



Economic and Social Council

Distr.: General
27 June 2022

Original: English

Economic Commission for Europe

Inland Transport Committee

Working Party on Transport Trends and Economics

Thirty-fifth session

Geneva, 5–7 September 2022

Item 3 (f) of the provisional agenda

Development of transport networks and/or links:

Other initiatives on transport corridors/ links development

Progress update on the operational capacity of the Trans-Caspian and Almaty-Istanbul Corridors

Note by the secretariat

I. Mandate and scope

1. The Inland Transport Committee (ITC), at its eighty-fourth session in February 2022, acknowledged the ongoing efforts on the operationalization of Euro-Asian Transport Links (EATL). ITC also noted endorsement by the Working Party on Transport Trends and Economics (WP.5) of the initiative of the Governments of Azerbaijan, Georgia, Türkiye, Kazakhstan, and Ukraine to develop and implement an EATL Route 3 Corridor Coordination Management Mechanism (CCMM) and Corridor Performance Review (COPR) Mechanism and invited these Governments and the secretariat to provide an update on progress made at the next ITC session in February 2023.

2. It is with the above mandate in mind that the ECE secretariat jointly with the Economic Cooperation Organization (ECO) secretariat will be organizing, in conjunction with the WP.5 thirty-fifth annual session, a designated Expert Round Table discussion to take stock of the operational rail capacity of the Trans-Caspian and Almaty-Istanbul corridors including the availability of reliable corridor-wide agreed timetables and tariffs as well as en route border crossing point efficiency. The Expert Round Table will gather senior railway and customs officials from countries on both corridors and will be expected to lead to a prioritized list of actions to be taken in relation to the harmonization of existing tariffs, services, and time schedules and already documented physical/ non-physical challenges and bottlenecks.

3. The present document has been compiled by the secretariat with the support of a regional expert on transport corridor development.¹ Corridor specific data and information has been collected by the regional expert through a network of national railway, transport, and customs focal points in countries on both corridors and with the support of the ECO secretariat. Some of the data received are incomplete and will require follow-up and some countries have indicated they will need more time to present their data in the required format.

¹ Mr. R. Devadze, Ministry of Economy and Sustainable Development of Georgia



In this regard, the secretariat, with the support of the regional expert, is planning to continue consultations and information gathering throughout the summer and prepare ahead of the upcoming WP.5 session an additional informal document with a twofold purpose: i. To compile full and up-to-date datasets for all of countries on both corridors; ii. To prepare a set of visual materials, in the form of maps, charts and diagrams, showcasing the potential of both transport corridors.²

II. Overview of trade and transport developments between Europe and Asia and their impact on the Trans-Caspian and Almaty-Istanbul corridors

A. Steady increase in trade volumes

4. In 2021, trade volumes between Europe and Asia rose to their highest level in 20 years, reaching US\$ 3.1 trillion. Overall, the trade balance between Europe and Asia is imbalanced with US\$ 486 billion more imports than exports. China is the third largest trade partner for EU exports of goods and the largest partner for European Union imports of goods. Trade data³ shows that there has been a constant growth of trade between European Union and China for the past five years.⁴ Trade grew from US\$ 680 billion in 2017 to US\$ 980 billion in 2021, despite COVID-19 worldwide supply chain disruptions over the last two years. In 2021 trade volumes grew 22 per cent compared to 2020, in fact the Year-Over-Year (YOY) growth rate outpaced the one from before the outbreak of the pandemic.

5. Massive trade volume increases also require an expansion of efficient transport capacities. In May 2022, China-Europe freight container trains transported TEU 129,500⁵ with the average daily volume climbing 13.3 per cent which shows that despite the ongoing war in Ukraine and COVID-19 restrictions in major trade hubs across Asia, demand for container train services continued to rise. The Northern Corridor volumes may be affected further in case there will be a ban on transit trains currently utilizing this route through the territory of the Russian Federation on their way to the European Union.

6. Trade between European Union and China is imbalanced, in 2021 for instance, the European Union imported approximately US\$ 700 billion worth of goods from China and exported only US\$ 280 billion worth of cargo. The trade imbalance is echoed in the Europe-China container trains which shows imbalance between westbound and eastbound trains. In 2021 for every westbound container train to Europe were four eastbound trains departing from Europe. This imbalance presses on the cost structure of the transport service as empty trains add to the overall costs of operations.

B. Soaring ocean shipping rates increase inland transport attractiveness

7. Another significant complication in international trade between Europe and Asia are the increased container freight rates for ocean shipping. As an example, in 2018, ocean shipping costs per container from China to Türkiye would be approximately US\$ 2,000-2,500 compared to US\$ 14,000⁶ at present, which is a sevenfold increase of cost for cargo owners

² Previously prepared working documents entitled “Inputs from relevant ECE Working Parties on operationalization of international corridors” (ECE/TRANS/WP.5/2020/1) and “Proposals and feedback by ECE Governments on further operationalisation of Euro-Asian transport links” (ECE/TRANS/WP.5/2021/1) will serve as additional background material for the upcoming deliberations.

³ Source: International Trade Centre (ITC) Trade Map 2022, available at: www.trademap.org

