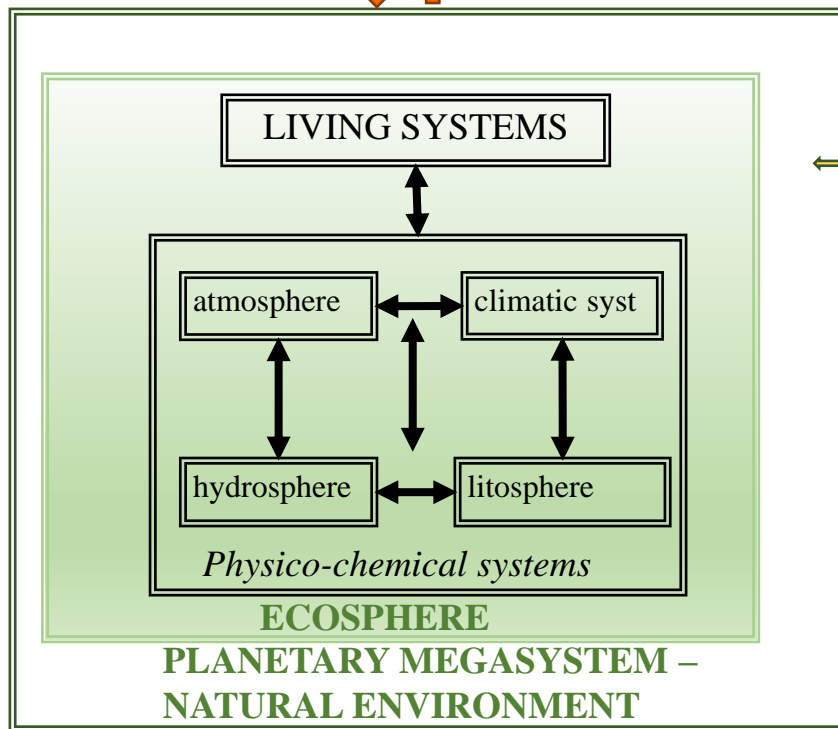


natural environment (NE):
systems and interrelations
biogeochemical cycles (H₂O, N, C)

quality of the environment:
How healthy and sustainable is
for all living systems?
How is assessed?

