The Development of the Transport Sector in Azerbaijan: The Implementation and Challenges

Rovshan Ibrahimov*

Since the restoration of independence, development of the energy sector has been considered crucial for Azerbaijan. The development of the energy sector has supported the resolution of some of the country’s key geopolitical and geo-economic challenges. An integral part of Azerbaijan’s energy strategy was the creation of a system of transport corridors for energy exports. Creating the necessary infrastructure is an ongoing process. However, given the risk of being dependent on one sector, there is a need to diversify the national economy. The result is that a number of sectors have been identified to support the further sustainable development of Azerbaijan. Due to its favorable location, one of sectors identified for development is transportation. Azerbaijan proposes the development of alternative sustainable transport routes, which will enable unfettered access to major world markets. This process entails the development of transport infrastructure in synthesis with the formation of logistical infrastructure, cross-border transfer coordination, creation of a common legal framework, and competitive tariffs for transportation with third states. This article describes the establishment of transport routes in Azerbaijan, and the country’s role in the development of regional cooperation.

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Since independence to the present day Azerbaijan’s main export has been, and remains, hydrocarbons. The share of crude oil share its overall exports were to 77.61% in 2015, having reached 84.32% in 2014.1 During the early years of independence, Azerbaijan focused on the creation of the necessary infrastructure to export its oil and later natural gas. It created the pipeline systems that would enable access to world markets. An important aspect of the development of this infrastructure is the avoidance of dependency on a single path, in order to reduce political and economic risks. Transit countries may use this as leverage. In the event that the energy producer and the transit state are in conflict, regardless of the level of disagreement, the transit country can block the border or impose regulatory restrictions on trans-border trade.2 It was important for Azerbaijan to prevent such developments.

The following pipelines have thus far been built:

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<tr>
<th>Pipeline</th>
<th>General Information</th>
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<tbody>
<tr>
<td>Baku-Novorossiysk Oil Pipeline</td>
<td>Commissioned in 1997 in order to transport ‘early oil’ from Chirag field. Connects Sangachal terminal with Russian port on the Black Sea. The length is 1330 km. Capacity 6 mln ton. Transportation fee- 15.67 dollars per ton.</td>
<td>Was commissioned in order to prevent undesired complications in relations with Russia, which was interested in controlling transportation of Azerbaijani oil.</td>
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<tr>
<td>Baku-Supsa Oil Pipeline</td>
<td>Commissioned in 1999 in order to transport ‘early oil’ from Chirag field. Connects Sangachal terminal with Georgian port on the Black Sea. The length is 833 km. Capacity 6 mln ton. Transportation fee- 3.14 dollars per ton.</td>
<td>For the first time in the post-Soviet space one of the countries gained access to world markets, bypassing Russia.</td>
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Baku-Tbilisi-Ceyhan Oil Pipeline


The project takes into account the geopolitical realities of the region. Thus, this pipeline passes through the territories of Georgia and Turkey which are both friendly to Azerbaijan.

Baku-Tbilisi-Erzurum Gas Pipeline

Commissioned in 2006. Connects Sangachal terminal with Turkish gas network in Erzurum. The length is 692 km. Capacity 8.8 bln cubic meters.

Export route for Azerbaijani natural gas from the Shah Deniz offshore field to the Turkish and Georgian markets.

The existing network of transportation infrastructure allows Azerbaijan to transport not only its own energy resources, but also oil from Central Asia, thus becoming a transit state. Thus via Baku-Tbilisi-Ceyhan pipeline, Kazakh and Turkmen oil is transported. In 2015 alone, the total volume of Turkmen and Kazakh oil via BTC was 5.2 million tons. In addition, a subsidiary of the State Oil Company of Azerbaijan (SOCAR) - SOCAR Trading SA Company signed a new agreement on the purchase of Turkmen oil. According to the agreement, up to 3 million tons of Turkmen oil will be transported via the BTC over the next 5 years. It is expected that Kazakh oil exports will also increase.

In addition to the development of gas fields in recent years, Azerbaijan is also actively involved in the construction of transport routes in neighboring countries to export its own gas to the European markets, namely the Trans Anatolian Pipeline (TANAP) and Trans Adriatic Pipeline (TAP).

