Official Use Only

Kazakhstan

Ex-post Monitoring of Completed ODA Loan Project
"Railway Transport Capacity Development Project"

External Evaluator: Naomi Murayama
(OPMAC Corporation)
Field Survey: Sep.-Oct., 2009

1. Project Description

Map of the project area


Almaty Passenger Coach Repair Plant

1.1 Project Objective

The objective of this project was 1) to rehabilitate the track on the Aktogay – Druzhba route, which links the Kazakhstan and China railway systems, as well as to change the route, 2) to increase the trans-shipment capacity of Druzhba Station on the Kazakh – China border, and 3) to build a new railway-carriage repair plant at Almaty. This was to be achieved by a) increasing transport capacity and improving safety on the route, 2) responding to an increased demand for passenger transport, and 3) strengthening the deficient rolling stock repair and maintenance capacity, enhancing safety, and thereby contributing to the trade promotion and to economic development in Kazakhstan.

1.2 Outline of the Loan Agreement

Loan Amount/Disbursed Amount	7,236 million yen / 7,157 million yen
Loan Agreement/Final Disbursement Date	Dec.1995 / May 2001
Ex-post Evaluation	FY 2003
Executing Agency	Republic of Kazakhstan /Kazakhstan Temir Zholy (KTZ)
Main Contractor	Chori (Japan)
Main Consultant	Japan Railway Technical Service (Japan)

1.3 Background of Ex-post Monitoring

At the time of the ex-post evaluation, passenger turnover was at a lower level than that at the commencement of the project. The operation rate of the Almaty Passenger Coach Repair Plant, hereafter ACRP, also remained low, with repair performance falling far short of design capacity, especially in respect of depot repairs. Thus, issues related to effectiveness could be clearly seen. There were also concerns that some of the equipment procured under the project were in a poor state, having neither guarantees nor instruction manuals, and that the policies of the Kazakhstan government had the potential to impact on the sustainability of the project by separating the most profitable cargo traffic division from the secondary passenger traffic division under railway sector restructuring.

Therefore, this project was selected for ex-post monitoring and each criterion was reviewed with the findings from the field survey and other research activities. The conclusion was then drawn.

2. Monitoring Results

2.1 Effectiveness (Impact)

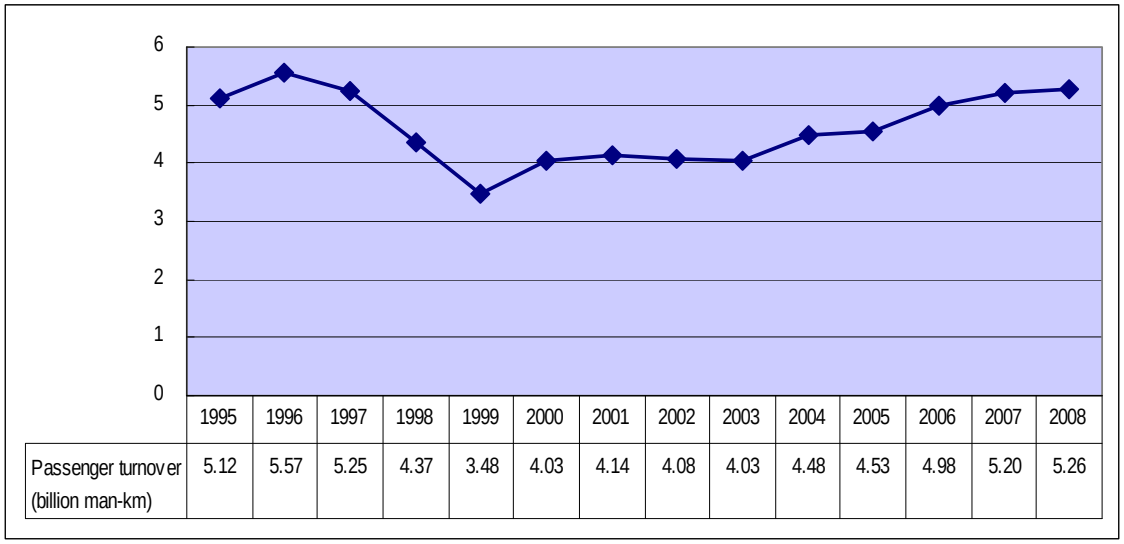
Passenger turnover, which had remained at a lower level than at the commencement of the project, increased little by little until it recovered the same level as at commencement. ACRP, which was failing to meet performance targets, remained much below design capacity. However, a number of relatively major repairs have been reported, while it had no record of major repairs at the time of the ex-post evaluation.

2.1.1 Current Facilities Operating Conditions and Effectiveness

(1) Strengthening Rail Transport Capacity

Figure 1 shows passenger turnover on the Almaty-Aktogay-Druzhba route (the former Almaty route) between 1995 and 2008; cargo turnover for the same period is presented in Figure 2.

