



Technical Assistance Consultant's Report

Project Number: TA-6058 (REG)
December 2006

MONGOLIA: Trade Facilitation and Logistics Development Strategy Report - Final Report (Financed by Asian Development Bank)

Prepared by Max Ee Khong Kie, Singapore
Paige Lee Hwee Chen, Singapore
Teo Puay Kim, Singapore
Damdinjav Amarsaikhan, Mongolia
Dambiiyam Ochirbat, Mongolia

This consultants' report does not necessarily reflect the views of ADB or the Government concerned, and ADB and the Government cannot be held liable for its contents. (For project preparatory technical assistance: All the views expressed herein may not be incorporated into the proposed project's design.)

Asian Development Bank

LIST OF ABBREVIATIONS

| | | |
|-------|---|---|
| 3PL | : | 3rd Party Logistics |
| ADB | : | Asian Development Bank |
| CAR | : | Central Asian Region |
| CAREC | : | Central Asian Regional Economic Cooperation |
| ECO | : | Economic Cooperation Organization |
| EU | : | European Union |
| FTZ | : | Free Trade Zone |
| ICTA | : | InfoComm Technology Agency |
| IRU | : | International Road Union |
| KAZ | : | Republic of Kazakhstan |
| MCGA | : | Mongolian Customs General Administration |
| MIT | : | Ministry of Industry and Trade |
| MMA | : | Mongolian Meat Association |
| MNCCI | : | Mongolian National Chamber of Commerce and Industry |
| MRTA | : | Mongolia Road Transport Association |
| MRTT | : | Ministry of Road, Transport and Tourism |
| MTZ | : | Mongolian Railways |
| PRC | : | People's Republic of China |
| SEZ | : | Special Economic Zone |
| SSIA | : | State Specialized Inspection Agency |
| TA | : | Technical Assistance |

TIR : Transport Internationaux Routiers
USD : United States Dollar
WB : World Bank
WTO : World Trade Organization

CONTENTS

| | |
|---|-----------|
| PREFACE..... | 6 |
| EXECUTIVE SUMMARY | 7 |
| 1 INTRODUCTION AND PROJECT BACKGROUND..... | 14 |
| 1.1 Project Overview | 14 |
| 1.2 Project Scope and Outcomes | 14 |
| 1.3 Methodology | 15 |
| 2 COUNTRY PROFILE..... | 17 |
| 3 ASSESSMENT ON INDUSTRY AND TRADE | 19 |
| 3.1 Mining Industry..... | 19 |
| 3.2 Livestock Industry..... | 21 |
| 3.3 Processed Products Industry..... | 22 |
| 3.4 Free Trade Zones/Special Economic Zone (FTZs/SEZ)..... | 23 |
| 3.4.1 Zamyn-Uud SEZ..... | 23 |
| 3.4.2 Altanbulag FTZ | 25 |
| 3.4.3 Tsagaan-Nuur FTZ | 27 |
| 3.4.4 Summary Comparisons of the Three Free Zones..... | 29 |
| 4 ASSESSMENT ON TRANSPORTATION AND LOGISTICS..... | 32 |
| 4.1 Major Transport Routes in the Region | 32 |
| 4.1 Road Transport | 33 |
| 4.1.1 Key Assessment | 35 |
| 4.2 Rail Transport..... | 36 |
| 4.2.1 Key Assessment | 39 |
| 4.3 Air Transport | 40 |
| 4.4 Water Transport | 40 |
| 4.5 Logistics Industry..... | 40 |
| 4.6 Customs and Transport Agreements | 42 |
| 4.7 Key Conclusions | 43 |
| 5 RECOMMENDATIONS | 45 |

| | | |
|------------|---|-----------|
| 5.1 | Mongolia’s Strategic Positioning | 45 |
| 5.2 | Demand-Side Proposals | 46 |
| 5.2.1 | Promote Trade and Manufacturing..... | 46 |
| 5.2.2 | Strengthen Industries..... | 47 |
| 5.2.3 | Improve Current Transport Services and Introduce New Ones | 48 |
| 5.2.4 | Free Trade Zones/Special Economic Zone Recommendations..... | 50 |
| 5.3 | Supply-Side Proposals | 57 |
| 5.3.1 | Rail Transport | 57 |
| 5.3.2 | Road Transport..... | 58 |
| 5.3.3 | Logistics Facilities..... | 60 |
| 5.3.4 | Logistics Industry | 60 |
| 6 | IMPLEMENTATION PLAN | 61 |
| 6.1 | Stakeholders | 62 |
| 6.2 | Public Private Partnerships | 63 |
| 6.3 | Review and Reporting Mechanism | 63 |
| 6.4 | Project Financing | 64 |
| 7 | CONCLUSION AND SUMMARY | 69 |

PREFACE

In December 2005, ADB conducted a study making recommendations to trade facilitation and customs modernization measures for the Mongolia Customs General Agency. The report stated an assessment of the current situation and presented an ICT master plan which will support the delivery of trade related services through a Single Electronic Window.

Following the publishing of that report, ADB sought to follow up with a study of the impediments to trade logistics in Mongolia. This report examines the existing trade logistics situation and advocates a series of recommendations to promote both the supply and demand factors for the trade logistics sector.

The study team acknowledges the invaluable support provided by the MCGA management in enabling the team to visit many government agencies and private enterprises.

A full list of the supportive organizations is found in Annex A.

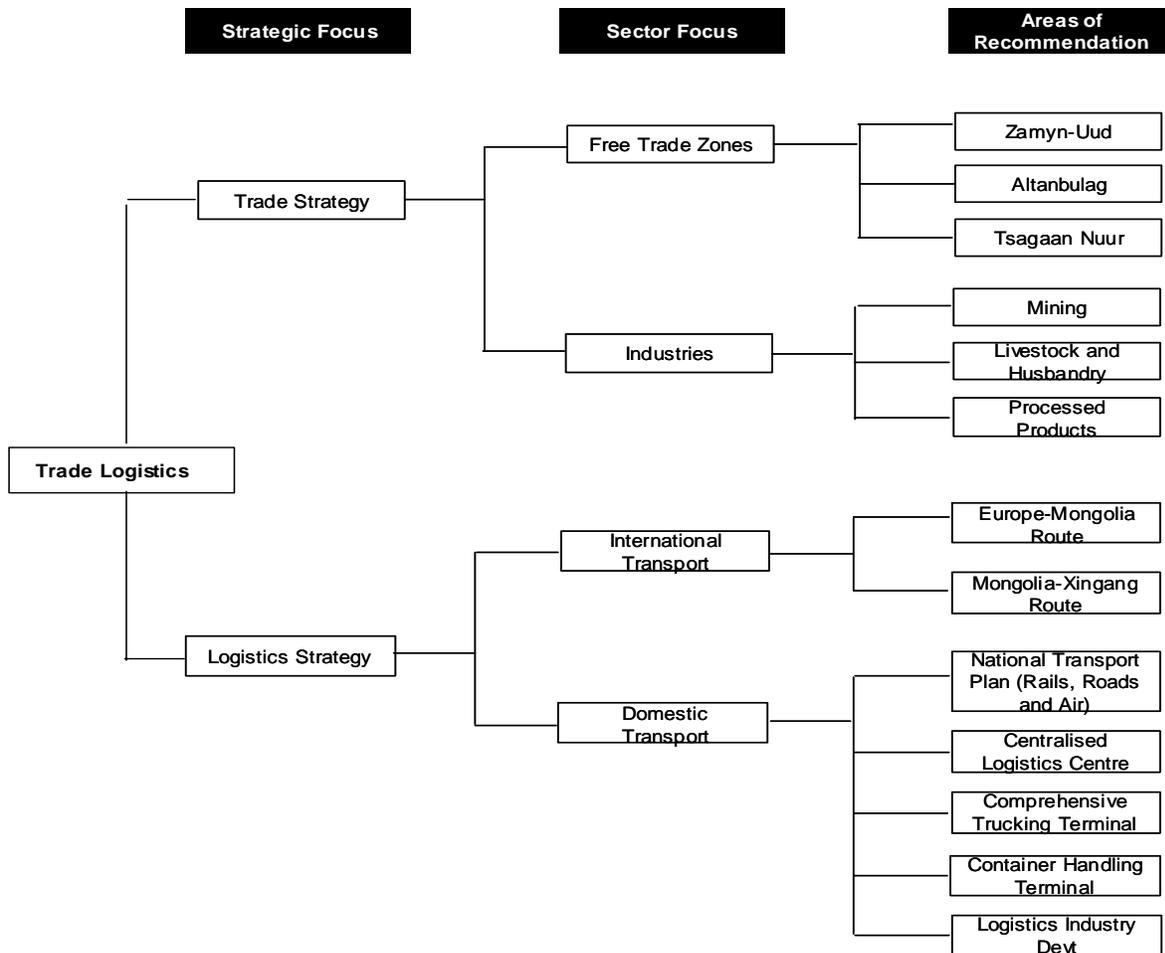
The team would also like to express its deep appreciation of the support rendered by the Mongolia National Chamber of Commerce and Industry, Ministry of Industry and Trade, as well as the Ministry of Road, Transport and Tourism, without which this report could not be completed.