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<td>TANAP</td>
<td>Expected to be completed in 2018. The main investor is SOCAR, which holds a 58%-share in the project. Partners: Turkish BOTAS -30% and BP - 12%. The length is 1841 km, running across the Turkish territory from its border with Georgia in the east, to the border with Greece to the west.</td>
<td>Export route for Azerbaijani natural gas from the Shah Deniz offshore field to the Turkish (10 bln ton) and Southern European markets (6 bln ton).</td>
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<tr>
<td>TAP</td>
<td>Expected to be finished in 2018. SOCAR share is 20%. As the continuation of TANAP, TAP will run from the Greek border, pass through the territories of Greece via Albania to Italy, finally connecting to the Italian gas network.</td>
<td>Export route for Azerbaijani natural gas from the Shah Deniz offshore field to the Southern European markets (6 bln ton). In perspective will transport to the Western Balkans.</td>
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 Creation of transport corridors as a basis for the development of the non-oil sector of the economy

In 2013, Azerbaijan launched the ‘Azerbaijan 2020: Look into the Future’ concept,⁴ which focuses on the creation of transport infrastructure and transit of goods and passengers through its territory as an alternative to the oil sector. It is expected that once this corridor is at full capacity, the number of containers transported in 2020 could reach 300-400 thousand, which in turn will enable Azerbaijan to earn hundreds of millions of manats in revenue.⁵

In this regard, Azerbaijan pays close attention to the develop-

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Full-scale renovation of the national railway network is underway in Azerbaijan, including the modernization of the central administration system, renovation of locomotives and wagons, and work to increase average speed of the trains. This is a key task for the transport sector. Otherwise, this route cannot effectively compete with other routes. Currently the average rail speed in Azerbaijan is 30 km/h, while the average speed of the trains in Georgia between Tbilisi and Poti consists 25-30 km/h. An average train speed of 30 km/h is not competitive. Curiously enough, world famous French writer Jules Verne, in his 1893 story ‘Claudius Bombarnac’, describes the journey of the hero from Europe to China. The protagonist travels by train from Tbilisi to Baku, a journey of thirteen hours. According to a train timetable from the end of 2015, travel time from Tbilisi to Baku at the end of 2015 was 16 hours and 40 minutes. While this now includes a border crossing (whereas 120 years ago Azerbaijan and Georgia were both part of the Russian Empire), and until recently the train stood idle for several hours at the border, this lack of progress is noteworthy.

However, it should be noted that there are ways to resolve this
problem and improve the quality of cargo services. From February 1, 2016 Azerbaijan’s two main rail border crossings introduced a new means of checking the cargo in the wagons without stopping the train.11 This reduces the valuable time spent at borders. However, along with reduction of bureaucracy at the borders, it is also important to further increase the speed trains. At the moment, this railway can transport up to 8 trains per month, almost 100 trains per year. For comparison, the capacity of the Trans-Siberian Railway is about 150 trains a day, or 4500 trains per month.12 In this regard, Azerbaijan may face difficulties in attracting carriers to its transport networks, in addition to the question of how to handle increasing volumes of traffic in line with speed requirements.

An important step towards resolving the problem of speed was taken on 21 November 2007, when the construction of the Baku-Tbilisi-Kars railroad was started. This project includes the construction of a segment of railroad across the border between Georgia and Turkey, which will connect the European railway with East Asia via the South Caucasus and Central Asia. At the same time, the existing railway network along this route is being updated. This is a high-value of project, because it will offer an alternative to the Trans-Siberian Railway. In addition, after the completion of the ‘Marmaray’ tunnel under the Bosphorus strait in Istanbul (begun October 29, 2013), it will be possible to travel from Beijing to London by rail.

In the context of the construction of energy transport corridors, Azerbaijan has been the main initiator of the Baku-Tbilisi-Kars railroad. Baku is providing crucial financial support to its neighbor, Georgia. Initially, for the implementation of this project Azerbaijan provided a loan of $200 million to Georgia for 25 years, with a yearly interest rate of 1%. Azerbaijan also allocated an additional $575 million at the rate of 5% per annum.13 These loans have not been provided with the purpose of generating income, and the interest rates are symbolic.

According to expert estimates, it is expected that in the initial

stage this road will carry up to 6.5 million tons of cargo, as well as up to one million passengers per year. Later, after the third year of operation, the volume of cargo will be 3 million tons, and after the fifth year, at least 5 million tons. Following 10 years of operation, the volume of freight traffic will exceed 10 million tons. The peak of the corridor’s transport capacity will be approximately 17 million tons per year. Resulting revenue from the transit corridor stands to provide a serious infusion to the state budget of Azerbaijan, increasing the proportion of income generated by the non-oil sector. Moreover, active transport will also contribute to the development of the country’s regions. The provinces that are crossed by this railroad may provide logistical support, leading to additional revenues for the government and private entrepreneurs.