2.1. Basic information: natural environment (NE)– built environment (BE)

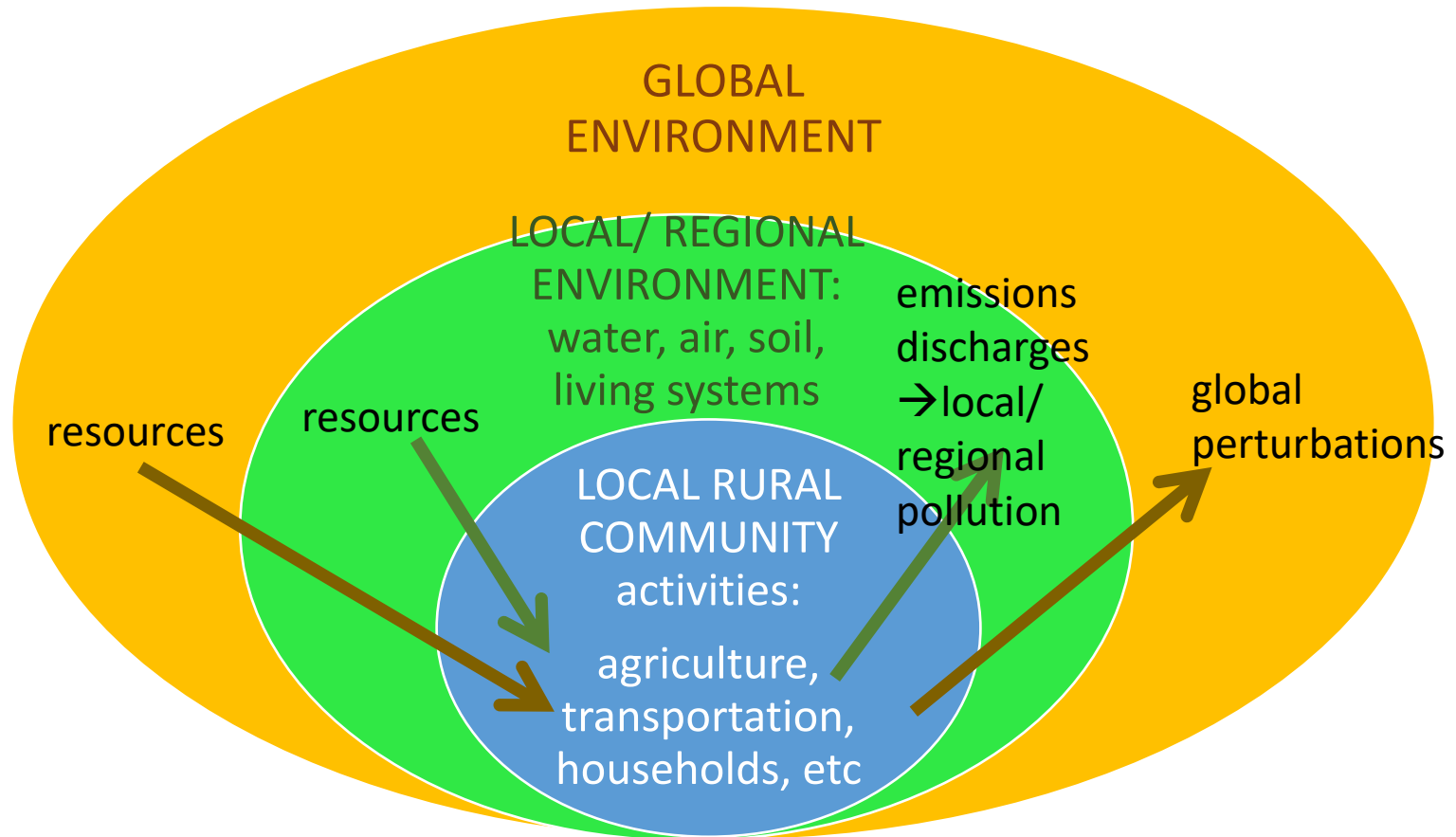
BUILT ENVIRONMENT (BE): *rural community*



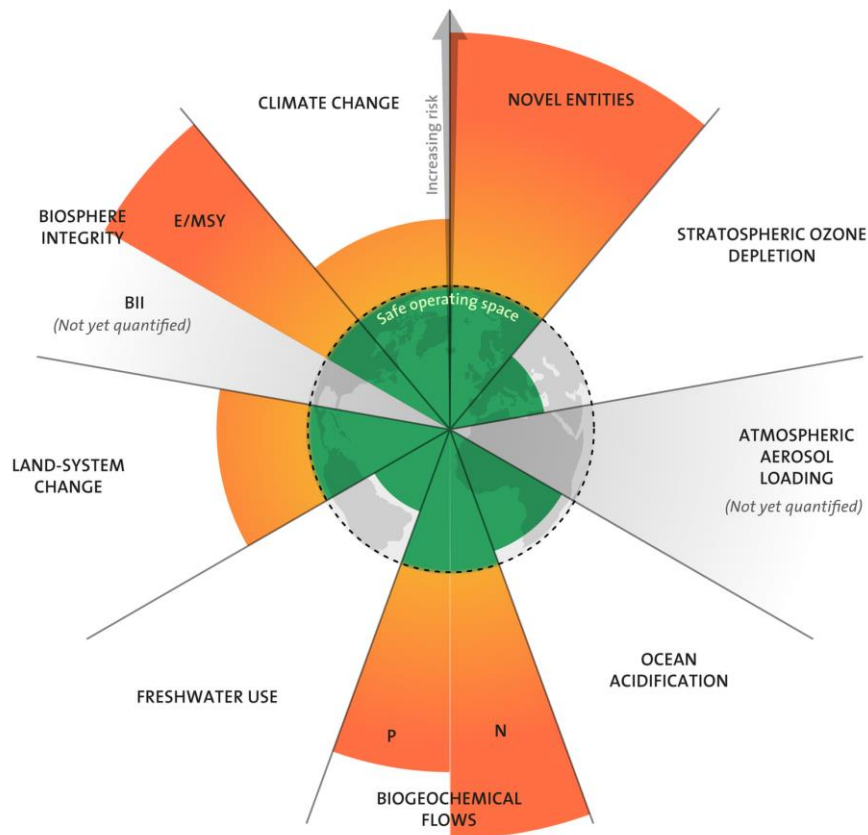
BE: rural community, ***humans and their activities in the NE***

