

SWOT Analysis

**PROJECT 19 – COP -0038**  
**Environmental Education – OERs for Rural Citizens**  
**(Env-Edu OERs)**  
**SWOT ANALYSIS**

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## Introduction

The SWOT analysis was performed at the project level and was based on the internal diagnosis and analysis of the external environment of the project. Based on the internal diagnosis, the strengths and weaknesses of the project were determined. The identification of strengths and weaknesses will allow the partners, on the one hand, to remedy the issues that may affect the implementation and sustainability of the project and, on the other hand, to have a benchmark in terms of project approach strategy (especially during its execution).

The internal diagnosis was focused on the resources and skills involved in the project. The diagnosis of the resources took into account the identification of all the technical, human, financial and informational resources that can be used for the implementation of the project and the exploitation of its results.

The diagnosis of competencies took into account the identification of those success factors essential for the implementation of the project. In carrying out the internal diagnosis were approached: the organizations involved in the project (project consortium, the relevance of the composition in relation to the project objectives); project management (managerial experience and that in previous projects of the same profile, maturity in project management, decision-making processes, control processes, methods and techniques used); human resources involved in the project (structure of staff involved, experience, skills).

The analysis of the project environment allowed to identify the opportunities and threats of the project. The analysis of the environment took into account all the elements of a legal, social, economic, technical, technological, institutional, educational and cultural nature that can influence the achievement of the project objectives. This analysis focused primarily on the following factors:

- project stakeholders (especially rural local communities and other categories of beneficiaries in the project target group);
- national, regional, international programmatic documents that may influence the implementation of the project and the fulfillment of its objectives;
- strategies / programs / projects that may enhance or threaten the achievement of the planned results by implementing the project.

The identification of potential risks following the analysis of the project environment was the basis for the development of risk mitigation measures involved in its implementation. The measures developed aimed at reducing the likelihood of occurrence and the impact of risks.

## 1. Internal diagnosis. Synthesis of strengths and weaknesses

### 1.1. Internal diagnosis

The consortium formed to carry out the project includes three prestigious Romanian universities (Transilvania University of Braşov, Gheorghe Asachi Technical University of Iaşi; Bucharest University of Economic Studies) and one from Iceland (Reykjavik University). Transilvania University of Braşov, the leader and promoter of the project, is involved in the project through human resources from five faculties (environment, ICT, mechanics, law, communication, sociology). The University of Reykjavik is the largest private university in Iceland, with over 3,500 students from the four schools (Law, Business, Computer Science, Science and Engineering). The Bucharest University of Economic Studies is the most important institution of higher economic education in Romania. “Gheorghe Asachi” Technical University of Iaşi has a department specialized in Environmental Engineering and Management. Although heterogeneous, the Romanian-Icelandic consortium formed to carry out the project covers the theme of the course modules and other intellectual products that will be developed within the project, *the structure of the consortium thus being a strong point of the Env-Edu OERs project.*

*The participating universities have significant experience in carrying out educational, training or research projects on environmental issues, which is another strength of the project.* Astfel Transilvania University of Braşov has an important experience in the management and implementation of national and international projects (Tempus, Comenius, Erasmus, Erasmus + projects), in some of these projects having as partner the “Gheorghe Asachi” Technical University of Iaşi. Reykjavik University has been involved, through the School of Science and Engineering, in projects on sustainability and renewable energy. Bucharest University of Economic Studies has been involved in numerous projects focused on environmental issues (virtual eco-innovation hub for increasing competitiveness in the field of recycling of waste electrical and electronic equipment, analysis of construction life cycle costs in the context of sustainable development).

In the management of the project are involved managers with a lot of experience both professionally and managerially. The project manager from the Transilvania University of Braşov has an important experience in carrying out similar projects. The project coordinator at Gheorghe Asachi Technical University” in Iaşi is the director of the Department of Environmental Engineering and Management. The project manager from the Bucharest University of Economic Studies is vice dean of the Faculty of Management and has experience as a project manager. The project coordinator from the University of Reykjavik is the director of the Institute and Sustainability Forum. That is why project management is a strength of Env-Edu OERs..

