BASIC INFORMATION REGARDING THE INITIAL COLLECTION, STATISTICAL PROCESSING, AND ANALYSIS OF DATA ABOUT GOODS TRANSPORT IN THE SAVA RIVER BASIN FOR 2022.
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Basic information regarding the initial collection, statistical processing, and analysis of data about goods transport in the Sava River Basin

1.

INTRODUCTION

As early as 2008 the Sava Commission Secretariat began collecting data about goods trans-shipment and passenger transport with the aim of preparing and writing a review of statistical data for the ports in the Sava River Basin, and in order to use these data for the purposes of certain analyses. In addition to the data we have collected for this period, for the purposes of analysing the situation and the need for water transport, we will use all other available relevant information, as well as data from previous studies and projects related to water transport.

According to EUROSTAT requirements, those Sava Commission Member States which are also EU Member States, serve as facilitators for non-EU countries, and will greatly accelerate the adoption of methodologies for data collection and processing in the domain of inland waterways.

Bearing all this in mind, the Secretariat has prepared this review of available statistical data on goods trans-shipment and passenger transport in ports and harbours on the Sava River and its navigable tributaries.

The quantities of transhipped goods are shown for

- each port individually,
- each country collectively, and
- in an overall summary.

Passenger transport data has so far not been processed in detail manner due to a lack of up-to-date records, as well as non-harmonised methodology and the level of datalines of the collected data, which is a result of the natural position of the port (proximity to river mouth) and of the regulation of the waterway.

<table>
<thead>
<tr>
<th>Year</th>
<th>Brčko</th>
<th>Županja</th>
<th>Slavonski Brod</th>
<th>Jasenovac</th>
<th>Sisak</th>
<th>Beograd</th>
<th>Sremska Mitrovica</th>
</tr>
</thead>
<tbody>
<tr>
<td>2013</td>
<td>200</td>
<td>100</td>
<td>200</td>
<td>-</td>
<td>200</td>
<td>65.000</td>
<td>200</td>
</tr>
<tr>
<td>2014</td>
<td>200</td>
<td>-</td>
<td>200</td>
<td>-</td>
<td>200</td>
<td>68.000</td>
<td>200</td>
</tr>
<tr>
<td>2015</td>
<td>200</td>
<td>-</td>
<td>200</td>
<td>200</td>
<td>200</td>
<td>60.000</td>
<td>200</td>
</tr>
<tr>
<td>2016</td>
<td>200</td>
<td>100</td>
<td>200</td>
<td>100</td>
<td>200</td>
<td>66.378</td>
<td>200</td>
</tr>
<tr>
<td>2017</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>72.347</td>
<td>421</td>
</tr>
<tr>
<td>2018</td>
<td>484</td>
<td>300</td>
<td>200</td>
<td>200</td>
<td>100</td>
<td>81.344</td>
<td>485</td>
</tr>
<tr>
<td>2019</td>
<td>515</td>
<td>515</td>
<td>368</td>
<td>368</td>
<td>368</td>
<td>103.523</td>
<td>-</td>
</tr>
</tbody>
</table>
From the table above, it can be noted that the passenger traffic in 2020 and 2021 recorded almost devastating statistics. The reason for this is the "COVID-19" pandemic, and it is to be expected that, to a certain extent, it will undoubtedly have an impact on 2022, as well.

It needs to be stressed that the current navigability conditions on the waterways still remain an obstacle for any kind of serious planning and has a negative effect on potential investors in the production sector.

2. OVERVIEW OF GOODS TRANS-SHIPMENT/TRANSPORT IN THE PORTS OF THE SAVA RIVER BASIN

For the purpose of this analysis we first need to define the area for which the Secretariat collects data. It consists of the international Sava river waterway defined by the Protocol on the Navigation Regime to the Framework Agreement on The Sava River Basin.

The most complete data was available in the period between 2010-2019, which enabled a representative sample of all the member states and ports. This is a minimum requirement concerning the validity of the results of the statistical analysis, i.e. of the trends which can be detected there from.