EXECUTIVE SUMMARY

Mongolia is the 19th largest country in the world by landmass and is sandwiched between the two North Asian giants of Russia and PRC. This strategic location offers Mongolian plentiful opportunities and challenges to capitalize on 'transit trade'.

This report provides an assessment on the country's transport infrastructure and logistics capabilities, the key industries and the s. After identifying policies and operational impediments that cause trade friction or transport inefficiencies, different proposals are offered, integrated into a single framework for communication and implementation.

The following diagram illustrates the framework of the report.



Trade Strategy

The decision to implement s in Mongolia is important to promote more economic activities in regions away from Ulaan Baatar and generates employment opportunities for the locals. Moreover, the government also recognised that the three zones selected at Altanbulag, Zamyn-Uud and Tsagaan Nuur are different in terms of accessibility, proximity to market and readiness to zone implementation.

In view of the differences, this report proposes that the development and positioning strategies of each FTZ/SEZ be customized according to the geography, surrounding economic conditions and capabilities. The Zamyn-Uud zone is located next to PRC and is ideal for Chinese manufacturers to establish manufacturing plants to take advantage of existing infrastructure and the European Union's grant of tax exemption for Mongolian goods. Altanbulag's proximity to Russian offers the opportunity to develop the region to cater to the Russian market. Finally, Tsagaan Nuur's distance from major markets and lack of existing transport infrastructure make it a challenge for zone implementation. It is proposed the local authorities focus on strengthening the local economy and the infrastructure.

Industries

The mining is the biggest economic sector in Mongolia, contributing more than half of the GDP. Copper, coal and gold are the major resources. Recent increase in world commodity prices had resulted in many foreign mining companies taking up exploratory licenses in Mongolia. The discovery of large copper deposits in the Omnogovi province had also focused the world's attention on Mongolia. With these discoveries, it is now pertinent to plan and implement transport links to facilitate the delivery of the minerals to the destination countries (e.g. PRC). In addition, a special mining zone could be implemented to support the development of the mining industry in Omnogovi province.

The livestock industry is another key industry in Mongolia. However, this industry is easily affected by external factors of bad weather and diseases. In addition, the industry is currently dependent on Russia as an export market. To counter the external factors, it is recommended that steps be taken to protect the livestock through farmhouses and improving the hygiene level at domestic veterinary, agriculture and production. Improving hygiene will also Mongolia to expand their efforts to diversify exports into other export markets of PRC, North Asia and South East Asia.

Cashmere and cashmere products are important processed products in Mongolia. Currently, the industry is mainly utilising the southern multi modal route via Xingang Port in PRC over the shorter northern route of Trans-Siberian Highway due to customs delays and need to make train reservations a month in advance. Domestically the industry is also facing the issue of onerous documentation processes. Both issues can be resolved through a bilateral agreement with Russia and streamlining of permits required for exports.

Logistics Strategy

Railway

The Trans-Mongolian Railways is the most important route that facilitates north-south transit and domestic trade. Linking Sukhbaatar in the north, Zamyn-Uud in the south and passing through the capital of Ulaan Baatar, this 1,100 km of railway transports major imports/exports of crude oil, timber and wood products, fertilizers and machineries etc. At an international level, the 'Mongolian Vector' and 'Friendship Express' will continue to play a very critical role in attracting trade volume via Mongolia, as well as offering an avenue of exporting Mongolian goods to the world. Thus at this level, efforts directed to promote the competitiveness of these routes remain the highest priority for Mongolian public and private sector. However, it is noted that UB railways is a joint venture between the Mongolian and the Russian authorities. As such, the Mongolian authorities might be keen to implement improvements to the rail transport but need the approval of the Russian authorities as well.

At the domestic level, while the current rail capacity is sufficient to serve current trade volume, the Mongolian authorities have been proactive to explore ways to increase it to support future growth. Investing in a double track system is an expensive endeavour, hence there is a need to explore other alternatives, such as electric rail systems and double stacked container trains.

Road

Road networks are another significant transportation infrastructure for Mongolia due to its large landmass. The 'last mile' link will offer benefits to the rural outskirts as well as complement the main railway lines to allow intermodal transport. With many roads more than 20 years old, there is a huge requirement for capital to upgrade current roads and extend to less developed regions, like the western part of Mongolia. Various initiatives are being implemented, such as the Millennium Road, AH32 (2,325km), AH4 (758km) and AH3 (1,009km). While these provide the core network systems, similar road projects that yield economic benefits will be needed for the Ulaan Baatar-Darhan-Erdenet area, around the south and the Oyu Tolgoi region.

Logistics Sector

An in-depth analysis of the logistics industry is also performed. Two key challenges are identified. There is a need for provision and upgrading of facilities such as public warehousing, and secondly, the ability of private enterprises to offer innovative logistics solution to support the growing economy.

Recommendations

Various recommendations are highlighted. They are categorized into (i) infrastructure development and (ii) Industrial and Trade initiatives. The stakeholders and the priorities of each recommendation are summarized in the table below.

