6 STRATEGIC CHALLENGES

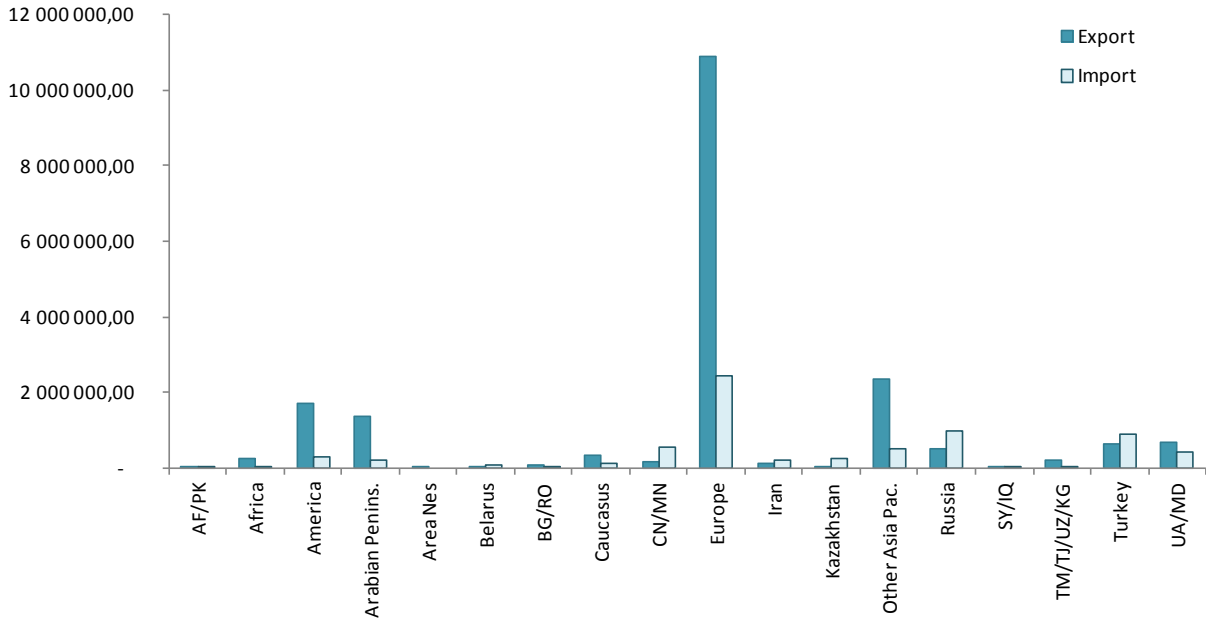
6.1 Market Challenges

6.1.1 National Trade: Exports and Imports

World Trade Partners

Azerbaijan generated about 26 bn Euros of international trade in 2010. However, the trade balance is extremely imbalanced in favour of exports. They amounted to 19 407 bn Euros while imports reached 7 024 bn Euros, resulting thus in a commercial surplus of 12 383 bn Euros. Figure 2 show that this unbalance is caused by exports of, almost exclusively, oil towards Europe (56% of global exports) but also, on a much minor scale, Asia (12.1%), America (8.9%) and the Arabian Peninsula (7%). In the reverse direction, Azerbaijan imports goods mainly from Europe (34.5%), Russia (14.3%) and Turkey (12.5%).

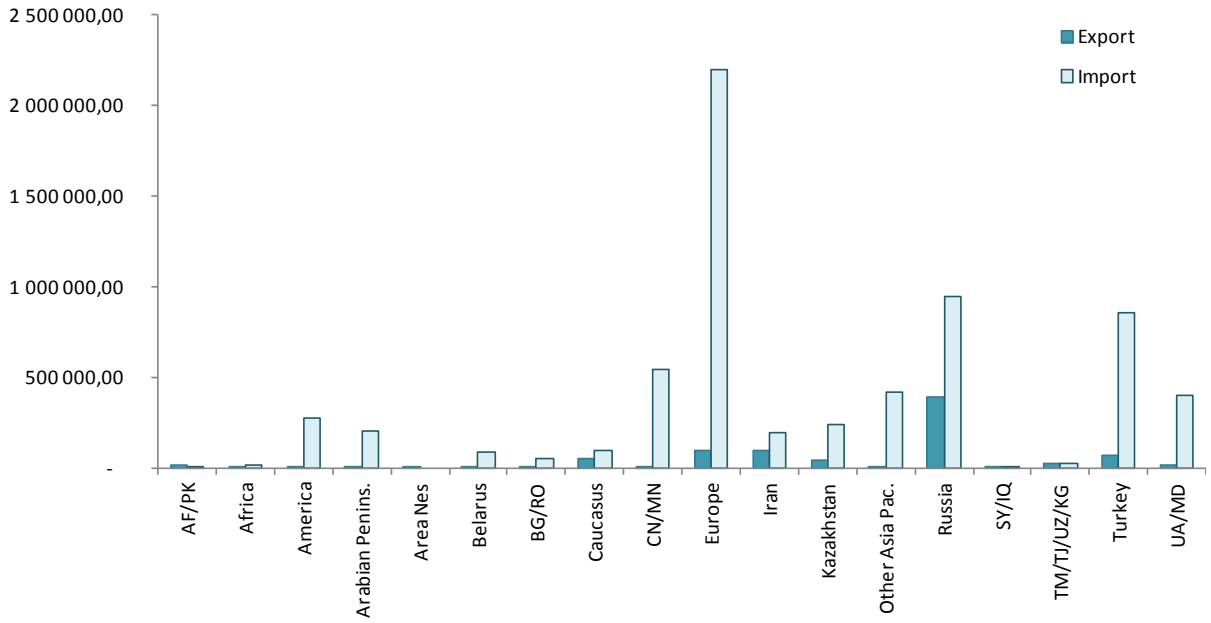
Figure 2: Azerbaijan Trade Partners, 2010, th euros



Source: Computation based on Eurostat and UN Comtrade databases

Analyzing the potential trade and focusing only on totally and partially containerizable goods, it can be observed the opposite relation where imports dominate exports sevenfold. However the financial value of trade is much lower: imports amount to 6 551 M Euros while exports are estimated to reach 859 M Euros. The inflow of goods to Azerbaijan originates from Europe (33.5%), Russia (14.5%), Turkey (13.1%) and China/Mongolia (8.3%) mostly. The share of potential trade with TRACECA countries is estimated at 25% both for imports and exports.

Figure 3: Azerbaijan Trade Partners, Potential Trade, 2010, th euros



Source: Computation based on Eurostat and UN Comtrade databases

Table 4: Distribution of Azerbaijan Potential Trade Partners, 2010, % in trade value

Zones	All products		Total all products	No min. fuel & ores		Total no min. fuel & ores
	Import	Export		Import	Export	
Afghanistan-Pakistan	0.26%	0.04%	0.20%	0.04%	1.44%	0.20%
Africa	1.30%	0.34%	1.04%	0.19%	0.48%	0.22%
America	8.92%	4.48%	7.74%	4.17%	0.46%	3.74%
Arabian Peninsula	7.02%	3.09%	5.98%	3.13%	1.34%	2.92%
Area Nes	0.00%	0.00%	0.00%	0.00%	0.04%	0.00%
Belarus	0.03%	1.33%	0.37%	1.35%	0.46%	1.25%
Bulgaria-Romania	0.41%	0.73%	0.49%	0.78%	0.49%	0.74%
Caucasus	1.70%	1.67%	1.69%	1.44%	5.92%	1.96%
China-Mongolia	0.83%	7.73%	2.67%	8.28%	1.23%	7.46%
Europe	56.04%	34.46%	50.30%	33.54%	11.10%	30.93%
Iran	0.58%	2.87%	1.18%	3.01%	11.24%	3.96%
Kazakhstan	0.29%	3.42%	1.12%	3.66%	5.22%	3.84%
KY-TJ-TM-UZ	1.05%	0.31%	0.85%	0.33%	3.46%	0.69%
Other Asia Pacific	12.10%	6.98%	10.74%	6.42%	0.39%	5.72%
Russia	2.60%	14.26%	5.69%	14.51%	45.93%	18.15%
Syria-Iraq	0.12%	0.01%	0.09%	0.01%	0.57%	0.08%
Turkey	3.20%	12.45%	5.66%	13.09%	7.99%	12.50%
Ukraine-Moldova	3.58%	5.85%	4.18%	6.07%	2.24%	5.62%
Total	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**

