

MONETISING POTENTIAL EMISSION REDUCTIONS FROM ROMANIA'S TRANSPORT SECTOR: A VIEW OF THE GREEN TRANSPORTATION PROJECTS UNDER MODERNISATION FUND AND EUROPEAN FUNDS PROGRAMMES

Roxana Elena Lepădatu¹, Radu Alexandru Budu^{2*}

¹⁾²⁾ The Bucharest University of Economic Studies, Bucharest, Romania

Abstract

Monetising emission reductions from Romania's European-funded green transportation projects remains narrowly quantified, while systemic barriers inhibit broader monetization potential. Evidence from the literature reviewed indicates that, while a range of green transportation interventions have been piloted or supported by European and national programmes, consistent methodologies for valuing their environmental benefits are either lacking or remain limited, fragmented, or highly project specific. The research addresses that gap by applying a harmonised methodology drawing on the European Investment Bank's (EIB) Project Carbon Footprint Methodology, the European Commission's *Handbook on the External Costs of Transport (2019)*, and JASPERS' *Economic Appraisal Vademecum* in order to quantify and monetise greenhouse gas (GHG) reductions achieved through Modernisation Fund investments. The analysis relies on verified data from all Romanian transport projects confirmed by the EIB and published on *modernisationfund.eu*. Results show that analysed investments deliver substantial climate benefits which can be monetised, with rail and metro investments providing the highest abatement potential per euro spent, while electrification projects offering the most cost-efficient decarbonisation path. The findings support the need for a standardised monetisation approach and highlight that, even under conservative assumptions, Romania's transport Modernisation Fund projects generate quantifiable and monetisable environmental benefits.

Keywords

Green deal, decarbonisation, transport sector, modernisation fund

JEL Classification

Q51, Q58

* Corresponding author, **Radu Alexandru Budu** – buduradu@gmail.com