

ENVIRONMENTAL PROJECTS MANAGEMENT IN ROMANIA AND ICELAND - A COMPARATIVE ANALYSIS BASED ON CASE STUDIES AND GOOD PRACTICE ELEMENTS

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Introduction

- **Environment problems** gradually came to the attention of society especially through the **amplification of concerns regarding global warming** (Luque et al, 2013), **loss of diversity, pollution, waste, ecological accidents** (Simion et. al, 2021);
- 2030 Agenda of the United Nations Organization and the Green Deal of the European Union;

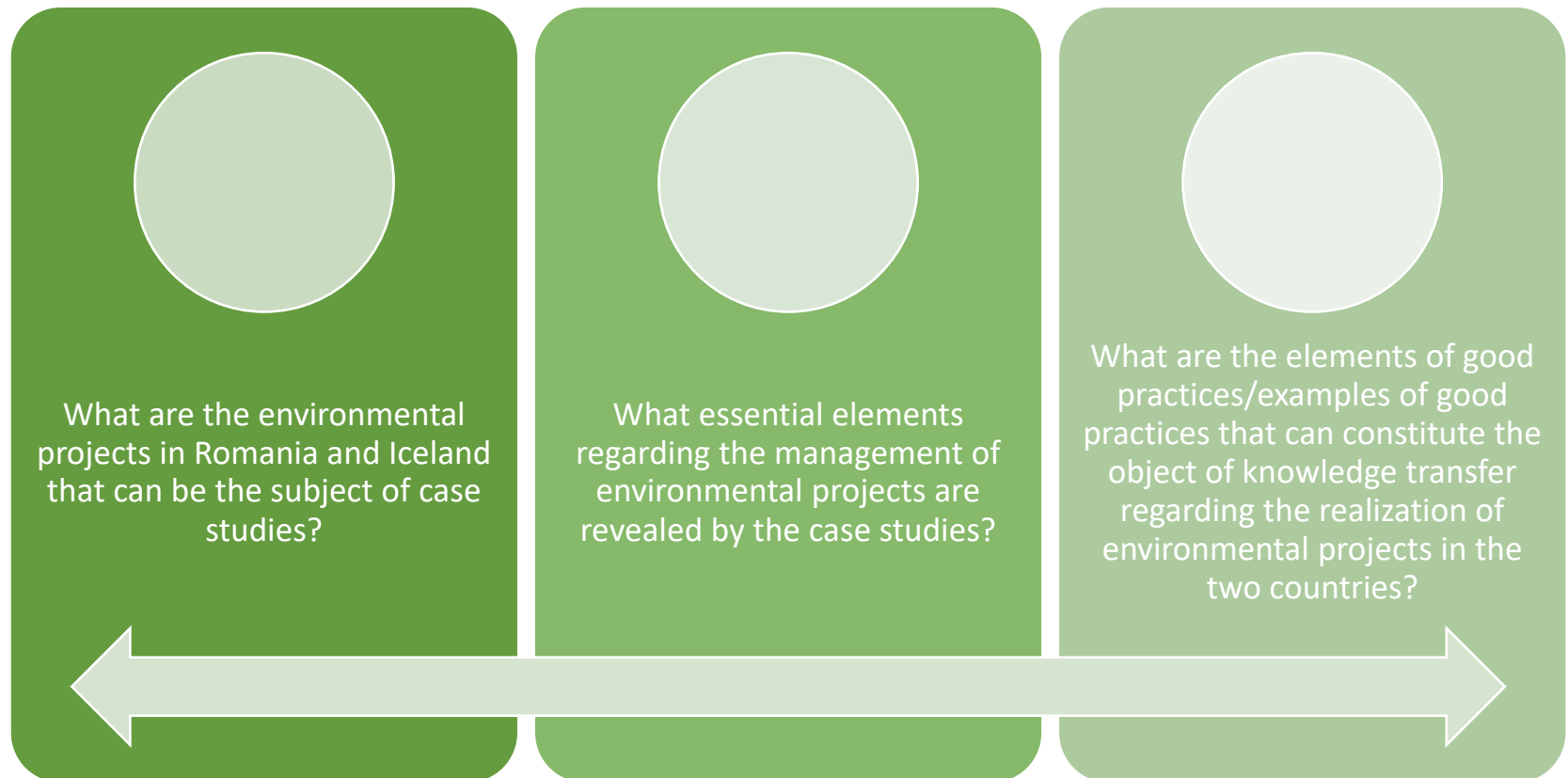
Research scope

- the study how environmental projects are implemented in a comparative approach based on case studies from very different national contexts;
- to reveal the elements of good practices that constitute a common heritage for organizations involved in the realization of such projects in the future.

Research objectives

- identification of some environmental projects from Romania and Iceland to be the subject of case studies;
- carrying out case studies based on relevant environmental projects from Romania and Iceland;
- identifying, based on case studies, elements of good practice in the management, conception, implementation and realization of environmental projects;
- establishing the possibilities of knowledge transfer/good practice elements between the two countries.