- NE provides ***resources*** to BE for its activities
- BE generates ***perturbations*** in NE by *introducing* new entities and *depleting* the natural resources
- NE is perceived as ***opportunity*** for BE existence
- as result of activities in BE, a series of ***constraints*** in ensuring the wellbeing comes from NE

2.1. Basic information: effects of activities in rural community on natural environment



2.1. Basic information: planetary boundaries



- Description of human activities, at local level, in rural communities, causing or accelerating detrimental changes to the planet
- How these changes affect human health/ social development

2.1 Basic information:

Which are the most relevant information regarding the environmental quality?

→ **Quality indicators** as given in environmental legislation (EU directives and national transposition)

definitions

significance/ interpretation/ correlations

accepted limits

analytical methods/ standards

2.1 Basic information:

Which are the institutions responsible for the environmental quality assessment & monitoring

RO

- Environmental Protection Agency – air, soil, noise
- Romanian Waters National Administration
 - Natural waters
 - Waste waters – at effluent
- Environmental Guard – assessment (coercive role)

IS

➤

2.2 GEO 195 of 2005

- general normative act in Romania, regarding the protection of the environment
- distinct chapters, the main areas of environmental protection:
 - water (Chapter IX art. 55-58),
 - air and climate change (Chapter X, art. 59-64⁶),
 - soil, subsoil and terrestrial ecosystems (Chapter XI, art. 65-69)
- but also, other aspects that influence the environment:
 - the regime of dangerous substances and preparations (Chapter III, art. 24-28),
 - the waste regime (Chapter IV, art. 29-33) or
 - the regime of chemical fertilizers and plant protection products (Chapter V, art. 34-38).

Air Protection Legislation



International regulations

- UN Convention on Climate Change - 1992
- Paris Agreement on Climate Change - 2016