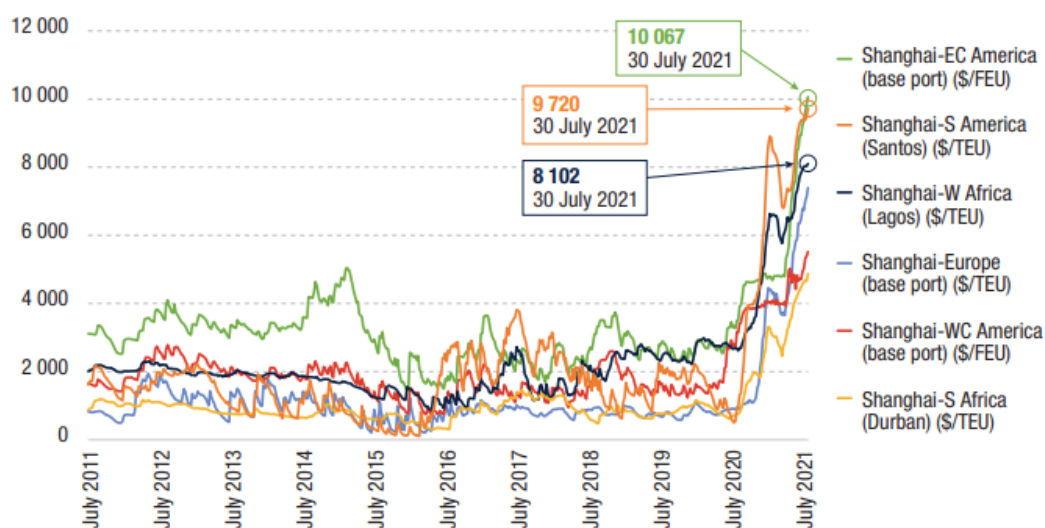
⁴ EU+UK

⁵ Source: The State Council of the People`s Republic of China (June 2022), available at: https://english.www.gov.cn/archive/statistics/202206/01/content_WS62975628c6d02e533532b97f.html (last accessed 27 June 2022)

⁶ Source: Searates by DP World (2022), available at: www.searates.com (last accessed 25 June 2022)

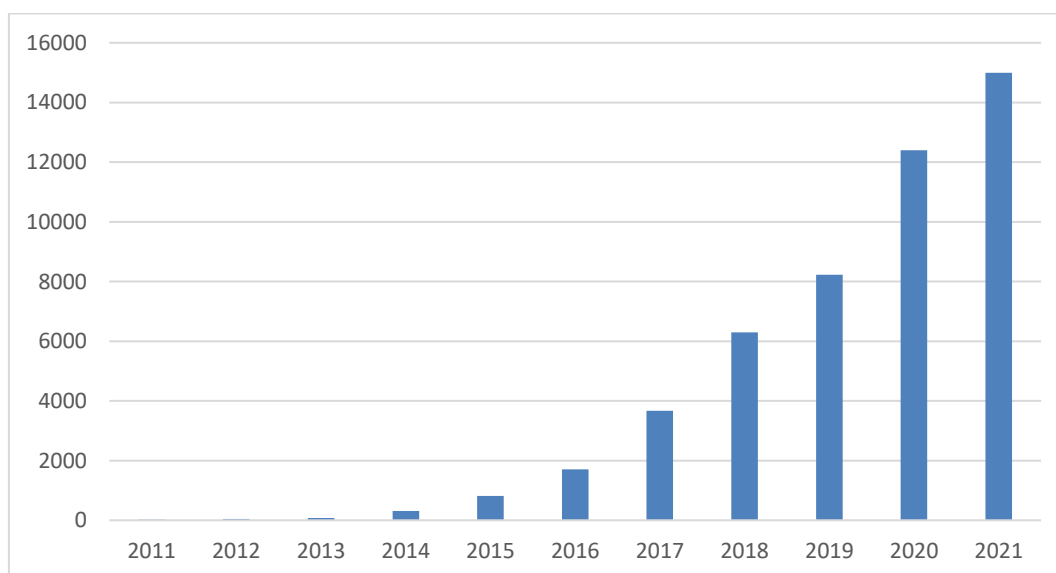
and logistics companies. Price increases were exacerbated by congestions⁷ in ports mostly due to shortages in labour force at ports needed to perform operations in a timely manner. In 2021, China-Europe freight train trips surpassed 15,000⁸ yearly which is a 22 per cent YOY increase. For comparison, before sea shipping prices started to surge dramatically the number of annual train trips amounted to only 8,225. In terms of containers these movements amount to TEU 1.46 million which is a 29 per cent YOY increase. This clearly signifies stakeholders' interest in diversifying from maritime to rail transport in response to unpredictable price fluctuations on the maritime connections.

Figure I
Shanghai-Europe Ocean shipping price history



Source: UNCTAD, 2022

Figure II
China-Europe rail freight train shipments



Source: New Silk Road Discovery (2022)⁹

⁷ Source: CNN Business (June 2021), available at: <https://edition.cnn.com/2021/06/17/business/china-ports-global-supply-chain-intl-hnk/index.html> (last accessed 26 June 2022)

⁸ Source : State Council of the People`s Republic of China (PRC) (January 2022), available at: https://english.www.gov.cn/archive/statistics/202201/04/content_WS61d4357dc6d09c94e48a31f5.html (last accessed 25 June 2022)

⁹ Source: New Silkroad Discovery (2022), available at: <https://www.newsilkroaddiscovery.com/how-much-pressure-is-the-china-europe-freight-train-under-from-the-ukraine->

C. Container shortages

8. Another factor, affecting transcontinental shipping which influenced pricing and transit time for the industry is container availability which was in shortage in recent years.¹⁰ Container shortages appeared in the immediate wake of the COVID-19 pandemic which caused many of the factories and manufacturing industries across Asia to suspend operations. Ports were not able to operate on their normal capacity levels with reduced numbers of staff, as strict rules applied often forcing them into quarantines or self-isolation. The latter implied that vessels carrying empty containers took longer to unload on shore. Moreover, as it was usual business before the pandemic to send vessels from Europe to Asia with empty containers this practice was stopped during the pandemic. In late 2020 factories in Asia resumed operations which created a renewed high demand for containers which were not available. Container shortages affected maritime as well as rail, but rail had more stability in its operations compared to maritime shipping. Above mentioned and other determinants increased interest from the stakeholders to explore ways for diversification of supply chains and to start looking at the rail sector as a promising alternative for inter-continental transport.

III. Potential for diversification of inland transport routes between Europe and Asia

9. There are several inland transport corridors connecting Europe and Asia, although their level of development varies. Over the last decade, the bulk of trade volumes have been transported by rail from Asia to Europe and vice versa on the Northern or Trans-Siberian corridors transiting from China (People`s Republic of) through Kazakhstan or Mongolia into the territory of the Russian Federation and then onwards to Belarus and the European Union Member States.

