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An overview of approaches to assessing climate change mitigation and resilience of the urban environment

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Studie vznikla v rámci projektu „Sídlišká ako živé miesta odolné voči zmene klímy“, DELIVER - DEveloping resilient, low-carbon and more LIVable urban Residential area, kód LIFE17 CCA/SK/000126 - LIFE DELIVER. Projekt je financovaný zo zdrojov Európskej komisie, z finančného nástroja pre životné prostredie: program LIFE, z podprogramu „Ochrana klímy“.

Summary

The aim of the study is to map current approaches to assessing climate change mitigation (i.e. mitigation assessment) and resilience of the urban environment (i.e. vulnerability assessment for the impacts of climate change - the area of adaptation). The context of the study is primarily European, but examples of good practice in the global context are also taken into account. The case study serves primarily to "map" the current situation and the state of knowledge in the area of mitigation and adaptation assessment at the local level for the needs of the "DELIVER" project team. However, due to the focus of the study, it is also applicable to a wider audience of experts with an interest in the subject, especially in the Czech Republic and Slovakia.

The first part contains definitions of important concepts in the field of mitigation of climatic change and resilience of the urban environment. There are many definition frameworks, so it was necessary to clarify the terminology. The next chapter deals with a broad-based assessment of adaptation to climate change. This can be understood as an assessment of adaptation to individual periodically-occurring natural threats related to climate change, or (b) an evaluation of a complex development taking place over a long-term horizon.

The following chapter maps current significant approaches to assessing mitigation. These are, in particular, international initiatives and frameworks for this area that are widely used worldwide. In the next stages of the "DELIVER" project team, this analysis will be further exploited. The final chapter provides an overview of significant indicators and indicator sets used in Europe and abroad for assessing the mitigation of the climate and the resilience of the urban environment.

The aim of the study is to make a first step towards assessing and integrating areas of mitigation and adaptation at local level. Therefore, we are trying to answer the following questions:

- What is the current state of the problem - assessing the local contribution to climate change (municipal carbon footprints) and assessing the vulnerability to the impacts of climate change.
- What are the most important initiatives, approaches and procedures for assessing the process of mitigation / adaptation at local level?
- What levels are covered, what sectors and what threats are related to climate change?
- What approaches are used to assess vulnerability at local level and to design appropriate adaptation measures?
- What approaches are used to assess the local contribution to climate change at the local level and to propose appropriate measures to reduce greenhouse gas emissions?
- What indicator sets and indexes have been designed, what are they used in practice?
- What methods of aggregation of partial indicators into aggregated vulnerability / mitigation indexes are used?
- What forms of integration of adaptation and mitigation issues are used?
- What is the presentation of the evaluation results for stakeholders - representatives of cities, the public, experts and NGOs?