In the realization of the project are involved human resources with considerable experience both in projects and in educational / training activities on environmental issues. The project team includes human resources with achievements

and publications in areas such as: environmental management; water management; life cycle cost; eco-efficiency, eco-technologies, renewable energy. *The experience and expertise of the staff involved is therefore another strength of the project.*

The project will have its own quality management but will also benefit from its integration in the existing certified quality management systems at all partner universities. According to the project proposal, the quality of the project will be ensured both at the institutional level and at the project level, according to the approach of the ISO 10006: 2007 standard. *The quality management systems of the participating organizations and a project-specific quality management process are one of the strengths of the project.*

The topic addressed in the project is one of maximum interest for the specific environmental issues of local communities in rural areas. The course modules are on: communication and sustainable rural communities, environmental quality, environmental management, waste management in rural communities. water resources and environmental project management. *The topic was designed to generate the interest of the target group of the project and to ensure the maximum use of the skills within the partnership, thus being one of the strengths of the project.*

The implementation of the project involves the use of a unique learning / training platform in which to find all the course modules as well as other intellectual products within the project. The platform is designed as a virtual learning environment and hosts all training activities involving free educational resources. *The existence of this unique platform is another strength of the project.* The learning platform, course modules in the form of OER (Open Educational Resources) and interaction with students are, once implemented, innovative practices in the field of education and training.

The partners from Romania and Iceland will cooperate in the realization of some course modules, but also for other intellectual products (articles), which ensures the possibility of *the transfer of know-how between the partners within the project, constituting another strong point of it.*

The project involves the implementation of innovative practices in the field of education and training through the use of open educational resources placed on a platform to which access will be free for all members of the target group (which is another strength).

Project 19-COP-0038 has not only strengths but also weaknesses. *A first weak point is the need to adapt scientific information to the level of understanding and education in disadvantaged local communities.* This will require additional effort from partners so that the course modules used for training activities, published articles and policy recommendations are accessible to direct beneficiaries from disadvantaged local communities.

*Cultural differences between project team members* in Romania and Iceland, in terms of values and norms, are *another weakness of the project*, as they can lead to differences in approaches and views regarding the implementation of project activities, dissemination of results and pathways. to be achieved in order to achieve its objectives. There are significant cultural differences between a country in the north of the continent and one in Eastern Europe. However,

the membership of the project team members in the same environment, the university environment, can greatly blur the differences in approaches that may occur due to specific cultural elements.

Another threat is that the project is the first joint work experience of all partners.

*The distance between the partners, especially in the conditions of the COVID-19 pandemic, is a weakness of the project.* This weakness is offset, but not entirely, by the use of electronic communication (including the use of social media) and the existence of a virtual platform for the project.

## 1.2. Strengths

The diagnostic analysis performed allowed the identification of the following strengths:

- The structure of the consortium formed to carry out the project;
- The experience of organizations in carrying out similar projects;
- Project management;
- The staff involved in the project;
- Quality management systems within the participating organizations and a project-specific quality management process;
- Approaching the theme within the project;
- Use of a unique learning / training platform within the project;
- Possibility of know-how transfer between project partners;
- Implementation of innovative practices in the field of education and training.

## 1.3. Weaknesses

- The weaknesses identified following the internal diagnosis are:
- The need to adapt scientific information to the level of understanding and education in disadvantaged local communities;
- The cultural differences between members of project teams in Romania and Iceland;
- The fact that the project is the first experience of working together of all partners;
- Distance between partners.

## 2. Analysis of the external environment. Synthesis of opportunities and threats

### 2.1. Analysis of the external environment

In this decade, addressing rural issues, both at the level of public authorities and at the level of companies and citizens, will be influenced by the effects of the provisions of the 2030 Agenda of the United Nations and the European Green Deal.

These programmatic documents will mark a profound transformation of the entire economy and society, including rural communities. The 2030 agenda of the United Nations will have a significant impact on the local communities in Romania and Iceland through the following objectives. [1]:

- Ensuring access for all to water distribution, sanitation and sustainable management services;
- Development of inclusive, safe, resilient and sustainable human settlements;
- Ensuring sustainable consumption and production patterns
- Take urgent action to combat climate change and its impact
- Protecting, restoring and promoting the sustainable use of terrestrial ecosystems, sustainable forest management, halting soil degradation and biodiversity loss;
- Revitalizing the global partnership for sustainable development.