Unit: billion man - km

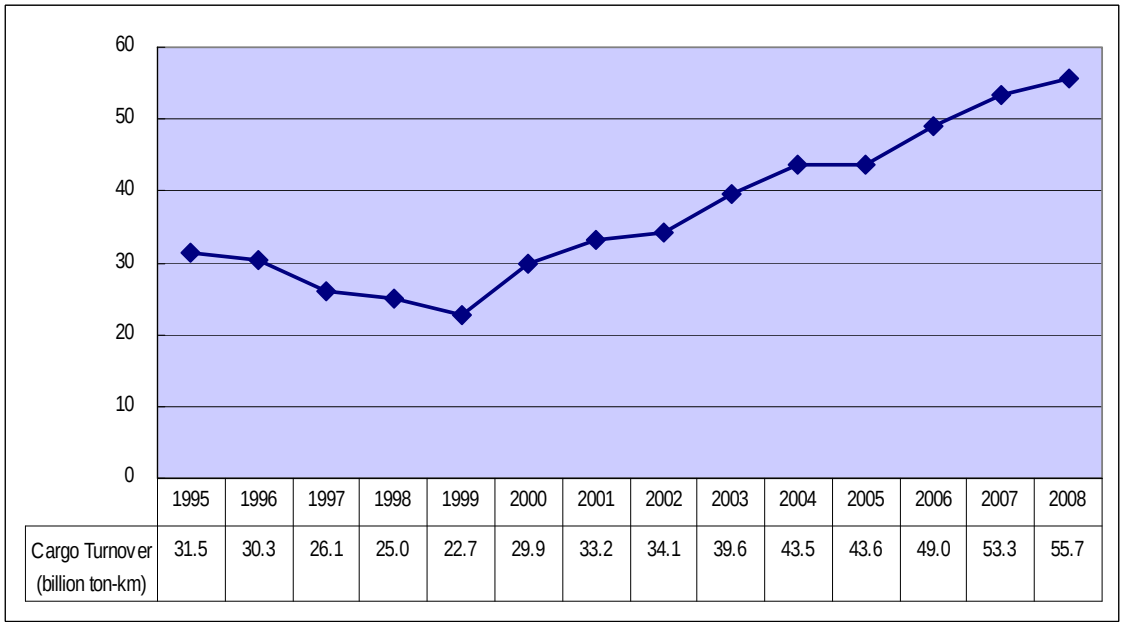


	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Passenger turnover (billion man-km)	5.12	5.57	5.25	4.37	3.48	4.03	4.14	4.08	4.03	4.48	4.53	4.98	5.20	5.26

Source: KTZ

Figure 1: Passenger turnover on the former Almaty route

Unit: billion ton - km



	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Cargo Turnover (billion ton-km)	31.5	30.3	26.1	25.0	22.7	29.9	33.2	34.1	39.6	43.5	43.6	49.0	53.3	55.7

Source: KTZ

Figure 2: Cargo turnover on the former Almaty route

Passenger turnover was lowest in 1999 and at the time of the ex-post evaluation it remained at around 4 billion man-kilometers level. Since 2003, however, it has gradually increased recovering the same level as at commencement. Cargo turnover has increased considerably, due to the activization of trade between Kazakhstan and China.

Table 1: Passenger and Cargo Trains on the Aktogay-Druzhba route[1] (2003-2008)

Unit: train/week

	Number of passenger services[2]	Number of cargo services
2003	16	58
2004	16	119
2005	16	145
2006	16	169
2007	16	156
2008	18	170

Source: KTZ

The number of passenger train services and the number of cargo train services are shown in. Table 1. The former has been stable since the time of the ex-post evaluation, 2003 to 2007, but a new service between Astana and Urumqi started on May 27, 2008. Since then, the number has become eighteen per week. On the other hand, the number of cargo train services has been increasing year after year together with the activization of trade between Kazakhstan and China.

Table 2: Journey Times on the Aktogay-Druzhba[3]

Unit: hour: minute

	Aktogay-Druzhba route		
	Regular services	Express services	Cargo services
2003	8:24	6:18	8:02
2004	8:24	6:12	8:28
2005	8:24	6:01	8:45
2006	8:20	6:01	8:12
2007	7:20	6:01	8:00
2008	6:00	5:41	7:57

Source: KTZ

Following the ex-post evaluation, the required time of passenger services (regular services and express services) as well as cargo services has reduced year to year (Table 2). For instance, the required time for regular passenger services in 2008 had reduced by 26 % from that in 2003. According to a person in charge at KTZ, the top speed of cargo rail services has improved from 60 km/h to 80 km/h through re-routing and the improvement of communication equipment under the project as well as by track rehabilitation carried out by their separate funds in 2007.

[1] The number of railway services includes both the number of services from Aktogay to Druzhba and from Druzhba to Aktogay.

[2] Services between Aktogay and Druzhba have been provided by JSC Passenger Transportation since 2007. JSC Passenger Transportation is a sister company established in 2002 as a division of the national railway of Kazakhstan.

[3] As the data provided by KTZ is significantly different to the data at the time of the ex-post evaluation, there is no comparison with figures predating the ex-post evaluation in this report. The data in this table illustrates the required time shown in the timetable and it is not necessarily consistent with the actual service time.

Table 3: Number of accidents on the Almaty Railway Route (2003-2008)[4]

