

**GRADUATE SCHOOL OF MEDIA AND GOVERNANCE,
KEIO UNIVERSITY**

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Mongolia

RESEARCH ACHIEVEMENT REPORT

Name of the Research Project	Critical issues on foreign trade policy, strategy and regulation
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Affiliation	Graduate School of Media and Governance
Type of Program	Master's Program
Student Year	Second year
Name of the Research Advisor	Prof. Yorizumi Watanabe

This research work which has been conducted from 24 Aug to 21 Sep, 2013 in Mongolia and also in the Zamyn-Uud region which is located in the border between Mongolia and China and has been sponsored by the Taikichiro Mori Memorial Research Fund.

INTRODUCTION

I have chosen my research theme as a 'Critical issues on foreign trade policy, strategy and regulation'. The reason of my choice is that Mongolia is a second largest landlocked country in the world as well as only landlocked developing countries in East Asia. The lack of access to the sea has really made Mongolia remoteness and isolation from world markets which poses so many difficulties and impediments for the international transport of goods in transit to and from Mongolia with high transport costs. This situation makes the higher price for exports and imports of Mongolia and reduces competitiveness and profitability. Right now, access to seaports has heavily depended on neighbouring countries mainly Russia and China.

Transit trade is one of the major constraints faced by Mongolia in its international trade. The landlocked nature of its geographical location creates negative impact on the free flow of goods and impedes the economic development of the country. It is therefore no surprise that China is by far Mongolia's biggest trading partner, accounting in 2011 for 92.1% of Mongolia's total exports and 32% of total imports.

Mongolian trade is primarily dominated by products such as mineral and agricultural which have required both rail and road transportation. The transport sector in Mongolia is divided into four modes such as railway, roads, air, and inland waterway. Given the poor condition of the roads, the high-cost national air monopoly transport, and the limited range of the waterways, the railway has been little competition in freight transport from other modes. The majority of freight traffic in Mongolia is handled by the railway (approximately 86 %) which is owned 50 per cent by Russia. The railway network extends only 1,815 km, principally in the north-south direction connecting to the Russia and Chinese Railways, respectively.

My fieldwork was divided into the following six target areas. Each of target aims to provide relevant substantive documents, exclusive interviews and statistical data.

TARGET 1: MINISTRY OF FOREIGN AFFAIRS OF MONGOLIA

Location: Ulaanbaatar, Capital city of Mongolia

Achievements: I have interviewed with Mr. A.Tumur, Deputy Director of Law and Treaty Department, Ministry of Foreign Affairs of Mongolia, and we have discussed about existing two bilateral agreements which are related to transit through by two neighboring countries namely Russia and China, specially why these two agreements have not been changed since Mongolia has already joined all related international conventions that promote its products to international markets with freely and constantly.

Another matter we have discussed was the implementation of the 'Endorsement of Foreign Policy Concept of Mongolia, especially Foreign Economic Strategy section of the Endorsement' which was approved by the Parliament of Mongolia, dated 10 Feb, 2011.

Findings: In terms of Foreign Policy of Mongolia, investment and trade sectors are strongly dependent on a single country, China, with the resulting imbalance in the economy, which is mainly influenced by the two neighbor nations. The structure of both investments and trade relations with the other countries is right, but the amounts are insufficient. Therefore, the policy should be implemented aimed at elimination of the existing imbalances in investment and trade structures.

The first step to take, in order to change the economic system, which is almost fully dependent on a single country, China, is to create products and services that are unique in the market and could be in demand in other countries in the world.

I have collected the following legal documents concerning transit transportation that Mongolia has joined or signed with other neighboring countries and also these are all valid and in use from Department, Ministry of Foreign Affairs of Mongolia.

International Conventions:

Mongolia is a member the following International Conventions which are related to transit trade and transportation facilitation:

1. Convention on Transit Trade of Land-locked States (New York), 8 July, 1965 (26th Jul, 1966)
2. UN Convention on the Law of the Sea (Montego Bay), 10 Dec, 1982 (13th Aug, 1996)
3. The General Agreement on Tariffs and Trade 1994 (“GATT 1994”), (1997)
4. Convention on the Contract for the International Carriage of Goods by Road (CMR), (Geneva), 19 Mar, 1956; (18th Sep, 2003);
5. Convention on Road Traffic, (Vienna), 8 Nov, 1968; (19th Dec, 1997);
6. Customs Convention on the International Transport of Goods under Cover of TIR Carnets (TIR Convention), (Geneva), 14 Nov, 1975.(1st Oct, 2002);
7. Intergovernmental Agreement on the Trans-Asian Railway Network (Jakarta), 12 April, 2006 (4th Sep, 2008)

Regional Agreements: Mongolia had been negotiating a following regional agreement which was related to transit trade. But under a side of the agreement request, The Russian Federation, the agreement is no longer existed.

- There is no existing regional agreement so far.
China, Mongolia and the Russian Federation were negotiated a proposed draft framework trilateral agreement on transit transport, with the United Nations Conference on Trade and Development (UNCTAD) acting as a facilitator until 23-24 Apr, 2013. Last year, UNESCAP organized a Seminar on Cross-border Transport among China, Mongolia and Russian Federation in Bangkok, during that time Russia expressed that there is its attitude to this trilateral agreement.

'Russia does not want to conclude this agreement, but it wants to change it as Transit Road traffic Framework Agreement Between the People's Republic of China, Mongolia And the Russian Federation. They together agreed on this decision.

Bilateral Agreements: Mongolia has already signed the following bilateral agreements with its neighboring countries. But only four of them are exactly relating to transit trade for Mongolia.

Transit transport:

1. Agreement between the Government of the Mongolian People's Republic and the Government of the People's Republic of China on the access to and from the sea and transit transport by Mongolia through China's territory, signed at Ulaanbaatar, 26th Aug, 1991;
2. Agreement concerning Access to the Sea and Transit Transport for Mongolia across the territory of the Russian Federation, signed at Moscow on 19th Oct, 1992;
3. Agreement between the Government of the Republic of Kazakhstan and the Government of Mongolia on the Transit Procedure, signed at Ulaanbaatar, 22nd Oct, 1993;
4. Agreement on Cooperation in the Transportation Sector between the Government of Mongolia and the Government of the Democratic People's Republic of Korea, signed at Pyongyang, 10th May, 1996;

Road transport:

1. Agreement between the Government of the Mongolia and the Government of the People's Republic of China on Road Transport, signed at Beijing, 16th Jun, 2011, which was revised old version, signed 24th Jun, 1991;
But new agreement does not still help for Mongolian trucks. Because of, Mongolian trucks are still prohibited from entering China, while Chinese trucks can enter into Mongolia (at least up to the border town).
2. Agreement between the Government of the Republic of Kazakhstan and the Government of Mongolia on International Transport of Passengers and Goods by Road, signed at Ulaanbaatar, 22nd Oct, 1993;
3. Agreement on International Road Transport Relations between the Government of Ukraine and the Government of Mongolia, signed at Ulaanbaatar, 27nd Jun, 1995;
4. Agreement on International Road Transport Relations between the Government of the Russian Federation and the Government of Mongolia, signed at Moscow 7th Feb, 1996;
Under this agreement, Russian and Mongolian trucks can transport goods into

each other countries.

