

30th MEETING OF THE BSEC-URTA GENERAL ASSEMBLY

BSEC Premises
Istanbul - Turkey
Tuesday, 22 November 2016, at 14:00 hrs

IRU-BSEC STUDY ON INTERMODAL TIR

The Black Sea region is an important one: it is at the crossroads of three continents and straddles strategic transport and trade routes and energy corridors in Eurasia. The members of the BSEC represent a large economic group, covering an area of approximately 20 million square kilometers, with a population of 340 million people. According to data from 2012 (Noyan and Guney, 2012), the region represents 7.6% of the overall world economy, with a total GDP of around USD 3.4 trillion.

Initiatives aiming to increase regional trade flows are closely linked to efforts to improve transportation infrastructure and reduce total transport times. With regard to this, the present study's objective is to analyse and quantify the TIR system's role in facilitating border crossing and export/import activities, and therefore in reducing total transport times. A selected sample of countries from the BSEC region (Serbia, Bulgaria, Turkey, Georgia and Azerbaijan) was chosen for a particular route, as illustrated in **ОШИБКА! ИСТОЧНИК ССЫЛКИ НЕ НАЙДЕН.** **FIGURE** **Ошибка! ТЕКСТ УКАЗАННОГО СТИЛЯ В ДОКУМЕНТЕ ОТСУТСТВУЕТ.-1.** This selection was based on the following: (1) the route was considered typical by some of the stakeholders contacted, (2) there are four border crossings – ideal for showing the impact of a typical long-distance intermodal transport, and (3) the route includes one of the BSEC region's major countries, namely Turkey. A simulation study was performed to quantify the benefits of the TIR system on this particular route.



Figure **Ошибка! Текст указанного стиля в документе отсутствует.-1 Serbia–Azerbaijan – Intermodal transport flow**

To the best of our knowledge, this is the first study to have investigated the TIR system's role in intermodal transport in the BSEC region. The main complexity of intermodal transport, in comparison to

road transport alone, for instance, stems from the fact that switching from one mode to another may not be smooth if the trip is not well planned. In cases where not enough “slack time” has been scheduled to mitigate operational risks at intermodal terminals and/or border crossings, movements and modal shifts along the route may not be synchronized. The TIR system specifically addresses the problems associated with lengthy and uncertain border crossing activities and aims to minimize their actual duration as well as the variation in procedures during such activities. Using this model, we present a tool with which to estimate how TIR usage reduces total transport time and related transport/inventory/other costs incurred during intermodal transport. The tool compares the total time it takes to ship goods (intermodally), from origin to destination, with and without TIR carnets. The resulting time and cost differences provide estimates as to the value of TIR usage, and subsequently help to quantify the resulting cost savings. In addition, we also consider the “transport-time independent” costs of financial guarantees with and without TIR usage.

As well as significant reductions in total transport time, the simulation’s results demonstrate the economic benefits of transporting a container using the TIR system over a situation not using a TIR carnet. Combined with the results from the financial guarantees model, we observe that TIR is an attractive option for transport operators in most situations. The model presented in this report can also serve as a tool to further quantify similar benefits on different routes within the region and to understand the role of TIR as a facilitator in intermodal transport operations in the BSEC. The insights revealed in this study can be used in communications explaining the TIR system’s effectiveness in facilitating intermodal transport, not only to transport operators and clients (shippers/buyers) of transport services but also to policy makers.

* * *