Source: Computation based on Eurostat and UN Comtrade databases

If now looking at the estimated tonnage of trade, the following points can be noticed:

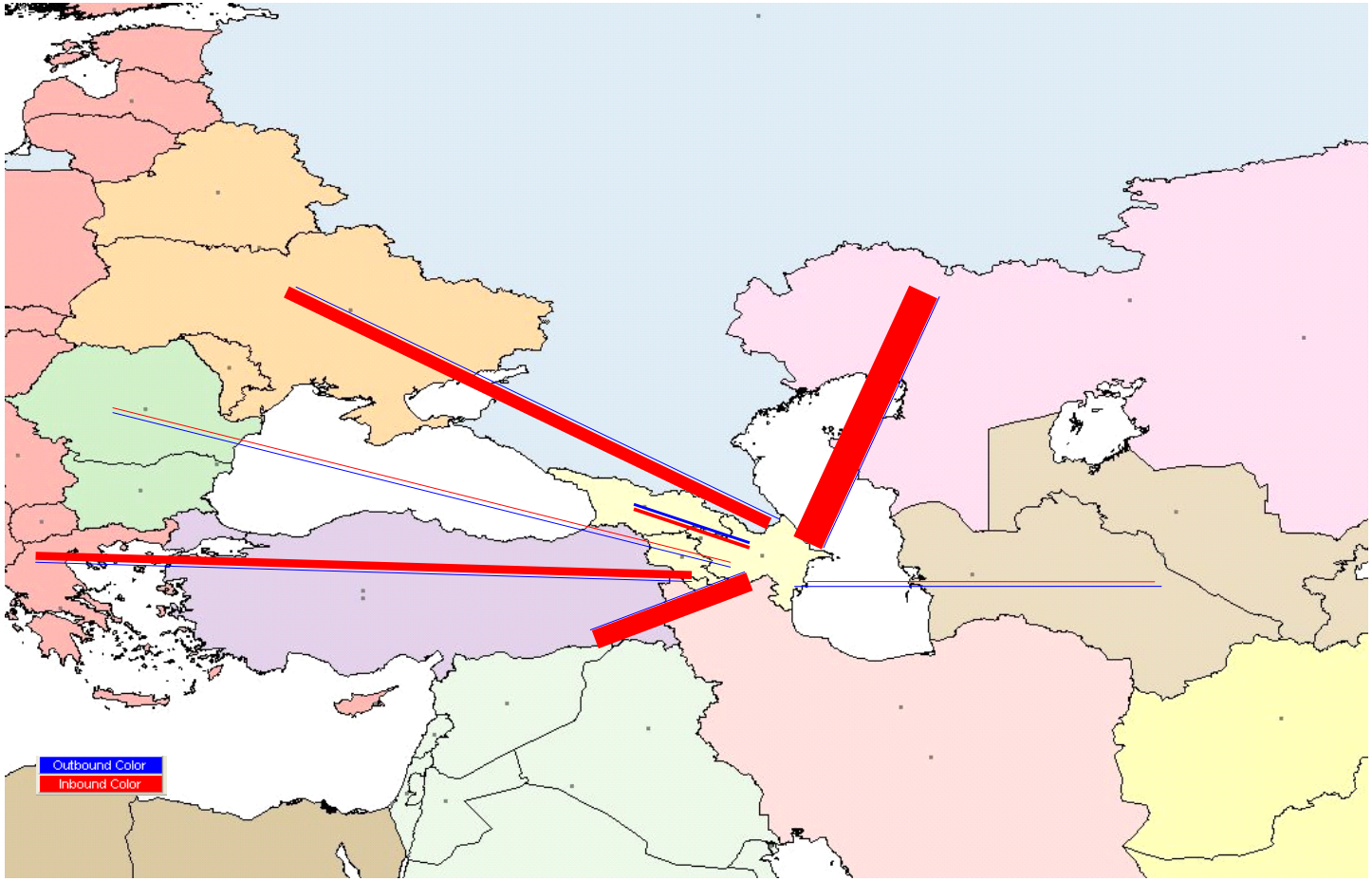
- imports weight about ten times more than exports, provoking thus a very high imbalance in terms of containers loading.
- Origins of Imports from TRACECA countries are almost equally west bounded (1 402 254 th. t) than east bounded (1 246 457 th. t – almost exclusively from Kazakhstan). Figure 4 below illustrates the repartition of these flows.
- Almost half of exports are oriented towards Caucasus.

Table 5: Azerbaijan Potential Trade with TRACECA Countries and Europe, 2010, in tons and %

Zones	Tonnage		Share in trade with TRACECA countries and Europe	
	Export	Import	Export	Import
Bulgaria-Romania	3 024.6	22 664.7	1.21%	0.76%
Caucasus	114 321.3	136 176.1	45.69%	4.59%
Europe	19 657.6	318 211.1	7.86%	10.73%
Kazakhstan	32 296.3	1 224 357.1	12.91%	41.27%
KY-TJ-TM-UZ	38 047.7	22 100.5	15.21%	0.74%
Turkey	29 288.6	756 096.4	11.71%	25.48%
Ukraine-Moldova	13 569.3	487 317.7	5.42%	16.43%
Total	**250 205.5**	**2 966 923.5**	**100%**	**100%**

Source: Computation based on Eurostat and UN Comtrade databases

Figure 4: Azerbaijan Potential Trade with TRACECA Countries and Europe, 2010, in tons



Source: Computation based on Eurostat and UN Comtrade databases

6.1.2 Regional TRACECA Trade

Imports and exports of full or partly containerizable products of Kazakhstan with European and other TRACECA countries are presented in the following figures and tables.

The analysis of imported commodities from Europe and to the other TRACECA countries to Azerbaijan shows:

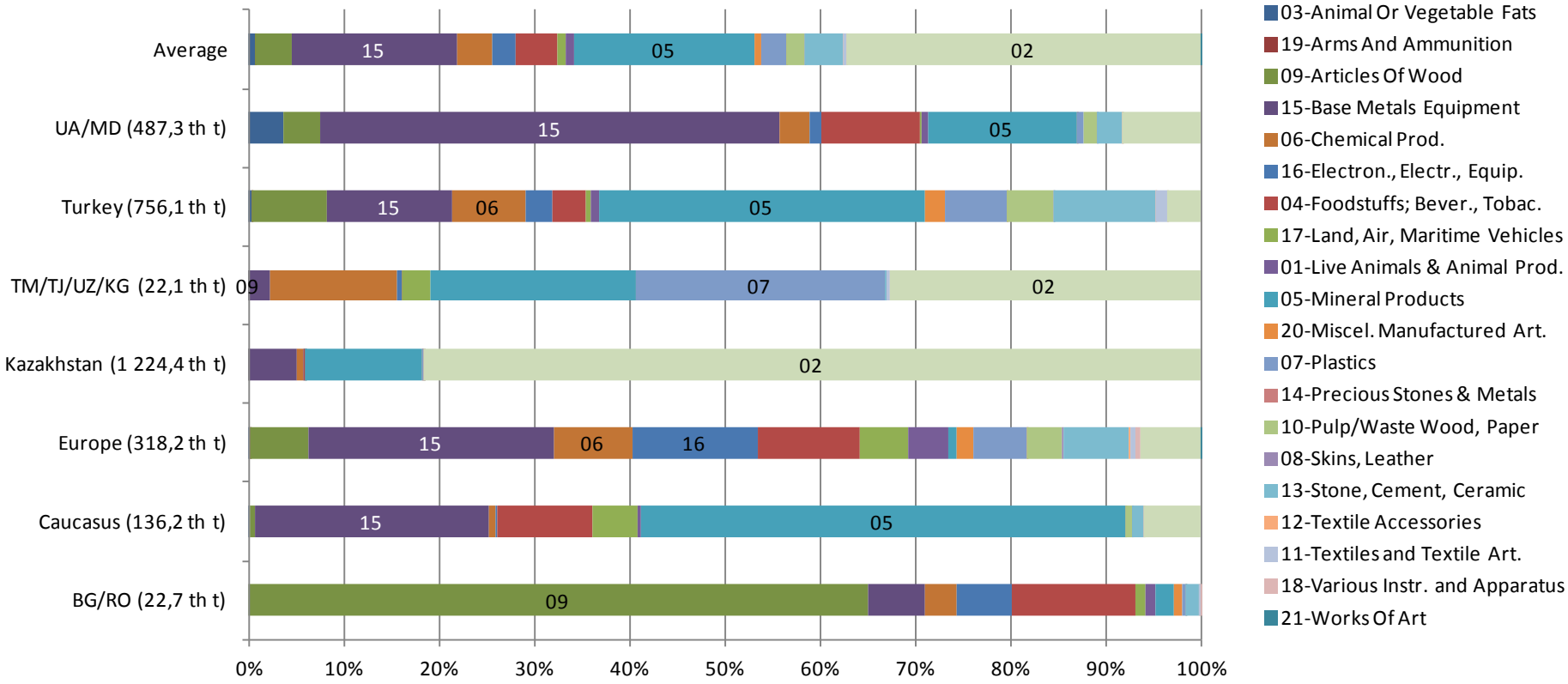
- The importance of mineral products imported from Turkey, Kazakhstan and Ukraine, mostly construction material, which could be partly containerized.
- The importance of base metal equipment imported from Ukraine and Turkey, mostly consisting in Iron and Steel and articles thereof which also could be partly containerized.
- The high proportion of vegetable products particularly imported from Kazakhstan and Ukraine, most of it consisting in cereals which could be partly containerized.
- The high variety of products imported from Europe, many of them having a high potential for containerization.