The modernization of the locomotives and wagons is a key factor. To this end, in 2014 the Swiss company ‘Stadler’ started to build a rail carriage factory in the western Azerbaijani city of Ganja. Once the factory has been completed, Azerbaijan will be able to produce various types of locomotives and carriages for its own needs. These products will also be exported to other countries such as Turkey, Georgia, Kazakhstan, Uzbekistan, Turkmenistan, and Iran. In addition, in the summer of 2014 ‘Azerbaijan Railways’ and ‘Stadler’ signed a contract on the purchase of 30 new passenger rail cars. The first batch of 10 cars was put into operation in 2016. An important feature of the new carriages is that they are adapted to automatically move the pair of wheels for movement on the European railway track. This is necessary because the width of railway tracks in the post-Soviet region is 1520 mm, while the most common width in the rest of world – including neighboring Iran and Turkey – is 1435 mm. The ability to transition quickly from one type of track to another will increase speed, as well as enable the integration of the Azerbaijani railway with international rail networks. Since, as in railway track width is 1435 mm.

The existing South Caucasian Azerbaijan-Georgia railway transshipment corridor makes it possible to transport dry cargo as well as oil and non-oil products in both directions. Ports on the Black

16 Эмиль Исмаилов, Заграница для Азербайджанцев Станет Еще Ближе, ibid.
and Caspian Seas are being modernized as well as the relevant segments of the national railway networks of Azerbaijan and Georgian. This transport corridor is successfully being used not only by the South Caucasus states, but also by the Black Sea and Central Asian regions. Moreover, the South Caucasus region provides a serious alternative as a transit hub – not only between the Black Sea and Central Asian regions, but beyond, connect the EU with East Asia. This is very important because the trade relations between these two regions are increasing year-on-year. It should be noted that 90% of total cargo transportation between these regions is currently conducted by ship via the Suez Canal. At the same time all continental transportation is conducted through Russian territory, via highway or the Trans-Siberian rail-road, which connects Moscow with Vladivostok. In this regard, the importance of the new transit routes between the two biggest economic regions in the world is critical.

The relevance of the trans-Caspian route

A new international port that is being built in Alat, located 65 km south of Baku, will play an important role in linking the South Caucasus with Central Asian countries. The new port will replace the old one in the center of Baku, which does not meet modern requirements. The new port will provide services for general cargo as well as passenger terminals. It will be able to receive both oil and non-oil freight, will obtain cargo handling and Ro/Ro facilities, and will include a rail ferry terminal connecting the ports of Aktau and Atyrau (Kazakhstan) and Turkmenbashi (Turkmenistan), as well as an International Logistics Centre.

The first stage of the new Baku International Sea Trade Port has already been completed. In its first phase, of overall annual capacity of the port is expected to 10 million tons of cargo and 50,000 containers. In the second phase, capacity will rise to 17 million tons of cargo and 150 thousand containers, and reaching 25 million tons of cargo and 1 million containers by the end of the third stage.

Cargo of non-oil freights between Kazakhstan and Turkmenistan

and Azerbaijan is increasing. This has been made possible through improved coordination among the transport agencies of Azerbaijan, Kazakhstan and Turkmenistan. These partner states are now concentrating on the development of a new tariff policy, to include discounts and preferential rates in the transportation sector. Infrastructure development and logistical coordination make it possible to further increase West-East maritime freight transportation via the Caspian region. The annual capacity of the Trans-Caspian route is 27.5 million tons. As a result of infrastructure development in the east, 2015 has seen an increase in traffic intensity on the Caspian Sea via Turkish carriers:

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<th>Reason for activity expansion</th>
<th>Advantages for Azerbaijan</th>
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<tr>
<td>Baku-Aktau</td>
<td>Turkish haulers prefer to transit though the Trans-Caspian corridor after relations between Russia and Turkey have spoiled. The Caspian Shipping Company has reduced tariffs for maritime transport on the Baku-Aktau route by 20%. The current price for one standard car with a trailer (length 16.5 meters truck) is $1,200, and $2100 for round trip is.</td>
<td>The volume of traffic of trucks increased by a factor of 10. Azerbaijani ships are heavily involved in transportation. Currently, 11 ferries and 2 Ro-Ro vessels are involved in transportation between Baku, Aktau, and Turkmenbashi. By 2020, the project participants expect to increase freight transport to 300,000 TEU.</td>
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<tr>
<td>Baku-Turkmenbashi</td>
<td>There is a growing interest among Turkish carriers who traditionally connect to Central Asian countries via the road through Iranian territory. However, they regularly face arbitrary challenges at border crossings, because Iran wants to create more favorable conditions for Iranian carriers.</td>
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</table>
The issue of waiting times for trucks at the Caspian Sea ports presents a key challenge. As the volume of traffic has increased dramatically, Azerbaijan and Kazakhstan have carried out measures to address the congestion of trucks in Aktau and Alat, halving the car load waiting period. There are also other steps being taken to improve services for truck drivers.