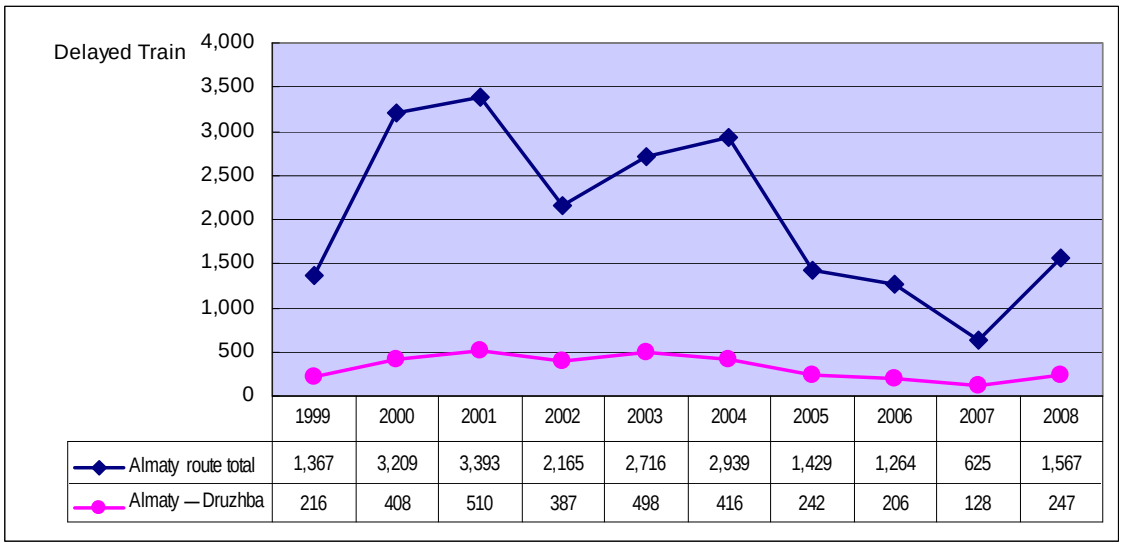
Unit: case

	Number of derailments	Number of fatalities	Number of breakdowns	Total number of accidents
2003	6	0	0	115
2004	3	2	0	101
2005	4	0	1	103
2006	3	1	0	77
2007	6	0	0	67
2008	2	1	0	73

Source: KTZ

The total number of accidents has continuously decreased. KTZ highly appreciates the improvement of safety of train services through re-routing. From the number of derailments and fatalities seen in Table 3, however, a causal link between the improvement in safety and the implementation of the project cannot be confirmed.

Unit: train



Source: KTZ

Figure 3: Number of delayed trains

According to KTZ, there was no record of cancellations on any of the Almaty Railway Routes or on the Almaty-Aktogay-Druzhba route between 1999 and 2008. Figures for delays are shown in Figure 3. However, a causal linkage between the number of delays and or cancellations and the implementation of the project cannot be confirmed.

[4] The total number of accidents at the time of the ex-post evaluation included derailments, fatalities, breakdowns and thefts. However, the data provided by KTZ included 31 kinds of accidents including derailments, breakdowns, accidents during maintenance etc. (it did not include fatalities and thefts.)

(2) Trans-shipment Capacity of Druzhba Station

Table 4 shows the annual trans-shipment performance of workshops No. 2 and No. 3 at Druzhba Station where forklifts procured by the project are located together with trans-shipment times per cargo train.

Table 4: Forklift Trans-shipment capacity and performance at Druzhba Station (2003-2008)[5]

	Annual trans-shipments (Unit: thousand ton)	Trans-shipment time per cargo train (Unit: hour: minute)
2003	220.7	32:09
2004	295.8	24:03
2005	371.8	19:05
2006	762.1	9:19
2007	1,292.8	5:29
2008	1,399.1	5:05

Source: KTZ

The annual trans-shipment performance at Druzhba station has increased since 2003 together with the activization of trade between Kazakhstan and China, as shown in Figure 2. Trans-shipment time per cargo train has decreased substantially since 2003. According to KTZ, trans-shipment time was reduced by less than one sixth, despite a 6.3 times increase in cargo volume. This was because it was no longer necessary to do the work manually thanks to the introduction of forklifts procured under the project. From this standpoint, the efficiency of the project can be confirmed.

(3) Improved Railway Carriage Repair Capacity

Table 5 illustrates the repair performance of ACRP from 2003 to 2008 and Figure 4 shows a comparison of the design capacity[6] with repair performance during the same period.

At the ex-post evaluation, the KR-1 rate was 10-69 % and KR-2 rate was 0% in comparison with the planned design capacity at the time of appraisal (KR-1: 300 carriages per year, KR-2: 70 carriages per year). Since 2003, the plant has had a better record, for example the KR-2 rate is 0-21 carriages. Moreover, there are records of major repairs such as Capital Repairs with Lifespan Expansion (KRPS) and Capital Repairs and Renewal (KVR) for the last three years. However, orders for dept repairs and KR-1 have been decreasing for the last several years.

[5] The trans-shipment performance in this table includes performance not only of forklifts procured under the project but also of other forklifts procured by KTZ out of their own funds, together with manual works. As the data provided by KTZ is significantly different to the data at the time of the ex-post evaluation and it can be considered to have adopted different base, there is no comparison with figures pre-dating the ex-post evaluation in this report. For example, the annual trans-shipments performance in 2002 was 800 thousands ton and the trans-shipment time per cargo train in the same year was 9 hours in the ex-post evaluation report.