In the table presented below can be seen the availability of data by year and port/country, as well as total trans-shipment in the Sava River Basin.

## Table 1: Overview of passenger transport on the Sava and the Kupa river ports

<table>
<thead>
<tr>
<th>Year</th>
<th>Brčko</th>
<th>Šamac</th>
<th>Oil-ref. Brod</th>
<th>BIH</th>
<th>Sl. Brod</th>
<th>Sisak</th>
<th>Croatia</th>
<th>Šabac</th>
<th>Sremska Mitrovica</th>
<th>Other places</th>
<th>Srbija</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>2020</td>
<td>-</td>
<td>561</td>
<td></td>
<td></td>
<td>19,406-</td>
<td></td>
<td>55,069</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

## Table 2: Overview of goods transport/trans-shipment (in tons) on the Sava and the Kupa river ports
Bosna and Herzegovina

Port of Brčko is located in the north-eastern part of Bosnia and Herzegovina, on the right bank of the Sava River waterway at river kilometre 228, with an average of 260 navigable days per year. Since this port is situated on a Class IV waterway and is in the proximity of a developed industrial area has a competitive advantage over upstream ports.

The port enables a direct goods flow on the Sava River to the Danube ports of western and Eastern Europe, as well as to ports in the North Sea and Black Sea. The port is linked to the European rail network throw the Tuzla-Vinkovci road, which allows axle load of up to 18t. In the immediate proximity of the port is the M14.1. state road. In conclusion, the port has a good connection to other modes of transport. In the immediate proximity of the quay are three anchorages, formed according to technological operations and types of goods.

The main trans-shipment equipment has an annual capacity of around 915 000t and enables the trans-shipment of general and grain/bulk cargo: ship – shore, shore – ship. The equipment consists of two Ganz portal cranes (5t, l=30m). The ancillary warehouses are served by forklifts and loading trucks. There was founded a modern container terminal inside the port area.

Although the types of trans-shipped goods have not been given special focus herein, it can be noted that during the period in question, trans-shipment mostly involved coal (anthracite), soybean meal, coke, steel sheets and cold rolled steel strips, and other such materials.

For the needs of industry in Bosnia and Herzegovina, some goods continue to bypassed this year the port of Brčko, while the arrangements were agreed with the ports on the Danube, which can be seen in the chart below.

In the port of Brčko, several infrastructure projects are being implemented:

The EBRD (European Bank for Reconstruction and Development) has approved EUR 10 M. 3 million are grant funds, with a repayment period of 15 years and a grace period of 3 years, with an interest rate of 1%.

The deadline for project implementation is 3 years (2021-2023).

1. Main design of the manipulative plateau with stormwater drainage in the Port of Brčko - EUR 904,986.63 (works completed on March 10, 2022)

2. Procurement and installation of a new crane 16/27 t - EUR 2,580,000 (deadline for the completion of crane installation is September 7, 2022)

3. Main design of the access road reconstruction from Bijeljinska cesta to the Port of Brčko - EUR 791,812.13

4. Main design of the industrial track of the railway station Brčko Novo - Port of Brčko with the reconstruction of the industry access - EUR 3,757,145.05.
Port of Šamac reported bankruptcy in 2015 and no transhipment of cargo has been performed since then.

Brod Oil Refinery was established in 1892 by a Hungarian chemical industry company (Daniča). Its main advantages are its position on the Sava river, which is navigable between Sisak and its mouth into the Danube and further on to the Black Sea, as well as its proximity to Jadranski Naftovod (JANAF plc/Adria Pipelines) and the highway. The former rail link with the Zagreb–Belgrade railway line has not been restored given the changes in the market and economy conditions following the collapse of Yugoslavia.