The analysis of exported commodities from Azerbaijan to European and to the other TRACECA countries demonstrates:

- The domination of “Foodstuff” consisting mostly in beverage, vegetable, fruits and tobacco which represent a potential for containerization, exported to South East TRACECA countries, Caucasus and Kazakhstan.
- The proportionally high importance of mineral products destined to Caucasus, which is only very partly containerizable.

This analysis is shadowed by the lack of reported data for many commodities coming from West TRACECA (Romania and Bulgaria).

Figure 5: Potential Trade with TRACECA Region – Commodity Structure of Imports to Azerbaijan, 2010, in tons and %



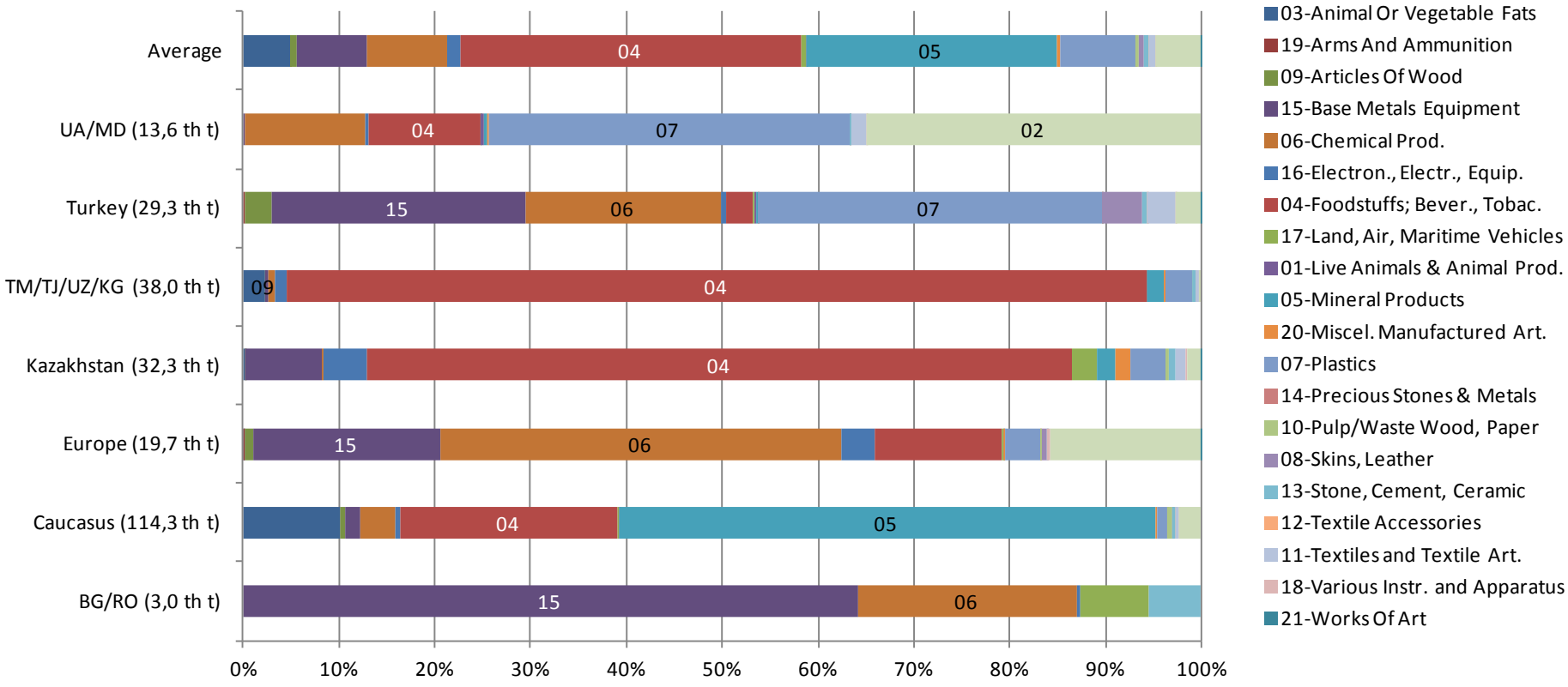
Source: Computation based on Eurostat and UN Comtrade databases

Table 6: Potential Trade with TRACECA Region – Commodity Structure of Imports to Azerbaijan, 2010, in tons

Commodity Groups	Bulgaria-Romania	Caucasus	Europe	Kazakhstan	KY-TJ-TM-UZ	Turkey	Ukraine-Moldova
Animal Or Vegetable Fats	n/a	39.62	307.50	n/a	n/a	2 646.37	17 477.57
Arms And Ammunition	n/a	n/a	6.00	n/a	n/a	36.52	n/a
Articles Of Wood	14 742.30	953.42	19 793.91	155.10	0.93	59 637.99	19 299.36
Base Metals Equipment	1 328.90	33 297.06	81 913.70	61 116.48	472.41	99 426.04	235 129.31
Chemical Prod.	776.80	946.15	26 340.53	9 261.11	2 980.92	57 591.61	14 889.61
Electron., Electr., Equip.	1 288.20	202.24	41 419.85	314.70	91.61	21 669.07	5 999.82
Foodstuffs; Bever., Tobac.	2 967.90	13 689.06	34 163.58	1 128.35	7.90	25 913.40	50 173.73
Land, Air, Maritime Vehicles	240.60	6 394.88	16 432.10	83.81	663.94	4 310.21	1 175.78
Live Animals & Animal Prod.	236.30	639.57	13 318.16	274.99	n/a	6 873.32	3 562.22
Mineral Products	412.60	69 092.99	2 878.70	151 149.68	4 749.13	259 120.11	75 656.89
Miscel. Manufactured Art.	199.40	44.83	5 549.18	33.07	2.48	14 833.97	718.77
Plastics	77.50	93.75	17 979.92	698.13	5 799.35	49 528.44	3 154.74
Precious Stones & Metals	n/a	0.01	9.60	0.01	n/a	11.65	0.00
Pulp/Waste Wood, Paper	0.90	919.71	11 776.96	4.54	1.83	36 840.11	6 495.55
Skins, Leather	0.30	1.92	69.40	1.16	0.03	16.02	0.33
Stone, Cement, Ceramic	344.20	1 536.83	22 256.37	23.11	15.27	81 672.76	12 993.40
Textile Accessories	0.30	3.53	177.46	8.31	n/a	156.25	9.95
Textiles and Textile Art.	31.00	35.07	1 909.50	21.28	69.47	8 162.30	243.58
Various Instr. and Apparatus	17.50	10.81	1 674.45	29.18	0.66	301.61	53.32
Vegetable Products	n/a	8 274.68	20 230.68	1 000 054.11	7 244.56	27 348.60	40 283.74
Works Of Art	0.00	n/a	3.50	0.00	n/a	0.02	n/a
Total imports	**22 664.70**	**136 176.12**	**318 211.06**	**1 224 357.13**	**22 100.48**	**756 096.37**	**487 317.68**