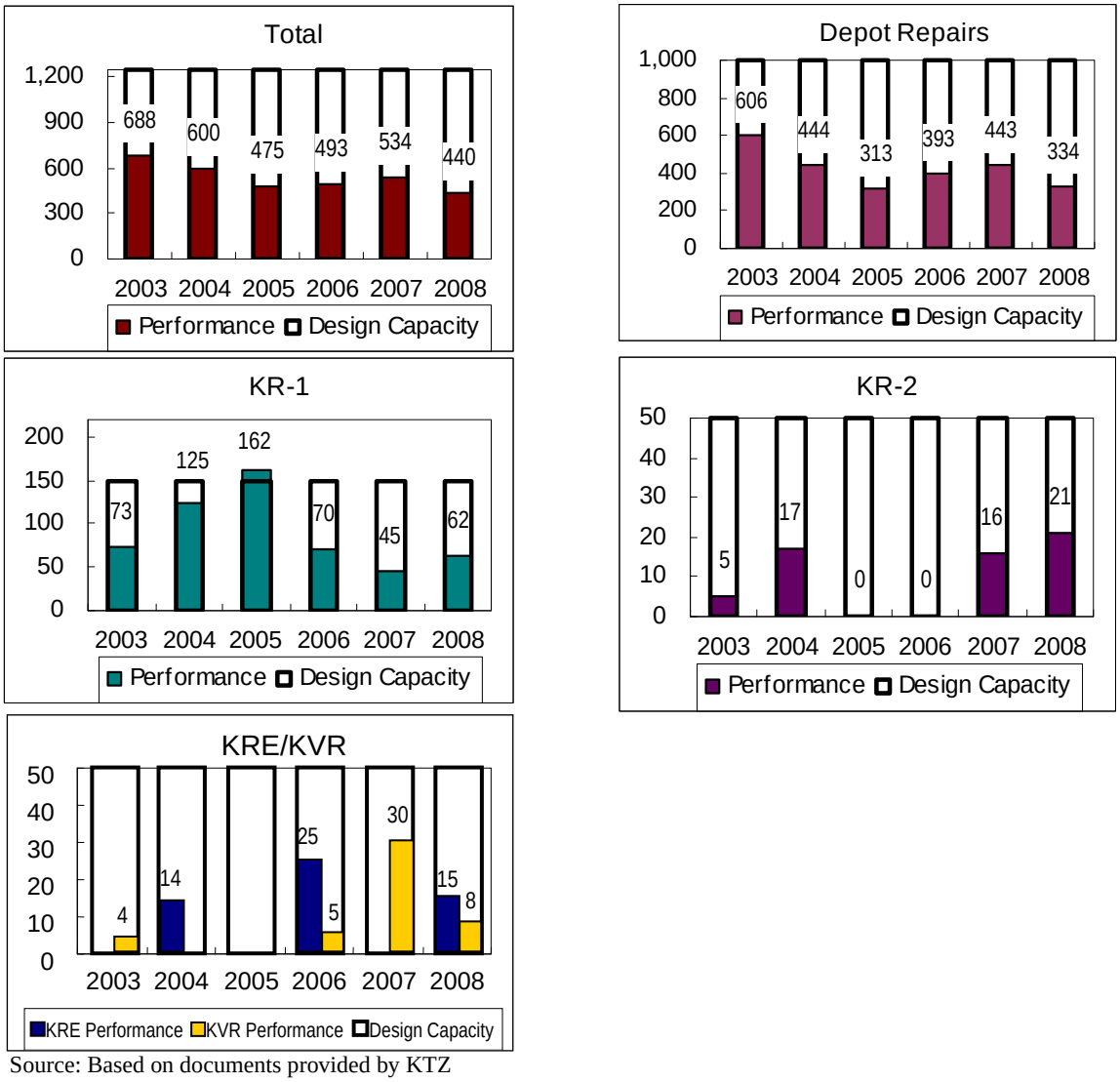
[6] There is a plan for the plant to start to assemble new coaches from 2010 and at the time of the ex-post monitoring, this is in a preparatory stage. However, the design capacity shown in Figure 4 is consistently the design capacity at completion of the project.

Table 5: Repair Performance of ACRP (2003-2008)

Unit: carriage

	2003	2004	2005	2006	2007	2008
Depot Repair	606	444	313	393	443	334
KR1 (scheduled repairs per 5 years)	73	125	162	70	45	62
KR2 (scheduled repairs in 20 years)	5	17	0	0	16	21
KRPS[7] (Capital repairs with lifespan expansion)	0	14	0	25	0	15
KVR[8] (Capital repairs and renewal)	4	0	0	5	30	8
Total	688	600	475	493	534	440

Source: KTZ



Source: Based on documents provided by KTZ

Figure 4: Comparison of Design Capacity and Repair Performance

[7] KPRS (Capital Repairs with Extension of Lifespan) is executed in volumes of KR-1 or KR-2 depending on the technical conditions of the carriages. These are undertaken 28 years after coach construction.

[8] KVR (Capital Repair and Renewal) is repair of carriages using restored existing parts of the body and wheels, the rehabilitation of internal equipment, the improvement of interiors and scheduled repairs executed in accordance with the requirements of technological normative documents. These are undertaken not earlier than 20 years after construction.

2.1.2 Results of Economic Internal Rate of Return

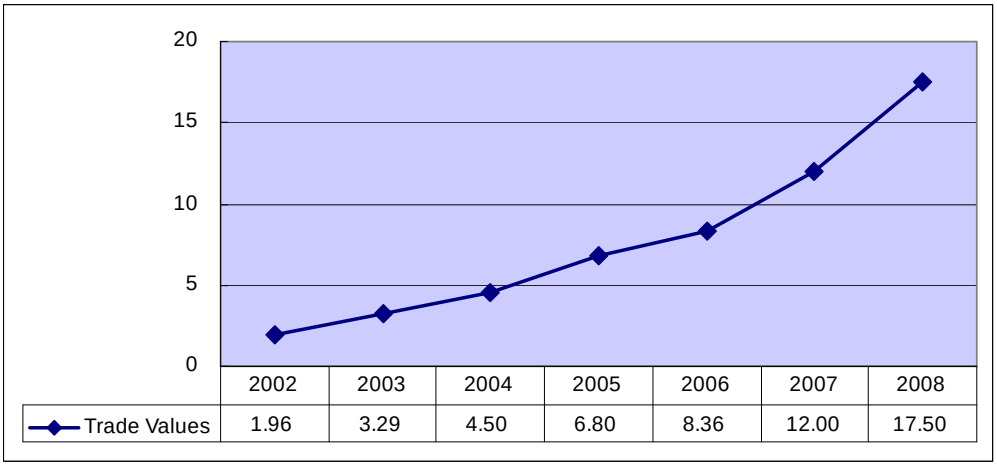
Due to the fact that the EIRR was not calculated and the benefit was not clearly set at the time of appraisal and the ex-post evaluation, a comparison cannot be made.