10. In recent years, countries on the Trans-Caspian corridor and the ECO supported Almaty-Istanbul corridor have come to acknowledge that to untap their potential and to fully meet the requirements of modern supply chains: reliability, safety, and customer service as well as environmental and climate related sustainability more efforts and corridor-wide agreed and coordinated actions are needed. In this regard in the framework of the Working Party on Transport Trends and Economics (WP.5), the Governments of Azerbaijan, Georgia, Kazakhstan, Türkiye, and Ukraine have initiated in cooperation with the WP.5 secretariat, the development and gradual implementation of an EATL Route 3 Corridor Coordination Management Mechanism (CCMM) and Corridor Performance Review (COPR) Mechanism.¹¹

crisis/?utm_source=rss&utm_medium=rss&utm_campaign=how-much-pressure-is-the-china-europe-freight-train-under-from-the-ukraine-crisis (last accessed 26 June 2022)

¹⁰ Source: Hillebrand (2022), available at: <https://www.hillebrand.com/media/publication/where-are-all-the-containers-the-global-shortage-explained> (last accessed 26 June 2022)

¹¹ Source: UNECE (WP.5) Working Party on Transport Trends and Economics (2021), available at: <https://unece.org/transport/documents/2021/07/working-documents/proposals-and-feedback-ece-governments-further> (last accessed 26 June 2022)

Map 1
Kazakhstan-Azerbaijan-Georgia-Türkiye route



Source: Middle Corridor Association (2022)

11. The below Strengths-Weaknesses-Opportunities-Threats (SWOT) analysis on the Trans-Caspian corridor provides a snapshot evaluation showing the current situation along the EATL route 3.¹³

<i>Strengths</i>	<i>Weaknesses</i>
<p>Strong Government commitment to improve and attract additional cargo flows</p> <p>Many ongoing international initiatives</p> <p>High potential infrastructure projects are being implemented, e.g.:</p> <ul style="list-style-type: none"> • In Azerbaijan and Georgia (Baku and Poti (deep) seaports) • In Türkiye: doubling of the Plovdiv-Istanbul line including upgrades to the Svilengrad-Kapıkule border crossing in Bulgaria planned • High speed railway development program linking, e.g., Istanbul-Edirne, Ankara-Izmir 	<p>Scarcity of active players on the corridor/ lack of a powerful integrator / facilitator / coordinator</p> <p>Lack of a centralized entity that drives the cargo flows on EATL route 3 (clients need to interact with one entity for the whole service instead of with three or four carriers;)</p> <p>Limited scheduled train services (confidence by the market is built when regular, trusted, and efficient services are provided)</p> <p>Limited and non-scheduled ferry services</p> <p>Interoperability challenges, different customs and consignment regimes, different gauge width</p> <p>Too many international/ regional initiatives and undertakings, sometimes competing and lacking coordination</p> <p>Lack of data digitization and CIM/SMGS harmonization complicating processes</p>

¹² Source: Middle Corridor Association (2022), available at: <https://middlecorridor.com/en/> (last accessed 26 June 2022)

¹³ Source: International Union of Railways (UIC)/ Roland Berger study on Silk Road Middle and Southern Corridors (Paris, April 2021) as well as the UNECE EATL Phase III report.

Opportunities	Threats
Rail sector is increasingly recognized as environmentally sustainable creating powerful momentum for the sector	Other EATL routes are still outperforming in terms of transit time and costs, reliability, and complexity
Countries along the corridors ready to commit to corridor development	Parts of the demand for EATL route 3 are diverted to other routes, to avoid certain inefficiencies
High demand potential for countries in catchment and for specific categories goods	Chinese subsidies are currently focused on Northern corridors
Harmonization and digitalization of customs and transport documents can provide quick gains	Many countries trying to attract increased volumes individually – lack of a collective Whole of Corridor approach

12. A second corridor that is in the scope of this document is the ECO secretariat supported Almaty-Istanbul corridor which passes through Kazakhstan, Uzbekistan, Turkmenistan, Iran and Türkiye (**Error! Reference source not found.**). Unlike the EATL route 3 this is a unimodal railway route spanning across the two continents. The Almaty-Tehran-Istanbul route through Uzbekistan is 1,000 km shorter than the so-called Kazakhstan-Turkmenistan-Iran route which bypasses Uzbekistan.

Map 2

Kazakhstan-Uzbekistan-Turkmenistan-Iran-Türkiye route



Source: RAI (2020), available at: https://uic.org/IMG/pdf/a_nazari-rai.pdf (last accessed 26 June 2022)

IV. Logistics performance of the Trans-Caspian and Almaty-Istanbul corridors

13. To assess the capacities of the countries along both corridors in terms of processing international freight transport, the World Bank Logistics Performance Index (LPI) can be utilized which consists of a six-step evaluation process looking at: (a) “Customs” (the efficiency of customs and border management clearance processes); (b) “Infrastructure”(the quality of trade and transport infrastructure); (c) International shipments (the ease of arranging competitively priced shipments); (d) Logistics competence (the competence and

quality of logistics services - trucking, forwarding, and customs brokerage); (e) Tracking and tracing (the ability to track and trace consignments); and (f) Timeliness (the frequency with which shipments reach consignees within scheduled or expected delivery times). In 2018 from the group of eight countries along both corridors, Türkiye came out ranked first with a global LPI rank of 47 and Turkmenistan landed on place 7 out of eight countries with a global rank of 126. Data for Azerbaijan is not included in the World Bank LPI 2018 (Table 1). Substantial differences in LPI index performance among the eight countries are a strong indicator that logistics standards in each country vary significantly and that harmonization and coordination efforts are needed to improve connectivity on both corridors.

Table 1
LPI¹⁴ 2018 for the countries of Kazakhstan-Türkiye corridors

Country	LPI Rank	LPI score	Customs	Infrastructure	International shipments	Logistics competence	Tracking and tracing	Timeliness
Türkiye	47	3.15	2.71	3.21	3.06	3.05	3.23	3.63
Iran, Islamic Republic of	64	2.85	2.62	2.77	2.76	2.84	2.77	3.36
Ukraine	66	2.83	2.49	2.22	2.83	2.84	3.11	3.42
Kazakhstan	71	2.81	2.66	2.55	2.73	2.58	2.78	3.53
Uzbekistan	99	2.58	2.10	2.57	2.42	2.59	2.71	3.09
Georgia	119	2.44	2.42	2.38	2.38	2.26	2.26	2.95
Turkmenistan	126	2.41	2.35	2.23	2.29	2.31	2.56	2.72

Table 2
Corridor LPI index calculated by average of member country LPI indices are the following:

Corridor	Average LPI
Trans-Caspian corridor	2.81
Almaty-Istanbul corridor	2.76

Table 3
Based on distance-transit time to cross the country the results are the following:

Country	Distance to cross the country (in km)	Days
Kazakhstan	3 128	3
Azerbaijan	429	1.042
Georgia	396	1
Türkiye	1877	2.92

14. It should be noted that actual transit times of container trains might very significantly be caused by operational challenges.