The cooperation project between the universities of Romania and Iceland, through the activities carried out and the results obtained, can be a contribution of both countries to the achievement of the objective of the 2030 Agenda of the United Nations for the revitalization of the global partnership for sustainable development.

The European Green Deal is one of the most important components of how the European Commission seeks to implement the provisions of the 2030 Agenda of the United Nations. The European Green Deal aims to transform the European Union into a space where, by 2050, there will be no more greenhouse gas emissions and a decoupling of economic growth from the degree to which resources are used. The following objectives of the European Green Deal have special implications for local communities (in Romania) [2]:

- enhancing EU requirements for achieving climate neutrality over the 2030 and 2050 time horizons;
- providing clean and safe energy;
- energy efficiency of new and rehabilitated buildings;
- achieving a healthy and sustainable food system (“from farm to consumer”);
- preservation of ecosystems and biodiversity.

The provisions of the 2030 Agenda of the United Nations and the European Green Deal are an essential element in changing attitudes and values in local communities in Romania and Iceland regarding the environment and a stimulating element of the demand for education and training in this field. domain. *That is why the impact of the 2030 Agenda of*

*the United Nations and the European Green Deal on rural communities is an opportunity from the perspective of project 19-COP-0038.*

The existence of programmatic documents with a global impact has led to an increase in interest in environmental issues both at the level of national public authorities and at the level of society as a whole. This amplification of interest was manifested by: the adoption of new policies in the field of environment; legislative changes aimed at increasing environmental protection and conservation requirements; increase financial allocations for environmental issues in public authorities' budgets at national, regional or local level.

Also, the existence of more restrictive environmental regulations has led to an increase in the interest of other organizations in environmental issues. This is the case of private organizations but also of universities, research institutes, NGOs (whose activity has led to an increase in the awareness of citizens and companies regarding environmental issues). From this point of view, neither Romania nor Iceland is an exception. They are among the countries that have adopted specific environmental policies and regulations. Only in recent years, a series of normative acts in the field of environment have been adopted in Romania, most of them being issued by the Ministry of Environment, Waters and Forests. These include:

- Emergency Ordinance no. 92 of 19 August 2021 on the waste regime [3];
- Law no. 220/2019 on amending and supplementing some normative acts in the field of environmental protection [4];
- Government Decision no. 43/2020 on the organization and functioning of the Ministry of Environment, Waters and Forests [5];
- Order No. 975/834/2020 of 14 April 2020 on the approval of the evaluation commissions of the action plans at the level of the environmental protection authorities and of the regulation of their functioning and organization [6];
- Law no. 188/2018 on the limitation of air emissions of certain pollutants from medium combustion plants [7];
- Order No. 1150/2020 of 27 May 2020 on the approval of the Procedure for the application of the annual visa of the environmental permit and the integrated environmental permit [8].

In Iceland, the Ministry for the Environment and Natural Resources is involved in drafting regulations to protect and conserve the environment. Iceland has acceded to the Paris Agreement [9] with its own policies and ambitious carbon targets. *Increasing interest in environmental issues in Romania and Iceland is another important opportunity for the project* as it contributes to increasing the concern of local authorities in both countries to have well-trained staff in the field of environment.

At the central or local level, in both countries (Iceland and Romania), there are environmental strategies / programs / projects or those with effects on the environment. Iceland is a party to the Paris Agreement, which aims to reduce greenhouse gas emissions by 40% by 2030. To achieve this, there is a National Action Plan [10] in the field of climate



(completed in 2020) containing 48 specific measures, with important effects on local communities (reduction of carbon emissions in agriculture, fisheries, waste management).

In Romania, the Ministry of Environment, Waters and Forests has implemented the "National Strategy on Climate Change and Growth Based on Low Emissions" [11] which includes key objectives and actions for local communities in areas such as agriculture and rural development, forestry, biodiversity, education and public awareness. The same ministry manages a number of programs that fund environmental projects or those with an impact on the environment. Of these, the most important for local communities in rural areas are:

- Environmental quality improvement program through afforestation of degraded agricultural land, ecological reconstruction and sustainable forest management;
- The national program for improving the quality of the environment by creating green spaces in localities;
- Renewable energy production program: wind, geothermal, solar, biomass, hydro;
- The program on education and public awareness on environmental protection;
- Program for the protection of water resources, integrated water supply systems, treatment plants, sewage and treatment plants.