Proposals for Infrastructure Development

| S/N | Investment Proposals | Descriptions | Stakeholders | Priority |
|-----|---|--|---------------------------------|----------|
| 1 | Complete the building of AH3 | Extend paved roads from Choyr to Saynshand (225km) to Zamyn-Uud (225km) | MRTT | High |
| 2 | Increase road density in north/central region | Upgrade and maintain roads in cities Ulaan Baatar, Darhan and Erdenet, and aimags Tov, Selenge and Darhan-Uul. | MRTT | Medium |
| 3 | Build roads in Omnogovi | Build a paved road between Oyu Tolgoi to Gashuun Sukhait (130km) and Oyu Tolgo to Hanbogd (50km). | MRTT | Medium |
| 4 | Extend railways into Omnogovi | Connect Zuunbayan to Oyu Tolgoi and Tavan Tolgoi to facilitate traffic. | MTZ, MIT | Medium |
| 5 | Build pipelines in Dornod | Utilize the oil pipelines to export crude oil / gas to PRC. | MRTT, MIT | Medium |
| 6 | Build roads in Western region | Complete the construction of AH4 that links aimags Bayan-Ulgii, Gobi-Altai, Khovd, Uvs and Zavkhan. Connect a 79km road from Ulgii to Tsagaannuur. | MRTT, MIT | Medium |
| 7 | Integrated Logistics Centre | Provide a public warehouse for freight forwarders in Ulaan Baatar and Aimag centres. | MRTT, MNCCI, freight forwarders | High |

| S/N | Investment Proposals | Descriptions | Stakeholders | Priority |
|-----|---|---|--------------------------|----------|
| 8 | Comprehensive Trucking Terminal | Provide operations, cross-dock and business centre for trucking companies. | MRTT, trucking companies | High |
| 9 | Container Handling Terminal | Provide a container terminal with container docks, yards and storage facilities. | MRTT, freight forwarders | High |
| 10 | Build local farmhouses | Identify Aimags with high risk and build farmhouses to protect livestock from the natural elements. | MIT, MMA | Medium |
| 11 | Infrastructural Development in the FTZs | Investing in infrastructure within the zones to attract investors. | MIT, FTZ Management | High |

Proposal on Industrial and Trade Initiatives

| S/N | Recommendations | Descriptions | Stakeholders | Priorities |
|-----|---|---|---------------------|------------|
| 1 | Capitalize on GSP Plus to encourage investments in Mongolia | Promote the benefits of manufacturing in Mongolia. Also promote the country's production capabilities and incentives. | MIT, FITA, MNCCI | High |
| 2 | Target selected key industries to lead economic development (Manufacturing) | Review policies and incentives to spur the development of timber processing industry, cashmere and meat processing. | MIT, Private | High |
| 3 | Policies for Mining Sector: Promote Desert Economy | Review policies and incentives to strengthen Mongolia's mining sector, and relate spin-offs to oil and gas. Reach stability agreements to optimize long-term growth and build investors' confidence. Explore feasibility to setup a | MIT, Private sector | High |

| S/N | Recommendations | Descriptions | Stakeholders | Priorities |
|-----|--|--|--|------------|
| | | Special Mining Zone (SMZ) at Omnogovi. | | |
| 4 | Policies for Livestock Sector: Promote Meat Processing | Formulate a national standard on hygiene, adopt HACCP, promote cold chain logistics and diversify overseas market. | SSIA, MMA, MFFA, MRTA | Medium |
| 5 | Support and assist in the operations of the “Mongolian Vector” | Increase the frequency of service; explore relocation of consolidation centre to Zamyn-Uud. | Tuushin, MRTT | High |
| 6 | Support and assist in the operations of the “Friendship Express” | Negotiate with Chinese customs at Xingang to reduce customs delay. | MCGA, IFFC, MRTT | High |
| 7 | Offer transshipment services | Cargo consolidation and deconsolidation, container management in Ulaan Baatar | MIT, MTZ, MRTT, Private sector | Medium |
| 8 | Commission a study to increase railways capacity without building new tracks | Explore alternatives between double tracks and double stack technologies. | MTZ | Medium |
| 9 | Review the tariff discounts | Examine the price elasticity of rail services and determine appropriate policies on tariff discounts | MTZ | Low |
| 10 | Purchase long term rates from Trans-Siberian Railways | Negotiate with Russia to bulk purchase rail rates and lower operating costs. | MTZ | Medium |
| 11 | Establish a lead agency for all transport and logistics improvements | Create a body with relevant representatives from government agencies and private sector | MIT, MRTT, MCGA, SSIA, ICTA, MNCCI, MFFA, MRTA | High |

| S/N | Recommendations | Descriptions | Stakeholders | Priorities |
|------------|---|---|-------------------------|-------------------|
| 12 | Rank logistics service providers | Classify freight forwarders into A, B and C. Provide different incentives for each and ensure no destructive competition. | MRTT, MNCCI, MFFA, MRTA | Medium |
| 13 | Offer training and development programs to increase professionalism | Provide FIATA courses, introduce logistics and transport management in tertiary course, public education | MRTA | Medium |
| 14 | Perform scenario analysis for PRC's accession to TIR | Determine possible problems and advantages and meet PRC counterparts to proactively offer assistance. | MRTA | Medium |
| 15 | Masterplanning for the FTZs | Engage international consultants to conduct Masterplanning studies (including identification of target industries) for the FTZs | MIT, Zone Management | Medium |

1 INTRODUCTION AND PROJECT BACKGROUND

1.1 Project Overview

1 This technical assistance (TA) project continues the work on promoting trade facilitation and customs modernization in Mongolia as part of the ADB CAREC's Trade Facilitation Program. The overall purpose of the program is to leverage transit trade for development, and transform Central Asia and PRC's inland provinces into modern "silk roads" or "land-bridges" connecting East Asia with Europe. Towards this end, several measures and studies have been carried out under the CAREC Program, including a recently completed study on employing effective Information Communication Technology (ICT) in Mongolia's national customs system.

2 This new TA aims to add on another key dimension for a more integrated and complete trade facilitation strategy for Mongolia. This study addresses other non-trade barriers and behind-the-border constraints - specifically in trade logistics capacity (in terms of both infrastructural and manpower capacity) and its implementation.

1.2 Project Scope and Outcomes

3 The project consultancy covers the following major work scope and outcomes:

- **Stock-take and analysis of the Mongolian logistics industry and its current state** Study of industry profile and practices of the logistics sector in Mongolia.
- **Mongolia's major transport routes and its access to major export and import markets** Overview of Mongolia's economic and international/border trade profile. Positioning of Mongolia as an overland trade conduit between Russia and PRC (and possibly Kazakhstan).
- **Identification of existing policy and operational inadequacies/impediments facing the logistics industry** Review of logistics-related trade facilitation and cooperation initiatives (such as multilateral and bilateral transit/transport agreements). Assessment of logistics and supply-chain inadequacies/impediments. Areas of weaknesses may be classified in policy and regulations, infrastructure and facilities, transport operator/carrier capacity, human resources and logistics service capacity.
- **Recommendations to improve policy and regulatory environment for logistics** Proposed recommendations and development of a logistics strategy for Mongolia. Principal elements of the logistics strategy will include policy and regulations, infrastructure and facilities, transport operator/carrier capacity, human resources and logistics service capacity. The logistics development strategy will provide an overall "blue-print" for the regional government's policy purposes.

- **Concrete project proposals to address logistics impediments** Identify an action plan in line with the overall recommendations for further financing and implementation – including a plausible proposal for the development of logistics centres in Mongolia.
- **Recommendations and concrete project proposals to improve the operational environment for FTZs** Proposed recommendations and project proposals to develop a comprehensive FTZ strategy for Mongolia. An action plan for successful management of FTZs will be proposed.

1.3 Methodology

4 In this study, the team conducted primary research by interviewing relevant stakeholders to obtain firsthand knowledge of the situation in Mongolia. The visits were conducted over a period of three months in February, April and June 2006. The organisations visited are listed in [Annex A](#). The team also reviewed existing statistics, reports and other secondary information relevant to the project's terms of reference.