Research questions



Literature review

- Iceland has a large part of its economy and society projectized (27.7%) - [Schoper et al. \(2018\)](#);
- studies on environmental projects carried out in Iceland are dedicated to environmental impact analysis and life cycle analysis (Shortall, Davidsdottir and Axelsson, 2015; Cook, Davíðsdóttir and Kristófersson, 2016; Sigurjonsson et al., 2021)
- studies on environmental projects carried out in Romania : [Melnic \(2008\)](#) ; [Cormos et.al \(2014\)](#);
- The comparative approach of environmental projects in Romania and Iceland - [Simion et. al \(2021\)](#).

Methodology – data sources & criteria

- **the project documentation** related to the implementation and exploitation periods were used (opportunity, pre-feasibility and feasibility studies, technical reports, funding requests, progress reports, internal audit reports).
- **the criteria used for the selection of environmental projects** included the availability of information on at least two stages of the life cycle of environmental projects, their representativeness for the situation of environmental, the suitability of the information for the transfer of good practices, the maturity of the projects and the management of project.
- **discussions during the workshop in Iceland** which involved visits and discussions on environmental issues and project management specific elements

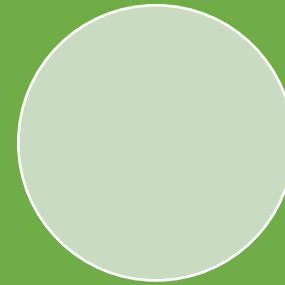
Project management elements considered for analysis

- the formulation of the purpose and objectives;
- the strategy-programme-project relationship;
- the project environment and the relationship with the stakeholders;
- the integration of the project in the organization;
- time management;
- cost management;
- risk management and resource management.

Environmental Projects – case studies



the project Gaja – Iceland
(GAJA biogas and composting
station);



Project of a solar photovoltaic
park development, Avram
lancu commune (Romania).



The project Gaja (Iceland) - GAJA biogas and composting station



- the interruption of the storage of organic household waste in the Reykjavík capital area;
- elimination of emissions equivalent to 90,000 tons of CO² annually.
- problem in Iceland);
- reusing 95% of household waste produced by households in the Reykjavík capital area

Gaja – from the project management perspective

- the project has a purpose and objectives but the objectives are not formulated as SMART objectives;
- project is integrated into a common policy of the municipalities in the Reykjavík capital area, being the expression and result of this policy;
- the life cycle approach is present and taken into account in the design phase of the project;
- the realization of the project is the result of the strong involvement of the stakeholders;
- in the project, certain methods of programming the execution of the project in time, but also of budgeting in terms of cost management;
- risk management assumed the consideration of some operational risks but without a detailed assessment of the risks of delay and cost overruns;
- there is a good management of resources during the exploitation period of the project.

Gaja – project management problems

- **unrealistic estimates of the cost** (underestimation of the cost) - 638 million ISK, the need for additional resources;
- **inconsistency of some elements in the WBS**, which led to the lack of financial resources for the equipment of the Gufunesi reception center (over 700 million ISK);
- **deficiencies in the project reporting and monitoring processes** in the project-organization relationship, with direct effects on decision-making processes;
- **inconsistencies in the management of the project team** during implementation.

GAJA project good practice elements

- strong involvement, contractually formalized, of some stakeholders (municipalities in the Reykjavik capital area);
- the integration of the project into a wider approach represented by local policies.

Case study 2 –Project of a solar photovoltaic park development, Avram Iancu, Bihor county

- objective of the project was to capitalize on the solar energy potential for the production of green energy, by implementing an electricity production capacity of 3 MW, on photovoltaic panels.
- The initiator of the project is the Bihor County Council.

Project management perspective - Solar photovoltaic park development, Avram Iancu, Bihor county

- the project definition phase, the life cycle approach is used, representing the stages of feasibility, design, implementation and exploitation;
- project objectives are formulated, but they only partially correspond to the characteristics of some SMART objectives.
- two stakeholders of the project are highlighted (Bihor County Council and local public authorities from the Avram Iancu commune);
- there is a detailed list of project activities but the project WBS has not been identified;
- the project is not part of a strategy - local or national policies;
- there are cost estimates (general investment estimate and project budget) but no cost control system is presented

Photovoltaic park, Avram Iancu – project management problems

- focusing reports exclusively on the implementation period;
- the lack of links with strategies and policies at the local or national level, the concrete expression of which should become the project;
- the lack of concrete forms of association between stakeholders in order to exploit the project;
- project risks are not identified and response actions are not provided.