5. Agreement on International Road Transport Relations between the Government of the Republic of Turkey and the Government of Mongolia, signed at Ulaanbaatar, 2nd Jun, 2002;
6. Agreement on International Road transport relations between the Government of the Republic of Belarus and the Government of Mongolia, signed at Moscow, 10th Dec, 2003;
7. Agreement on International Road transport relations between the Government of the Republic of Kyrgyz and the Government of Mongolia, signed at Ulaanbaatar, 1st Mar, 2004.

Rail transport:

There is no bilateral agreement relating to rail transport thus this relations are regulated by transit transportation bilateral agreements.

Method: Face to face Interviews and collecting substantive most relevant official documents.

TARGET 2: MINISTRY OF ROAD AND TRANSPORTATION OF MONGOLIA

Location: Ulaanbaatar, Capital city of Mongolia

Achievements: I have interviewed with Mr. Nerguibaatar, Head of the Implementation of Road and Transport Policy Department, Ministry of Road, Transport, and we have discussed about 'Endorsement of State Policy on Railway Transportation' which was approved by the Parliament of Mongolia, dated 24 Jun, 2010 as well as a bilateral agreement between Mongolia and China that was concluded in 1991.

And also I have interviewed with Mr. Chuluunbaatar, officer of the Implementation of Road and Transport Policy Department, Ministry of Road, Transport, regarding existing two agreements which are directly related to transit trade and also a trilateral agreement between Russia, China and Mongolia which has been negotiating since 2001.

Findings: The purpose of abovementioned policy is to increase the railway capacity to transport and carry, broaden an Unified National network of efficient state railway directed at satisfying the ever growing future transport demand both effectively and reliably, and further, to improve the national transit capability, advance the legal environment, structure and organization of the sector, utilize the large mineral deposit, expedite the national economic and social development through exporting and exporting after processing, and ensure sustainable development for the future.

According to the policy, approximately 5683.5 km of main railway composition shall be newly built in Mongolia in following 3 stages.

I. The first stage (approximately 1100 km in total):

I.1. Dalanzadgad-Tavantolgoi-Tsagaan suvraga–Zuunbayan -400 km;

- I.2. Sainshand – Baruun-Urt -350 km;
- I.3. Baruun-Urt – Khuut – 140 km;
- I.4. Khuut – Choibalsan – 150 km.
- II. The second stage (approximately 900 km in total):
 - II.1. Nariinsukhait- Shiveekhuren- 45.5 km;
 - II.2. Ukhaa hudag –Gashuunsukhait – 267 km;
 - II.3. Khuut – Tamsagbulag- Numrug-380 km;
 - II.4. Khuut – Bichigt – 200 km.
- III. The third stage (approximately 3600 km in total):

The policy has not been decided the direction of the Stage III. New railways in the stage will be built based on consideration of the future mineral deposits and natural formation for the railway in the west direction in connection with regional development policy and population settlement and plan;

Method: Face to face Interviews and collecting substantive most relevant official documents.

TARGET 3: MINISTRY OF ECONOMIC DEVELOPMENT OF MONGOLIA

Location: Ulaanbaatar, Capital city of Mongolia

Achievements: I have interviewed with Ms. D.Suvdaa, officer of Economic Cooperation, Loan and Aid Department, Ministry of Economic Development of Mongolia about the Japan-Mongolian Economic Partnership Agreement that has been made by two countries. I have also interviewed with senior officer, Ms. Tanya of the same department.

Findings: The Japan-Mongolia EPA is currently under negotiating processes and both sides have agreed that all information and documents are confidential thus I could not get any documents regarding the EPA in my hands. However, I have taken some information on trade in services into the EPA. Both countries are a member of the WTO and they should be followed what they have made service-commitments.

Method: Face to face Interviews and collecting substantive most relevant official documents.

TARGET 4: ZAMYN-UUD PROVINCE

Location: It is a border checkpoint between Mongolia and China and is located 709 km from Ulaanbaatar, Capital city of Mongolia.

Achievements: Mongolia has 21 provinces; one of them is the Zamyn-Uud which is a terminal with road and railway links between Zamyn-Uud of Mongolia and Erlyan of China and China Zamyn-Uud is the largest border crossing in Mongolia, both in terms of general cargo and overall tonnage. Besides, petroleum products, 90% of the total export and 75 % of the total import pass through Zamyn-Uud. In general, there are relatively low numbers of passengers using the borders, other than the drivers of mining

and general cargo

Findings: This part was the most important to my research work in Mongolia. I try to show you the following papers in order to explain what I have done and saw in the target area.

LOCATION AND BACKGROUND

Mongolia has 21 provinces; one of them is the Zamyn-Uud which is a terminal with road and railway links between Zamyn-Uud of Mongolia and Erlyan of China and China Zamyn-Uud is the largest border crossing in Mongolia, both in terms of general cargo and overall tonnage. Besides, petroleum products, 90% of the total export and 75 % of the total import pass through Zamyn-Uud. In general, there are relatively low numbers of passengers using the borders, other than the drivers of mining and general cargo.

Zamyn-Uud which is located on the Mongolian side of the border between Mongolia and China is the major transportation hub for incoming and outgoing freight between China and Mongolia. The location of Zamyn-Uud is illustrated in *Figure 1.1*.