¹⁴ Every LPI component is rated between 1-5, with 1 standing for very low and 5 for very high.

V. Railway capacity assessment

A. Trans-Caspian/ Almaty Istanbul Rail Freight Corridors (from East to West)

1. Republic of Kazakhstan

- Railway network length: 16 000¹⁵ km;
- Railway standard: 1,520 mm;
- Throughput capacity: 240,000 TEU (Altynkol-Aktau line);
- Freight Wagons: 54,925.

15. For the period 2001-2016 the Kazakhstan Railway Company (KTZ) has built 2,500¹⁶ km of railway lines. Some of the single-track lines may experience capacity constraints in the future which could limit the attraction of additional freight volumes and the overall speed of trains, additional investments may be needed to mitigate this risk. Investments in passing lines, double-tracking and electrification are under consideration. In 2017 KTZ owned 1,732 locomotives, at least 78 per cent of electric locomotives and 61 per cent of diesel locomotives have been used for more than 25 years. Aktau port which is one of the gateway ports for Kazakhstan to Azerbaijan has a throughput capacity of 17.7 million. The port of Kuryk mainly serves Ro-Ro ferries and bulk products.

16. KTZ serves as a first touching point for containerized cargo coming from China to Europe bypassing the Northern Corridor. In 2018, the railway sector handled 390 million tons of cargo which is 10 per cent of total cargo volume handled by all transportation modes.

17. In 2017, 5 per cent of freight volumes were generated by transit cargo. The country has two railway border crossing with China at Khorgos and at Dostyk.

18. Usually, container trains with destination Türkiye or Georgia are handled in Khorgos which has modern terminals and equipment for transshipment between standard and wide gauge of railway. KTZ handles both routes passing through: the Khorgos-Aktau/Quryk line and another one passing through Khorgos-Saryagash line connecting to Uzbekistan. In 2022, a US\$ 20 billion investment plan was announced aimed at diversification of transport and transit routes through Kazakhstan.¹⁷

2. Republic of Azerbaijan

- Railway network length: 4,285 km;
- Railway standard: 1,520 mm;
- Throughput capacity: 20 freight trains/day.

19. Azerbaijan Railways (ADY) is rehabilitating 166 km of the double-tracked north-south corridor line between Sumgayit and Yalama. ADY has a rolling stock fleet of 59¹⁸ mainline electric locomotives, 36 mainline diesel locomotives (10 new), 80 diesel shunting locomotives, 4,193 freight wagons (3 101 new) and 9 modern electric multiple units. Baku has the largest port on the Caspian Sea with a handling capacity of 15 million tons of bulk and 10 million tons of dry cargo. More than 80 per cent of its cargo comes from transit. In 2018, the Government opened a new port next to Baku called Alat which has a capacity of 15 million tons and 100,000 TEU. The Alat port is connected to the railway network and services Aktau-Baku feeder vessels. ADY handled 14 million tons in 2018 which is 6 % of

¹⁵ Source: KTZ (2020), available at: https://railways.kz/articles/for-investors/godovye_otcheti (last accessed 25 June 2022)

¹⁶ Source: CAREC – Railway sector assessment for Kazakhstan (2021)

¹⁷ Source: New Europe newspaper (2022), available at: <https://www.neweurope.eu/article/eu-kazakhstan-to-discuss-transit-strategy-and-middle-corridor-development/> (last accessed 25 June 2022)

¹⁸ Source: CAREC – Railway sector assessment for Azerbaijan (2021)

total modal split. ADY is a major contributor to the trans-Caspian route via Baku/Alyat port at the Caspian Sea and Beyuk Kesik railway border crossing point with Georgia. ADY has a daughter company ADY Container which is actively involved in developing the corridor through international partnerships. In June 2022, ADY Container announced¹⁹ a new service connecting the port of Batumi in Georgia and the port of Constanta port in Romania.

3. Georgia

- Railway network length: 1,443 km;
- Railway standard: 1,520 mm;
- Throughput capacity: 27 million tons;
- Freight Wagons: up to 4,600.

20. In 2017, the Baku-Tbilisi-Kars (BTK) railway line was opened for shipments in a test phase. The line connects Azerbaijan, Georgia, and Türkiye via railway line. BTK has a capacity of 5 million TEU per year. Currently approximately 85 per cent of construction works are completed however cargo trains continue to run in a test mode. Georgian Railways (GR) showed steady growth of handled cargo in the past several years hitting 12 million tons in 2021.

21. In 2018, GR had 25²⁰ electric multiple units in service, 105 electric locomotives, 65 diesel locomotives, 5,001 freight wagons and 51 passenger coaches. In 2020 GR had up to 4,600 wagons. Significant portion of rolling stock is at the end of its normal locomotive life and there is a need for investment in freight wagons. GR plays an important part in the operationalization of the Trans-Caspian multimodal railway route as container trains can be directed either to the Black Sea ports of Poti/Batumi and then by vessel to the European Union and/or Ukraine or towards Türkiye through the Baku-Tbilisi-Kars newly built railway line. The port of Poti has a capacity of 550,000 TEU while the port of Batumi has a capacity of 200,000 TEU. GR also invested in a modernization project in the gorge section of its network which is 95 per cent completed and will increase the throughput capacity of GR from 27 48 million tons per annum.

4. Türkiye

- Railway network length: 13,022²¹ km;
- Railway standard: 1,435 mm;
- Throughput capacity: 90,000 TEU (Jambaz-Istanbul line).

22. Turkish State Railway (TCDD Taşımacılık) has a railway network that is connected both to the Tran-Caspian Corridor as well as to the route through Iran from the East and to European Union to the West. Türkiye plans to double its network size from 13,022 km to 28,590 km by 2053. On May 8, 2020²², the Minister of Transport and infrastructure of Türkiye inaugurated the start of rail freight through the Marmara tunnel under the Bosphorus which is a big step forward for improving inter-continental transit freight services.

