

**TOWARDS COMMON TERMINOLOGY ON ENERGY LANDSCAPES - PREFACE**MAROT Naja<sup>1</sup>, KRUSE Alexandra<sup>2</sup>

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**Abstract:** The COST RELY Glossary on Renewable Energy and Landscape Quality is the result of the European COST RELY project that focused on investigating the influence of renewable energy production on landscape quality. 31 people participated in developing and revising the definitions and descriptions for the 46 terms included in the glossary. Work was done in the period from 2015 to 2017 in multiple rounds of revision done by the RELY experts. Terms in the glossary are clustered into three groups: first group terms are directly connected to the landscape and its characteristics, the second one touches the planning process and methods, and the last one covers different renewable energy sources and production types. Each entry to the glossary consists of six elements: the term, definition, related terms, keywords, illustration(s) and sources. The terms are based on the expert knowledge of the contributors, scientific literature (monographs and articles), EU regulation, relevant web pages and other useful sources, stated in the Reference section. At the end of the glossary, terms are translated into 28 European languages including Esperanto. The glossary targets the researchers from the field, policy makers, local communities, investors in the sector of renewable energy and NGOs concerned with the matter in order to assure that people from different educational background and profession understand and use the term in the same manner. Beside from internal Action use, the terms shall contribute to existing glossaries on the relevant topics.

### Introduction

COST RELY Action was a four-years-long networking project under the umbrella of Horizon 2020 EU Framework Programme in the period from October 2014 until October 2018. At the end, more than 200 researchers, practitioners and people from administration were participating in the COST Action coming from 37 European countries. Additionally, the action was associated with Canadian University of British Columbia, Department of Forest Resources Management and with Epoka University in Albania, Department of Architecture, and has observers from the US. As the RELY abbreviation indicates, the Action addressed the relation between renewable energy and landscape quality. The European Energy 2020 Strategy on guaranteeing 20% of the final energy use to be produced from the renewable resources has been putting extra pressure also on the land. Wind turbines, solar panels, hydro power plants and biomass production are all types of production units, which change the visual outlook and break the equilibrium of the ecosystems in these particular areas. Therefore, the project consolidated and extended knowledge from a trans-European perspective, building on an existing knowledge to enhance the science base for decision-making, and develop guidelines for public participation in planning renewable energy systems. The results shall provide better understanding of how European landscape protection management and renewable energy deployment can be reconciled to contribute to the sustainable transformation of energy systems. Additionally, best practice examples for decision-making and optimisation of trade-offs and participative process had been exchanged in order to improve participative approaches and enable a smoother transition to renewable energy system in a sustainable manner (European Cooperation 2014).