2.1.3 Impact

(1) Expanded Kazakhstan-China Trade and Rail Traffic Volumes

Figure 5 shows trade values between Kazakhstan and China from 2002 to 2008. Figure 6 illustrates trade volumes between Kazakhstan and China via Druzhba Station during the same period.

Unit: billion USD

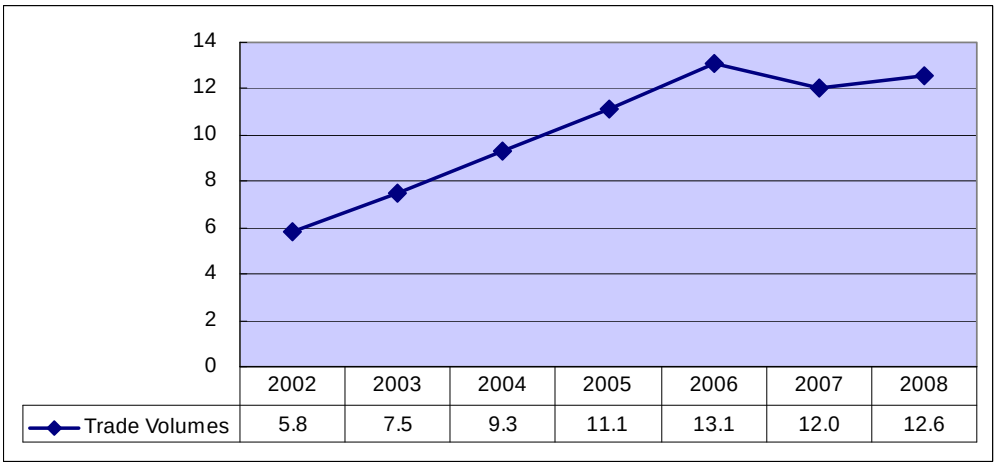


	2002	2003	2004	2005	2006	2007	2008
Trade Values	1.96	3.29	4.50	6.80	8.36	12.00	17.50

Source: KTZ

Figure 5: Trade Values between Kazakhstan and China

Unit: million ton



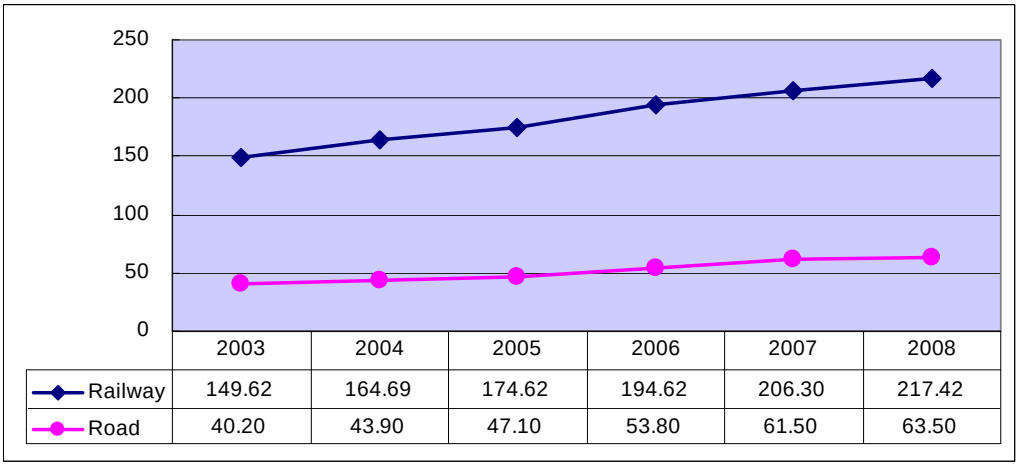
	2002	2003	2004	2005	2006	2007	2008
Trade Volumes	5.8	7.5	9.3	11.1	13.1	12.0	12.6

Source: KTZ

Figure 6: Trade Volumes between Kazakhstan and China (via Druzhba Station)

Trade values have been steadily rising since 2002. The volume in 2008 had increased 1.68 times compared to the volume at the time of the ex-post evaluation in 2003, although there had been stagnation since 2006. According to staff at Druzhba station, the trade volume from China had decreased especially after 2008 due to the world economic crisis. Meanwhile, the "Transport Strategy of the Republic of Kazakhstan to 2015"(approved in 2006) aims to expand transit trade as Kazakhstan is located at a key trading junction between Asia and Europe. Since the only gateway for Asian railway trade is Druzhba station and as the railway cargo turnover greatly exceeds the road cargo turnover (as indicated in Figure 7), the strategy is to develop railway transportation and Druzhba station in order to attain the goal of expanded transit trade. The target volume of trade through Druzhba station for 2015 is 25 million tons.

