

# **A COMPARATIVE ANALYSIS OF TIME, COST AND RISK APPROACHES IN ROMANIAN AND ICELANDIC ENVIRONMENTAL PROJECT MANAGEMENT**

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## Introduction & scope

- human activity has a significant impact on the environment in most parts of the world, materialized in many ecological problems;
- the issue of the environment and especially the ecological one gradually came to the attention of society especially against the background of raising awareness in the perception of global warming;
- both Romania and Iceland were affected by the environmental problems (with local origin or consequences of global problems);
- the purpose of this research is to reveal the specific elements of environmental projects in Romania and Iceland, in a comparative approach that reveals the elements of improvement in managerial practices in environmental projects in both countries.

## Research objectives

- to identify the relevant sources regarding the environmental projects conceived and implemented in Romania and Iceland but also in other countries;
- to perform an analysis that reveals the most important methods and techniques of project management applied in environmental projects in Romania and Iceland;
- to identify a series of elements that can be improved through education / training / examples of good practice in both countries

## Research questions

- what are the main approaches regarding environmental projects?
- what are the main types of environmental projects implemented in Romania, in Iceland but also in other countries in the world?
- what elements of project management are implemented in environmental projects in Romania and Iceland?
- what methods and techniques are not used (or are not used to a significant extent) and could be implemented in the future in environmental projects carried out in Romania and Iceland?

## Literature review

- **Sholarin and Avange (2015)** - environmental projects as those that are intended for the environment by their nature, have specific activities in the field of environment and results on sustainability;
- **Schooper et al. (2018)** - an important part of the economic activities in Iceland are based on projects (27.7%);
- **Ingolfsdottir and Gunnarsdottir (2020)** - conflict of interest between renewable energy projects and wilderness protection in Iceland;
- **Cormos (2014)** - technical-economic assessments of an environmental projects;
- **Gareis and Huemann (2019)** in Romania, project management still has a relatively limited scope of applicability to a range of industry sectors and industries that are traditionally project-oriented.

## Research methodology

- ten environmental projects from each country were selected for which the documents that are public were analyzed (funding applications, opportunity studies, pre-feasibility and feasibility, other project funding documents, project progress reports);
- the size of the sample of analyzed projects is relatively small, the main cause being the relatively small number of related documentation from which to extract the data necessary for their realization;
- the criterion used in the selection of projects was that of ensuring a diversified typology of environmental projects;
- for the analysis of the way in which the management of environmental projects is performed, the following components were selected for study: time management, cost management and risk management;
- the choice of these components for the study was made because they are most easily found in documents that are public and represent fundamental elements in terms of project management.

## The structure of the analyzed projects

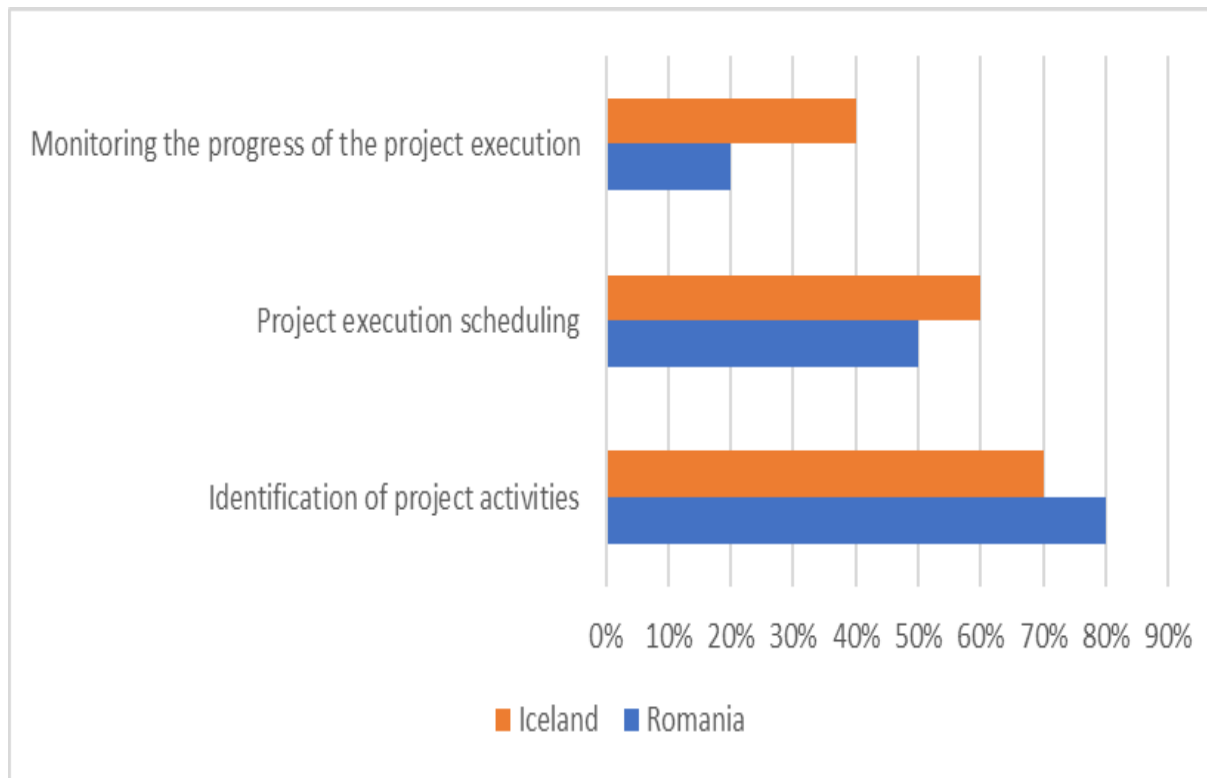
No.	Project type	Romania	Iceland
1	Projects for pollution reduction	40%	30%
2	Projects for pollution prevention	30%	30%
3	Projects for regeneration of the natural environment	10%	20%
4	Projects for waste collection and recycling	20%	20%