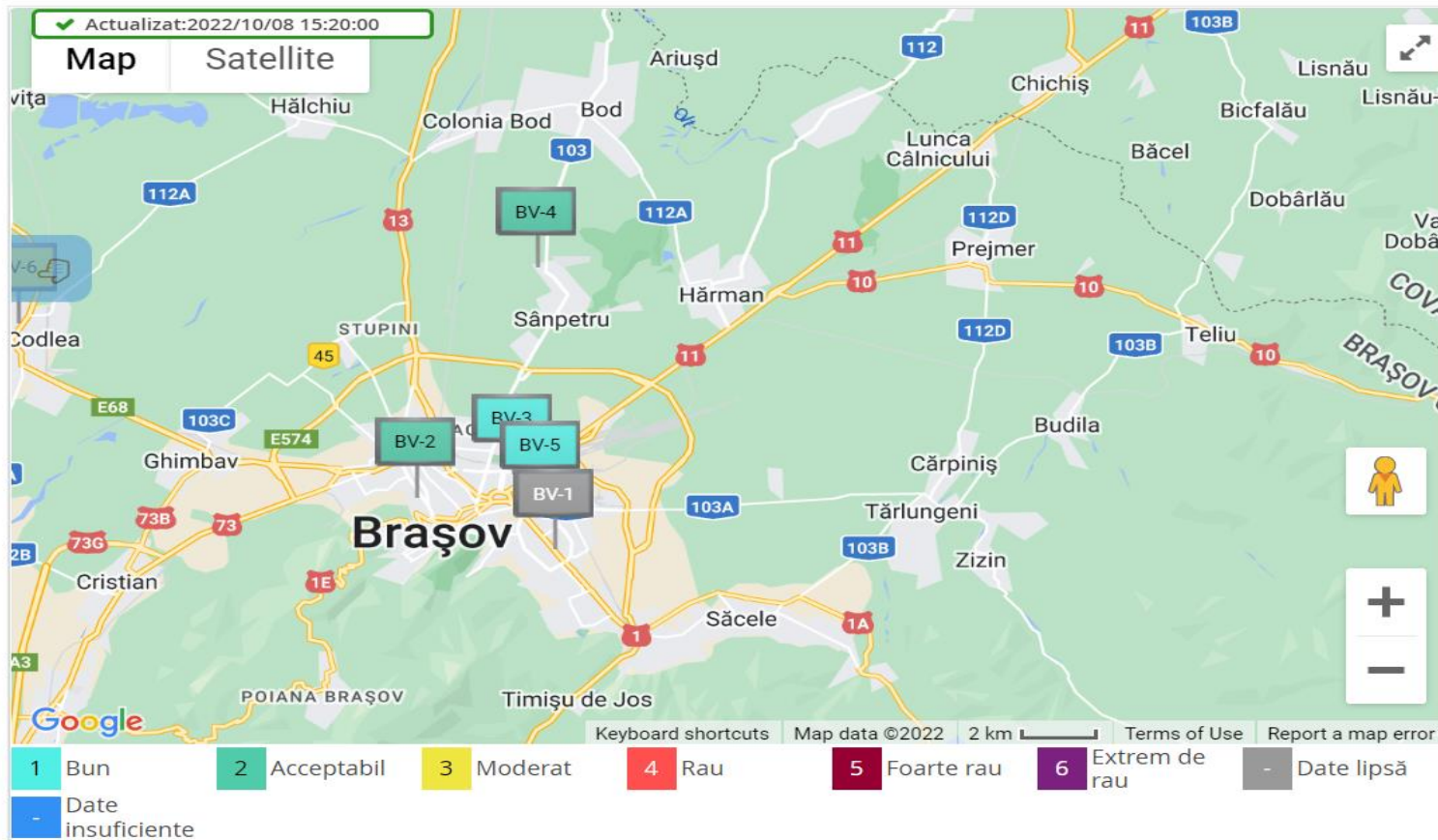
UE legislation

- Law 188 /2018 on the limitation of air emissions of certain pollutants from medium combustion plants/**Directive 2015/2193**

transposed

- Law 293 /2018 regarding the reduction of national emissions of certain atmospheric pollutants/ **Directive 2016/2284**
- Law 278 /2013 on industrial emissions/**Directivei 2010/75/UE**

General National Framework - Law 104 of 2011



https://www.calitateaer.ro/public/home-page/?_locale=ro

Water protection legislation

UE Regulations

- Regulation 2020/741 regarding the minimum requirements for water reuse
- Regulation 1907/2006 REACH

UE legislation

- **Law 107 of 1996 on water protection/ Directive 2000/60/CE**
- GD no. 188 /2002 rules regarding the conditions for discharging wastewater into the aquatic environment / **Directive of May 21, 1991**

transposed

- GD no. 53 of 2009 National Groundwater Protection Plan against pollution and deterioration / **Directive 2006/118**
- GD no. 570/2016 regarding losses of priority hazardous substances and other measures for the main pollutants / **Directivei 2008/105**

Soil protection legislation

EU

- Ordinance 344/708/2004 Technical Norms regarding the protection of the environment and especially of soils, when sewage sludge is used in agriculture/ **Directive 86/278/CEE**

legislation

- GEO no 34 /2012 for sustainable use of pesticides on the territory of Romania / **Directive 2009/128/CE**

transposed

- GD no. 964 /2000 The action plan for the protection of waters against nitrate pollution from agricultural sources/ **Directive 91/676/CEE**

Nothing can be viewed separately



2.3 Case studies in Romanian and Icelandic communities

Environmental problems in rural communities

→ environmental quality

RO:

Rural community in Valea Oltului
(Olt Valley) region

- Rapid urbanization
- Lack of waste management
- Soil & water & air pollution
- “ecological disaster”
- citizen awareness/ education..

IS:



<https://www.g4media.ro/dezastru-ecologic-pe-valea-oltului-primar-credeti-ma-am-incercat-tot-absolut-tot-astia-sunt-oamenii.html>