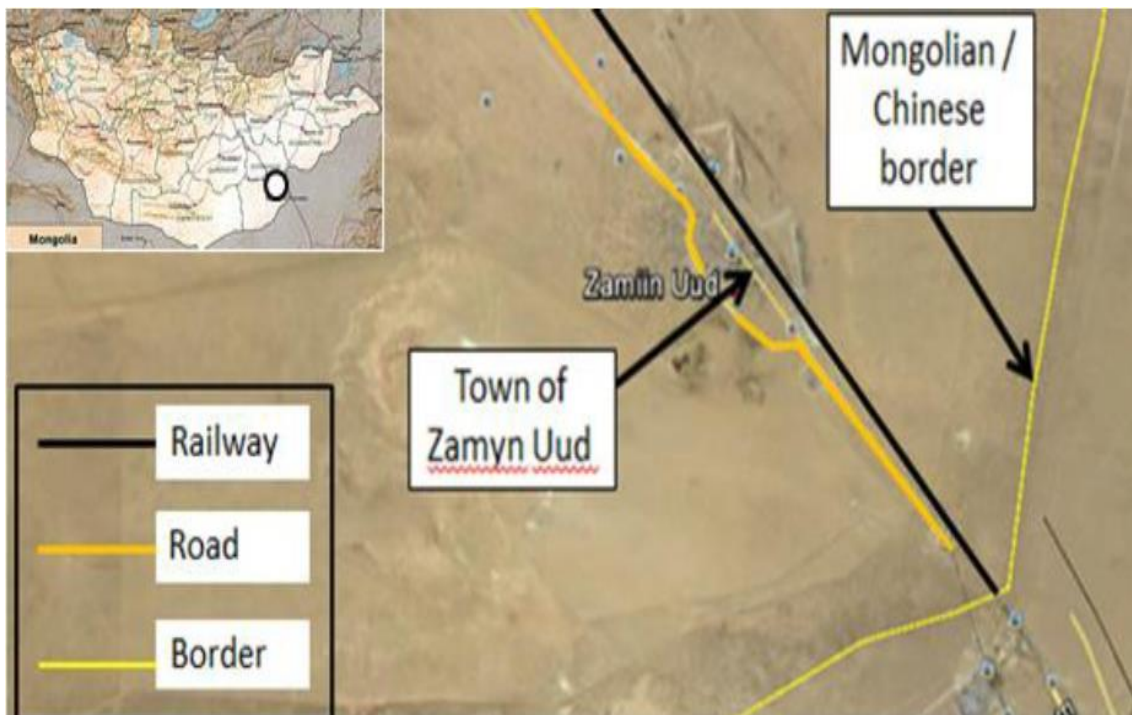


Figure 1.1 Location of the Zamyn-Uud within Mongolia

The critical role of Zamyn Uud as Mongolia's main connecting point with the rest of the world has resulted in marked increases in traffic that have led to considerable congestion at the border and in holding areas on the Mongolian side.

EXISTING FACILITIES:

Within the Zamy-Uud area, there are three (3) existing logistic centres which handle rail-rail and rail-road transshipment for a variety of cargo ranging from containers through to loose cargo on flatbed wagons. Each of the existing logistic centres has different ownership, handling facilities and rail connection. The location of these existing facilities within the Zamy-Uud region is illustrated in *Figure 2.1*.

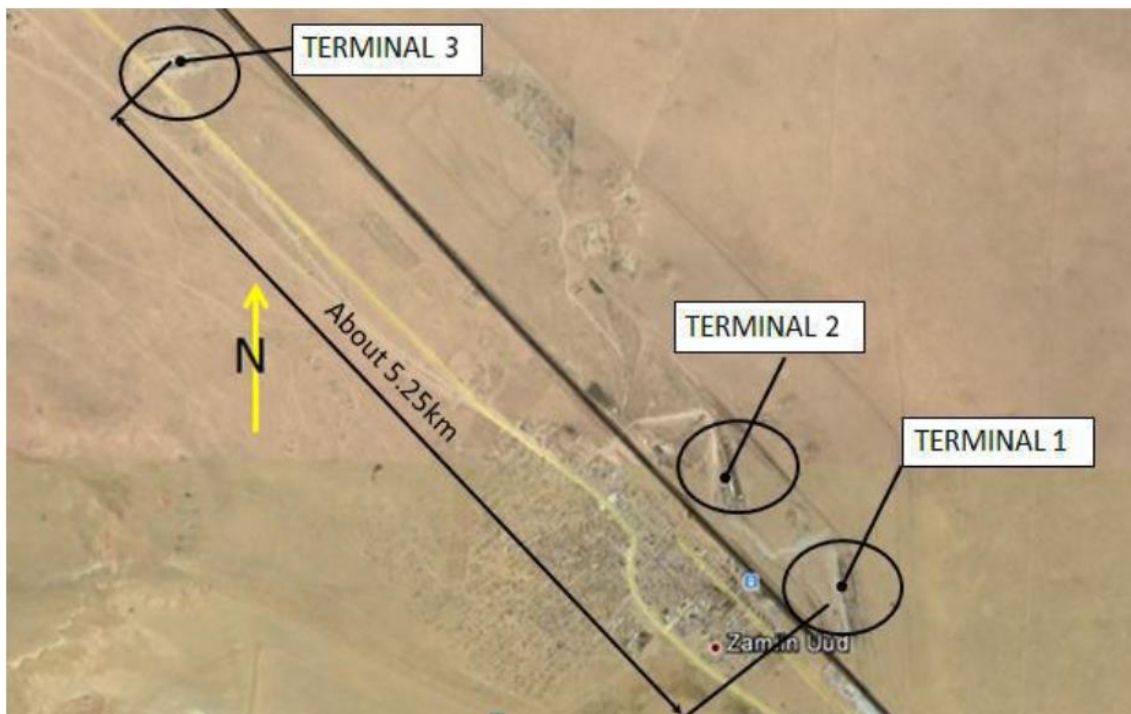


Figure 2.1 Existing logistic centres located within the Zamy-Uud region
Details of the volume of freight are present in *Section 3.0*.

TERMINAL 1:

Terminal 1 which was built in 1994 is one of the oldest logistic centres in Zamyn-Uud and caters for both rails to road transshipment of cargo arriving from Peoples Republic of China. An aerial view of Terminal 1 is illustrated in *Figure 2.2*.



Figure 2.2 Aerial View of Terminal 1

Terminal 1 is owned and operated as a logistic centre by UBTZ and caters for the following modes of cargo and traffic:

- Narrow Gauge Chinese Railway;
- Broad Gauge Mongolian Railway; and
- road access.

Within Terminal 1, the existing operational equipment which is listed below with some of the equipment illustrated in *Figure 2.3* is available:

- 45 t capacity SANY reachstackers – 2
- 50 t capacity SANY truck crane – 1
- 12 t capacity electric crane – 2
- 32 t capacity electric crane – 2
- 2.5 – 3.0 t capacity loader – 5
- ZL50C bucket wheel loader – 1
- 20 t capacity truck – 1
- 5 t capacity electric shovel – 3
- Compressor for crushing frozen cargo – 3;
- conveyors for loading loose cargo



Figure 2.3 Cranes at Terminal 1

Using this equipment, Terminal 1 can cater for the following types of cargo:

- Palletted and loose cargo in wagons; and
- Palletted and loose cargo, heavy equipment on flatbed wagons.

No container traffic is handled within Terminal 1.