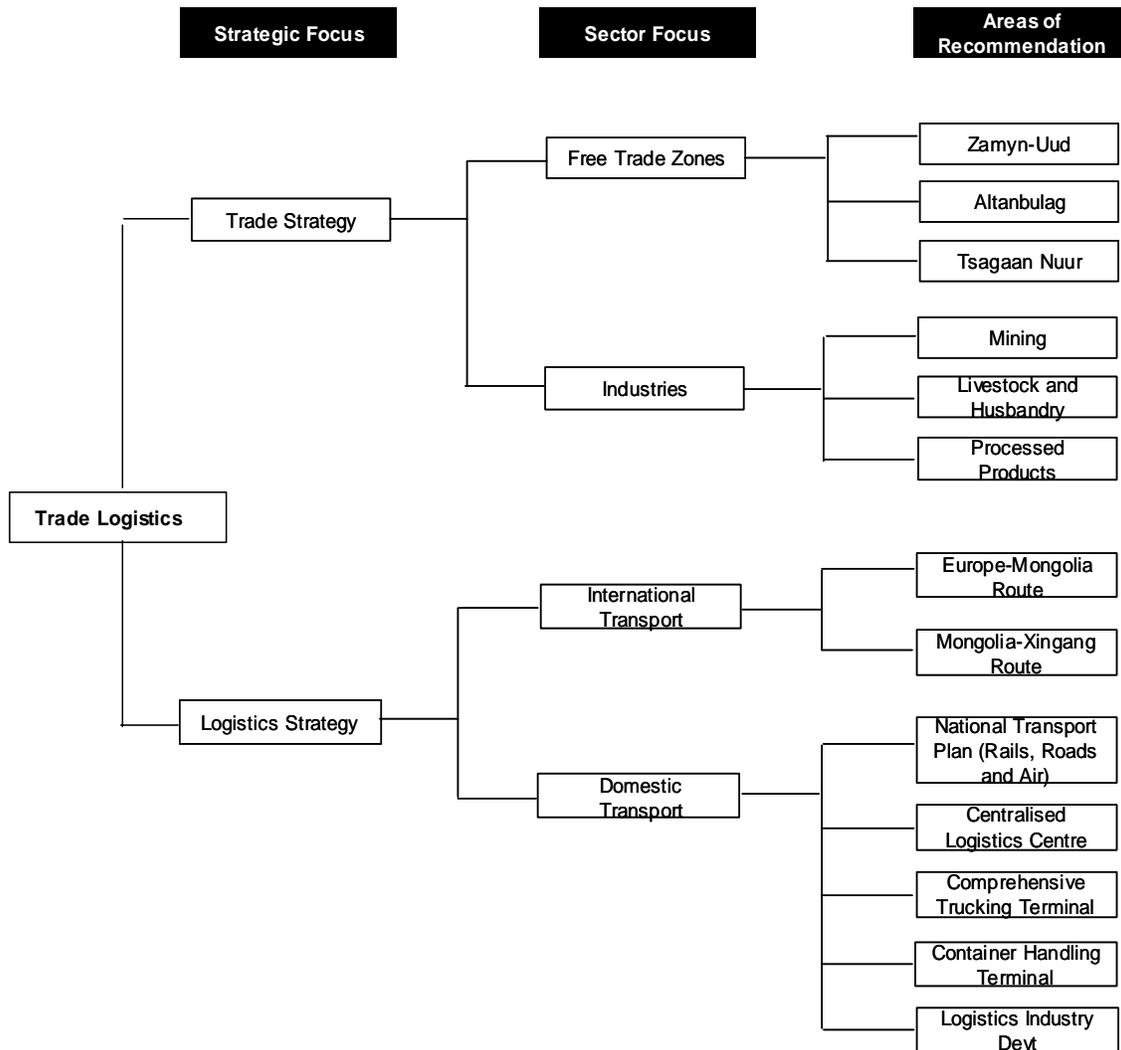
5 In evaluating the situation in Mongolia, the team adopted a holistic, two-pronged approach which analyzes and addresses not only the supply-side factors (in accordance to the TA Terms of Reference) but also the demand-side aspects of logistics development in the country. This is done in acknowledgement of the demand-driven nature of the logistics industry.

6 The analysis on the demand-side factors was conducted through identifying and appraising the three major industries of Mongolia, namely the mining, livestock and processed products industries. The team also looked into and assessed three free trade zones/special economic zone as potential catalysts for Mongolia's industry and economic growth. Based on the information, the consultant team will determine the country's broad logistics needs and incorporate them into demand-driven recommendations for logistics development in Mongolia. The team's findings are presented in Chapter 3: Assessments on Industry and Trade.

7 The analysis on the supply-side variables was done through an assessment of the many facets of the transportation and logistics sector, including that regarding infrastructure, regional cooperation (bilateral/multilateral agreements) and industry development. The results of this exercise are presented in Chapter 4: Assessment on Transportation and Logistics.

8 Based on the above exercise, a holistic trade logistics strategy was determined on 3 levels, namely strategic focus (transport and logistics; trade), sector focus (international transport; domestic transport; free trade zones/special economic zone; industries) and specific areas of recommendations (Europe-Mongolia Route; National Transport Plan; Container Handling Terminal; etc). This approach is illustrated in [Figure 1-1](#) and detailed in Chapter 5: Recommendations.

Figure 1-1 Proposed Trade Logistics Strategy for Mongolia



9 Finally, an implementation plan prioritizing these recommendations is provided in Chapter 6: Implementation Plan.

2 COUNTRY PROFILE

10 Located between the regional giants of Russia and PRC, Mongolia is the world's 19th largest country (with a land area of 1,564,116 km). With a population of 2.8 million (July 2006 est.), Mongolia has one of the world's lowest population densities at 2 persons per km².

11 Nearly 30% of the population resides in the capital of Ulaan Baatar, making the capital the single largest concentration of social and economic activity for the country. The main transport artery for the country would be the Trans Mongolian Railway linking the landlocked country to Russia to the north and PRC to the south. Russia and PRC are also the only neighbouring countries to Mongolia although on the western front¹, Kazakhstan is only 190 km away across Russian territory.

12 Economic activities in Mongolia have traditionally been based on herding, agriculture and minerals mining. Mongolia is known to have extensive mineral deposits of copper, coal, molybdenum, tin, tungsten and gold - important exports contributing to foreign exchange earnings for the country. The Mongolian economy is still in transit from its past dependency on Soviet aid and due to its dependence on a few industries, the economy remains susceptible to external shocks.

13 The following table provides a summary of the Mongolian economy in terms of its strengths, weaknesses, opportunities and threats (SWOT analysis). This exercise will set a basis for the subsequent analysis and recommendation for Mongolia's logistics development strategy.

| STRENGTHS | WEAKNESSES |
|--|--|
| <ul style="list-style-type: none"> ▪ Excellent mineral resources of coal, copper, gold and energy related products ▪ Trans-Mongolian Railway ▪ Strong transit logistics industry with successful transport corridors via dedicated express container block train services ▪ Strong animal husbandry and cashmere production ▪ Youngⁱⁱ and highly literate population² ▪ Large unexplored land mass rich in | <ul style="list-style-type: none"> ▪ Dependent on PRC for energy and minerals exports ▪ Dependent on foreign direct investment ▪ Huge geography with low population density ▪ Generally poor accessibility (marked by low road and rail density) ▪ Under-developed infrastructure in power supply and water ▪ Economy is not well diversified, relying on three main sectors |

¹ Mongolia has a total border length of 8,220km. The country shares 4,677km with PRC and 3,543km with Russia.