Source: Computation based on Eurostat and UN Comtrade databases

Figure 6: Potential Trade with TRACECA Region – Commodity Structure of Exports from Azerbaijan, 2010, in tons and %



Source: Computation based on Eurostat and UN Comtrade databases

Table 7: Potential Trade with TRACECA Region – Commodity Structure of Exports from Azerbaijan, 2010, in tons

Commodity Groups	Bulgaria-Romania	Caucasus	Europe	Kazakhstan	KY-TJ-TM-UZ	Turkey	Ukraine-Moldova
Animal Or Vegetable Fats	n/a	11 503.86	5.80	53.36	834.19	n/a	n/a
Arms And Ammunition	n/a	n/a	22.00	n/a	n/a	30.22	n/a
Articles Of Wood	n/a	691.66	168.20	6.29	10.77	820.99	n/a
Base Metals Equipment	1 941.30	1 757.38	3 860.50	2 614.20	163.63	7 781.39	32.35
Chemical Prod.	690.30	4 271.24	8 227.01	21.35	233.28	5 988.54	1 702.47
Electron., Electr., Equip.	8.90	554.19	670.03	1 499.73	491.96	126.79	45.37
Foodstuffs; Bever., Tobac.	n/a	25 935.95	2 621.50	23 758.74	34 167.50	835.49	1 579.76
Land, Air, Maritime Vehicles	217.10	88.65	12.14	816.53	10.35	56.78	11.09
Live Animals & Animal Prod.	n/a	4.59	n/a	n/a	2.37	57.36	30.36
Mineral Products	n/a	64 008.33	15.90	649.13	649.21	49.17	65.94
Miscel. Manufactured Art.	n/a	283.85	18.00	491.80	65.23	4.09	1.53
Plastics	n/a	1 193.26	720.79	1 161.26	1 074.76	10 490.28	5 120.93
Precious Stones & Metals	n/a	0.03	2.70	n/a	0.00	0.69	n/a
Pulp/Waste Wood, Paper	n/a	566.45	31.90	138.31	2.41	7.03	0.68
Skins, Leather	n/a	16.00	110.30	0.00	n/a	1 224.87	0.10
Stone, Cement, Ceramic	167.00	418.39	1.90	232.85	97.72	144.16	12.00
Textile Accessories	n/a	28.69	0.00	0.00	0.06	0.04	n/a
Textiles and Textile Art.	n/a	346.39	2.62	340.97	145.97	898.34	230.38
Various Instr. and Apparatus	0,00	6.77	62.60	22.21	2.89	2.75	0.74
Vegetable Products	n/a	2 645.61	3 103.32	489.58	95.37	769.52	4 735.66
Works Of Art	n/a	0.00	0.40	0.01	0.00	0.12	n/a
Total exports	**3 024.60**	**114 321.30**	**19 657.60**	**32 296.32**	**38 047.70**	**29 288.62**	**13 569.35**

Source: Computation based on Eurostat and UN Comtrade databases

6.2 Intermodal Maritime Based Transport Challenges

LOGMOS aiming at developing seamless door-to-door intermodal services, all components of the transport chain may be considered as possible segments of LOGMOS projects, depending on their relevance for potential LOGMOS trade flows.

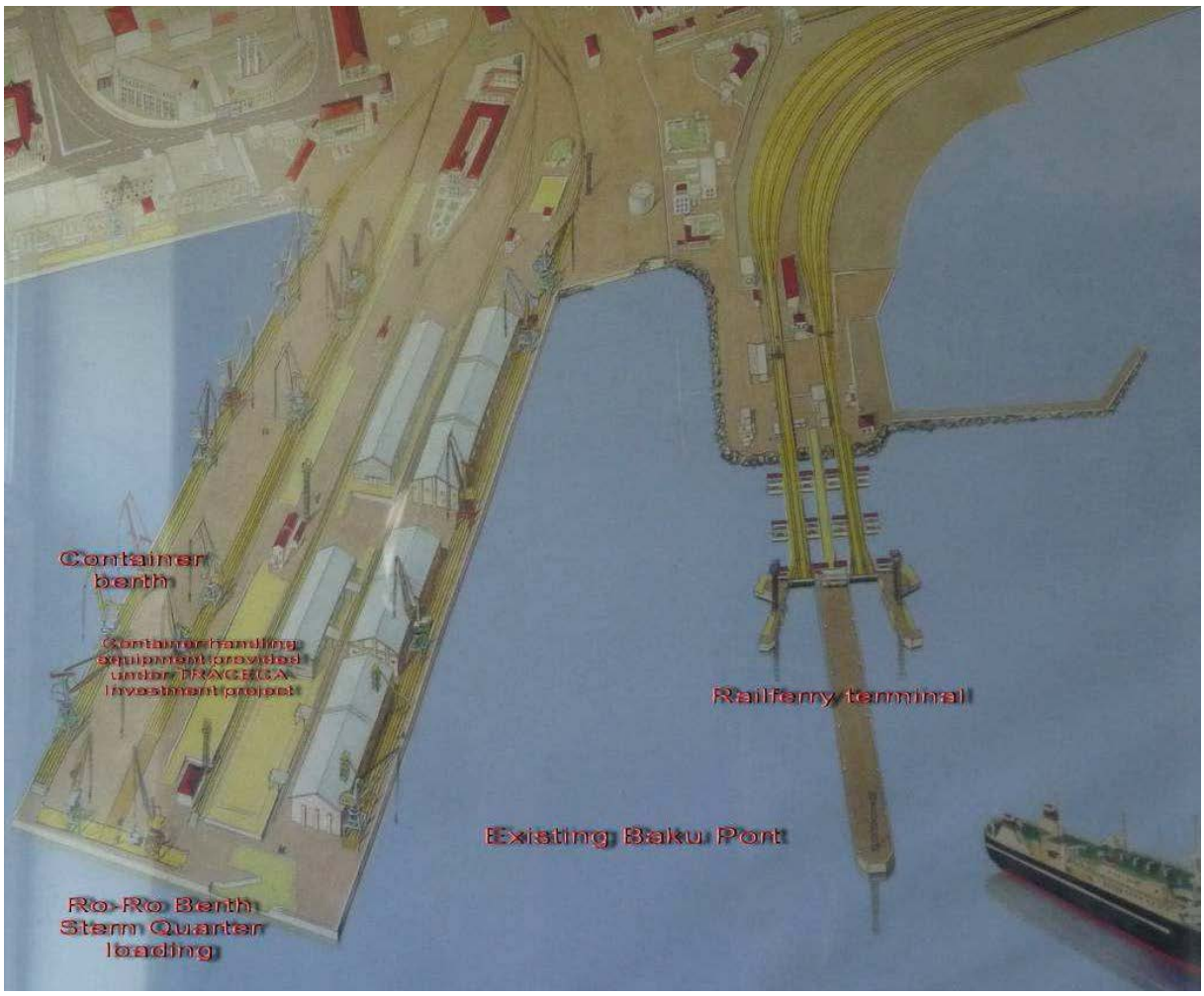
Port interfaces for operations, services, procedures etc. between land and sea are among the most critical points.

6.2.1 Port System and Maritime Links

The Baku International Sea Trade Port (BISTP) is the major commercial sea port of Azerbaijan, with the new non-oil and gas dry cargo port on the Baku Bay (opened on March 16th 2010).