¹⁹ Source: ADY container (2022), available at: <http://adycontainer.com/en/ady-container-launches-a-new-service-in-the-direction-of-batumi-europe/> (last accessed 26 June 2022)

²⁰ Source: CAREC – Railway sector assessment for Georgia (2021)

²¹ Source: Railtech (2022), available at: <https://www.railtech.com/infrastructure/2022/04/12/turkey-aims-for-major-increases-in-railway-passenger-numbers-and-freight-volume/?gdp=accept> (last accessed 25 June 2022)

²² Source: Railjournal (2019), available at: <https://www.railjournal.com/freight/turkey-inaugurates-domestic-freight-services-through-marmaray-tunnel/> (last accessed 18 June 2022)

5. Republic of Uzbekistan

- Railway network length: 4,733²³ km
- Railway standard: 1,520 mm
- Freight Wagons: 23,000

23. Uzbekistan Railway, O‘zbekiston Temir Yo‘llari (UTY) manages, operates, and maintains the national railway network. Rolling stock of UTY consists of 98 mainline electric locomotives, 82 diesel locomotives, 21 electric multiple units and 172²⁴ shunting locomotives. Many of the locomotives are near the end of their service life. In 2018 almost 2/3 of freight was domestic. Transit traffic was less than 10 per cent of total volumes, while import and export contributed 28 per cent of the volume. UTY has lowered profit margins to compete with road transport companies and as a result it has lesser funds available that can be invested in infrastructure and rolling stock development. UTY lacks sufficient wagons that are demanded in the market, such as flatbed wagons for carrying containers.

6. Turkmenistan

- Railway network length: 3,840 km²⁵;
- Railway standard: 1,520 mm;
- Freight Wagons: 10,056.

24. In 2019, the Turkmen Railway Agency (TRA) featured 119 diesel locomotives and 10,056 freight wagons. The freight wagon fleet included, 2,849 tanker wagons, 1,738 gondola wagons, 1,637 flatbed wagons, 1,358 closed hopper wagons, 1,143²⁶ box wagons and 654 refrigerated wagons. Most of the mentioned locomotives are less than 15 years old and only six locomotives are over 30 years. However, in 2019 more than 6,000 wagons were at least 30 years old and many of them had exceeded their typical economic life span. In 2018, 74 per cent of freight volumes were generated domestically and almost 11 per cent was a transit cargo. TRA has one railway connection with Uzbekistan and two railway connections with Iran. It is connected with Uzbekistan via Farab and Sarahs is a main border crossing point with Iran. Currently there is no container traffic through this route as there are no tariffs agreed for the Kazakhstan-Türkiye railway route through Farab-Sarahs line. A Kazakhstan-Turkmenistan-Iran- (KTI) Railway Corridor has been established along which shipments are being performed.

7. Islamic Republic of Iran

- Railway network length: 1 299 km;
- Railway standard: 1 435 mm.

25. The Islamic Republic of Iran Railways (RAI) has an extensive network of railways in the Southern Caspian Sea region. Azerbaijan and Iran (Islamic Republic of) have constructed a railway near the border crossing Astara-Astara but there is a 162.5 km missing link between Rasht and Astara which would enable railway transportation between Iran (Islamic Republic of) and Azerbaijan without using road transport. Iran (Islamic Republic of) is connected to Turkmenistan with two railway border crossing points, one at Sarahs which is utilized for Almaty-Istanbul corridor through Uzbekistan and the second one is Incheh Borun which is on the KTI corridor. Based on inputs received from RAI currently, the Almaty-Istanbul route through Uzbekistan is not used for container transportation and is utilized mostly for transportation by wagons. Although, there is a high interest in developing container transportation through the mentioned corridor. KTI is more active²⁷ in railway-based

²³ Source: OTY (2022), available at: <https://railway.uz/en/gazhk/statisticheskie-dannye/> (last accessed 20 June 2022)

²⁴ Source: CAREC – Railway sector assessment for Uzbekistan (2021)

²⁵ Source: OSJD Bulletin of Statistical Data on Railway Transport for 2020 (2020)

²⁶ Source: CAREC – Railway sector assessment for Turkmenistan (2021)

²⁷ Source: Tehran times (2021), available at: <https://www.tehrantimes.com/news/473795/1st-Kazakhstan-Turkey-transit-train-arrives-in-Iran> (last accessed 23 June 2022)

container transportation with up to 40 block trains from China transported since 2016. Neither of the two routes through Iran (Islamic Republic of) have regular, scheduled container block trains running from China.

8. Ukraine

- Railway network length: 19,800 km;
- Railway standard: 1,520 mm;
- Freight wagons: 82,500.

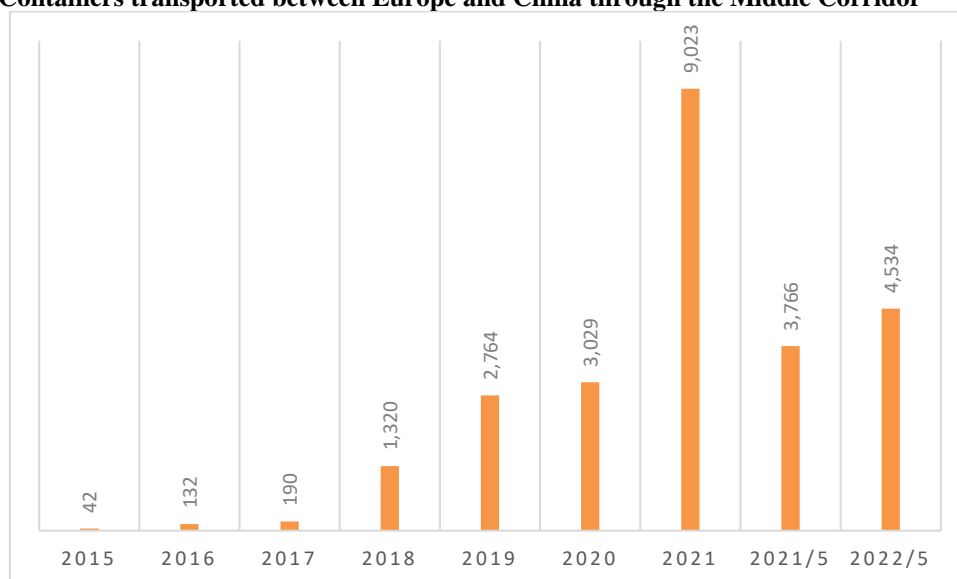
26. Ukrainian Railways (Ukrzaliznytsya) has connections with Belarus, Moldova, Poland, Romania, Slovakia and Hungary which makes it one of the most important gateways for the South Caucasus and Central Asia regions to connect to central and Northern Europe. It is one of the members of the Middle Corridor Association. Due the ongoing conflict in Ukraine and the resulting blockage of its Black Sea there are currently no ferry operations in the direction of Georgia or Turkey.

