The possible designation of the Mediterranean Sea as a SECA: A case study

In view of the ongoing discussions concerning the possible designation of the Mediterranean Sea as a Sulphur Emission Control Area (SECA), a modal split model was applied to a case involving the transportation of consolidated cargoes between Thessaloniki, Greece and industrial hubs of northern Germany. A road-only option was assessed against a combined-transport route involving a ferry (Greece-Italy) and a truck-on-train (Italy-Austria) service. The logit model used considers two variables as determinants of the modal selection: transport cost and time. The data are derived from interviews with a small transport service provider, typical for Greece, and are based on actual trips made (revealed preferences). The results predict that the designation of the Mediterranean as a SECA will cause a modal shift in favour of the road-only route by 5.2%, which under certain assumptions can reach 17.1%. However, the environmental implications of the resulting modal choices, calculated through the EcoTransIT World web based tool, are positive in relation to all emissions examined. This is attributed to the longer distance of the combined-transport option in comparison to the road-only one and, the poor environmental performance of the Ro-Pax vessels basically due to the need to maintain a relatively high speed.

General information
Publication status: Published
Organisations: Department of Management Engineering, National Technical University of Athens
Contributors: Panagakos, G. P., Stamatopoulou, E. V., Psaraftis, H. N.
Number of pages: 17
Pages: 74-90
Publication date: 2014
Peer-reviewed: Yes

Publication information
Journal: Transportation Research. Part D: Transport & Environment
Volume: 28
ISSN (Print): 1361-9209
Ratings:
BFI (2014): BFI-level 2
Scopus rating (2014): CiteScore 2.49 SJR 1.428 SNIP 1.955
Web of Science (2014): Impact factor 1.937
Web of Science (2014): Indexed yes
Original language: English
Keywords: Sulphur Emission Control Areas, Mediterranean, Greece-Italy connection, Short-sea shipping, Freight mode choice, Ro-Pax vessel environmental performance
DOIs:
10.1016/j.trd.2013.12.010
Source: FindIt
Source-ID: 261224004
Research output: Contribution to journal › Journal article – Annual report year: 2014 › Research › peer-review