No.	Item	Designation	Capacity for wagons
1	Local transshipment rail line (II, VI, VII)	Road to rail transshipment	Elevated loading platforms for: Line II – 9 wagons Line VI – 9 wagons Line VII – 12 wagons
2	Transit cargo loading rail line (I, V, IX)	Loose cargo transshipment	Line I – 41 wagons Line V – 13 wagons Line IX – 14 wagons
3	Overhead cranes (4 cranes)	Containers, transit, and heavy load transshipment	KKC – 32T KKC – 12.5T KKC – 12.5T QD – 32T
4	GCS-150D narrow gauge track weighing scale	Weighing wagons on narrow gauge tracks	
5	BTB-Д broad gauge track weighing scale	Weighing wagons on broad gauge tracks	
6	DZD-5 electric shovel	Loose cargo transshipment	5 m ³ bucket (3 shovels)
7	Elevated platform for loading containers	Transshipment of containers from trucks	Capacity for 12 containers

Source: Brochure printed for distribution by Transshipment Department of UBTZ, 2013.

In summary, Terminal 1 caters for transshipment of bulk cargo along with heavy machinery and has current capacity to handle 119 wagons per day. The facility caters for both narrow gauge and broad gauge for wagons and flatbeds only. No containers to Terminal 1.

Data Obtained on Terminal 1

Terminal 1 has been operational since 1994 and records on freight handled over the period 2003 to 2012 have been provided by Railway Transportation Division of MRT. The data obtained is presented in *Table 3.1* and illustrated graphically in *Figure 3.1*.

Table 3.1 Quantity and volumes of cargo transshipped at Terminal 1

Cargo type	UNIT	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Domestic	wagon	5740	7124	7754	9345	11456	12836	9217	7914	8416	9026
	(' 000T)	233.1	285.1	328.8	422.4	496.7	592.4	433.7	329	349.1	380.8
Transit cargo	wagon	3237	2888	5681	7146	7739	5456	5088	7702	4615	2683
	(' 000T)	183.1	168.8	329.8	414.3	439.6	317.6	292.5	441.7	261.8	143.2
a. Loose	wagon	2907	2344	3550	2474	2938	1120	470	1907	838	
	(' 000T)	164.2	138.6	209.1	145.1	170.3	64.3	27.9	110	53.5	
b. Other	wagon	330	544	2131	4672	4801	4336	4618	5795	3777	2683
	(' 000T)	18.9	30.2	120.7	269.2	269.3	253.3	264.6	331.7	208.3	143.2
Container cargo	wagon	2359	2652	3560	4207	3501	3681	2891	2442	2131	1979
	container (' 000T)	5211 33.8	6498 38.7	8414 50.5	9543 57.9	10242 59	9394 55.5	7919 46.5	7255 40.3	5845 32	5164 27.8
Heavy cargo	wagon	537	780	472	799	1071	1076	214	355	854	1062
	(' 000T)	24.7	31.7	15.8	32	36.8	51.8	7.9	11.2	33.8	45
Annual Total	wagon	11873	13444	17467	21497	23767	23049	17410	18413	16016	14750
	container	5211	6498	8414	9543	10242	9394	7919	7255	5845	5164
	(' 000T)	474.7	524.3	724.9	926.6	1032.1	1017.3	780.6	822.2	676.7	596.8

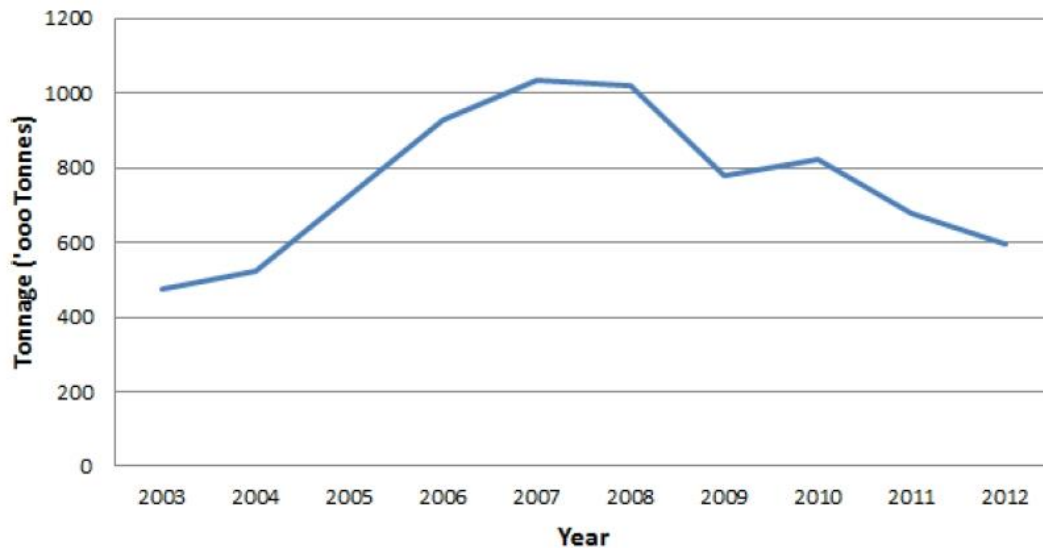


Figure 3.1. ANNUAL CARGO handled by Terminal 1 - 2003 to 2012

Figure 3.2 illustrates the total amount of cargo handled by Terminal 1 over the period from 2003 through to 2012.