Photovoltaic park, Avram Iancu - good practice elements

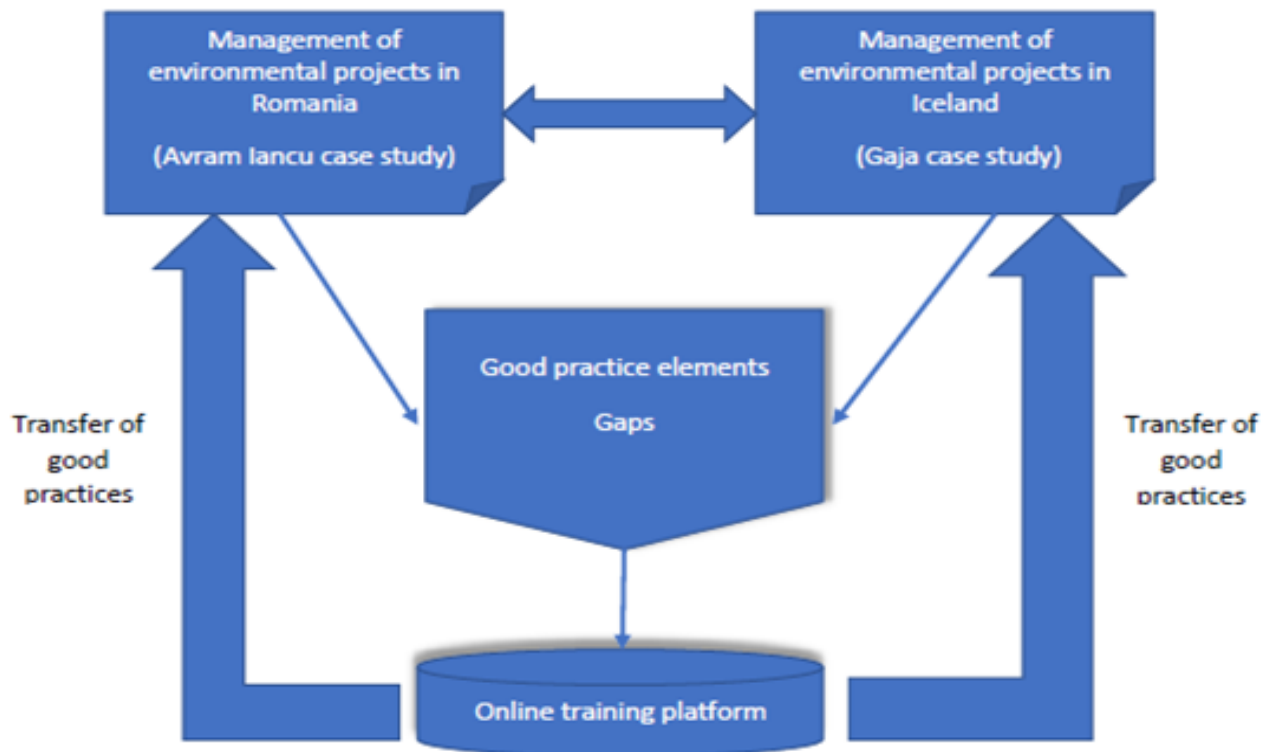
- the detailed identification of the project activities and the initial cost estimates

- the perspective of recycling.

Comparative analysis of project management

No.	Components/elements of project management	Project GAJA (Islands)	Scores	Construction project of a solar photovoltaic park, Avram Iancu commune (Romania)	Scores	Amplitude gap Romania - Iceland
1.	SMART objectives	Goals that are formulated but do not fully meet the requirements of SMART goals	1	Goals that are formulated but do not fully meet the requirements of SMART goals	1	0
2.	Life cycle	Life cycle approach	2	Life-cycle approach, including post-use elements	3	+1
3.	Policy- strategies- programmes-projects relationship	Strongly represented	3	Poorly represented	1	-2
4.	The project environment. Relationship with stakeholders	Intense relationship with stakeholders. The project is the contractual result of this relationship.	3	Weak relationship between the main stakeholders. No process of identifying stakeholders.	1	-2
5.	Time management	The use of classical methods	1	The use of classical methods	1	0
6.	Cost management	Use of calculation and budgeting. Cost estimation issues	1	Use calculation and budgeting	2	+1
7.	Communication management. Progress reporting	Extensive reporting system. Difficulties in the relationship between stakeholders.	3	No reporting system is identified	1	2
8.	Risk management	Risk identification shall be carried out. There are no records of risk analysis and response.	1	Risks are identified. No records of risk analysis and response appear.	1	0
9.	Resource management	Resources are allocated. No techniques for allocating and leveling resources are used.	1	Resources are allocated. No techniques for allocating and leveling resources are used.	1	0

Approach to the transfer of good practices in the project “Environmental Education – OERs for rural citizens (EnvEdu-OERs)”



Conclusions

- The comparative approach revealed the existence of some gaps between the project to build a solar photovoltaic park in Avram Iancu commune and the Gaja project in Iceland (involving the biogas and composting station);
- There are also a number of project management elements (time, cost and risk management) where projects in both countries appear to have a lower level of use of specific methods/techniques and practices;
- The gaps regarding the two environmental projects but also the highlighted good practices create the prerequisites for a transfer of knowledge through platforms such as the one used in the "Environmental Education - OERs for rural citizens (EnvEdu-OERs)" project.

Takk!



Thank you!



Multumesc!



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