VI. Trans-Caspian International Transport Route (the Middle Corridor) – current situation and next steps

A. Increase of volumes

27. In 2014, a group of railway and port operators, as well as a shipping company established the coordination committee for the development of the Trans-Caspian International Transport Route (TITR/Middle Corridor) which was the first regionally organized step forward towards operationalization of the Europe-Asia railway-based freight corridor through Kazakhstan, Azerbaijan, Georgia and Türkiye. Later, an association was established with the same name, and it enabled more operators in these countries to discuss and agree on tariffs and tackle operational challenges. Statistical data shows that since 2015 container traffic on the the Trans-Caspian corridor through Georgia was systematically increasing. Figure III. In 2015, the corridor transported 42 TEU and in 2021 volume surpassed 9,000 TEU. This trend continues even in 2022, showing a 20 per cent growth in the first five months compared to the same period of last year. Even though 2021 was quite a good year in terms of growth, compared to TEU 1.46 million transported by freight trains on the Northern Corridor it represents only a small portion of total inland transport volumes.

Figure III
Containers transported between Europe and China through the Middle Corridor



Source: GR (2022)

28. Increased interest in the Trans-Caspian routes is a good opportunity for the countries on the corridor to showcase its potential as a reliable and competitive alternative for maritime transport. However, as container volumes rise on these routes, challenges become more apparent.

B. Current tariff and transit situation

29. Currently, the transport cost from Khorgos border station to Istanbul for a 40-foot container starts at around US\$ 3,500 (for Shipper Owned Containers or SOC) that is, without container rental cost. Container leasing costs on the China/Northeast Asia to Germany/Northern Europe direction total to around US\$ 2,268²⁸ for a 40' container, but this amount changes in response to market conditions. In comparison, maritime Shanghai-Istanbul route costs approximately US\$ 12,000²⁹ SOC. While container costs should be added to the cost of railway transport, it can still compete with ocean shipping.

30. Transit time is one of the most competitive advantages of the Trans-Caspian Corridor and in official announcements it varies between 10-15 days from the China-Kazakhstan border to Türkiye and this is a twice shorter time compared with ocean shipping which needs at least 30 days for the Shanghai-Istanbul maritime route. However, it is noteworthy that the announced 10–15 days seldom are rarely achieved in reality, and delays might lead to around 30 days of transit time or more.

31. Overall, there are positive dynamics in terms of interest expressed in the corridor from private companies such as Maersk, Medlog and Nurminen Logistics which already started to perform container transport operations on the route.

Tariffs and transit times for 40' container transportation in US\$³⁰

Country	Kazakhstan*	Azerbaijan	Georgia	Türkiye	total
Minimum tariffs	1 770	392	430	1 071	3 663 US\$
Minimum days	4.25	1.042	1	2.92	10
Distance	3 654	429	220	1 877	6 180

²⁸ Source: container xchange (2022), available at: https://www.container-xchange.com/blog/container-leasing/#container_leasing_one-way_leasing_rates_overview (last accessed 24 June 2022)

²⁹ Source: Searates by DP World (2022), available at: www.searates.com (last accessed 24 June 2022)

³⁰ Source: Middle Corridor (2022)

* Includes cost of feeder/ferry service and feeder/ferry transit time

32. Precondition:
- (a) Does not include container leasing cost;
 - (b) Prices may vary depending on negotiations.

C. Remaining challenges

- **Lack of scheduled container trains** – Even though there are several container trains passing through the Middle Corridor there are no scheduled train departures from either side of the corridor.
- **Lack of track and tracing platforms/systems** – Currently there is no unified digital platform where cargo owners and other stakeholders will have access to real-time or even scheduled updates of where their containers are on the corridor. This is usually fixed by customers organizing GPS tracking systems, but it is an extra cost.
- **Lack of unified document/data exchange** - Even though there are some working groups created by railway operators along the Middle Corridor to digitalize the CIM/SMGS documentation exchange, real digital solutions are still missing on the corridor.
- **Lack of container platforms**- Interviews showed that there are not enough container platforms for uninterrupted container transportation on the corridor. However, there are attempts to remedy this issue by purchasing flatbed wagons by railway operators. Lack of container platforms is often the reason of a container train build up at border crossing points (BCPs) resulting in congestion. If CIM/SMGS documents are filled in correctly and all documentation is available delays at BCPs tend to be limited.
- **Lack of scheduled feeder services** – Container feeder services are available on the Caspian and Black Seas, but they have no scheduled services as delays in trains affect feeder vessel operations.
- **There is no single company operating the corridor transportation** – The corridor does not have one company uniting interests of all operators and driving to commercial success for its owners.
- **Lack of container availability** – In some cases customers are asked to organize container supplies which is not an easy task for small volume or one-time customers.

