https://doi.org/10.7250/CONECT.2026.090

DECISION SUPPORT AT THE LOCAL LEVEL: APPLICATION OF SCENARIO ANALYSIS IN CLIMATE POLICY

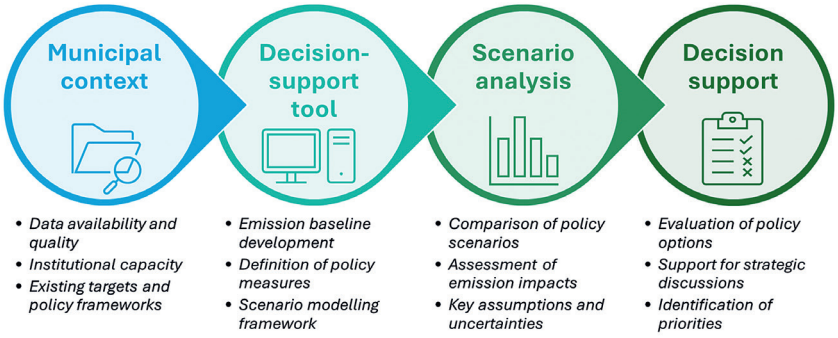
Alina SAFRONOVA[1*], Aiga BARISA[2], Zane PIPKALEJA[3]

[1–3] *Institute of Energy Systems and Environment, Riga Technical University, Azenes iela 12/1, Riga, Latvia*

[*] ***Corresponding author.*** *Email address: alina.safronova@rtu.lv*

Abstract – Local governments are essential for reaching climate neutrality goals since they serve as both process coordinators and implementers, as well as public stakeholders. One way to assess the potential impact of various local policy measures is to use the scenario analysis approach. Although it is an important approach for supporting local climate policy decisions, municipalities frequently deal with limited capacity, a lack of data, and complex planning processes; therefore, the practical application of this approach is limited. The study's goal is to investigate how the decision support tool developed as part of the *CommitClimate* project can be used to analyse climate policy scenarios in different municipal contexts. The analysis focuses on using the tool to understand emission sources, study policy scenarios, as well as supporting strategic discussions and development of final planning documents. The paper draws on actual examples from several Latvian municipalities with varying planning experience, institutional context, and data availability. The proposed tool assessed each municipality's emissions in various sectors, including buildings, public infrastructure, waste management, passenger and freight transportation, energy production, and others. The results demonstrated that the proposed decision support tool allows for the identification of municipal development priorities. The comparison of different municipalities, among other things, allowed to identify the main benefits and limitations of using the decision support tool at the local level, as well as the factors that influence its practical application. The study's findings add to the research on local climate management and decision support systems, while also providing practical insights for tool makers and municipalities.

Keywords – Capacity constraints; emissions modelling; local governance; mitigation measures; planning instruments; sustainable energy and climate action plans; SECAP; urban decarbonization



Use of a decision-support tool to support climate policy scenario analysis and strategic decision-making at the municipal level

ACKNOWLEDGEMENT

This work has been supported by the Interreg Baltic Sea Region Programme project CommitClimate [grant number #C026].