## Methods and techniques applied for time management of environmental projects in Romania and Iceland

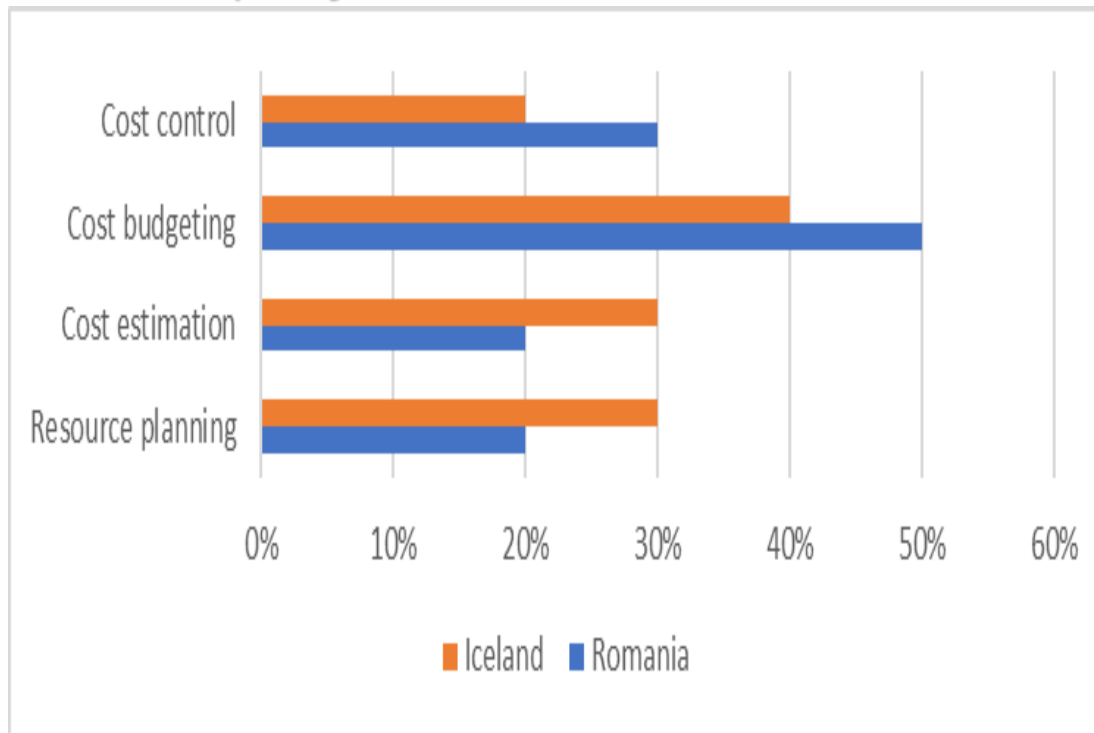
No.	Project type	Romania	Iceland
1.	Gantt chart	50%	60%
2.	Milestone chart	10%	0%
3.	Modern methods: Critical Path Method (CPM), Program Evaluation and Review Technique (PERT) and Graphical Evaluation and Review Technique (GERT)	0%	0%