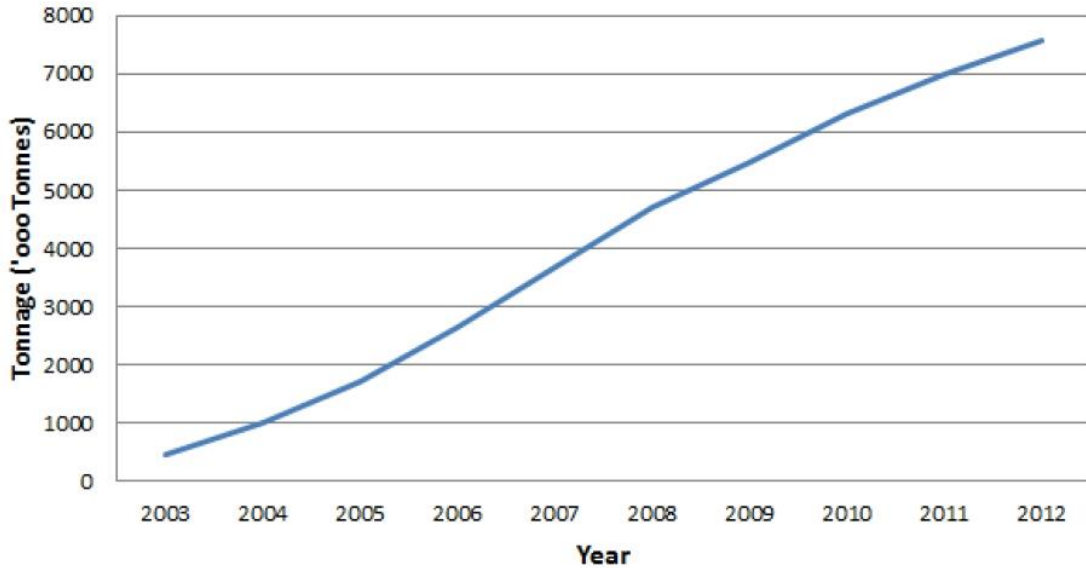


Figure 3.2. TOTAL CARGO handled by Terminal 1 - 2003 to 2012

Analysis of Terminal 1 Cargo Data

The transshipment data for Terminal 1 is a little difficult to understand in many ways in that the transshipment tonnage was increasing from about 475,000 tonnes catered for in 2003 and increased to a little over 1,000,000 tonnes in 2007/08. The impact of the Global Financial Crisis (GFC) in 2009 is evident in the sharp drop off in tonnage handled (i.e. down to about 780,000 tonnes).

What is not clear is that actual production rates continued to fall from 2009 downward to an annual production of about 600,000 tonnes in 2012. This shows a marked difference in production within this terminal that Terminal 2 and Terminal 3 have shown a good comeback after the GFC slump. One potential reason for the continuing fall in production within Terminal 1 is that Terminal 3 started up in 2008 and may take some of the cargo volume. However, that does not seem practical in that Terminal 3 only caters to Mongolian Rail and road access.

Given that Terminal 1 has already shown statistically that it can cater for transshipment of 1,000,000 tonnes per annum, this figure has been taken as the maximum annual handling capacity with Terminal 1.

TERMINAL 2:

Terminal 2 was built in 1995 by the Mongolian Government with financial assistance from the Government of Japan and caters for both rail to rail and rail to road transshipment of cargo. Terminal 2 has the capacity to handle 131 wagons per day. An aerial view of Terminal 2 is illustrated in *Figure 2.4*.



Figure 2.4 Aerial View of Terminal 2

Terminal 2 is owned and operated as a logistic centre by MTZ and caters for the following modes of cargo and traffic:

- Narrow Gauge Chinese Railway;
- Broad Gauge Mongolian Railway; and
- Road access.

Within Terminal 2, some of the existing operational equipment which is listed below and with some of the equipment illustrated in *Figure 2.5* is available:

- reachstackers; and
- Forklifts



Figure 2.5 Operation equipment at Terminal 2

Using this equipment, Terminal 2 can cater for the following types of cargo:

- Containers; and
- Palletted and loose cargo in wagons

Terminal 2 is the one logistics centre in the Zamyn-Uud region that has the capacity to handle cargo in containers.

No.	Item	Designation	Capacity for wagons
1	Container transshipment yard	Transshipment of containers, unloading, storing	36m x 350m area. Capacity for 25 wagons from each of broad and narrow gauge tracks
2	Sheltered elevated platform	Transshipment of packaged cargo by fork lifts	15m x 120m area. Capacity for 9 wagons from each of broad and narrow gauge tracks
3	Transshipment rail line VIII	Manual handling of packaged and loose cargo transshipment	Capacity for 8 wagons from each of broad and narrow gauge tracks
4	Warehouse	Cargo storage	12m x 20m
5	Garage	Equipped with all repair equipment and for storage of machinery	17m x 20m x 10m
6	Reachstackers	Loading of containers and equipment onto wagons and trucks	40 t capacity – 2 45 t capacity – 1
7	Fork lifts	Transshipment of packaged, heavy cargo	1.5 t capacity – 2 2.5 t capacity – 2

In summary, Terminal 2 caters for transshipment of containers and cargo arriving in closed wagons on Chinese rail. The terminal does not have a gantry crane and operates using reach stackers. This facility was developed using Japanese financial assistance but cannot be expanded due to the limited space. The facility caters for narrow gauge to broad gauge for wagons and flatbeds only.

Terminal 2:

Terminal 2 has been operational since 1995 and records on freight handled over the period 2003 through to 2012 have been provided by Railway Transportation Division of MRT. The data obtained is presented in *Table 3.2* and illustrated graphically in *Figure 3.3*.

Cargo type	UNIT	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Container cargo	wagon	14541	20162	20919	26316	32044	35160	18048	26562	44309	45990
	container	26409	37657	43305	52097	55738	53590	25097	39784	60653	64205
	(' 000T)	308.3	398.2	459.8	606	687.1	716.6	359.8	563.7	835.4	882.9
Heavy cargo	wagon	409	218	302	510	349	296	401	136	215	92
	(' 000T)	8.4	4.1	5.5	13.9	6.8	6.1	4.3	3.3	4.6	2.4
Transit cargo	wagon	137	167	773	1163	2125	1794	829	1579	1133	901
	container			570	283	639	365	14	1	4	
	(' 000T)	8.1	9.3	30.5	47.4	76.9	63.6	39.7	75.7	51.1	40.8
Separation	wagon	2262	2898	2548	2459	3239	4140	2111	2990	3388	4639
	(' 000T)	103.6	137.8	117.7	119.5	162.3	210.8	100.3	128.2	145.6	200.5
Domestic	wagon	1511	2091	2495	3418	4572	3525	3007	3541	4820	5458
	(' 000T)	65.2	87.6	103.6	122.7	131.2	98.3	112.6	95.3	93.1	179.4
Annual Total	wagon	18860	25536	27037	33866	42329	44915	24396	34808	53865	57080
	container	26409	37657	43875	52380	56377	53955	25111	39785	60657	64205
	(' 000T)	493.6	637	717.1	909.5	1064.3	1095.4	616.7	866.2	1129.8	1306