Other ports in the Baku area are mostly oil and gas terminals such as Sangachal and Dubendi.

Figure 7: Port of Baku



The port is located downtown Baku in a land plot appointed to become a high-standing residential area. It should be replaced by a marina in the future.

BISTP consists in:

- 5 general/dry cargo berths at 7 m depth, also used for container handling operations. While a 1600 sqm open area allows the handling of up to 15,000 TEUS yearly, the railway branch line is linked to the national railway network ensuring a full inter-modality of container transport through BISTP. Shore-handling of containers is performed with modern equipment such as Kalmar container forklifts and reachstackers provided under a previous TRACECA investment project and mafi-trailers;
- a Ro-Ro quay for ¾ stern ramp vessels,
- a double-bridge railferry terminal. The second ferry bridge has been rehabilitated in 2010 enhancing the handling capacity of the port for rail-ferried cargo from 5.5 M t to 8 M t per annum.

Table 8: Throughput of BISTP

Throughput	2009	2010	2011 (4 months)
Containers, TEU	3 200	15,777	9,233
Ro-Ro, M Tons	2.1	2.932	3.836

- there is a railway freight station 2-km from the port which serves 5-9 pairs of trains per day (the design capacity was for 17-18 pairs of trains a day) or about 400 railcars per day. At present, the daily rail traffic at the port is about 150 railcars, well below the capacity of the port railway station. The rail track to the port crosses one of Baku city main road arteries whereby trains are hauled back and forth only during night time;
- the road access to Baku port is in a good shape. However, a restriction is in force on the exit/entrance of trucks from/to the port during daylight over the working week, and a complete ban over the weekend.

400 M USD have been allocated initially for the construction of the new BISTP, at Alyat, 65 km to the south of Baku, which started in November 2010. The budget was revised in 2011 up to 700 M USD. An area of 400 ha has been reserved for this new hub, out of which 100 have been allocated for the erection of an International Logistics Centre. The port should be built in three phases and completed by 2015-2016. The first phase of the project involves the construction of two ferry bridges, three cargo berths for receiving container vessels, Ro-Ro and general cargo / bulk carriers. The second phase of the project includes construction of three cargo berths, the third, the construction of two additional cargo berths. The port will be designed for vessels with tonnage of 13,500 tons that is optimal for the Caspian Sea. Capacity will be 11.6 M tons. The first phase should be completed in 2014. In February 2011 van Oord BV and JSC Azerkopru launched the preparation for dredging work.

Recently, CASPAR, the Azerbaijan State Shipping Company, took the initiative to transfer its Ro-Ro operations at Zykh, a port located to the north of Baku sea port, which is under its sole control but has not been officially commissioned yet. The shipyards should also be transferred from the city centre to this new facility.

There are several berths and a Customs office available at Zykh. In the future this port could become a dedicated permanent maintenance and Ro-Ro operation base for CASPAR at least until Alyat starts operating.

Regular Shipping Services Calling at Baku

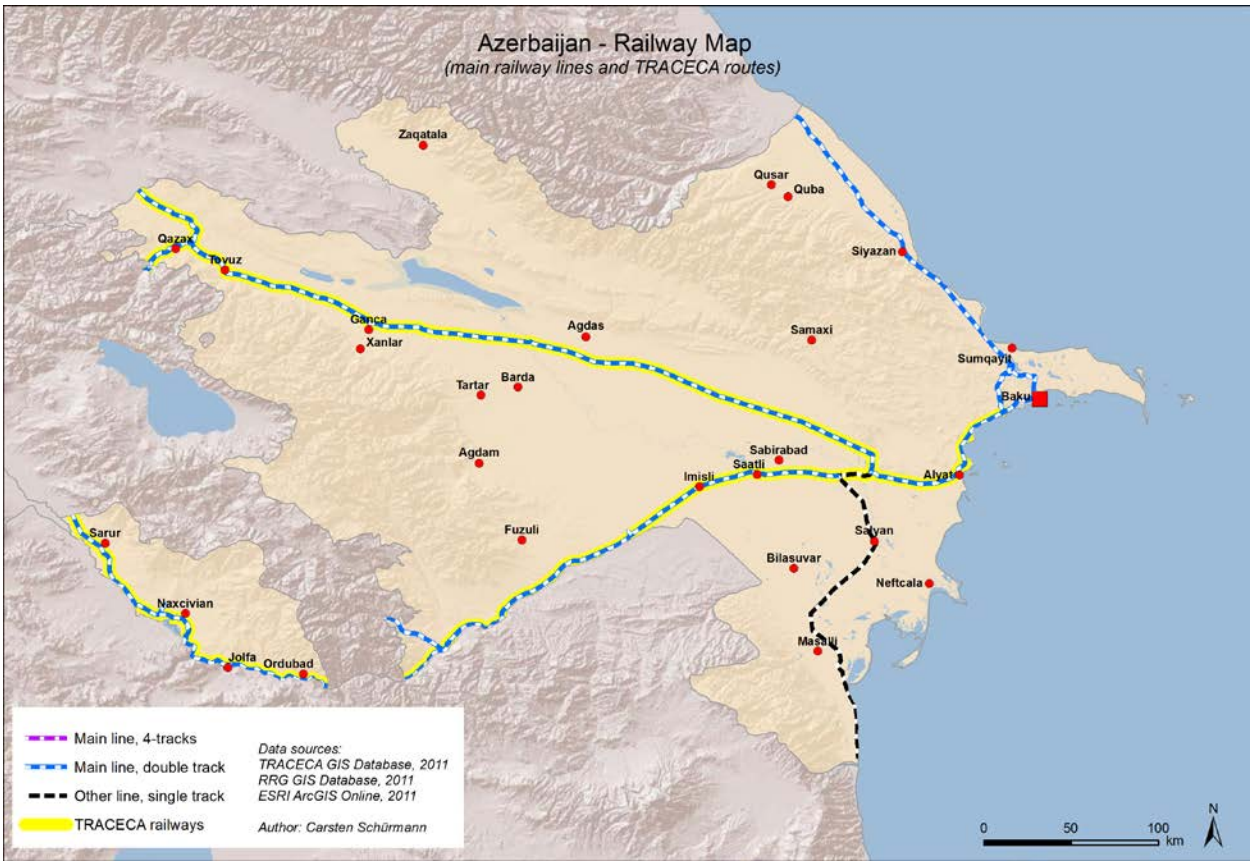
CASPAR is the sole TRACECA operator of regular shipping lines in the Caspian Sea. It provides non-scheduled but frequent daily sailings to/from Aktau and Turkmenbashi deploying a fleet of 7 X 28 wagon plus 4 x 52 wagon rail-ferries (which may alternatively accommodate 58 x 16 m trailers (and up to 200 pax if no IMO/oil products on board) and (also rather old and technically out-dated) 2 x 33 trailer capacity Ro-Ro). Today the 28 wagon vessel type is proving technically and commercially outdated as the traffic is dramatically increasing; especially between Baku and Aktau (the tonnage carried on this route reportedly grew by 400% from January till July 2011 compared with the same period of 2010). CASPAR, with the support of the State Budget and ADB, has therefore been placing orders with its long-standing partner, the Croatian Uljanik Shipyard, for 54-wagon railferries under a '2+3' scheme. The 2 firm orders should be delivered in October/November 2012. In the meantime the company is actively looking for additional tonnage available on the market.

In addition CASPAR provides sailings by non-specialized general cargo vessels from Baku to Aktau (and now Turkmenbashi) for the carriage of NATO humanitarian cargo moving in containers to Afghanistan.

The Ro-Ro traffic for which there is a considerable market potential and a pressing market demand is another challenge for CASPAR if it is to maintain its leading position in the Caspian Sea.

6.2.2 Inland Transport Mode: Railways

Figure 8: Azerbaijan Railway Map



Source: TRACECA (2011)

Azerbaijan is situated on the crossroad of major international traffic routes. Azerbaijan's geographical position makes it an important link between East and West and North and South between the Black and Caspian Seas (TRACECA regional Baku-Alyat-Ganja-Kazakh-Georgian Border corridor) and between Russia and Iran (North-South Corridor via Baku).