² Literacy is 97.8%. For age structure of population, 27.9% is 0 to 14 years old, 68.4% is 15 to 64 years old and 3.7% is above 65 years old.

| | |
|--|---|
| <p>minerals</p> <ul style="list-style-type: none"> ▪ Integrated Customs Information Systems | <ul style="list-style-type: none"> ▪ High interest rate, resulting in high cost of borrowing and financing for business ▪ Dependent on Trans-Siberian Highway for rail route ▪ Relies on Xingang ports in PRC for sea route ▪ Lack of industry knowledge (on a company and individual level) in modern logistics management (e.g. Incoterms, FIATA) |
| <p>OPPORTUNITIES</p> <ul style="list-style-type: none"> ▪ Recent high prices for commodities ▪ Land link between two large economies ▪ Potentially huge energy market in PRC ▪ Promising retail and commercial opportunities at Russian borders ▪ PRC's impending accession to TIR (may result in breakthrough for road transport problems in Omnogovi) ▪ Tax-free privileges for Made-in-Mongolia exports to EU (attracts foreign firms, including PRC firms, to set up manufacturing bases in Mongolia) ▪ Development of free trade zones/special economic zone which invariably raises industry demand for logistics services | <p>THREATS</p> <ul style="list-style-type: none"> ▪ New Euro-Asia Highway may result in trade diversion to the south for land transport ▪ Development of ports, mega carriers and containerization reduce appeal of land transport (sea transport) ▪ Volatile commodity prices may deter investments for exploration plans by miners |

3 ASSESSMENT ON INDUSTRY AND TRADE

3.1 Mining Industry

14 Mining is the biggest economic sector in Mongolia, contributing more than half of the country's GDP. Oil, copper, coal and gold are the major resources. In particular, two provinces rich in mineral deposits deserve mention. They are the Dornod province and the Omnogovi province (Oyu Tolgoi, Tavan Tolgoi).

15 Dornod Aimag is the third largest province with a population of 74,000, where half of them stay in the province centre called Choybalsan. The concentration of oil reserves is found in the Tamag region within Dornod. Mongolia has 24 sites with oil deposits, but Tamag is the only site with active exploration. A Chinese company called Daching has the license to mine the area and has contributed Tg. 1.4 billion to the soum so far. Dornod has five border points with Russia and PRC and is located near to the PRC railway network.

16 Towards the south of Ulaan Baatar lies the Omnogovi Provinceⁱⁱⁱ. Sparsely populated and with a large territory, the province is currently attracting the attention of mining companies from all over the world. In recent years, announcement of discoveries in copper, gold and coal reserves coupled with record prices for those metals in the world's commodities market have resulted in about 20 mining companies being granted licenses to conduct exploratory activities in the region. Currently, four companies had already commenced exploration activities in the region:

- Ivanhoe Mines Mongolia Inc (given two licences to mine in the area)
- Mongol Gazar
- Entrée Gold ETG
- Troy Mongolia Resources

17 Ivanhoe Mines Mongolia Inc (IMMI) owns the Oyu Tolgoi camp which is located 600km south of Ulaan Baatar³. Box 1 provides details in exploratory activities by IMMI in this area. Over the past five years, Oyu Tolgoi camp had grown from a cluster of 10 gers (traditional Mongolian housing) in 2001 with 20-30 workers, to 500 gers with about 1,000 workers. The Mongolian Airline (MIAT) currently services the area by operating flights between the camp and Ulaan Baatar for IMMI employees and government officials.

18 Copper production is scheduled to start in 2008 with an estimated 7% contribution to Mongolia's GDP. This figure is expected to rise to 30% in 2009 and 40% in 2010 and expected to peak in 2016. The South Oyu reserves are also expected to double the country's GDP by 2010-2012.

³ Oyu Tolgoi is also located 200km away from the provincial centre of Dalanzadgad and 45km away from Hanbogd soum. Hanbogd soum is a territory with a town population of 2,700 (only about 1,300 live in the town). The provincial capital of Dalanzadgad has a population of 12,000 while the provincial population is about 47,200.

Box 1. Ivanhoe Mines Mongolia Inc's activities in the Omnogovi Province

IMMI had drilled over 650,000m in its exploratory work and had spent almost US\$100 million so far. IMMI estimated that the South Oyu reserves (part of IMMI's discoveries in the region) will achieve a mining life in excess of 35 years, producing over 15 million tonnes of copper and 350 tonnes of gold. IMMI is also exploring another copper deposit near its Oyu Tolgoi camp. The Hugo Dummett reserves also indicates substantial amount of copper deposits although it will not be as big as the Southern Oyu copper reserves.

IMMI plans to spend US\$1.274 billion over the next 35 years to build sustaining plants and infrastructure. IMMI also discovered regional water aquifers under the Gobi Desert able to provide 85,000 tons of water daily for the next 40 years at Gunii Hooloi. At Golbyn Gobi, another aquifer providing 140k tons of water was also discovered. IMMI also plans to get their required power supply from Inner Mongolia for the next five years. They are also planning the construction of a coal fired power station at Tavan Tolgoi (240MW of power was expected from this planned power station).

IMMI is also studying the possibility of a smelter creating copper concentrate and a plant manufacturing copper wires, pipes and pallets. However, these huge investments are subjected to the conclusion of a stability agreement with the government. Recent tax imposed on copper concentrate has led to suggestions that copper products would not be subjected to the same level of tax as copper concentrates.

In addition to the Oyu Tolgoi camp, IMMI is also conducting exploratory works in other parts of Mongolia. The company holds about 130,000 km² of land in Mongolia.

19 To the south of the Oyu Tolgoi camp lie the Gashuun Sukhait border and customhouse (also located 280 km away from the PRC city of Bayan Obo; 500 km away from Inner Mongolia's provincial capital of Huhehaote City (Hohhot); and 450 km away from another major industrial city of PRC, Baotou – all 3 cities are currently importing coal from Mongolia). The Gashuun Sukhait border is open daily for goods freight (for immigration, it is only open for the first 20 days of each quarter). Most of the cargo freight is transported by trucks – most of such cargo consists of coal which is obtained from the Tavan Tolgoi mines located 260km away from the border. Currently, imports through this the border is mainly for IMMI's operations at Oyu Tolgoi. With the commencement of the copper mining at Oyu Tolgoi camp soon in 2007, copper exports to PRC via the Gashuun Sukhait customhouse are expected to add bustle to the border activities.

20 At present, there exist some disputes over freight forwarding activities in the Tavan Tolgoi area. While Mongolian drivers are permitted to drive up to only 100km beyond the PRC border, PRC trucks are now driving up to Tavan Tolgoi itself which is more than 260 km away from the border. This appears to be a violation of the bilateral transport agreement signed between Mongolia and PRC and Mongolian freight forwarders have now raised this matter to the government.

21 Overall, the Omnogovi Province holds much economic potential for Mongolia. IMMI's activities in the region have already resulted in US\$5 million paid to the Mongolian government in income taxes, duties and fees. In addition, about US\$6 million were paid as license fees. 4,000 direct and indirect jobs were also created, of which 91% went to Mongolians. About half of the Mongolian workers are from the South Gobi region. In total, IMMI projects revenues of US\$7.9 billion to the Mongolia government over the lifetime of the mines.

22 IMMI has further plans for the to Omnogovi Province. In particular, it is proposing the development of a new city in Hanbogd soum for IMMI's employees (IMMI plans to take strategic investments in infrastructural projects in this new city such as power supply, roads, schools etc). In addition to the new city, IMMI also plans to construct a permanent mining town to house 3,000 IMMI staff and another industrial town where commercial and industrial activities can be established under the auspices of a free trade zones/special economic zone. While there is no existing free trade zone development plans for this province, IMMI management has voiced an interest in a similar set-up which will provide a positive fiscal environment. In view of this observation, it is recommended that the Mongolian government look into such zone development possibilities through a preliminary private-public discussion on feasibility issues.

3.2 Livestock Industry

23 The livestock industry is another key industry for Mongolia. Serving mainly the Russian market, the industry is vulnerable to variables in terms of weather, animal diseases as well as human factors.

24 While there is overall potential, the industry currently faces several challenges. The smaller meat traders in the Selenge province for example, tends to face discrimination from the Russian customs office in Ulan Ude and Irkutsk who exercise very strict standards on meat imports. A slight discrepancy in the cargo manifest can trigger a withholding of the consignment.