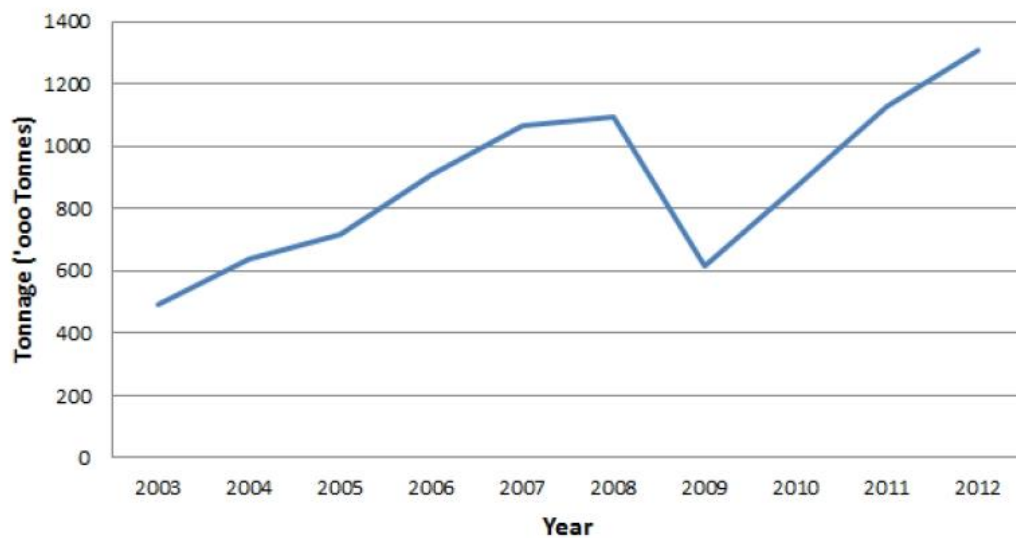


Figure 3.3. ANNUAL CARGO handled by Terminal 2 - 2003 to 2012

Figure 3.4 illustrates the total amount of cargo handled by Terminal 2 over the period from 2003 through to 2012.

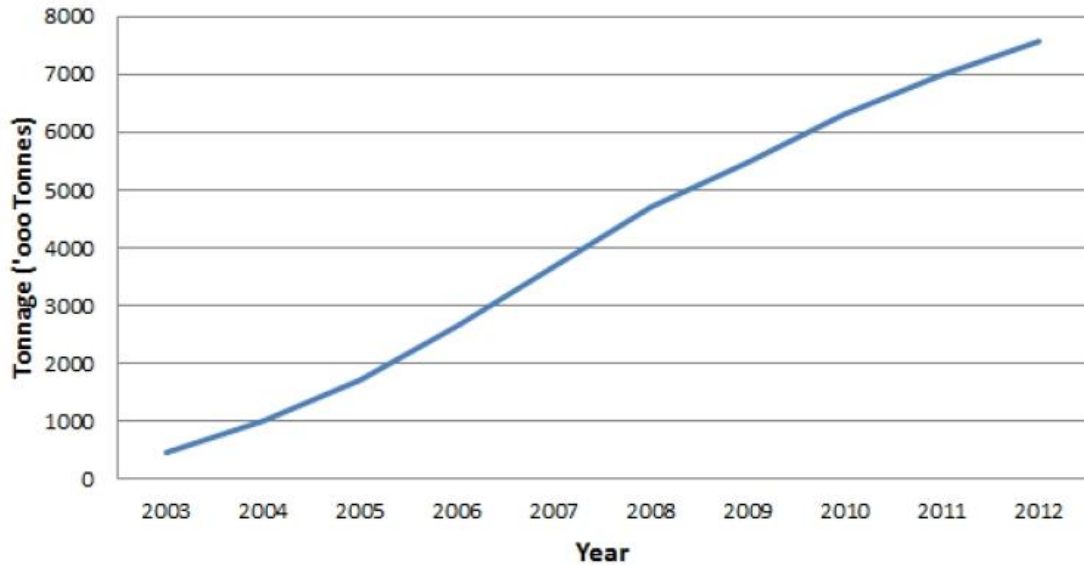


Figure 3.4. TOTAL CARGO handled by Terminal 2 - 2003 to 2012

Analysis of Terminal 2 Cargo Data

Terminal 2 started operation and the traffic into the terminal increased from an annual tonnage of about 600,000 tonnes in 2003 peaking at an annual tonnage of about 1,100,000 tonnes during 2008 prior to the onslaught of the GFC in 2009.

The terminal has shown the ability to recover from the impacts of the GFC to rise to an annual tonnage of about 1,306,000 tonnes in 2012. The change in terms of percentage of annual production from one year to the next is presented in **Table 3.3**.

UNIT	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Change in production (%)		29.1	12.6	26.8	17.0	2.9	-43.7	40.5	30.4	15.6

The statistics indicate that whilst there has been a significant increase in production for the terminal since 2009, there has been a slowing down in production over the period from 2011 to 2012. This may indicate that the facility is nearing its maximum capacity. There is no information available on the maximum capacity of the terminal but the statistics indicate that it is in excess of the 1.3 million tonnes achieved in 2012.

The production trend in capacity is rising from the low in 2009 through to the current high achieved in 2012 but the limit of the facility is not known. An assumption has been made that Terminal 2 has a maximum capacity of about 1.5 million tonnes per annum.

TERMINAL 3:

Terminal 3 was built in 2008 and is a small terminal which caters for rail to road transshipment of cargo, particularly cement and other cargo from road to rail. An aerial view of Terminal 3 is illustrated in *Figure 2.6*.

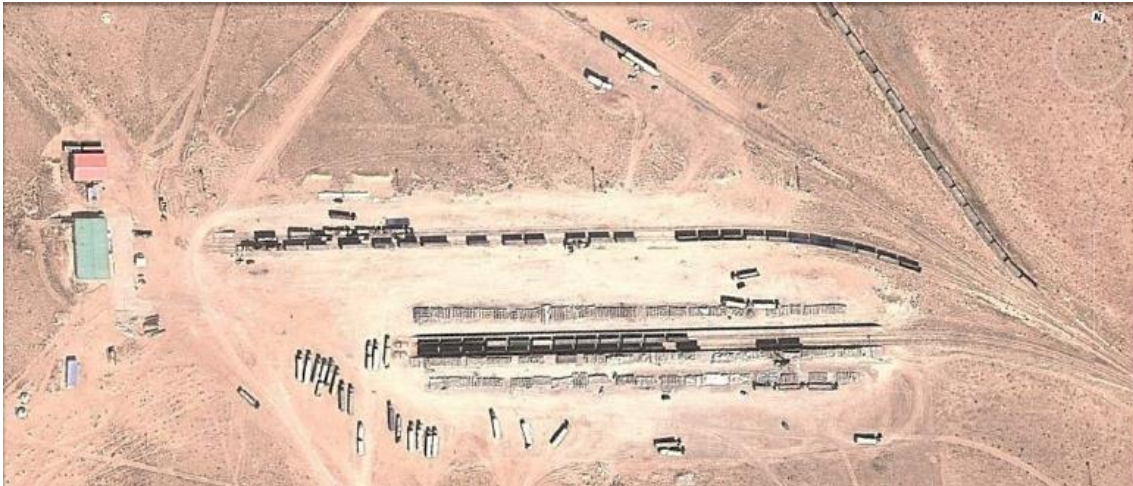


Figure 2.6 Aerial View of Terminal 3

Terminal 3 is owned and operated as a logistic centre by UBTZ and caters for the following modes of cargo and traffic:

- Broad Gauge Mongolian Railway; and
- road access.