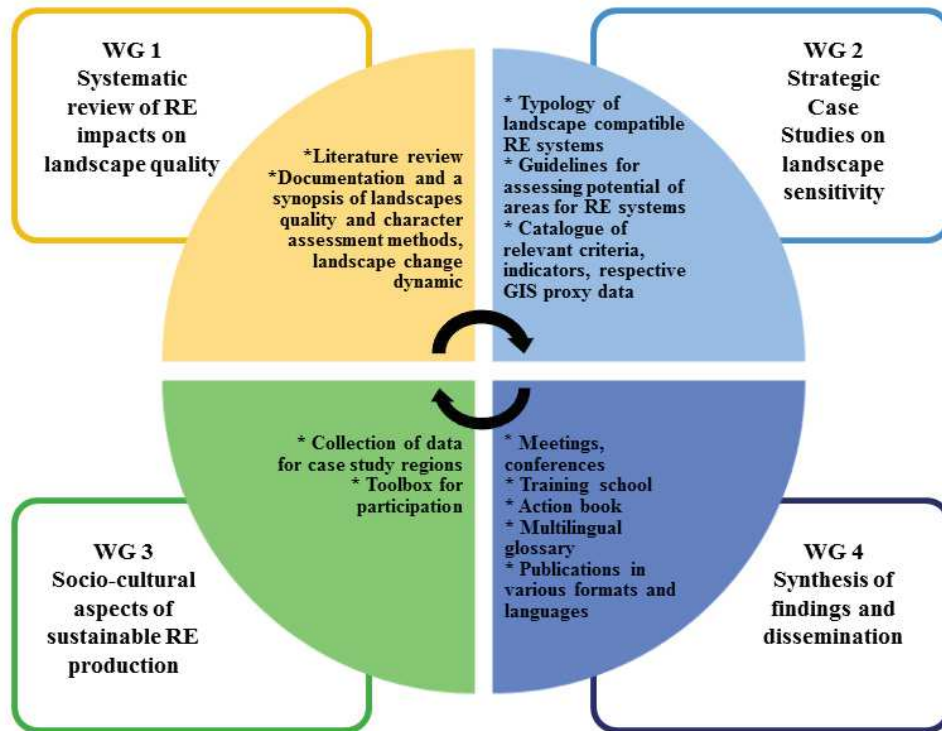


Figure 1. Division of the work among workgroups

In order to achieve the Action goals, work had been organized in four working groups (see Figure 1): WG1 reviewed and has done a meta-analysis of literature, projects focusing on landscape quality and character assessment methods as well as landscape change dynamics. WG2 focused on strategic case studies including assessment and GIS approaches. WG3 dealt with social aspects of the renewables and public participation tools while WG4 was responsible for dissemination and the synthesis of findings. One of the major outcomes of WG4 is a multilingual glossary for scientific collaboration and trans-border public participation. According to the Memorandum: »The glossary will include and extend existing glossaries on renewable energy production systems and provide a basis for collaboration across multiple disciplines, nationalities and knowledge levels (experts vs. public)« (European Cooperation 2014, p. 15). The glossary consists both of translations in 28 languages and of definitions covering the overlay of the topic of landscape quality, planning and energy production sector. It targets various stakeholders, including policy and decision makers, NGO's, planners, the general public, academia and researchers. Furthermore, the introduction presents the approach towards the preparation and instruction for use. The definitions follow, and the special issue concludes with naming the authors and listing the references.

### Preparation process of the glossary

Preparation of the glossary was task of WG4 and it was performed in the period from 2015 to 2017, with the most of the work done in 2016 and 2017. Altogether, a core group of seven people closely worked on the preparation with 31 people contributing in total to the definitions. Firstly, the team checked existing glossaries, including the EUCALAND glossary on agricultural landscape terms (Kruse et al. 2010), the COMMUN glossary on planning systems for the Baltic countries ([http1](#)), the Scottish glossary on landscape ([http2](#)), the Slovenian on Natura 2000 ([http3](#)) and as well the EU Eurostat Thematic Glossaries ([http4](#)). These sources were useful for defining the structure of the glossary and for reviewing on the

current state of the art regarding terminology on landscape quality, renewable energy production and participative planning.

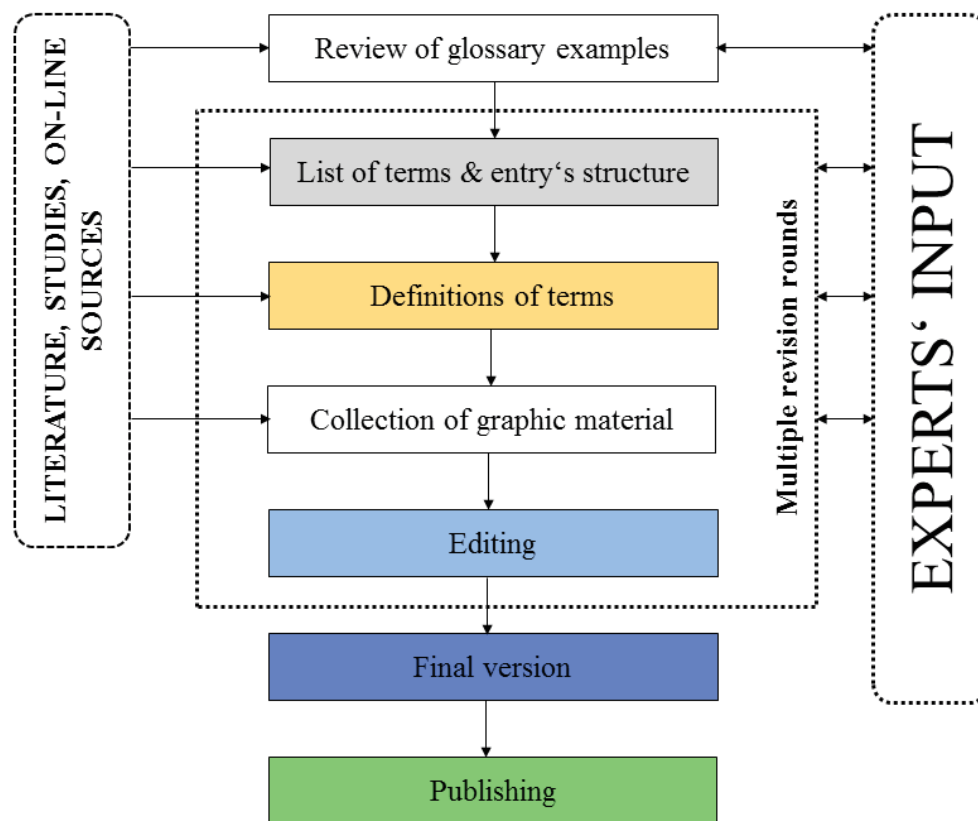


Figure 2. Work flow of glossary preparation

Secondly, based on the EUCALAND glossary for which the structure was set-up according to a commonly developed methodology (Kruse and Kruckenberg 2010), the following structure for each term was used (Figure 2) consisting of:

1. The English name of the term,
2. Definition,
3. Related terms,
4. Keywords,
5. Illustration(s) and
6. Sources.

Definitions were formulated by the COST RELY experts who relied either on their knowledge or/and in most cases on various available sources (scientific articles, monographs, study reports etc.). The aim was to provide short, comprehensive definitions that can be used by different public. Definitions can also consist of descriptions of sub-terms, as is the case of 'public' and 'the public concerned' described in the frame of 'public participation' term. We decided for this approach in order to prevent the overload of the terms in the glossary and to guarantee the terms' comprehensiveness. While the category 'related terms' was added to each entry to refer to thematically related terms in the RELY glossary, the category 'keywords' implies related terms or words that can be used for search engines.

The word template was circulated among the Action members and completed by individual experts. The list of the terms to be included in the glossary was developed with the help of the other WG leaders and also by consulting the whole group of COST RELY

participants in order to get the list as complete and relevant as possible. The preliminary list of terms was reviewed by WG4 in order to select the ones that will contribute to the explanation of the relationship between renewable energy production and landscape quality. Altogether 46 terms were selected. Thirdly, the terms were divided among the Action participants on the basis of their willingness to contribute. Simultaneously, a representative of each country was asked to provide translation for the whole list of terms into their native language.

The revision of terms was done in multiple rounds in order to either guarantee a homogenous structure and the content quality of the descriptions, verify the references (especially on-line links) and illustrations enable the consultation of different experts on the same term. In September 2017 the revision period was concluded and the final editing process of the glossary started. During the editing process the terms were clustered in three groups according to their major COST RELY topic to which they refer. These groups are

- Landscape,
- Renewable energy types, and
- Planning process, methods and techniques.

Terms of the first category describe the characteristics of landscape, including landscape quality, landscape function, landscape identity etc. In the second group, different types of renewable energy are described. In the last group, a user finds terms concerning the planning process such as entries on individual techniques used for enabling participative process, assessment techniques used to assess social, environmental, economic and administrative impacts of the renewable energy investments on landscape.

*Table 1. Division of the glossary terms into three topical clusters*

Topic	Terms
LANDSCAPE	Energy landscapes, Landscape, Landscape awareness, Landscape capacity, Landscape character, Landscape classification, Landscape function, Landscape identity, Landscape quality, Landscape resilience, Landscape sensitivity, Landscape service, Landscape vulnerability, Land use conflicts, Visual impact
RENEWABLE ENERGY TYPES	Biofuel, Biogas, Biomass, Environmental thermal energy source, Geothermal power, Hydropower, Marine energy, Photovoltaic, Solar thermal, Solar thermoelectric, Sustainable renewable energy production, Wind energy
PLANNING PROCESS, METHODS AND TECHNIQUES	Best Practice, Cultural Mapping, Cultural Planning, Ecological engineering, Environmental Impact Assessment, Energy-conscious design, Landscape assessment, Landscape governance, Life Cycle Analysis, Planning process, Public participation, Public participation process, RE policy documents, Scenario Techniques, Social Impact Assessment, Stakeholder, Strategic Environmental Assessment, Territorial Impact Assessment, Visual assessment

In regards to translation, participants exposed several problems, namely particular term(s) do not exist in some of the languages, a term can exist but under a different name, a phenomenon does not exist but a description is used instead of a term. Additionally, some of the methods are not used as investigation approaches in some of the countries, and therefore no term exists. Thus, for the languages covered in the translation part of the glossary, some translations can be missing.

## Concluding words

The glossary was prepared to address various stakeholders. Policy makers will benefit from checking all three groups of terms, especially if they come from only one of the expertise but have during the policy preparation process encounter an overlay with either energy or planning sector. *Planners* can get a better understanding of the relationship between landscape and renewable energy types respective the impact through their production. The glossary will hopefully contribute to facilitate participative processes. After all, the glossary can come handy also for the public unfamiliar with the expertise in planning which is to be affected due to the renewable energy projects developed in their area. They can inform themselves about planning and landscape terminology and better argue their case.

All in all, we wish a reader an enjoyable browsing through the terms and the sustainable future based on the well-thought renewable energy investments that either maintain the present quality of the landscape or produce the new publicly-accepted energy landscapes.

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