25 The livestock market is also heavily controlled on the Russian side. Mongolian meat suppliers are required to sell through selected Russian enterprises. Currently, only 14 Mongolian factories have the licence to export and they can only supply to 6 meat-processing plants in Russia's Ural region. Holding monopolistic control, these Russian companies depress the purchase price from the Mongolians while still enjoying high market consumer prices. Last but not least, Mongolian meat exports are subject to a Russian quota of 60,000 tons annually. A 60% tariff will be levied on any excess exports – thus capping the growth potential of Mongolian exports to this market.

3.3 Processed Products Industry

26 The next major industry in Mongolia is that of processed products, in particular the timber and cashmere sectors. The timber industry is more of a transit processing industry whereby the raw materials are imported from Russia (through Altanbulag and Sukhbaatar, and then to Zamyn-Uud) for processing before being sent further to PRC for more value-added processing. In Mongolia, the processing is done in customs special zones. There is also an active furniture-making cluster in the industry town of Darhan.

27 The cashmere industry, on the other hand, is a home-grown sector with an abundant supply of raw material from local goats. At present, the biggest exporter of cashmere is Gobi Corporation. According to Gobi Corporation, cashmere exports tend to suffer from burdensome inspections and export documentation requirements. In addition to the standard contract, packing list, commercial invoice, certificate of origin (C/O) and the quality certificate, two additional documents are required for semi-finished products - namely the Veterinary certificate and the SSIA (State Specialised Inspection Agency) certificate. The SSIA certificate, which takes one week to process, is the main source of delays in documentation clearance.

28 There are now two existing export routings for Mongolia's cashmere to overseas markets which are mostly in Japan and Europe. The exporters may choose to either export northwards on the Trans-Siberian railway and traverse over Russia to the final destination, or southwards by rail through the Zamyn-Uud border to the PRC port of Xingang. The latter option will include subsequent sea freight to either the ports in Japan or Rotterdam before being sent on land (either road or rail) to the retail shops.

29 Though the Trans-Siberian route would appear to be physically shorter, the time and costs of this journey is similar to that of the multimodal alternative through the PRC port (see Figure 3-1 for the time and cost estimates). This is because the Trans-Siberian route less developed and is subject to more customs as well as schedule delays and inflexibility. For instance, a reservation on the train carriage requires one month's advance notice while that for the sea route requires only 7 to 10 days of notice.

Figure 3-1 Costs of sending a TEU over two modes of transport

| Transportation Mode | Time, Days | Cost, US\$ |
|-----------------------------|-------------------|-------------------|
| Trans-Siberian Highway | 30-40 | 2,300 |
| Multi-modal (rail/sea/land) | 30-40 | 2,000 |

3.4 Free Trade Zones/Special Economic Zone (FTZs/SEZ)

30 Free Trade Zones (FTZs) have an important part to play in the development of a country's logistics industry. By jumpstarting a cluster of economic activities, FTZs help drive up the demand and growth of the supporting logistics sector.

31 FTZs are essentially special zones where (some) normal trade barriers such as import or export tariffs do not apply. Usually, such zones are set up in relatively underdeveloped parts of the host country, the rationale being that the zones will attract investors where they are most needed for employment and wealth creation. In addition to reduced bureaucracy, these set-ups usually offer attractive incentives such as tax holidays to the investors.

32 In Mongolia, the government has designated three areas, Altanbulag, Zamyn-Uud and Tsagaan-Nuur, for FTZ establishment. The Zamyn-Uud FTZ had been upgraded to Special Economic Zone (SEZ) with greater range of economic activities. The following assesses each of them and the findings from this analysis will be used in subsequent recommendations on Mongolia's logistics development.

3.4.1 Zamyn-Uud SEZ

33 The Zamyn-Uud SEZ is located in Zamyn-Uud border point town in the southern part of Mongolia. It is located about in 780 km from Ulaan Baatar and 230 km from Saynshand, the centre of Dornogobi province and 8 km from Erlian town of PRC. Zamyn-Uud is a border town with a population of about 7,000.

34 The Russia-Mongolia-PRC international railway network goes through Zamyn-Uud. Currently transportation between Zamyn-Uud and Ulaan Baatar is via rail. From Choyr to Ulaan Baatar, there is no road linking both points currently, thus no means of intermodal transport to let freight forwarders exercise flexibility in transport.

35 The Zamyn-Uud SEZ was set up in 2004 with the objectives of industrial, commercial and tourism development. Currently, it is a piece of empty land (900 hectares) with no planned development. West Paradise (WP), a company from the British Virgin Islands, was given the right to develop the SEZ but they have yet to commence operations. The MIT has the power to withdraw or cancel the contract if WP does not reveal any concrete plans and actions.

36 There are also over 70 trade and service centres, 13 hotels and four banks currently in service in Zamyn-Uud. The main activity in Zamyn-Uud is related to trade with PRC. The town of Zamyn-Uud is an important location for exports and imports. Although there is a large customhouse in Zamyn-Uud, there are no logistics facilities currently as goods move in and out of customs quickly.

37 The customhouse has about 160 employees deployed over five custom inspection sites. The customhouse operates 24-hr daily with three shifts for its officers. About one million passengers pass through the customs yearly. The customhouse also inspected about 250,000 vehicles last year (vehicles include trucks, cars, trains; each block train with about 50 wagons is considered as one vehicle).

38 Figures from MCGA (2004) indicated that Zamyn-Uud is the most active customhouse after the Ulaan Baatar customhouse. Exports were valued at US\$12million while imports were US\$66million. The total rail capacity for Zamyn-Uud is about 12.1 million tons of cargo yearly. Most of the cargo comprises transit goods such as timber and oil products. Mongolia exports mainly coal and refined copper and tin.

39 Containers coming in either via rail or truck are delivered to the transshipment area located about 4.5 km away from the customhouse.

40 The clearance process and time required are dependent on the cargo. Cargo of a larger amount and higher variety of products will take a longer time to process, require up to three days in certain instances. Local customs officials had cited certain shipments could contain more than 70 varieties of goods and some traders include personal items in their goods, thus resulting in delays in clearance. Goods coming in through the border can be either cleared at Zamyn-Uud or Ulaan Baatar. Those to be cleared at Ulaan Baatar would be sealed at Zamyn-Uud and sent on to the capital.

41 Located near the customhouse is an x-ray facility for trucks entering Mongolia from the Chinese border. This facility is newly built and has greatly reduced the time required to check on the vehicles. Drivers will be required to park their vehicles within the x-ray machine and wait outside the facility for the x-ray scan. According to the local customs officers, In optimal working conditions, the entire process will take about only three minutes for each vehicle to be cleared.

42 There are also two transshipment centres at the customhouse. The older transshipment centre caters mainly for coal shipment while the newer centre caters to containers and other products. There are three container-moving machines manned by trained operators to move containers between trucks and trains. In addition to the containers, goods were also transported via pallet or individually by workers, depending on the type of goods to be moved.

43 Goods are moved into the transshipment centre on an ad-hoc basis. The railway would usually inform customs about 30 minutes before the goods arrived to make confirmation. About 50-60 wagons and 40-50 containers are moved within the transshipment centre daily.

44 Local officials are looking forward to new technologies and management techniques to improve the efficiency of cargo movement. The introduction of GAMAS has sped up the clearance process. The use of the x-ray machine has also reduced container checks to three minutes per container. The customs office is further currently working on the introduction of risk management to further improve the process.