Due to the already mentioned pandemic and the reconstruction of the refinery in 2021, there was no transhipment at the river terminal.
Activities and talks are under way with the aim of finding a new model for investing in the rehabilitation of the Sava River waterway and its ports. Finally, we present a summary review of transport/trans-shipment in Bosnia and Herzegovina.

### Chart 4: Summary review of transport/trans-shipment in Bosnia and Herzegovina

#### Republic of Croatia

**Slavonski Brod Port Authority**

During the period in question the port and the terminals mostly registered the trans-shipment of crude oil and stone, as well as of smaller quantities of grain, sugar, biofuels, and also individual single or multiple shipments of metal industry products and special types of cargo. There have been announcements of major investments by Croatian Railways and private investors. In addition, negotiations are under way on long-term transport/trans-shipment contracts. In 2017, Port Authority started with the construction of the new and upgrade of the existing waterside infrastructure and road network and container terminal in the amount of the 11 mil. EUR, partly financed by the EU. The port poses 370 m vertical gate. The port will have general permit of usage issued in 2022.

### Chart 5: Review of transport/trans-shipment in the Slavonski Brod Port Authority area

**Sisak Port Authority** is characterised by a specific and unenviable location (being the most upstream port on the Sava river), which has resulted in modest quantities of transshipped goods, mainly based on crude oil loaded in Slavonski Brod. Navigation and cargo delivery are heavily dependent on the hydrological conditions, which is also an obstacle for the ports from which goods are transported (in this case, the Port of Slavonski Brod).
Regardless of the problems which accompany the implementation of the project of the Sava River Waterway rehabilitation, port authorities and the government are committed to hard work on the reconstruction of infrastructure, the development and deployment of waterway transport, and raising awareness of its competitiveness.

The port authority “Sisak” recorded a significant decline in transhipment in 2021, still, all growth indicators are expected to significantly increase immediately after the cessation of pandemic measures.

Below is a summary review for both these port authorities.

**Republic of Serbia**

*Sremska Mitrovica/Port Leget* is a commercial company which administers the port area and focuses mainly on the exploitation of sediment from the Sava riverbed. Sediment as a type of cargo was presented only in the case of Port Leget since the other ports do not register this type of cargo or only keep incomplete records thereof. In this case an exception was made because the exploitation of riverbed sediment is this port’s core business. The port registers significant trans-shipment quantities and its activities are highly dependent on the demand from the construction sector.

The renovated "Passenger Terminal" was opened and put into use in March 2023 and represents a significant infrastructure potential for the development of river tourism.
Šabac/Zorka industrial dock was constructed by the one-time chemical industry giant Zorka and is mostly used by the industry basin in Šabac and Valjevo. Trans-shipment is mostly carried out at the Zorka industrial dock, which comprises a vertical quay wall for unloading and loading cargo vessels and has a long tradition of using the Sava river as a waterway.

The company is situated in the Šabac industrial zone at Sava river kilometre 98 and on the M-19 state road. Given that in the Yugoslav period a construction of a dock basin was initiated and that there already exists project and spatial documentation as well as positive feasibility studies it can be expected that its increased capacity will have a positive effect on the transport services market in the foreseeable future.

Other transhipment places

Since 2017 the Agency for Ports of the Republic of Serbia has kept statistical records for other smaller transhipment places, which are very important for detailed trend monitoring, both in terms of the quantity of goods transhipped and the their structure. In all these places, there is a significant increase in the overall transhipment, mainly building materials, oil products, coal and sediment dredged from the Sava River bed and its tributaries.

For the year 2021, the transshipment figures are extremely high, if we cast a glance at the challenges and stagnation of all economic activities that the Republic of Serbia and the region are facing.
Finally, for the purposes of this analysis, we would like to present an interesting chart which shows the total traffic/trans-shipment figures in the Sava River Basin between 2010 and 2021, which is the period for which we were able to obtain these data from all three countries. One of our main aims is to increase the level of detail regarding the transport/trans-shipment data in the chart. We are convinced that this document will serve as a basis for a statistical yearbook for the Sava river Basin.