Within Terminal 3, the existing operational equipment available consists mainly of forklifts. Much of the cargo is roll on / roll off equipment as illustrated in *Figure 2.7* is:



Figure 2.7 Types of cargo handled at Terminal 3

Using this equipment, Terminal 3 can cater for the following types of cargo:

- Loose cargo in wagons and on flatbed

Terminal 3 is only accessed by Mongolian railways and road. No container traffic is handled within Terminal 3.

In summary, Terminal 3 caters for construction equipment and heavy equipment on a Roll On / Roll Off basis. The terminal does not have a gantry crane and does not have any reach stackers. The facility caters for broad gauge railway connection only.

Terminal 3 has been operational since 2008 and records on freight handled over the period 2003 to 2012 have been provided by Railway Transportation Division of MRT. The data obtained is illustrated in *Table 3.4* and illustrated graphically in *Figure 3.5*.

Cargo type	UNIT	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Domestic	wagon	0	0	0	0	0	3578	13	3159	7573	11760
	container	0	0	0	0	0	0	0	0	0	0
	(' 000T)	0	0	0	0	0	229.2	0.8	189.9	432.5	714.7
Transit cargo	wagon (' 000T)										
a. Loose	wagon (' 000T)										
b. Other	wagon (' 000T)										
Container cargo	wagon										
	container (' 000T)										
Heavy cargo	wagon (' 000T)										
Annual Total	wagon	0	0	0	0	0	3578	13	3159	7573	11760
	container	0	0	0	0	0	0	0	0	0	0
	(' 000T)	0	0	0	0	0	229.2	0.8	189.9	432.5	714.7

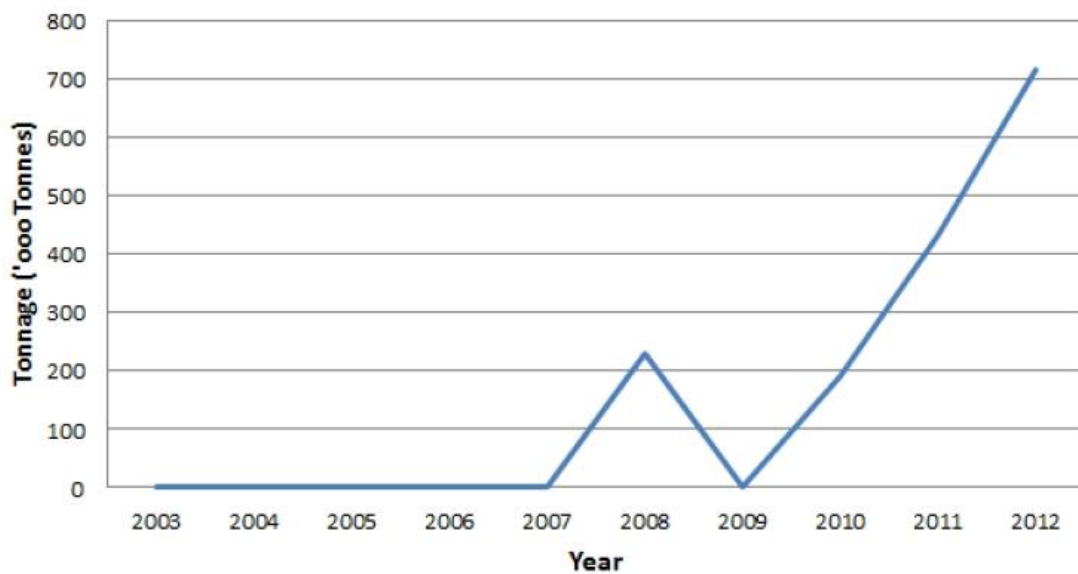


Figure 3.5. ANNUAL CARGO handled by Terminal 3 - 2003 to 2012

Figure 3.6 illustrates the total amount of cargo handled by Terminal 3 over the period from 2003 through to 2012.

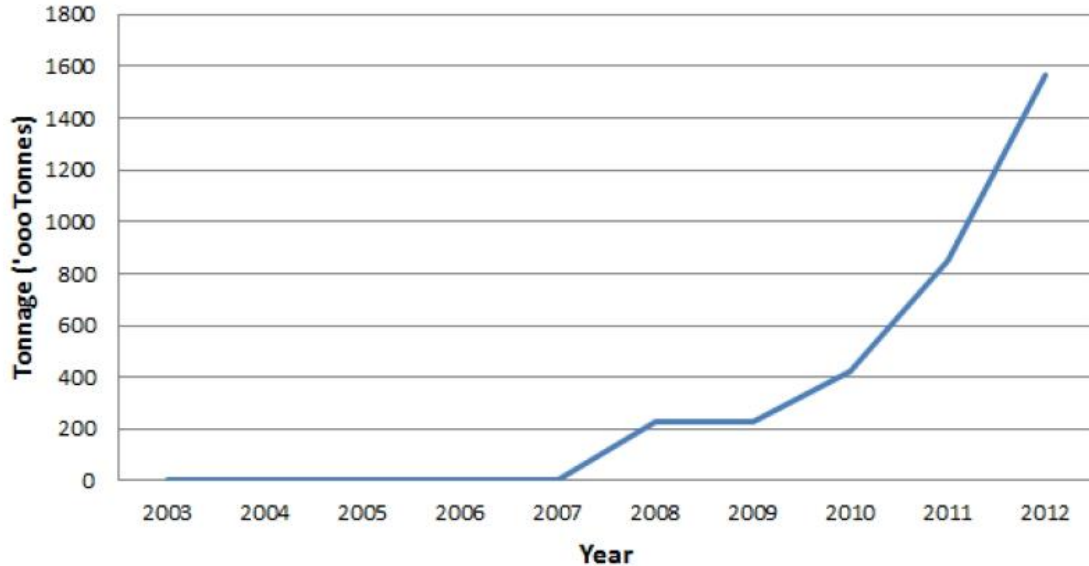


Figure 3.6. TOTAL CARGO handled by Terminal 3 - 2003 to 2012

Analysis of Terminal 3 Cargo Data

The data shows that since the terminal commenced operations in 2008, annual transshipment production has been rising significantly over the years.

Terminal 2 started operation in 2008 an annual tonnage of about 230,000 tonnes. The facility was basically about to enter its second year of operation when the impacts of the GFC hit. In terms of a comparison between the terminals, whilst the GFC did impact on production, this terminal was not hit as badly as others as this facility was just becoming operational when the GFC hit.