45 The Mongolia Railways operates 24 hours daily and the rail operations in Erlian, PRC, also have 24-hour operations. There are two railway tracks at Zamyn-Uud station catering to the difference between the Chinese and Mongolian rail tracks. The Chinese rail tracks are narrower at 1,435 mm. The Mongolian rail tracks follow the Russian standard at 1,520mm.

46 Chinese exports coming in through Zamyn-Uud or local goods exported to PRC are transferred via two methods. One method would be to change the wheels of the train and this is done only at the Chinese side (at Erlian). The other method would be to tranship the goods with the unloading and loading done on the Mongolian end.

47 The time spent on loading and unloading would be dependent on the types of goods being moved. In the case of containers, the time required would be about five minutes as the station has the necessary machines to move the containers. The station handles about 15,000 – 20,000 containers yearly and the containers could be transported either via train or truck.

3.4.2 Altanbulag FTZ

48 The Altanbulag FTZ is located in the northern part of Mongolia with a planned area of 500 hectares. Adjacent to Khiagt border port of Russia, the FTZ is expected to contain residential, commercial and entertainment facilities and amenities, besides being a trade hub for Russian-Mongolian trade.

49 The Russia-Mongolia-PRC international railway network goes through Sukhbataar and is about 24km away from the Altanbulag FTZ site. The area is also linked to Ulaan Baatar via a paved two-lane highway.

50 Promotion activities for this FTZ were already announced, and so far the FTZ had attracted the interests of Chinese, Korean and Singaporean firms. Local officials hoped that decisions would be made in June 2006 on the confirmation of investors. This included a tender for infrastructure construction in the FTZ, as well as investment for building plants and factories.

51 Currently, the FTZ is fenced up and works are ongoing to resolve the issue of the supply of water and electricity to the area. The land had underground water supply. Studies could be made to utilize this local source. Electricity and power supply also

needed to be established to facilitate the potential investors. There are currently no buildings or ongoing construction on the FTZ site. Major investment in infrastructure and management capability will be required for the FTZ to commence commercial activities.

52 In legal and administrative areas, all regulations concerning Altanbulag FTZ had been endorsed, covering areas such as land use, financial incentives such as tax holidays etc.

53 The local authorities had not identified any target industry for the FTZ but wood and garment industries were discussed as potential areas for investment.

54 Despite the current lack of developments in the FTZ, Altanbulag has potential for FTZ implementation due to its location near Sukhbaatar, Darhan and Erdenet, major economic activity hubs in northern Mongolia.

55 In these cities, there are light industries such as a flour processing mill, a cement factory, a sheepskin processing plant, a steel plant, a meat processing factory, flour mill and a number of small producers of bakery products, confectionaries, dairy products, soft drinks and beverages. Multinational companies from Russia, Japan, Bulgaria, Poland, Hungary and Czech Republic are present in these cities.

56 In recent years, Mongolia has experienced faster economic development compared to the neighbouring Russian towns and cities⁴. Thus, it is possible to develop Altanbulag successfully into a regional trade, tourism and industrial centre although that is dependent on Russia's trade policy for the neighbouring regions. If Russia opens her trade policy and reduces non-tariff barriers, with accompanying improvements in bilateral transport agreements, Altanbulag could attract Russian visitors and investors, thus enhancing her chance of success. The biggest city near to the border, the Russian city of Ulan Ude (with 350,000 people) located 270 km north of Altanbulag, can also be a source of visitors to Altanbulag.

57 14 customs officers work at the customhouse and each day, there are about 66 cars, 120 passengers and 40 cargo trucks passing through Altanbulag. Data from the MCGA (2004) indicated that the Selenge province, with the Altanbulag customhouse, is an important link in the country's trade network. Imports were estimated at US\$48.5million while exports were US\$2million. The main import products were foodstuff and automobile spare parts.

58 The customs office has a few customs brokers such as Tuushin, and two banks for currency exchange. There are two X-ray machines available to facilitate customs and security checks.

⁴ For example, Altanbulag operates 12 hotels, while Sukhbaatar operates 20 hotels. The Russian town of Hiagt has only one restaurant and no hotel.

59 Presently, Mongolian drivers are not allowed to enter Russian territory. On the other hand, Russian drivers can enter Mongolia through Altanbulag and proceed down to as far as Sukhbaatar. Russian drivers carrying foodstuff like eggs can also drive to Ulaan Baatar directly.

60 Russian trucks entering Mongolia would first stop at the Altanbulag Customhouse upon crossing the border. The Russian drivers would go to a small sentry with their passports, where a customs officer would provide a book for sign in/out. The driver would manually sign in, filling out details such as names, truck plate numbers etc. After making the manual data entry, the driver would then drive and stop at the customs office about 500 meters away. He would enter the premises with his declaration forms and documents, and complete the necessary procedures to clear his goods.

61 There are no local area network (LAN) facilities at the sentry point. There is a potential to install a workstation connected to LAN for monitoring cargo movement, which can help to increase productivity by eliminating the need to constantly updating and maintaining of manual records.

3.4.3 Tsagaan-Nuur FTZ

62 The Tsagaan Nuur FTZ was established in November 2005 to catalyze the development of the western region of Mongolia. The FTZ is located 68km away from the Bayan Ulgii provincial town and about 1,720 km away from Ulaan Baatar. It is located about 32 km away from the Russian border, 250 km from the Chinese border and 190 km away from the Kazakhstan (through Russian property). The FTZ is about 708.4 hectares in size and is on flat land covered with pebble and rocky soil. Two rivers flowing by on the west and north sides of the FTZ form the water supplies for the zone.

63 The northwest region's main economic activities are food processing, livestock and animal husbandry. The local officials shared that climate changes and extreme weathers (drought and heavy snow) in recent years have resulted in loss of livestock. As herding is the main source of income for the region, there is an importance and urgency to diversifying the economic activities of the region.

64 Tsagaan Nuur is a mountainous area and the Tsagaan Nuur FTZ is located in a strategic location within the Bayan Ulgii province where a 260km road (AH4) connecting Russian and PRC (shortest such connecting route) would be constructed.

65 The Millennium Road, a long road connecting the east and west regions of Mongolia are in the midst of construction. Rail construction is not considered as the distance is too long and the cost would be too high. In addition, there is no connecting rail on both the Russian and Chinese sides, thus further reducing the viability of the project.

66 The MIT aims to first establish the FTZ and from that basis, develop the region. From 2006 – 2010, they will be focusing on wholesale network development. The emphasis was to develop transit trade with PRC and Russia. The wholesale network would cover the range of economic activities ranging from raw materials related to end consumer product delivery.

67 The FTZ also encompasses the village of Nagoon nuur soum. There are about 20 buildings in the area with a secondary school, hospital, kindergarten, a hotel, storage facilities, petroleum base and a military base. As at the end of 2004, there were 312 families of about 1,626 people living in the area. However, the population had been dwindling in the area due to the lack of economic opportunities and harsh conditions.

68 Road conditions in the FTZ are underdeveloped with only dirt roads available. At certain points, dirt roads are also not available with drivers having to navigate over rough and unmarked terrains. The lack of paved roads means that a 100km journey can take up to 2-3 hours to complete.

69 The customhouse at Tsagaan Nuur is newly constructed and opened in September 2005 at a cost of Tg. 3 billion. Covering about 2.7 hectares in size, the customhouse has 18 CCTV cameras and five types of alarm system (including fire and theft). In addition, the customhouse also has motion detectors along the border fence to detect smugglers throwing goods over the fence. A cargo scanner catering for incoming passengers from Russia is used to facilitate customs and security checks.

70 Data (2004) furnished by the MCGA indicated that trade going through Tsagaan Nuur formed a very small portion of the national export and import figures. For 2004, about US\$5.4 million of imports and US\$722,000 worth of exports were recorded in this region. This amount represents the smallest of the three FTZs discussed in this report.