D. Proposed priority actions:

- **Improving track and tracing systems** – Stakeholders would benefit from the introduction of an accessible track and tracing systems across the corridor. Track and tracing system should allow relevant parties, including railway operators and cargo owners to have real-time or regularly updated information on the location of the container.
- **Electronic document exchange** – Introduction of electronic CIM/SMGS railway consignment notes would streamline document exchange processes throughout the corridor reducing human errors and improving speed of information exchange. Stakeholders have mentioned that the working group is created among relevant railway operators aimed towards digitalizing transport documents although, this work is still at an early stage.
- **Corridor Management Mechanism (CMM)** – Governments may explore, as per the initiative taken in the framework of WP.5,³¹ of creating a neutral international

³¹ Source: UNECE (WP.5) Working Party on Transport Trends and Economics (2021), available at: <https://unece.org/transport/documents/2021/07/working-documents/proposals-and-feedback-ece-governments-further> (last accessed 26 June 2022)

platform for coordination and monitoring the corridor wide facilitation actions. The main objective of the CMM would be to identify for each segment as well as for the entire corridor, specific challenges, devise mitigation plans and monitor the implementation process. CMM may include the following functions:

- Identification of capacity needs of the corridor in terms of infrastructure rolling stock and other necessary factors needed for ensuring enough capacity for the growing container transportation trends.
- Elaboration of joint marketing and promotion plans in local and international markets. Corridor value should be rightly showcased towards potential users and this can be done easily if efforts are combined by corridor member countries so that promotional messages do not vary by country.
- Coordination with railways to ensure facilitation of designing and implementation of scheduled container trains connecting Europe and Asia.
- Coordination of efforts in digitalization of corridors that includes assessing digital readiness of the countries involved starting from public sector (customs, railways, etc.) to private sector.
- **Container availability** – Corridor member countries might try to ensure container availability through container pooling, through partnerships with an ocean shipping companies and/or other commercially viable options.
- **Flatbed wagon/platform availability** – Railway operators might need to consider pooling its flatbed wagons and/or purchase so to ensure uninterrupted container transportation on the corridor. As there are several break-of-gauge, sea-legs and transshipment points container platform availability plays a crucial part in the corridor management.

VII. Almaty-Istanbul Corridor - Current situation and possible next steps

A. Current situation

33. Almaty-Istanbul Corridor connects Europe and the Eastern Asia through Khorgos and Saryagash in Kazakhstan, Farab and Keles in Uzbekistan, Farab and Serahs in Turkmenistan, Serahs and Razi in Iran and Kapikoy-Izmit in Türkiye. Even though this route is in use for freight transportation currently, its current focus is on bulk.

34. The route has high potential for container transportation as it is approximately 1,000 km shorter than KTI route which goes along the Caspian Sea to Iran bypassing Uzbekistan. Besides being a relatively short route to Türkiye, it has a potential to offer diversification value by bypassing the Caspian Sea and avoiding operational difficulties of multimodality. In the case of the trans-Caspian transport route, at both sides of the Caspian Sea there are either transshipment operations to load containers onto a vessel or container wagons are put on ro-ro rail ferries, and these operations are not possible if weather conditions are not favourable. These operations are completely avoided through the Almaty-Istanbul corridor in this section of the corridor. Even though it has potentially significant advantages over other railway routes it lacks experience in running inter-continental container block trains.

35. It is worth mentioning that RAI is very keen on operationalizing this corridor as it wants to play a bigger role and capitalize on its unique position and comparative advantages.

36. During the study tariffs were obtained for the Uzbekistan sections of the route, Keles-Hodjadavlet which is US\$ 1,096 for 40' loaded container.³²

³² Source: OTY (2022)

B. Remaining Challenges

- Lack of joint institution – There is no association or other type of organization established by Kazakhstan, Uzbekistan, Turkmenistan, Iran and Türkiye that would identify challenges and elaborate commonly agreed tariffs, services and time-schedules on the corridor.
- Need for infrastructural development – During the interviews stakeholders mentioned that there is a need for developing logistics infrastructure to have better readiness for container handling.
- Lack of scheduled container trains – There are no container train services announced to be operated.
- Lack of digitalization – Currently there is no unified digital platform or system utilized on the corridor which would allow for track and tracing and electronic document exchange.

C. Proposed list of priority actions

- As the Almaty-Istanbul corridor through Uzbekistan is not operational for container transportation by train, it is reasonable at a first stage to explore willingness and interest of all stakeholders involved for developing the mentioned corridor for containerized traffic.
- Corridor coordination platform – It is recommended to establish a coordination platform (it can be useful to do it under the umbrella of a neutral international organization) to elaborate tariffs that can be easily accessible for the stakeholders.
- Full-fledged assessment of railway capacity of the corridor – More deeper capacity assessment is recommended to be conducted to dive into details of infrastructural and rolling stock gaps of the corridor.
- Capacity building – LPI index as well as general experience in inter-continental railway transportation shows that competences vary a lot on a country by country basis, hence human capital capacity building activities including through best practice sharing and specific competence sharing is highly recommended in the region.
- Digitalization – in parallel to agreed steps to be taken to jump start the development of containerized transportation, plans may be developed to digitalize the corridor and set up a system for electronic document exchange.
- Test train – best practices show that running a pilot train through a corridor reveals operational gaps, hence a similar approach can be applied to the route by running container trains from China to Türkiye.

Annex

I. Kazakhstan

Export to Türkiye/Europe

Country	Route	Distance	Container (Loaded)		Container (Empty)		Transit time (days)
			20'	40'	20'	40'	
Transit through Kazakhstan (to/from Türkiye/Europe)							
Country	Route	Distance	Container (Loaded)		Container (Empty)		Transit time (days)
			20'	40'	20'	40'	
Kazakhstan	Khorgos/Altynkol-Aktau	3128	460	920			3
Azerbaijan-Kazakhstan Ferry							
Loaded container:		511	230	460			1.25
Empty container:							
Azerbaijan-Kazakhstan container feeder							
	Loaded container	511	230	460			1.25
	Empty container						
Cost of Customs Formality							
Export:			20	20			
Import:			20	20			
Transit:			20	20			
Container Handling Cost							
Loaded:			267	370			
Empty:							
Any other cost (Please specify):							

Preconditions to quotations:

- (a) These tariffs are only for Altynkol-Aktau-Kars-Istanbul direction (it might vary depending on destination);
- (b) 20' prices apply only when two containers are on the flatbed wagon/platform;
- (c) Prices are shown in US\$.