Apart from the programs and projects developed by the profile ministry or the environmental agencies, both in Romania and in Iceland there are projects with environmental impact managed by other entities (ministries, government agencies, NGOs, companies).

The existence of such specific strategic, planning and programming elements in Romania and Iceland generates *the opportunity for a potential* synergy of the project with environmental strategies / programs / projects or with effects in the field of environment. These programs or projects can provide the project 19-COP-0038 examples of good practices and case studies but can also benefit from the training / learning experiences within the project carried out by the consortium comprising universities from Romania and Iceland.

In Romania, the existence of such programs has generated and amplified in recent years an increased interest of local communities for sustainable development and implementation of environmental projects. Projects for selective waste collection, increasing energy efficiency and the use of renewable energy sources, reforestation and conservation of protected natural areas are also being carried out in rural areas. *The interest of local communities in sustainable development and the realization of projects in this field is another opportunity* for project 19-COP-0038 because it contributes to amplifying the specific needs of education and training in the field of environment.

Both in Romania and in Iceland, not only public authorities are interested in environmental issues but also other stakeholders (universities, institutes and research centers, companies, young entrepreneurs who are considering the creation of start-ups in the field in rural areas, other stakeholders interested). *The interest of other stakeholders in the project and the transferability potential of the project results is an opportunity* that will have to be taken advantage of by the project teams within the four institutions involved.

Project teams will use social media (Facebook) to disseminate project results. *Social media use (Facebook) is an opportunity* that has obvious effects on: increasing interest in the project site and course modules, increasing the user area of the project platform, capturing the interest of other categories of stakeholders.

During the project implementation period, but especially during its sustainability period, an important *opportunity is the possibility for the participating universities to become education / training centers in the field of specific environmental issues*. They will be the centers of basic projects in the field of environment.

In addition to the opportunities that must be taken advantage of by the consortium formed to carry out the project, a number of threats can also materialize that may affect its implementation and / or sustainability. Although in recent years there has been a growing interest in local communities for environmental issues, there may be a number of areas in Romania, especially in rural areas, with low interest in these issues due to the low level of education and knowledge of the issue. *specific. Thus, the relatively low potential interest of some rural communities for the issue addressed in the project, due to lack of prior knowledge in the field is a threat* to achieve the objectives of the project and capture the interest of direct beneficiaries in the target group.

*The COVID-19 pandemic poses another threat* to the project because it has affected both Romania and Iceland. Thus, the transnational meetings scheduled to take place within the project in both Iceland and Romania may no longer be held in the planned (physical) format but only online, with all specific limitations. Also, events scheduled for communication and dissemination of project results (workshops and multiplier events) may be affected by limiting the possibility of conducting only as online events.

*The low level of environmental education in disadvantaged local communities poses a threat to the project* 19-COP-0038 insofar as it does not contribute to the real perception of environmental issues in rural areas and is a limiting factor of interest and access to education and training in this area. domain. In many disadvantaged communities, the low level of education generates disinterest in training processes in general and especially in the field of environment (which is not perceived, at least in Romania, as one of the pressing problems for citizens).

*The long development period foreseen for the project* threatens to amplify certain categories of costs during its implementation. Cost categories that could be significantly affected include travel and dissemination materials.

The expected duration of the project also generates the possibility of exchange rate fluctuations that may mainly affect the salary costs of the project, especially considering that for them maximum rates in euros are provided. *Exchange rate fluctuations are a threat* to the financial sustainability of the project.

## 2.2. Opportunities

The analysis of the external environment resulted in the following opportunities that can be exploited by the project team 19- COP-0038:

- the impact of the 2030 Agenda of the United Nations Sustainable Development Agenda and the European Green Pact on rural communities;

- increasing interest in environmental issues in Romania and Iceland;
- the existence of potential synergies with environmental strategies / programs / projects or with effects in the field of environment;
- the interest of the local communities for the sustainable development and the realization of some projects in this field;
- the interest of other stakeholders for the project issue and the transferability potential of the project results;
- social media use for disseminating the project and its results;
- the possibility for the participating universities to become education / training centers in the field of specific environmental issues.