The terminal has shown the ability to recover from the impacts of the GFC to rise to an annual tonnage of about 715,000 tonnes in 2012. The change in terms of percentage of annual production from one year to the next is presented in **Table 3.5**.

UNIT	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Change in production (%)	N/A	N/A	N/A	N/A	N/A	N/A	-99.7	23637.5	127.8	65.2

NOTE: Some of the % variation reflected in Table 3.5 (such as the 23,637.5%) increase need to be ignored given that the change in numbers is so significant that the % change number is irrelevant.

Since then production has been rising on an almost exponential basis but what is not known is the maximum capacity of the terminal. With the rate of production rising, it can be conceded that the terminal capacity is in excess of the 715,000 tonnes achieved in 2012

The statistics indicate that whilst there has been a significant increase in production for the terminal since 2009, there has been a slowing down in production over the period from 2011 to 2012. This may indicate that the facility is nearing its maximum capacity. There is no information available on the maximum capacity of the terminal but the statistics indicate that it is in excess of the 1.0 million tonnes achieved in 2012.

The production trend in capacity is rising from the low in 2009 through to the current high achieved in 2012 but the limit of the facility is not known. An assumption has been made that Terminal 2 has a maximum capacity of about 1.5 million tonnes per annum.

SUMMARY OF EXISTING TERMINAL CHARACTERISTICS

Figure 2.8 illustrates the characteristics of the existing terminals within Zamyn-Uud.

ZAMYN-UUD LOGISTIC CENTRES	Terminal 1	Terminal 2	Terminal 3
a). FACILITY OPERATED BY	UBTZ	MTZ	UBTZ
b). RAIL ACCESS TO FACILITY			
i. Narrow Gauge Chinese Railway	●	●	
ii. Broad Gauge Mongolian Railway	●	●	●
c). EXISTING EQUIPMENT / FACILITIES			
1. <i>Gantries / Overhead Cranes</i>			
35T Capacity	●		
50T Capacity			
70T Capacity			
2. <i>Reach Stackers</i>		●	
3. <i>Forklifts</i>	●	●	●
d). TYPE OF FREIGHT			
1. <i>Container</i>		●	
2. <i>Wagons</i>			
2.1 Palletted Cargo	●	N/A	N/A
2.2 Loose Cargo	●	N/A	●
2. <i>Flatbeds</i>			
2.1 Palletted Cargo	●	N/A	N/A
2.2 Loose Cargo	●	N/A	N/A
2.3 Equipment	●	N/A	●

Figure 2.8. Schematic illustration of existing interaction between terminal operations

The combined capacity of the three (3) existing terminals is to process 420 wagons per day as presented in *Table 2.1*.

Terminal	Capacity (Number of wagons per day)
Terminal 1	119
Terminal 2	131
Terminal 3	170
Total capacity	420

INTERACTION BETWEEN TERMINALS:

Figure 2.9 schematically illustrates how the three (3) terminals within the Zhamyn-Uud region interact with each other and how they are connected to the rail and road networks.

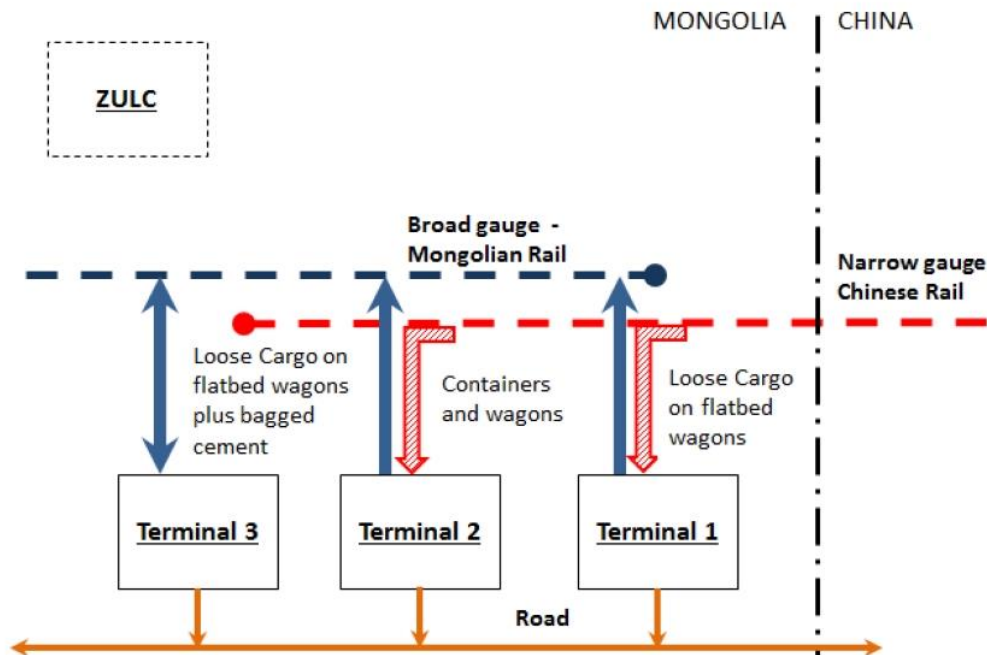


Figure 2.9. Schematic illustration of existing interaction between terminal operations

Method: Face to face Interviews and take questionnaires.

TARGET 5: PRIVATE SECTORS

Location: Ulaanbaatar, Capital city of Mongolia and Zamyn Uud province

Achievements: I have heard opinions of drives (four Mongolian truck drivers) who work at the border between China and Mongolia

Findings: They have expressed that the most of problems rose at the border are came from the customs officers' uncertain requirements, no information, and many required documents to fill them out before entering the border. These take 5-7 days even sometimes 2 weeks. All these time, truck drives keep waiting in their truck car very far away from home and family. It is very hard work to do.

Method: Face to face Interviews and take questionnaires.

TARGET 6: NATIONAL CENTRAL ARCHIVES OF MONGOLIA AND NATIONAL STATISTICAL OFFICE OF MONGOLIA

Location: Ulaanbaatar, Capital city of Mongolia

Achievements: I have got data and figures from the National Statistical Office about trade between two neighboring countries and also other countries based on reports on public, private companies and customs authorities in Mongolia. With regard to the above mentioned two bilateral agreements, I have found protocols or minutes of the meetings between China and Mongolia and also Russia and Mongolia from the National Central Archives of Mongolia.

Findings: I have found the minutes and protocols of the bilateral agreements between Mongolia and China which was concluded in 1991, and also Mongolia and the Russian Federation which was concluded in 1992. In these documents are all original and put all minutes and documents which were talked during the negotiating in 1991 and 1992.

Method: Gather Statistical data, figures and historical official papers.