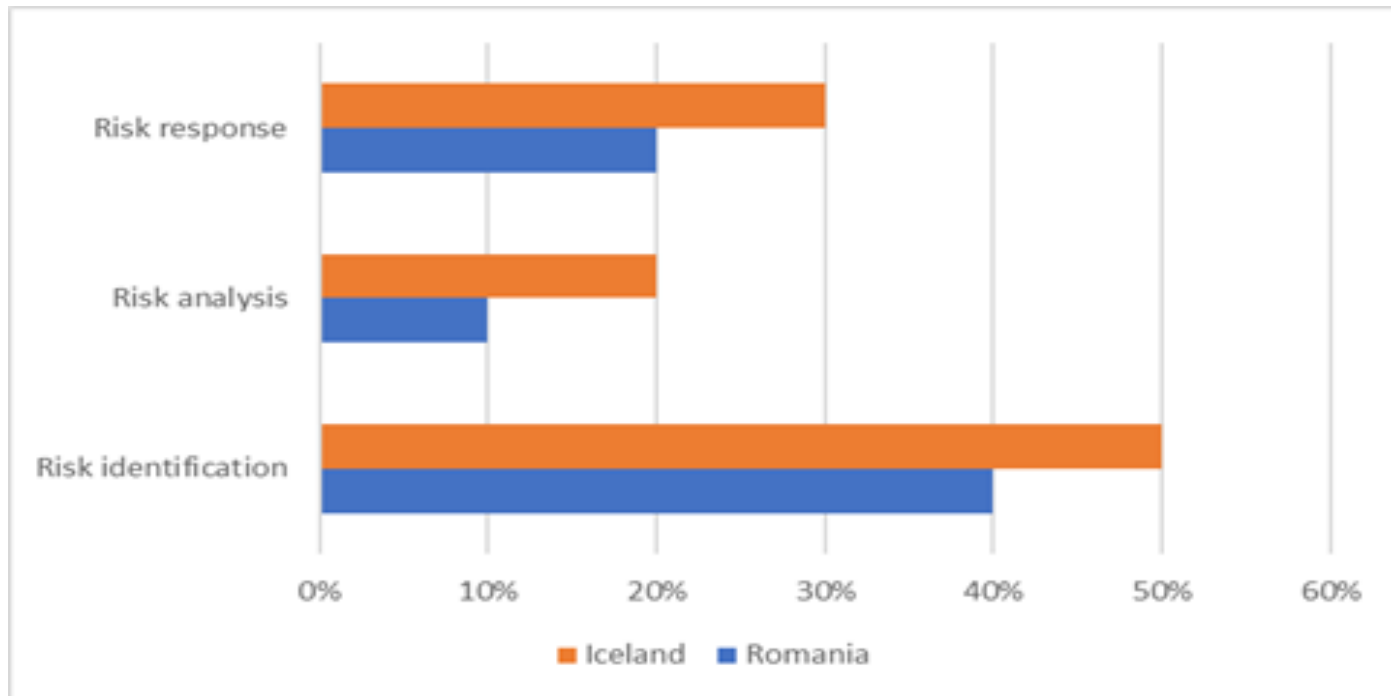
## Time management processes in environmental projects in Romania and Iceland



## Cost management processes in environmental projects in Romania and Iceland



## Risk management



## Future perspectives

- a good opportunity to improve environmental education and environmental projects is represented by the project "Environmental Education - OERs for rural citizens (EnvEdu-OERs)" developed in partnership by Transsylvania University of Braşov, Reykjavik University, Bucharest University of Economic Studies and "Gheorghe Asachi" Technical University of Iaşi;
- the project aims at environmental education, developing a set of teaching modules as open educational resources (OERs) available to a wide range of beneficiaries, especially those from rural areas;
- the module dedicated to environmental projects management will have as main topics: phases of environmental projects, time management, cost management, resources management, risk management and good practice examples.

## Conclusions

- In the case of environmental projects carried out in Romania, the process of identifying activities is better represented, while in the case of projects carried out in Iceland, the other two components of time management are better represented. ;
- in the case of projects carried out in both countries, only the classical methods used in the programming of project execution are used (at least in the analyzed documentation);
- in projects in both countries, project budgeting is better represented and less so the other components of project cost management .
- in the environmental projects realized in Romania is better represented the risk identification phase and less the analysis and response ones (which are more present in the case of the projects realized in Iceland).

*Thank you!*



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