Unit: billion ton-km

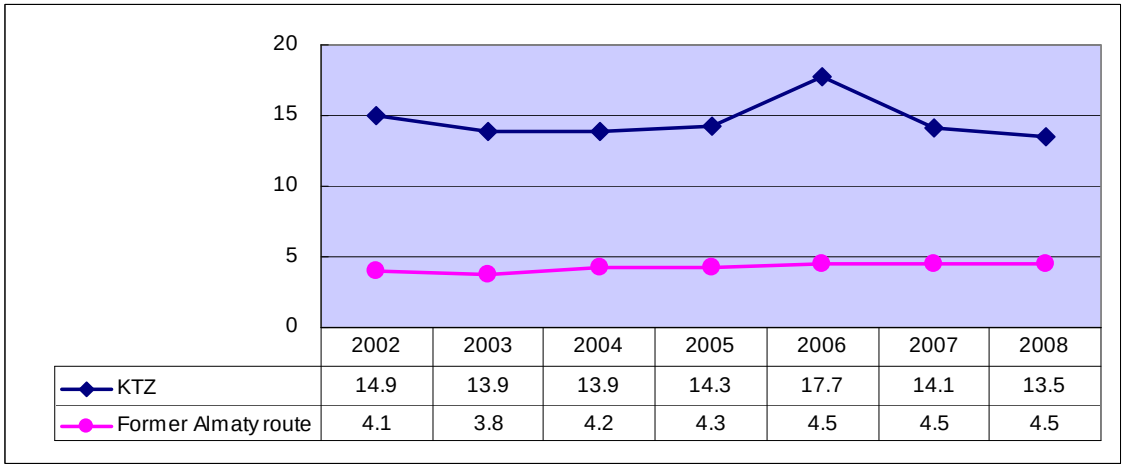


	2003	2004	2005	2006	2007	2008
Railway	149.62	164.69	174.62	194.62	206.30	217.42
Road	40.20	43.90	47.10	53.80	61.50	63.50

Source: KTZ

Figure 7: Rail and Road Cargo Turnover (nationwide)

Unit: million people

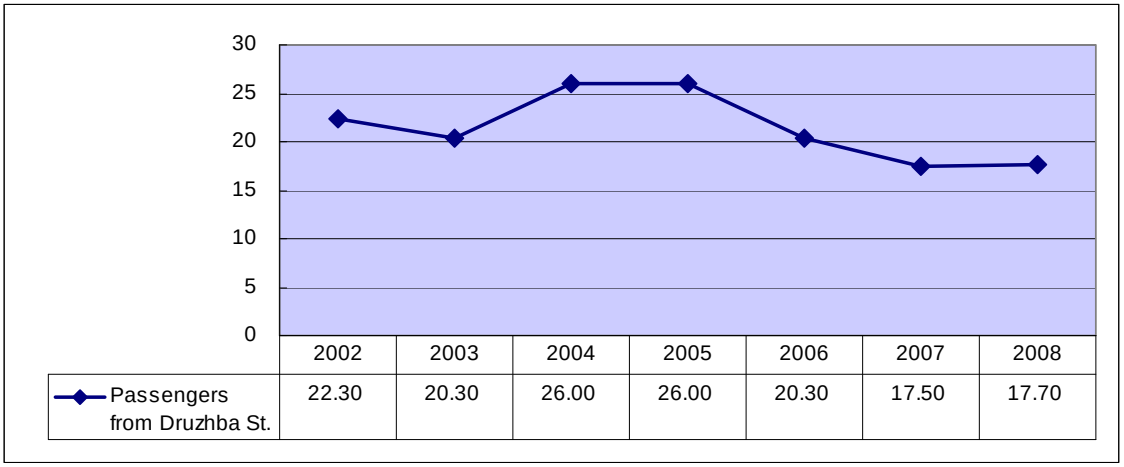


	2002	2003	2004	2005	2006	2007	2008
KTZ	14.9	13.9	13.9	14.3	17.7	14.1	13.5
Former Almaty route	4.1	3.8	4.2	4.3	4.5	4.5	4.5

Source: KTZ

Figure 8: Number of passengers using KTZ and Almaty Railway routes

Unit: thousand people



	2002	2003	2004	2005	2006	2007	2008
Passengers from Druzhba St.	22.30	20.30	26.00	26.00	20.30	17.50	17.70

Source: KTZ

Figure 9: Number of Passengers using Druzhba Station on the Kazakh-China border

The number of passengers, as shown in Figure 8, has remained stagnant. While the number of passengers using Druzhba station[9] increased temporarily in 2004 and 2005, there is now a declining trend.

(2) Environmental and Social Impact

At the time of the ex-post evaluation, no problems had been reported in connection with the land acquisition and involuntary resettlement components of this project. According to KTZ, there is also no negative environmental impact. KTZ agreed that the construction of the detour around Lake Alakol has contributed to the alleviation of pollution risks which would be present when the train passed over the lake.

2.2 Sustainability

At the time of the ex-post evaluation, there was inadequate management of some equipment procured under the project because some guarantees and instruction manuals were missing. This problem has now been solved by requesting them from suppliers. There were concerns that the policy of the Kazakhstan government had the potential to impact on the sustainability of the project through the separation of the most profitable cargo traffic division from the secondary passenger traffic division under railway sector restructuring. In fact, this has had no effect on sustainability from the view point of operation and maintenance since KTZ subsidizes the passenger traffic division.

2.2.1 Operation and Maintenance Agency

[9] At the time of the ex-post monitoring, the number of users at Druzhba station was the total number of passengers boarding a train at the station.

2.2.1.1 Structural aspects of Operation and Maintenance

The organization of operation and maintenance is as follows:

1) Tracks in the project area: KTZ Department of Mainline Network
2) Communication equipment: KTZ Department of Communication
3) Trans-shipment workshop at Druzhba station: KTZ Directorate of Transportation Process, Kaztransservice[10]
4) Trans-shipment work: Kaztransservice、Kedentransservice[11]
5) Almaty Passenger Coach Repair Plant: Almaty Passenger Coach Repair Plant [12]

Trans-shipment work has been contracted out to the above two companies since 2005 and forklifts procured under the project have been also leased out to Kedentransservice for the long term.