The Closed Joint-Stock Company Azerbaijani Railways (ADY) comprises three operational divisions based in Baku, Ganja and Nakhichevan, overseen by ADY's general management in Baku. ADY, the sole main line rail operator in Azerbaijan is a closed joint-stock company (51% of the actions belong to the State), that operates under the direction of the Ministry of Transport. Separation of operations and infrastructure is under discussion (but not completed).

The total route length is 2,929.4 km built to the Russian standard gauge of 1520 m/m gauge. 2,099.7 form the current common carrier network, the remainder being industrial lines. 804.7 km are double tracked and 1,271.4 km are electrified on the overhead system at 3 kV DC.

Table 9: Main Features of the Azerbaijani Railway Network

Total route length (km)	**Gauge (mm)**
2,929.4	1,520
Electrified lines (km)	**Electrification system**
1,271.4	3kV DC

There are two main lines (both double-track and electrified) extending from Baku: the northern runs along the Caspian coast to Makhachkala in Russia, the other heads to Alyat before turning in land to serve Kurdamir, Yevlax and Agstafa before reaching Tbilisi in Georgia.

A third line, only partially electrified, follows the Iranian border to Nakhichevan, from where there is link to Iran at Julfa. This line is currently non-operational. In addition, there are a number of small branch lines radiating from the main routes and an intensive rail network in the Apsheron peninsula surrounding Baku.

The main routes consist of the West-East link from the Black Sea ports of Georgia and the capital, Tbilisi, to Baku where there are connections to train ferries operating to Aktau in Kazakhstan and Turkmenbashi in Turkmenistan; and the north-south link operating from the Russian border near Makhachkala to the Iranian border at Astara.

All ADY's main lines were designed to be operated at 80km/h for freight and 100km/h for passenger services.

1,512 km of the railway routes are equipped with full automatic block signalling giving high route capacity on single and double line sections, while 479 km of the rest is equipped with semi-automatic block control by a centralized dispatcher with no intermediate signalling between passing loops. The railway has 176 stations, 2 of which – Bilajari and Shirvan – are big automated sorting stations.

12 stations have container depots with the necessary handling equipment for 20' containers, 3 stations – Keshle, Gandja and Khirdalan – can handle 40' containers.

Much of the ADY network has suffered from deferred investment. The railway network is over 30 years old and around 40% of the track length needs to be rehabilitated.

The locomotive fleet has been heavily used and is technically obsolete: about two thirds of the fleet requires replacement and modernization. In general, the main railway assets are about 60% life-expired.

In 2006 some 30% of the east-west corridor to Georgia was reported to need improvement. World Bank studies resulted in funding proposals which would give priority to the modernisation of this route, along with investments in traction fleet modernisation.

ADY's two main lines are electrified at 3kV DC. ADY has 204 two-section electric locomotives in its fleet, of which 96 are in active use. Some 46 of these are under 15 years old. The remaining units are VL-8 locomotives of more than 35 years of age. The VL-8 locomotives are beyond their design life and are experiencing a high level of failures: roughly one failure per locomotive per month. These locomotives need to be rehabilitated or replaced soon. As a consequence the weight of the trains is reduced at 2,800 T (instead of 3,500).

ADY's freight wagon fleet is also ageing. ADY has more wagons in aggregate than it needs, with 7,771 wagons in the working fleet, another 10,162 wagons that are usable and spare, and a further 5,655 wagons that could be rehabilitated if they were needed. ADY, however, anticipates shortages of semi-wagons and tank wagons in the near future.

Freight Volume Handled by ADY in 2003 – 2010 is shown below:

Table 10: Freight Volume Carried by ADY from 2003 to 2010, in tons per annum

	2003	2004	2005	2006	2007	2008	2009	2010
Internal	5,376.8	5,525.2	7,333.5					3,600
Import	3,527.4	4,897.9	5,755.7					5,700
Export	2,298.6	2,845.5	6,104.7					4,870
Transit	9,142.5	7,402.6	7,327.7					8,200
Total	**20,385.3**	**20,674.2**	**26,201.6**	**29,687.0**	**28,007.3**	**27,391.6**	**20,700**	**22,300**

Much of the volume of the rail traffic is represented by crude oil and petroleum products, for which the rail remains the most significant transportation mode (11.8 M tons in 2010). However the transportation of other goods by rail started to increase and oil traffic which represented 75% of all traffic in 2008 accounted for only 53% in 2010.

The growth in transport of steel products, cement, foodstuffs and chemicals in particular has had a major impact on the overall carryings. Much of this cargo is imported into Azerbaijan by rail from Georgia and Russia.

The following tables show the total railway daily traffics in 2009 from and towards the country.

Table 11: Railway Daily Traffic in Azerbaijan

To Azerbaijan	Trains/day	Wagons/day	Load wagons/day	Empty wagons/day
Russia	6	322	270	52
Georgia	13	653	210	443
Turkey	-	-	-	3
Total	**19**	**975**	**480**	**495**

From Azerbaijan	Trains/day	Wagons/day	Load wagons/day	Empty wagons/day
Russia	4	232	27	205
Georgia	20	675	665	10
Turkey	1	28	26	2
Total	**25**	**935**	**718**	**217**

Source: ADY, for a normal day

The east-west line between Baku and Tbilisi carries most of the traffic (about 35 train pairs per day), with the line north from Baku to the Russian border carrying the second highest (about 10 trains per day).

The main on-going or planned transport projects in Azerbaijan connected to railway system are the following:

- The relocation of Baku Port in Alyat and the construction of a logistics centre in the Station of Alyat.

Alyat is 70km south of Baku, on the Caspian Sea where TRACECA and North-South Corridor intersect the main railway to Georgia and the railway from Russia to Iran via Baku, Lenkoran and Astara, which cross at Alyat Station. The distance from the port to the main railway network will be less than 5km.

- The Baku-Tbilisi-Kars Railway Project.

In total 98 kilometres (61 miles) of new line will be built between Kars and Akhalkalaki, with 68 kilometres (42 miles) within Turkey and 30 kilometres (19 miles) in Georgia. The existing line from Akhalkalaki to Tbilisi and Baku will be modernized.

Figure 9: Baku-Tbilisi-Kars Railway Project

The new railway link is intended to provide an alternative route to the existing Kars-Gumri Akhalkalaki railway line which has been out of use since 1993, when Turkey closed its border with Armenia to support Azerbaijan in its conflict with Armenia following the Nagorno-Karabakh War. A multi-lateral accord to build the link was signed by the three countries in January 2005, but the European Union and the United States have said they will not assist in promoting or developing the line because it is designed to bypass Armenia.

For the construction of the railroad on Georgian territory, Azerbaijan is providing a 220 M USD loan, repayable in 25 years, with an annual interest rate of only 1%. The completion of the construction is expected by the end of 2012 / beginning of 2013.

Figure 10: Construction of the Baku-Tbilisi-Kars Railway Line

- State Programme for the railway transport system 2010 – 2014.

The Government of Azerbaijan has set up an ambitious plan under the Presidential decree of July 6, 2010 for the 'State Programme for the development of the railway transport system 2010-2014'. The overall budget is 1,5 bn USD out of which the World Bank approved a 450 M financing in 2008 under an IBRD loan with a 23-year maturity including an eight year grace period. This became effective in Marc, 2010. In 2011 an additional 215 M Euros loan has been provided by the Czech Republic Export Credit agency for the purchase of railway equipment from Czech manufactures.

The WB main component of the project is the rehabilitation of East-West Main Line Baku-Boyuk Kesik on about 240 km out of the 317 km in the government programme.

The existing characteristic of the line are the following:

1. It is about 503 km long and double track (with the exception of 1 bridge with single track in Poylu), electrified and equipped with automatic block system
2. The maximum speed is 80 km/h
3. Maximum axle load 23 T
4. In the stations there are electrical switches with the exception of 3 stations with manual switches
5. The length of section between stations (station – to – station block) can vary from 8.6 km up to 14.2 km
6. Present capacity of the line is 45 pairs of trains / day
7. Present traffic :

- 20 pairs/day international freight train (out of which only 3-10 wagons coming from Russia)
- 1 pair/day international passenger train
- 10-12 pairs day local freight train
- 5 pairs/day local passenger train

The State programme, within the WB Project, foresees the rehabilitation of the line to increase speed and capacity.