It is not only Turkey that has demonstrated interest in the Trans-Caspian. The following countries are also interested in using the corridor for their foreign trade and transit.

**Turkmenistan**

Turkmenistan is interested in increasing transit via Turkmenbashi port. In 2013, it began work to expand its infrastructure. The construction of the new port will cost a total of two billion dollars. In terms of significant developments, in January 2015, the port in Alat welcomed its first ‘Ro-Pax’ ‘Berkarar’ ferry type from Turkmenistan. Regular activity along the Baku-Turkmenbashi route will increase the possibility of transportation via this route, and will also reduce the transit time for trucks coming from Turkey to Central Asia, an average of 50,000 vehicles per year. This route was very actively used during the Soviet era: a regular train-car ferry service between the port of Baku to the port of Turkmenbashi (Krasnovodsk at the time) was opened in 1963.

**Kazakhstan**

Kazakhstan is interested in developing the transport infrastructure on its territory as part of the new economic policy ‘Нұрлы жол’ (Lightened road). This policy includes the state program for infrastructure development in the period of 2015-2019. In addition, China and Kazakhstan have entered the practical phase of the realization both ‘Нұрлы жол’ and the ‘Silk Road Economic Belt’ transport initiatives. This will further increase freight traffic. Kazakhstan is interested in transportation of Chinese goods, as well as in finding alternatives to existing Russian routes in order to export goods to world markets, for example grain.

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23 Black Sea Grain, Kazakhstan finally decided to build a grain terminal in the Georgian Black Sea

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regard, an alternative route runs west through the Caspian Sea and then on though the Caucasus. A few years ago, a joint grain terminal was built in Baku. Another grain terminal is located in Aktau, from where the grain is taken to Baku for its further trans-portion.\textsuperscript{24}

\textit{Azerbaijan}

Azerbaijan has already declared its readiness to create the necessary conditions for the smooth export of Kazakh goods to Western markets including oil, oil products, grain, and other goods.\textsuperscript{25} Additionally, in 2014, the construction of a production and logistics center for the Azerbaijani company ‘Azersun’ was initiated at Aktau port. This center has already been completed and will promote the development of bilateral trade in the non-oil sector.

\textit{Uzbekistan}

This state wants to use the Baku-Tbilisi-Kars railway to export goods to European markets, mainly cotton and other agricultural products. Since Uzbekistan has no access to the Caspian Sea, it intends to implement the Navoi (Uzbekistan)-Turkmenbashi railway route, which can be connected with the South Caucasus railway network via the Caspian Sea. The BTK railway can also be beneficial in the reverse direction, to transport of goods from Europe to the Central Asian states and Afghanistan.\textsuperscript{26}

\textit{Ukraine}

This state is seeking new ways to enter the markets of Central Asia, following Russia’s introduction of new rules for the transit of Ukrainian goods. Ukraine’s main exports to Kazakhstan are agricultural and food products. On January 15, 2016, an experimental container train departed from the Ukrainian Port of Ilyichevsk, loaded mainly with food and beverage products, travelled along the Ukraine-Georgia-Azerbaijan-Kazakhstan-China route (via the Caspian and the Black Sea). If this route proves


cost-effective, and a high-level of coordination between the transit countries can be achieved, it will be able to increase the volume of transported goods and, consequently, income. It is worth noting that in 2015 exports of goods from Ukraine to Kazakhstan amounted to $544.1 million and general turnover as $1.6 billion—despite the fact that exports fell by 35% compared to 2014.27

Azerbaijan transport infrastructure as part of international transit routes

Transport infrastructure in Azerbaijan is also contributing to regional projects in Eurasia, such as the EU TRACECA initiative, the Chinese ‘One Belt, One Road’, and the Russian-Iranian ‘North-South’ initiative. All these regional projects are underpinned by the necessary infrastructure and logistical support.

Within the framework of the TRACECA project, the ‘Silk Wind’ route was developed in late 2012.28 On August 3 2015, the port Alat received the ferry with the container train ‘Nomad express’.