2.2.1.2 Technical aspects of Operation and Maintenance

At the time of the ex-post evaluation, the following three problems with operation and maintenance were indicated; 1) inadequate management of some equipment, 2) lack of skilled engineers, and 3) delays in the supply of spare parts. These problems were confirmed at ACRP in the site survey.

Regarding missing guarantees and instruction manuals, ACRP requested that they be provided from suppliers. This has been achieved and now there are no problems with equipment operation.

As for the lack of skilled engineers, ACRP has made efforts to enhance external training[13] and training courses at the plant and to improve the work environment for engineers and other specialists who take training courses. ACRP provides the following kinds of training courses: four months intensive training targeting people who did not graduate from vocational school; training courses for new recruits; annual or quarterly training programs for specialists; lecture courses called “Academic Hours” held every Friday, and basic training courses through on the job training (OJT). At the end of annual or quarterly training programs for specialists, tests are implemented by the Examination Committee, and the results of these are reflected in staff grades and salaries. There is therefore an incentive for specialists to improve their skills. As a

[10] A KTZ sister company responsible for trans-shipment.

[11] A private company providing similar services to Kaztransservice.

[12] KTZ has owned 100% of the shares of ACRP since September, 2009. Before that, KTZ and JSC Passenger Transportation owned a 50 % share each. According representatives of the plant, KTZ took 100 % ownership in order to strengthen repair capacity.

[13] Staff have participated in the following training courses held in the Ukraine, Russia, Egypt and elsewhere since 2006:
2006: Courses for managers of metallurgical services (responsible for measurements) 2007: Principles of functioning and improvement of integrated enterprise management systems; Introduction to and understanding of ISO compliant quality management systems; Development of Enterprise QMS, the European experience of improvement;, Regulation of state procurement; Labor protection and labor safety 2008: Labor protection and labor safety; Regulation of state procurement; Technology for the assembly of passenger coaches

result of the implementation of systematic and continuous training courses like those described above, problems with the technical aspects of repair works have been solved. However, according to a skilled engineer who is in charge of lectures, at present there is only one chief engineer who can teach repair techniques. From the view point of sustainability therefore, training for trainers is an urgent issue.

The number of staff at ACRP is shown in Table 6[14].

Table 6: Number of staff at ACRP

Unit: person

	2003	2004	2005	2006	2007	2008
Executives	4	4	4	4	4	4
Administration	29	27	31	30	30	30
Engineers	129	95	83	86	88	91
Other specialists	892	731	544	597	645	698
Total	1,054	857	662	717	767	823

Source: KTZ

The problem of delays in spare parts supply has been solved since 2005 through by-passing the complicated procurement process. An electric inventory system has also been introduced, which not only reviews stock every three months, but also procures in accordance with an annual schedule for use.

2.2.1.3 Financial aspects of Operation and Maintenance

KTZ has compiled consolidated financial statements based on international accounting standards since 2002 (Table 7、Table 9). Besides these, separate financial statements (Table 8、Table 10) have been compiled since 2004.

Table 7: consolidated income statements

Unit: million USD

	2004	2005	2006	2007	2008
Revenue	1,886	2,140	3,034	3,466	4,021
Operating income/loss	-92	-62	368	367	405
Net income/loss	-93	-129	178	209	531

Source: KTZ

Table 8: KTZ separate income statements

Unit: million USD

	2004	2005	2006	2007	2008
Revenue	1,720	1,879	2,644	2,993	3,543
Operating income/loss	-65	380	291	221	225
Net income/loss	-79	-66	142	116	347

Source: KTZ

Table 9: consolidated balance sheets

Table 10: KTZ separate balance sheets

[14] The number of engineers and other specialists in 2008 was less than in 2003. According to ACRP, this was the result of layoffs in response to order decrees.

Unit: million USD

	2004	2005	2006	2007	2008
Fixed assets	4,210	4,412	5,076	5,772	6,452
Current assets	763	609	1,231	1,346	1,224
Total assets	4,974	5,021	6,307	7,118	7,676
Long-term debts	409	407	1,437	1597	1,463
Current liabilities	457	760	549	678	882
Total liabilities	866	1,167	1,986	2,275	2,345
Total liabilities and equity	4,974	5,021	6,307	7,118	7,676

Source: KTZ

Unit: million USD

	2004	2005	2006	2007	2008
Fixed assets	3,170	3,264	3,552	3,953	4,288
Current assets	1,697	1,660	2,485	2,716	2,548
Total assets	4,868	4,924	6,037	6,669	6,836
Long-term debts	283	333	899	962	792
Current liabilities	442	632	715	840	866
Total liabilities	725	965	1,614	1,802	1,657
Total liabilities and equity	4,868	4,924	6,037	6,669	6,836

Source: KTZ

Table 11: Analysis of consolidated financial statements

Unit: %

	2004	2005	2006	2007	2008
ROA	-1.87	-2.57	2.82	2.94	6.92
Liability ratio	17.41	23.24	31.49	31.96	30.55
Current ratio	166.96	80.13	224.23	198.53	138.78

Source: KTZ

Table 12: Analysis of KTZ separate financial statements

Unit: %

	2004	2005	2006	2007	2008
ROA	-1.62	-1.34	2.35	1.74	5.08
Liability ratio	14.89	19.60	26.74	27.02	24.24
Current ratio	383.94	262.66	347.55	323.33	294.23

Source: KTZ

At the time of the ex-post evaluation, it was concluded that KTZ had been posting steady increases in operating income and profits and, on the basis of analysis of the financial statements from 1999 to 2002, was a financially viable operation. According to analysis of the consolidated and separate financial statements for the last five years, Return on Assets (ROA) has been improving and the liability ratio (total liabilities/ total assets) and the current ratio (current assets/ current liabilities) are sound. No problems have been observed in profit performance and financial stability.