### 2.3. Threats

The implementation of the project may be affected, according to the analysis of the external environment, by the following threats:

- The relatively low potential interest of some rural communities for the issues addressed in the project, due to the lack of previous knowledge in the field;
- COVID-19 pandemic;
- Low level of environmental education in disadvantaged local communities;
- The possibility of increasing certain categories of costs during the project;
- Exchange rate fluctuations.

### 3. SWOT matrix

The strengths and weaknesses identified, together with the opportunities and threats identified by the analysis of the external environment, are presented in the SWOT matrix.

Figure 1 – SWOT matrix

Strengths	Weaknesses
<ul style="list-style-type: none"> <li>• The structure of the consortium formed to carry out the project;</li> <li>• The experience of organizations in carrying out similar projects;</li> <li>• Project management;</li> <li>• The staff involved in the project;</li> <li>• Quality management systems within the participating organizations and a project-specific quality management process;</li> <li>• Approaching the theme within the project;</li> <li>• Use of a unique learning / training platform within the project;</li> </ul>	<ul style="list-style-type: none"> <li>• The need to adapt scientific information to the level of understanding and education in disadvantaged local communities;</li> <li>• Cultural differences between members of project teams in Romania and Iceland;</li> <li>• The fact that the project is the first experience of working together of all partners;</li> </ul> <p>Distance between partners.</p>

<ul style="list-style-type: none"> <li>• Possibility of know-how transfer between project partners;</li> <li>• Implementation of innovative practices in the field of education and training.</li> </ul>	
<b>Opportunities</b>	<b>Threats</b>
<ul style="list-style-type: none"> <li>• the impact of the 2030 Agenda of the United Nations Sustainable Development Agenda and the European Green Pact on rural communities;</li> <li>• increasing interest in environmental issues in Romania and Iceland;</li> <li>• the existence of potential synergies with environmental strategies / programs / projects or with effects in the field of environment;</li> <li>• the interest of the local communities for the sustainable development and the realization of some projects in this field;</li> <li>• the interest of other stakeholders for the project issue and the transferability potential of the project results;</li> <li>• social media use for disseminating the project and its results;</li> <li>• the possibility for the participating universities to become education / training centers in the field of specific environmental issues.</li> </ul>	<ul style="list-style-type: none"> <li>• The relatively low potential interest of some rural communities for the issues addressed in the project, due to the lack of previous knowledge in the field;</li> <li>• COVID-19 pandemic;</li> <li>• Low level of environmental education in disadvantaged local communities;</li> <li>• The possibility of increasing certain categories of costs during the project;</li> <li>• Exchange rate fluctuations.</li> </ul>

Source : own processing of existing information within the project consortium

#### 4. Risk mitigation measures

The SWOT analysis revealed a number of threats (potential risks) that may arise during the implementation of the project and may affect the achievement of its objectives and expected results. To reduce the risks, we propose the measures included in the following table:

**Table 1. Proposed risk mitigation measures**

Nr.crt.	Identified risk	Proposed mitigation measures
1.	The relatively low potential interest of some rural communities in the issues addressed in the project, due to the lack of previous knowledge in the field	Increase efforts to disseminate the project and its results

2.	COVID-19 pandemic	Conducting multiplier events, workshops and transnational meetings online
3.	Low level of environmental education in disadvantaged local communities	Identifying key stakeholders in disadvantaged local communities that can influence local community target groups
4.	Possibility to increase certain categories of costs during the project	Use realistic estimates to achieve the project budget
5.	Exchange rate fluctuations	Taking into account possible exchange rate fluctuations when estimating costs

Source : own elaboration

## 5. Conclusions

The SWOT analysis was performed based on the internal diagnosis and the analysis of the external environment. Based on these two analyzes, the strengths and weaknesses of the project were identified, as well as the opportunities and threats regarding its objectives. The internal diagnosis revealed that the project has many strengths that have as sources the composition of the consortium, the project management, the experience of the participating organizations and the quality of the project proposal. The weaknesses come mainly from the culture of the participating organizations, the beginning of the partnership in the current structure and the need to adapt the presentation of scientific information to the requirements of the target group.

The analysis of the external environment led to the identification of multiple opportunities that the project team can take advantage of so as to enhance the results obtained. For potential threats and risks, measures have been taken to reduce the possibility of their materialization.

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