



ICEEM 11

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DESIGN OF OPEN EDUCATION RESOURCES FOR SUSTAINABLE RURAL DEVELOPMENT

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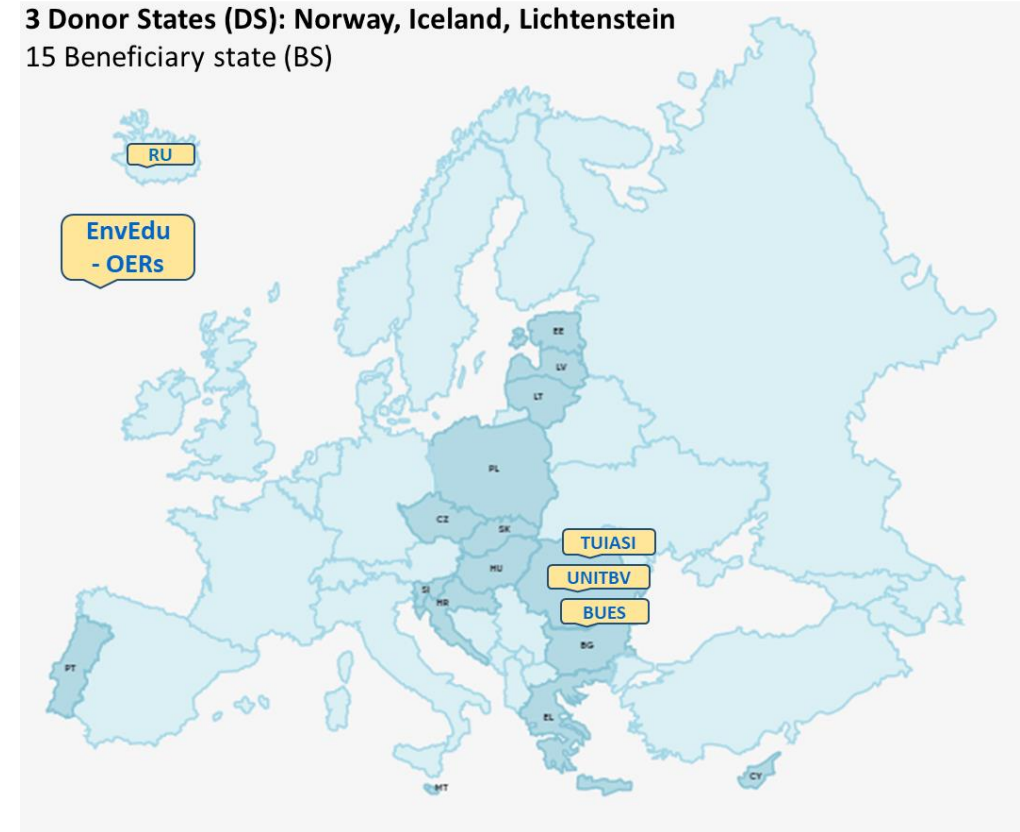
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1. Introduction: Environmental Education – OERs for Rural Citizens (EnvEdu – OERs) EEA Project

HEIs partnership:

- Transilvania University of Brasov (Romania)
UNITBV
- Reykjavik University (Iceland)
RU
- Bucharest University of Economic Studies (Romania)
BUES
- Gheorghe Asachi Technical University of Iasi (Romania)
TUIASI

3 Donor States (DS): Norway, Iceland, Lichtenstein
15 Beneficiary state (BS)



1. Introduction: Environmental Education – OERs for Rural Citizens (EnvEdu – OERs) EEA Project

Project objectives – development of intellectual outputs (selection):

➤ **6 teaching modules (TM)**

as open educational resource (OERs)

➤ **e-learning platform**

the OERs will be available for a large and diverse target group

➤ **a set of policy recommendations**

for the local rural public administration

1. Introduction: Environmental Education – OERs design

information design

→ content – relevant, adequate, useful

instructional design

→ pedagogy – constructivist approach

interface design

→ clarity, attractiveness, readability, accessibility

interaction design

→ learner/ learning material, learners, learner/ instructor

when educational content is connected to the learner's own knowledge and reality, learning becomes relevant and useful