At the time of the ex-post evaluation, it was pointed out that the policy of the Kazakhstan government had the potential to impact on the sustainability of the project and thus it would be necessary to keep a close eye on the direction taken by reforms. According to KTZ however, there has been no effect on sustainability from the view point of operation and maintenance as KTZ subsidize the passenger traffic division.

2.2.2 Current status of Operation and Maintenance

During the ex-post monitoring, a site survey was conducted around Lake Alakol (the detour route), Aktogay station (for communication equipment), Druzhba station (trans-shipment equipment) and ACRP. The current status of facilities and equipment procured under the project was verified there.

The detour route is maintained well without inundation and no problems have been observed.

Under the project, commutation cables between Aktogay and Druzhba were improved. The

department of communication at Aktogay station is responsible for operation and maintenance for these and according to the department, operation and maintenance is carried out using special equipment procured by the project. There are no major problems or breakdowns. Communication equipment has been replaced with optical fiber communication cables from this October and consequently equipment procured under the project will be used as back-up.

Eighteen forklifts were procured for Druzhba station. However, at the completion of the project, as the trans-shipment volume at the station was lower than originally thought, some of those equipments were transferred to other stations[15]. There are currently eight forklifts (of 1.5 tones) and one forklift (of 40 tones) at Druzhba station. These forklifts are leased out to Kedentransservis following a revision of the KTZ scope of work in 2005. According to Kedentransservis, the leased forklifts are presently not in use due to heavy use in the past and because 10 years has passed since procurement[16].

With respect to ACRP, at present, all problems have been solved and there is no problem with operation and maintenance.

3. Conclusion, Lessons Learned and Recommendations

3.1 Conclusion

Passenger turnover, although at a lower level at the time of the ex-post evaluation than at commencement, has increased little by little and has now reached the same level as the commencement level. The delays in spare parts supply at ACRP have been solved through direct procurement. ACRP engineer capacity is no longer a problem due to the implementation of systematic training for engineers and other specialists.

The trade volume between Kazakhstan and China increased up to 2008. In accordance with this, cargo volume also increased considerably. It can be seen that the project has contributed to the trade promotion by the increase in the volume of trans-shipments at Druzhba station and the reduction in trans-shipment time. It is, however, necessary to pay special attention to changes in trade volume, especially decreases, due to the influence of the world economic crisis.

3.2 Lessons Learned

None.

3.3 Recommendations

[15] Stations where forklifts procured under the project are located: (not including Druzhba station) :
1.5 ton forklifts: Pavlodar station, Aktybinsk station, Zhinishke station, Astana station (1 each), Almaty station (3)
20 ton forklifts: Chimkent station (2)

[16] KTZ does not plan to repair the forklifts as it is considered more reasonable to purchase new ones than to fix the present ones.

[To the Executing Agency]

- Some data collected in the site survey contained different figures and definitions to that collected at the time of the ex-post evaluation. For example, data on trans-shipment performance and times at Druzhba station is required for monitoring the effectiveness of the project. Therefore, it is desirable that a system is established whereby records are kept using the same definitions, not only for monitoring the effectiveness of the project but also for utilizing the data in daily operations.

- At the ex-post evaluation, problems were found in the technical level of engineers at ACRP. However, thanks to systematic and continuous training,, the level of engineers and other specialists has been raised. Nevertheless, a lack of engineers to train successors remains a problem. From the view point of sustainability, training for trainers is an urgent issue. It is desirable to train trainers for full sustainability after the project completion.

End

Comparison of the Original and Actual Scope

Item	Original	Actual
1. Project Outputs		
- Track rehabilitation (Replacement of rails/sleepers, etc.)	Beskol – Druzhba: 150km Concrete sleepers	As planned Wooden sleepers
- Construction of alternate route	Lake Alakol area: approx. 22km	Lake Alakol area: 26.98km
- Communications equipment improvements (Installation of underground cables, replacement of telephone switching equipment, etc.)	Aktogay-Druzhba: approx.300km	As planned
- Procurement of forklift trucks & other cargo transit equipment	Druzhba Station 1.5-ton forklift trucks: 15 30-ton forklift trucks: 3 0.5-ton cranes: 2	Druzhba Station 1.5-ton forklift trucks: 15 30-ton forklift trucks: 2 40-ton forklift trucks: 1
- Construction of railway-carriage repair plant	Annual transit capacity: 1.135 mill. tons	Annual transit capacity: 1.025 mill. tons
	Almaty railway-carriage repair plant (20,000m^2)	As planned
- Consulting services	Foreign consultants: 30M/M Local consultants: 318M/M	Foreign consultants: 20M/M Local consultants: 400M/M
2. Project Period		
Track rehabilitation	July 1996- June 2000	June 1997- Dec.1999
Alternate route construction	July 1996- June 2000	June 1997- Dec.1999
Communications equipment improvements	July 1996- Jan. 1998	June 1997- Dec.1999
Trans-shipment equipment procurement	July 1996- Jan. 1998	June 1997- Jan. 1998
Construction of new railway-carriage repair plant	July 1996- June 2000	June 1997- Dec. 2001
Consulting services	Jan. 1996- June 2000	Mar. 1996- Apr. 2001
3. Project Cost		
Foreign currency	4,313 million yen	7,157 million yen
Local currency	5,336 million yen	2,388 million yen
Total	9,649 million yen	9,545 million yen
Japanese ODA loan portion	7,236 million yen	7,157 million yen
Exchange rate	USD 1＝ 106.25 yen (March 1994)	KZT 1 ＝ 1.61 yen (December 1996)