Tracks and bridges will be reconstructed, the electrification system will be converted from 3.3kV DC to 25kV AC and the signalling equipment will be upgraded. The speed will be 160km/h and the travel time from Baku to the border will be reduced to the half (7-8 hours from the present 14-16 hours). After the rehabilitation a capacity of 60 pairs of trains is expected.

The project includes the rehabilitation/renewal of critical assets (track, locomotives, catenary, power supply, signalling).

Technically it encompasses:

- The conversion of the corridor power supply from 3.3 kV Direct Current to 25 kV 50 Hertz Alternating Current (AC) ; the conversion of power supply from 3.3 kV DC to 25 kV AC will take place under a turnkey design, supply and installation contract,
- The modification and upgrading of the signalling system which will take place through purchase of necessary parts through International Competitive Bidding (ICB) and installation by ADY,
- The purchase of about 50 locomotives. The locomotive procurement will take place through a two-stage ICB goods procurement process without prequalification,
- The purchase of 200 new container platforms and the refurbishment of another 90,
- The tender for Technical assistance to ADY for project services related to power supply conversion, signalling upgrading along Baku-Boyuk-Kesik corridor and procurement of electric locomotives is on-going.

The Modernization component would include transforming ADY into a financially self-sustainable operation covering all its costs (including infrastructure maintenance and traction) from revenues, while improving its operational efficiency, improving the transparency of the railway sector by introducing International Financial Reporting Standards and profit centres (passenger/freight) and by separating on an accounting basis passenger service that could be self-sustained from others.

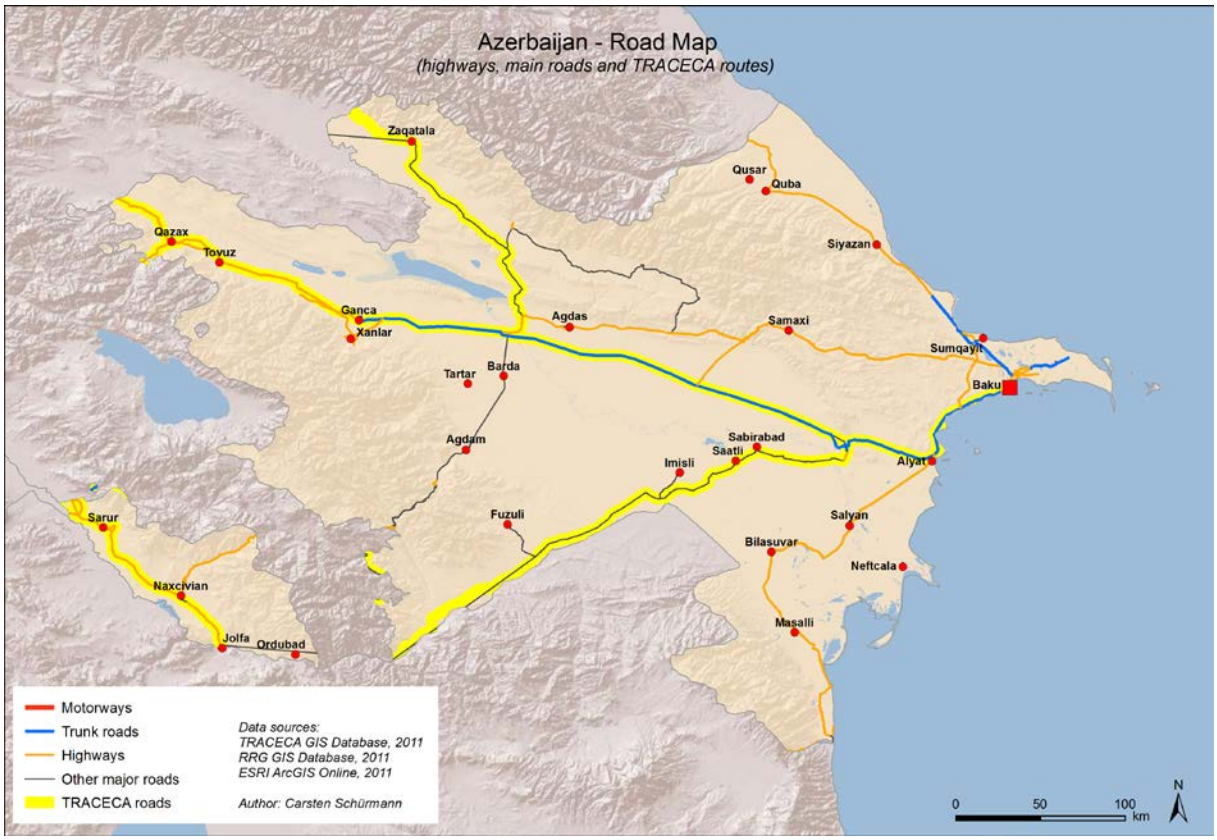
A main goal of the project is to enable ADY attract growing transit business through Azerbaijan including for oil and oil products from neighbouring countries.

Last, it should reduce accidents and environmental hazards by improving track conditions and upgrading ADY's oil spill prevention and response capabilities.

SWOT analysis for the Baku Port Railway Station and the Baku – Georgian Border Railway line have been elaborated and can be found here: SWOT Analysis Azerbaijan Railways Projects_en.doc

6.2.3 Inland Transport Mode: Roads

Figure 11: Azerbaijan Road Map



Source: TRACECA (2011)

The road network is composed of 24,981 km of public roads, out of which 6,882 km are republican roads and 18,099 km are local roads. The network is sufficient to meet the needs of the country in terms of domestic (roads carry 28% of the total cargo traffic) and international transport (due to the geographical location of the country, 60% of the trucks crossing the border with Georgia are in transit). It spreads:

- from East to West : the 503 km section of the E60 road, Baku – Alat – Ganja – Kazakh – Gazakh/Georgian border, is the key artery between the Black and Caspian Seas along the TRACECA Corridor
- from North to South : the 521 km of E119 road, Russian (Daghestan) border/Guba - Baku – Astara /Iranian border
- and 631 km of E002 road runs Baku – Ali – Bayramly – Goris – Mindzhevan – Megri – Ordubad – Nakhichevan – Sadarak – Turkish border. However a 43-km section located on the territory of Armenia is closed whereby most traffic between both regions moves by air or by road via Iran.

The structure of public roads in Azerbaijan according to the road category is as follows:

- category I (4-lane roads with 15 m carriageway) – 130 km
- category II (7.5 m carriageway) – 894 km
- category III (7 m carriageway) – 5`958 km
- category IV (6 m carriageway) – 16`071 km.

In Azerbaijan the highways total only to 1,871 km with some 191 km being four lane roads.

However, according to an April 2010 report by the World Bank, only 45% of highways, 30% of republican and 16% of motor roads of local concern are in a good state (another, former, ADB Technical Assistance Report stated up to 75% of the road network needing rehabilitation). Many rural roads are largely unpaved which hamper round-the-year access and which causes damages to the vehicles (52% of the whole network is paved while 47% is gravel road).

Driving hazards such as open manholes, debris, sinkholes, and potholes are common. Many roads are unlighted at night. A lot of drivers do not pay attention to traffic regulations, signals, lane markings (which, however, are often missing), pedestrians, or other drivers and often travel at very high speeds, whereby accidents are frequent and often serious (though decreasing, the fatality ratio is still 5 to 10 times higher than in Western European countries). Annual losses from road accidents are deemed to cost the country some 1.2 USD bn per year

The regulation for oversize and overweight transport is in line with the provisions of the international Agreement “On the vehicle weights and dimensions for international road transport in CIS countries”. The vehicle dimensions should not exceed 4 m in height, 2.55 m in width, 20 m in length and the vehicle should not weigh more than 44 t. In other cases a 1-trip only special vehicle authorization is needed. An escort becomes compulsory in case the width, length and weight of the vehicle exceed 3.5 m, 30 m and 80 t. Vehicle axle load varies from 10 t for single-axle vehicles to 22 t for triple-axle vehicles. However enforcement of this regulation is weak and the limit is often exceeded. This entails damages to the pavement and a quick dilapidation of bridges.