The container train made the journey of over 3,500 km from the Chinese city Shihrezi then from Kazakhstani Dostyk city to the port Aktau, and onward to Alat. The train’s final destination was Keshla station, located near Baku. It took only five days for the 82 shipping containers, loaded with caustic soda, to reach their destination.29 Typically, container shipments from China to Europe take from 25 to 40 days.30

Thus there is a significant scope to increase freight traffic along this route. In order to attract cargo flows into Azerbaijan, it is important to reduce the transit time across its territory. One of the important tasks in this regard is the synchronization of the different modes of transport. To this end, in late October 2015, Azerbaijan formed a coordinating council, which will draft a common policy on transit cargo. The Council will facilitate the accelerated implementation of a uniform and transparent tariff policy for the transit of goods via rail, sea, ports

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and marine terminals in Azerbaijan. This initiative will simplify border procedures and ensure coordination between the state institutions within Azerbaijan. This council has an important role. Without a stable relationship between the various modes of transport and streamlined border-crossing procedures, Azerbaijan routes will be less competitive. It is also important to coordinate actions with the neighboring transit countries.

Azerbaijan is also interested in developing cooperation within the Chinese initiative ‘One Belt, One Road’. For this project, China has invested a significant amount of capital in transport infrastructure, both within China and in neighboring regions, especially Central Asia. The foreign trade turnover between the EU and China is constantly growing, reaching about $600 billion in 2014. Goods traded between Europe and China is carried mainly by maritime routes, through the Suez Canal. The length of this maritime route is about 24,000 kilometers, with a delivery time of 40-50 days.

China is now looking for new ways to reduce transit times. Given China’s interest in the development of alternative transport routes, in December 2015, Azerbaijani President Ilham Aliyev paid an official visit to Beijing. During the visit, the parties agreed to implement measures to promote a joint ‘economic belt of the Silk Road.’ In addition, agreements were signed on cooperation in the transport sector and in the spheres of railway transport and civil air transport. These discussions and agreements have ensured the coordination of bilateral activities.

Another international transport corridor in which Azerbaijan can play a significant role is the ‘North - South’ initiative. The new route runs between the countries of North West Europe, the Caspian Sea, the Persian Gulf, Central, South and Southeast Asia. There is also scope for the further development of Euro-Asian transport, for a shorter and more economical route.

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Azerbaijan is one of the links in this route, as agreed between Russia, Iran and India in 2000. The parties decided to create a new route for the transportation of goods between Europe and the Far East. This route has seen a number of pilot shipments, mostly by rail. These tests made it clear that this line is quicker than traditional routes. The new transport route offers a competitive alternative to the sea route via the Suez Canal, slashing costs and shipment times. It is expected that the prices for the transport of containers can be 30% cheaper.

Baku is now actively involved in the implementation of this route. Azerbaijan is a part of the western branch of the corridor, which is a rail link from Russia via the territory of Azerbaijan with further access to the Iranian railway network via the border crossing at Astara (Azerbaijan) - Astara (Iran). This is a new intermodal route, which enables the delivery of container cargo through Russia to Iran. The estimated capacity of the railway is up to 10 million tons in the first phase, and will be increased to 15 million tons per year in the future.

Since the Soviet times, Russia and Azerbaijan have been connected by rail. With regard to rail connections between Azerbaijan and Iran, all that is needed is a 8.4 km connecting track in Azerbaijan to reach the border. As for Iran, large-scale work is needed, namely the construction of the Qazvin-Rasht-Astara railway, which is 375 km long. A 7 km bridge linking Astara (Azerbaijan) - Astara (Iran) over the Araz River also needs to be built.

On May 3, 2015 Russia, Iran and Azerbaijan signed an agreement on the construction of the Qazvin-Rasht-Astara railway. Iran has completed the railway line between the cities of Qazvin and Rasht, 205 km in length. A groundbreaking ceremony for the construction of the bridge has also taken place.

In parallel with preparations for the construction of the railroad, the heads of the customs services of Azerbaijan, Russia, Iran and India have discussed the coordination of customs regulations in order to ensure efficient operation. Further meetings on this issue


36 Ministry of Foreign Affairs of Russia, Международный транспортный коридор ‘Север-Юг’, ibid.

are expected in the future.

As demonstrated, Azerbaijan is keenly aware of the development trends in Eurasia, and is ready to take an active role in implementing regional geo-economic projects. Azerbaijan has created regional energy transport routes, building the necessary infrastructure for these networks. As an active player in this field, Baku has consolidated and strengthened its role as the initiator of the new transport corridors in the non-oil sector.