II. Azerbaijan

Azerbaijan: Railway tariffs

Transit through Azerbaijan (from/to Kazakhstan/China)

Country	Route	Distance (km)	Container (Loaded)		Container (Empty)		Transit time (days)
			20'	40'	20'	40'	
Azerbaijan	Baku-Boyuk Kesik	429	133	172			1.042
Azerbaijan	Boyuk Kesik - Baku	429	133	172			1.042
Kazakhstan-(Azerbaijan-Georgia)Türkiye							

Azerbaijan: Railway tariffs

Türkiye (Izmit)-Kazakhstan (Almaty/Khorgos)		20'	40'	20'	40'	Transit time (days)
Azerbaijan-Kazakhstan Ferry		511	230	460		
Full container:						
Empty container:						
Azerbaijan-Kazakhstan container feeder						
	Full container	511	230	460		1.25
	Empty container					
Cost of Customs Formality						
Export:			20	20		
Import:			20	20		
Transit:			20	20		
Container Handling Cost (THC+other related cost)						
Loaded:		130	130	200		
Empty:						
Any other cost (Please specify):						

(a) These tariffs are only for Altynkol-Aktau-Kars-Istanbul direction (it might vary depending on destination);

(b) 20' prices apply only when two containers are on the flatbed wagon/platform;

(c) Prices are shown in US\$.

III. Georgia

Georgia: Railway tariffs

Transit through Georgia (from/to Kazakhstan/China)							
Country	Route	Distance	Container (Loaded)		Container (Empty)		Transit time (days)
			20'	40'	20'	40'	
Georgia	Gardabani-Akhalkalaki	220	186	230			1
Georgia	Gardabani-Poti*	396	123	158			1
Kazakhstan-(Azerbaijan-Georgia)Türkiye							
Türkiye(Izmit)-Kazakhstan (Almaty/Khorgos)			20'	40'	20'	40'	Transit time (days)
Georgia-Ukraine Ferry Cost							
Full container:							
Empty container:							
Cost of Customs Formality							
Export:			20	20			
Import:			20	20			
Transit:			20	20			
Container Handling Cost							
Loaded:							
Empty:							

Georgia: Railway tariffs

Any other cost (Please specify):	*tariffs for Altynkol-Poti direction only	35	70
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(a) These tariffs are only for Altynkol-Aktau-Kars-Istanbul direction (it might vary depending on destination);

(b) 20' prices apply only when two containers are on the flatbed wagon/platform;

(c) Prices are shown in US\$.

IV. Türkiye

Türkiye: Railway tariffs

Export to Kazakhstan/China

Country	Route	Distance	Container (Loaded)		Container (Empty)		Transit time (days)
			20'	40'	20'	40'	
Türkiye	Izmit (Kosekoy)-Jambaz		582	751			2.92

Import From Kazakhstan/China

Country	Route	Distance	Container (Loaded)		Container (Empty)		Transit time (days)
			20'	40'	20'	40'	
Türkiye	Jambaz - Izmit (Kosekoy)	1877	582	751			2.92

Transit through Türkiye (from/to Kazakhstan/China)

Country	Route	Distance	Container (Loaded)		Container (Empty)		Transit time (days)
			20'	40'	20'	40'	
Türkiye	Kapikoy - Izmit (Kosekoy)						

Kazakhstan-(Azerbaijan-Georgia)Türkiye

Türkiye (Izmit)-Kazakhstan (Almaty/Khorgos)			20'	40'	20'	40'	Transit time (days)
-		20'	40'	Transit time (days)			

Cost of Customs Formality

Export:

Import:

Transit:

Container Handling Cost

Loaded:

Empty:

Any other cost (Please specify):	200	320
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(a) These tariffs are only for Altynkol-Aktau-Kars-Istanbul direction (it might vary depending on destination);

(b) 20' prices apply only when two containers are on the flatbed wagon/platform;

(c) Prices are shown in US\$.

Turkiye: Railway tariffs for Almaty-Istanbul Corridor

Export to Kazakhstan/China

Country	Route	Distance (km)	Container (Loaded)		Container (Empty)		Transit time (days)
			20'	40'	20'	40'	
Turkiye	Izmit(Kosekoy)-Kapikoy	1844	464 EUR	580 EUR	332 EUR	414 EUR	Approximately 4

Import From Kazakhstan/China

Country	Route	Distance (km)	Container (Loaded)		Container (Empty)		Transit time (days)
			20'	40'	20'	40'	
Turkiye	Kapikoy - Izmit(Kosekoy)	1844	464 EUR	580 EUR	332 EUR	414 EUR	Approximately 4

Van Lake Ferry Cost

20' 40' Transit time (days)

Loaded container: 5.60 EUR per ton (14 tons in minimum) 5.60 EUR per ton (14 tons in minimum)

Empty container: 5.60 EUR per ton (7 tons in minimum) 5.60 EUR per ton (7 tons in minimum)

Cost of Customs Formality

Export: 2-axle wagon: 10 EUR per wg 4-axle wagon: 15 EUR per wg 2-axle wagon: 10 EUR per wg 4-axle wagon: 15 EUR per wg

Import: 25 EUR per wagon 25 EUR per wagon

Transit: 2-axle wagon: 10 EUR per wg 4-axle wagon: 15 EUR per wg 2-axle wagon: 10 EUR per wg 4-axle wagon: 15 EUR per wg

The abovementioned charges shall vary depending on gross weight and feet of the containers loaded to the wagons and are valid until 31/12/2022.

The charges and conditions shall vary if the hazardous goods subject to RID are carried by containers and in case of exceptional consignment.

Any other cost (Please specify): Marmaray Passage Fee: 30 EUR per wagon

V. Uzbekistan

Uzbekistan: Railway tariffs

Transit through Uzbekistan(from/to Kazakhstan/China)

Country	Route	Distance	Container (Loaded)		Container (Empty)		Transit time (days)
			20'	40'	20'	40'	

Uzbekistan: Railway tariffs

China-Uzbekistan-transit	Keles-Hodjadavlet-	732	548	1096	274	548
Kazakhstan-Uzbekistan-transit	Keles-Hodjadavlet-	732	525	946	310	556

- (a) Tariffs does not include additional cost and forwarding costs;
 - (b) China to Iran tariffs are calculated in accordance with Unified Transit Tariffs;
 - (c) Kazakhstan to Iran Tariffs are calculated in accordance with CIS Tariff Policy.
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