After years of stagnation, the Government addressed the issue and investments to improve the road infrastructure picked up, amounting to 3.8 bn USD from 2005 till 2009 only. ADB granted technical assistance and a multi-tranche loan which should reach 1 bn USD in total in 2012. This, however, came late and proves insufficient to cope with the rapid and very strong growth in the traffic (the road freight traffic has been multiplied by 2.2 from 2000 to 2008). According to the Transport Development program for 2006-2015, 3,578 km of republican roads and 5,928 km of local roads should be constructed or re-constructed. And the Government’s declared intention is to have all highways meeting international standards by 2018-2020. The Alat – Gadzhygabul –Kiurdamir, Udzhar –Evlakh and Giandzha – Gazakh sections of the E60 TRACECA road are already reconstructed. The remaining 160 km should be completed soon. Works already begun on the Baku –Guba/Russian (Dagestan) border (118 km) section of the E119 as well as on the Byliasuvar –Iranian border segments while the construction of the Baku road by-pass (21.5 km) and Alat –Astara road section (243 km) is ongoing.

Other plans and projects include the construction of a bridge across Baku Bay (length 14 km) scheduled for 2014-2015. At present the feasibility study for the project was concluded. The bridge should become an element of Baku ring road and help to reduce traffic intensity in the centre of the capital.

Road engineering from design to maintenance included is still based on technical and economic principles dating back from Soviet times. These are no longer adapted to meet the needs and requirements of a modern, free-market economy.

Although a considerable number of international agreements have been ratified and laws and regulations passed with respect to road transport, the implementation remains a weak point and control procedures have still to be worked out. As in many other TRACECA countries, the Azerbaijani Government needs to address simultaneously the issues of the economic status and vocational education of the responsible staff.

Until recently road transport users reported numerous and significant dignity and bureaucratic issues and obstacles created by public or recently privatized agencies contributing to the creation of local, rent-seeking monopolies, reducing competitiveness, increasing transit costs and extending delivery times. Ex ante 'facilitation payments' used to represent over 50% of the total transport cost. It seems however this situation is changing dramatically since the beginning of 2011.

Road traffic to Central Asia is extremely limited due to pending administrative issues (the visa regime with Turkmenistan for instance) and the poor quality of the maritime services from Baku to both Aktau and Turkmenbashi. It seems political will lacks in Kazakhstan as well as in Turkmenistan to tackle the operational difficulties faced by CASPAR, the Azerbaijani state shipping company plying the lines, in the above-mentioned ports.

6.3 Trade and Transit Facilitation

6.3.1 General Presentation

- **Procedures and formalities** are among the **main barriers** that are hampering the development of Motorways of the Sea:
  - several **border points** must be crossed, mostly in ports but also on land routes e.g. along the central land corridors: minimum 2 points in a single / one sea service, up to 5 points in inter-seas services linking western Black Sea Countries and Eastern Caspian Sea Countries, and possibly more in the case of longer multicountry transit and transshipments trades;
  - several physical mode transfers, handling movements and intermediate storage are taking place along the sea based transport chains: commonly 3 transfers and minimum 6 handling plus 2 storage in the case of a single sea leg, and several more handling operations in the inter-seas services
  - previous and ongoing experiences of Motorways of the Sea in other regions as well as the global worldwide transport system of containers have demonstrated that the resolution of difficulties in this field is an essential success factor.
- The procedural process in ports and at other border crossing point are **dominantly related to Trade Laws and Regulations**, but actors of the transport and transit chain are responsible for their fulfilment. A significant part of their activities is to deal with these complex issues and they are drawing the corresponding revenues out of their capacities.

  Relationships between institutions on one side, - Customs first, but also other Ministries and inspection bodies - operators and users on the other side, are affected by these functions which are mixing with the physical transit and transport operations.
- The **impacts of administrative and regulatory barriers** are generally more important when there is a sea leg since:
  - maritime transport and port transits require more formalities than land transport modes, including specific exchange of information, paper documentation etc. which are rightly perceived as a factor of complexity
  - this adds to the weakness of intermodal sea based transport, particularly when compared to the most simple unimodal road transport
  - transit times are increased if and when formalities and operations are mismatching, e.g. when the transport means of one mode is not coordinated with those of the next

mode, which is a frequent situation between the maritime and railways legs in the TRACECA region
  - costs are not only direct but also indirect, and not only formal but also informal, and unofficial transit levies and other transaction costs are adding to the sum of official tariffs, taxes and dues.
- **Common Weaknesses / Barriers** have been identified in all LOGMOS project Countries to various extents and at different degrees. This diagnosis has been shared under the key word "Facilitation" by Country stakeholders and at bilateral and regional levels. Barriers in this field are referred to in the "W" (Weaknesses) list of the various SWOT analyses summarized in the following project documents:
  - Country profiles, as synthesized hereafter
  - Presentations for workshops and meetings
- Among the **solutions** discussed in the diagnosis phase, the following is a series of common **recommendations and targets** that are partly implemented, planned, or contemplated for the future LOGMOS projects and more generally for the development of intermodal transport including port / border crossing points:
  - I.T. systems and solutions electronic solutions / EDI for:
    - information (for users and operators)
    - declarations
    - pre-alert (for Customs and other)
    - duties, taxes and fees
  - One stop scheme and extension to Single Window System (SWS)
  - Risk management system and methods
  - IT interchange solutions between MoS port / communities
  - Tracking and Tracing (in coordination with operators)
  - Upgrading / redesigning border points layouts
  - Training (management, IT organization…)

6.3.2 SWOT Analysis

The following table summarizes key-finding for national SWOT analysis in trade and transit facilitation procedures that have been adopted in Azerbaijan.

Table 12: SWOT Analysis in Trade and Transit Facilitation Procedures

STRENGHTS	• Official Customs policy targeting best practices • One-Stop-Shop operating at some customs crossing points • ADB CAREC programme 2008-2017 Action Plan includes reducing border crossing times by 50% by 2012 and an extra 30% by 2017 compared with 2007
WEAKNESSES (BARRIERS)	• No trade facilitation strategy • Lack of uniform, consistent and clear application of

	Customs and other border crossing laws and rules • Rail freight train delays on average 8 hours at border crossing points[1] • Formalities for truck drivers' visas at border crossing points, bilateral truck quotas, Customs escorts, road checkpoints and unofficial payments • Number of controls and rules used for different economic regimes and Authorities • Lack of electronic Single Window System for export, import and transit using direct trader entry (DTE)
OPPORTUNITIES	• New Customs Code, integrating EU norms, replacing the one adopted in 1997, already in force • Implementation of simplified and harmonized border crossing procedures transferring to the Customs Committee the responsibility of monitoring other agencies' duties (veterinary, phyto-sanitary, ecological, etc.) • Set-up of new procedures at the border (truck bar-code, risk-management based inspection) reducing truck crossing time from 108' to 15-20' • Set-up of fixed time spans for performing customs clearance at final destination • Enhanced use of IT for pre-and final export and import declarations • Planned introduction of digital signature and payments reducing paperwork and physical contact therefore bringing a significant decrease in corruption • Development of Single Window Systems using international good practice methods • Binding tariff agreements with regular and reliable Customs users • Customs low risk due diligence programme with compliant traders and intermediaries • On-going road infrastructure improvements (multiple versatile lanes, separated truck parking area) at main border crossing point (Boyuk Kezik) • Government's will to join Viking Train agreement
THREATS	• Delays in implementing transit improvements on TRACECA central corridor countries • Slow or late developments of consistent and coordinated (with other Countries) facilitation measures • Lack of legal instruments enabling international Customs EDI with neighboring countries

[1] ADB Transport and Trade Logistics Azerbaijan, 2009, Table 3 Wagon Cycle Analysis for the Baku-Batumi Oil and Oil Products Services (July 2006), p.14.