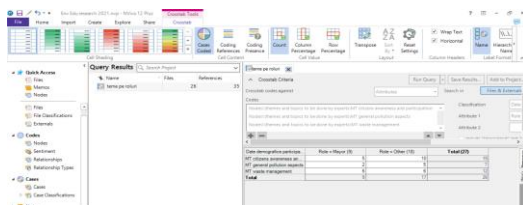
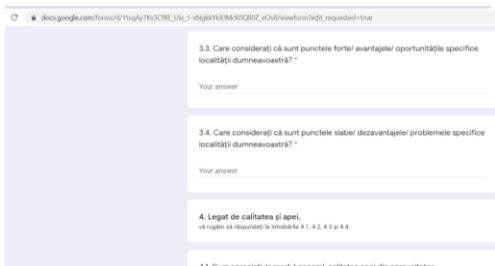
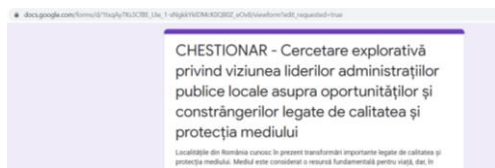
which is the rural citizens' perception of the environmental major issues?

Sandanayake, T.C., Karunanayaka, S.P., Madurapperuma, A.P., *A framework to design open educational resources – integrated on-line courses for undergraduate learning: A design-based research approach*, Education and Information Technologies, 26 (2021) 3135–3154

2. Research methodology

Exploratory research – survey

- **general aim:** to find out the vision of the public administration leaders, from rural communities, on the opportunities and constraints that the local environment offers
- **survey:** 19 open items + 6 items for socio-demographic data
- **language:** Romanian + English (work in progress)
- **target groups:** representatives of public administration of rural communities
 - 27 respondents (19 higher education degree)
- **survey distribution period:** April - June 2021
- **survey application:** 6 face to face + 21 on-line answer
- **selected questions:** to assess the perception of basic concepts related to environmental quality
- **data processing:** NVivo 12 software



3. Data interpretation

Q1: Which is the first word/ expression that comes to your mind when you think about the **natural environment** in your city/ community?



- health
- clean/ cleanliness
- nature/ natural
- preserve
- harmony

Human-nature connectedness (HNC) recognition
→ key concept for leveraging sustainability changes in socio-ecological systems

→ information provided in modules should emphasize the cognitive dimension of HNC to develop knowledge and pro-environmental behavior

Balazsi A., et al, *The impacts of socio-ecological system change on human-nature connectedness: A case study from Transylvania, Romania*, Land Use Policy 89 (2019) 104232

3. Data interpretation

Q3-5: Perceived environmental quality

Q3: air quality



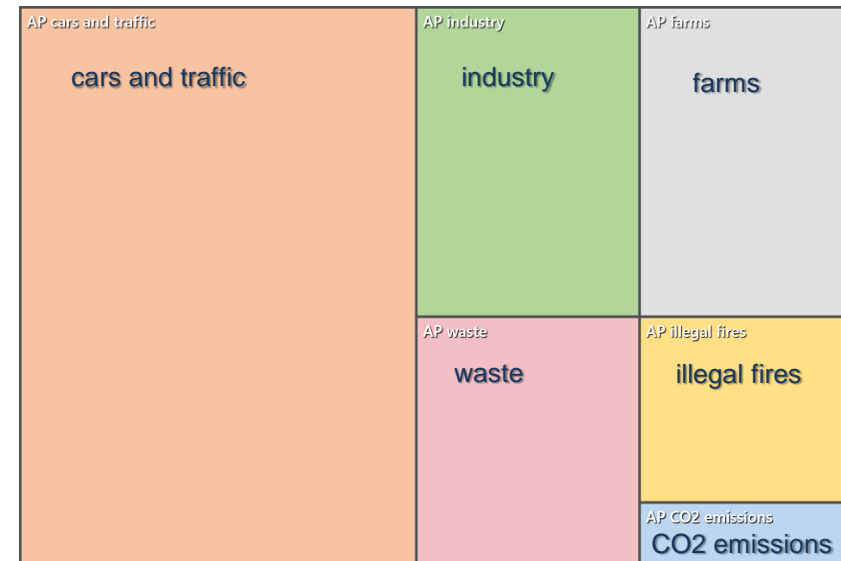
strong points:

- air has a **very good** quality
- air is **clean**



weak points:

- **lack of financing**
- **animals**
- **crowded**



perceived causes of air pollution

information provided in modules should emphasize on:
→ environmental projects financing
→ good practices in air pollution prevention in rural communities

3. Data interpretation

Q3-5: Perceived environmental quality

Q4: water quality



strong points

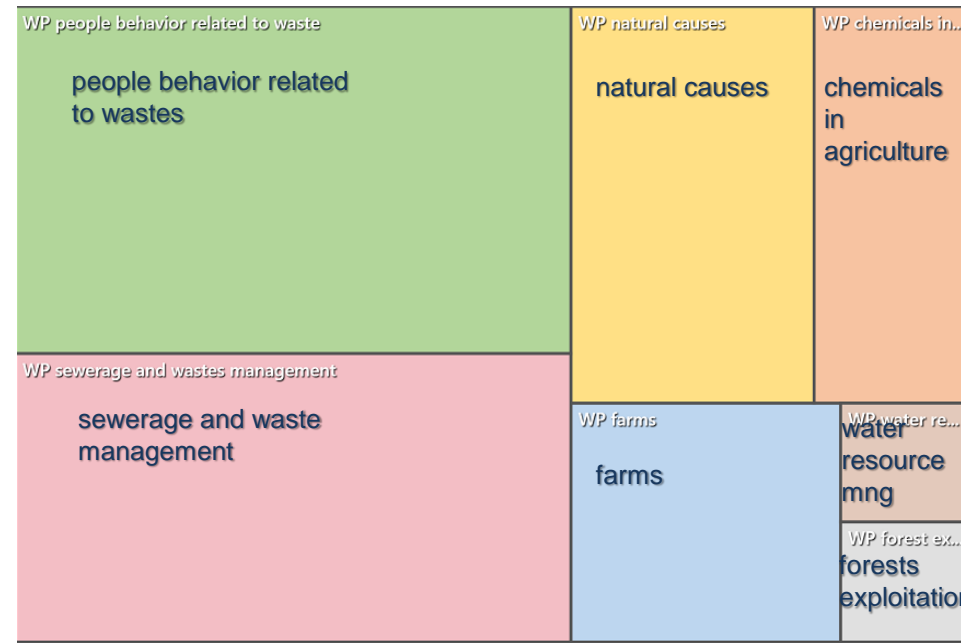
water quality is:

- **satisfactory**
- **acceptable**
- **good**
- **very good**



weak points

- **agriculture**
- **animals**
- **large number of households without sewerage**



perceived causes of water pollution

information provided in modules should emphasize on:

→ environmental projects financing

→ good practices in water pollution prevention in rural communities both at administrative and individual levels

→ basic scientific information about polluted water effects on health and environment

3. Data interpretation

Q3-5: Perceived environmental quality

Q5: soil quality



strong points

- soil quality is good/ very good
- the soil is **fertile**



weak points

- soil quality is affected by:
- **animals**
 - **chemicals** from agriculture



perceived causes of soil pollution

information provided in modules should emphasize on:
→ good practices in soil pollution prevention in rural communities both at administrative and individual levels

3. Data interpretation

Q17 - 18: Perceived training needs

<small>MT citizens awareness and participation</small> citizens awareness and participation	<small>MT general polluti...</small> general pollution aspects
<small>MT waste management</small> waste management	

Themes/ topics for which it is necessary the organization of informative activities carried out by specialists

Target groups to whom the informative activities should be dedicated:

- all citizens
- children
- vulnerable population (roma)

4. Conclusion

Proposed teaching modules (TM) to be developed during the EnvEdu-OERs project

Module	Module title	Responsible partner
TM1	Sustainable Communities and Social Communication	UNITBV
TM2	Environmental Quality	UNITBV
TM3	Environmental Management, Impact and Risk Assessment	TUIASI
TM4	Waste Management in Rural Communities	TUIASI
TM5	Water Resources and Water Balance for Sustainable Community	RU
TM6	Environmental Projects Management	BUES

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