71 Exports include wool, meat, coal and molybdenum (a type of mineral). Transit goods from Kazakhstan to PRC included cashmere, wool and goatskins while transit goods from Russia to PRC consist mainly of scrap metal and timber. Transit goods are moved only during summer. Wheat is also imported from Russia and Kazakhstan for processing into flour in Bayan Ulgee, while sheep wool is semi-processed into wool and then re-exported to the United Kingdom.

72 According to the local officials, imports from Russia include flour, petrol, foodstuff, construction materials and camel products. These goods are mainly finished products and imported for Bayan Ulgee only (and not for other parts of Mongolia including Ulaan Baatar).

73 Open only from Monday to Saturday (9am to 7pm), the customhouse has a traffic density of about 50-60 passengers, 10 light cars and five trucks daily. About 16 customs officers are on duty daily. For passengers and cargos arriving at the customhouse outside

operating hours, the drivers and the passengers would have to spend their time in the border town (about 120 households with 400 people) and wait for the customhouse to resume operations.

74 In September 2006, a fibre optics link will replace the existing dial-up connection between the customhouse and the Bayan Ulgii provincial town.

75 The governmental agencies operating at the customhouse include the border troops, specialised inspection agency and customs. The border troops currently oversee the duties of issuing visas for foreigners but they would be relinquishing this duty over to the immigration authorities in June 2006.

76 Customs check usually involved about 15-20 minutes for documents while the time taken for physical inspection would be dependent on the type of goods being imported. Cargo with many different varieties would take about 1-2 hours. In most cases, the customs would conduct 100% physical inspection on the goods.

3.4.4 Summary Comparisons of the Three Free Zones

77 Figure 4-1 provides a succinct summary of the attributes of the three FTZ/SEZ sites in terms of land size, population, utilities, transport infrastructure, communications, industry focus, current developments, location, etc.

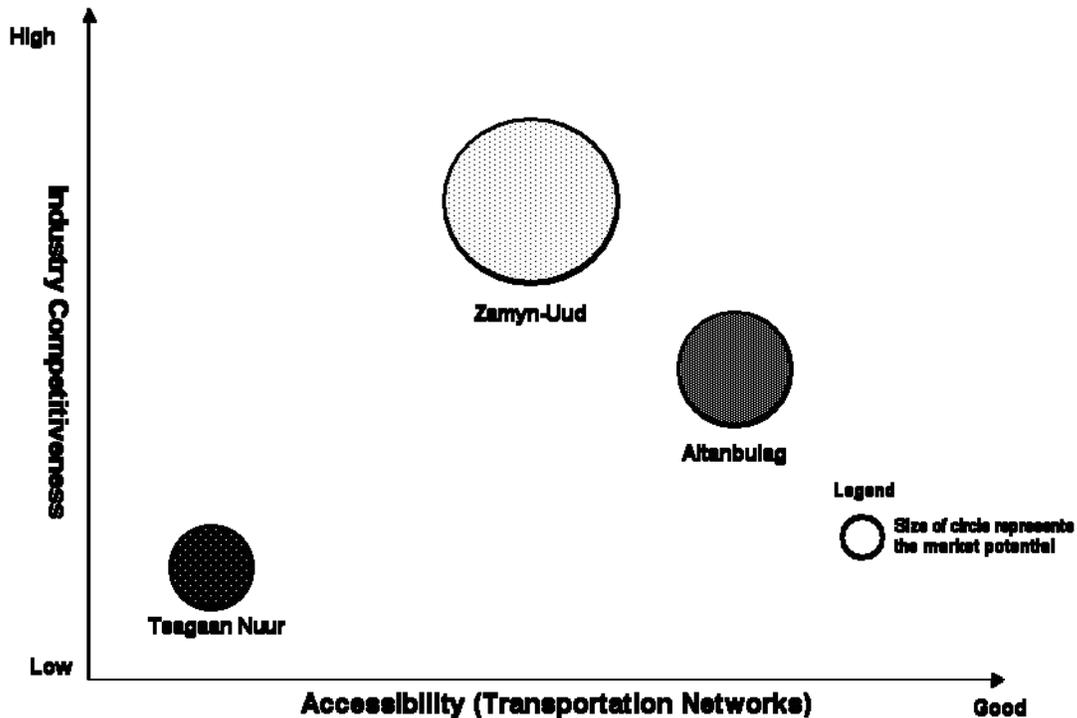
Figure 3-2 Cross Comparisons of the three Free Trade Zones/Special Economic Zone

| | Zamyn-Uud | Altanbulag | Tsagaannuur |
|--|---|---|---|
| Land size | 900 hectares | 500 hectares | 700 hectares |
| Population where FTZ is located | 7,000 | 4,000 | 1,600 |
| Available population | Dornogovi province (52,000) | Sukhbaatar City (23,000) ; Selenge province (100,000) | Bayan Olgii province (98,900) |
| Electricity | 100kWt electricity transmitting line and sub-station | 110kWt with 10sub stations | |
| Heating | 10 boiler houses for heat production and distribution | | |
| Location | 780km from UB | 335km from UB | 1720km from UB |
| Nearest Mongolian City | | Subhbaatar City | Ulgii |
| Nearest Foreign Cities and Population | 3km from Erlian | Khiagt border port | |
| Railway | Russia-Mongolia-China rail | Russia-Mongolia-China rail | No |
| Planned rail | - | - | - |
| Roads | Earth roads to UB | Paved roads to UB | Dirt tracks |
| Planned roads | Millennium Road | - | Millennium Road |
| Nearest border | China | Russia | Russia / China |
| Imports (2004) | \$12,240,943 | \$48,449,589 | \$5,426,983 |
| Exports (2004) | \$66,579,923 | \$2,005,874 | \$722,002 |
| Communications | High speed fibre optic cable and VSAT system | | Dial up |
| Existing Industries | Transit trade, hospitality, banking | Animal Husbandry, Meat products, Transit trade. Light manufacturing, FMCG production, Hospitality | Animal husbandry. Animal feed production, Wool processing |
| Possible industries | Logistics hub, Tourism/Entertainment Zone | Tourism/Entertainment Zone, Timber processing centre | Transit route, |
| Upgrades | Cargo terminal, Infrastructural Devt | Infrastructural devt, Roads | Infrastructural devt (road, water, electricity) |
| Recommendations | Appoint new manager, identify obj of FTZ | Appoint new manager, identify obj of FTZ | Review location of FTZ, identify obj of FTZ |
|  | | | |

78 From the above table, it is clear that Zamyn-Uud and Altanbulag are both considerably stronger vis-à-vis Tsagaan Nuur in transport infrastructure (both having access to the Russia-Mongolia-PRC rail) as well as in the trade and transit trade business. Further analysis would show that among the three locations, Zamyn-Uud has the strongest attributes and highest potential as a SEZ site. Such an assessment is illustrated in Figure 3-3 below.

79 The three circles represent the three different FTZ/SEZ sites. The variables of comparison are industry competitiveness (breadth and depth of the supporting local industries in the area); accessibility (how well the site is connected at the regional and local level, and whether it is served by intermodal options); and market potential (site's proximity to major local or cross border markets). The attributes most in favour of Zamyn-Uud are its proximity to the huge Chinese market, its strong transport links (including to the Millennium Road networks), its large existing business activity base and strong transit traffic. Finally, the shade of the colour indicates the relative risk in terms of investments and finance for each FTZ/SEZ. The lighter it is, the less is the degree of risk.

Figure 3-3 Assessment of Mongolia's three FTZ/SEZ

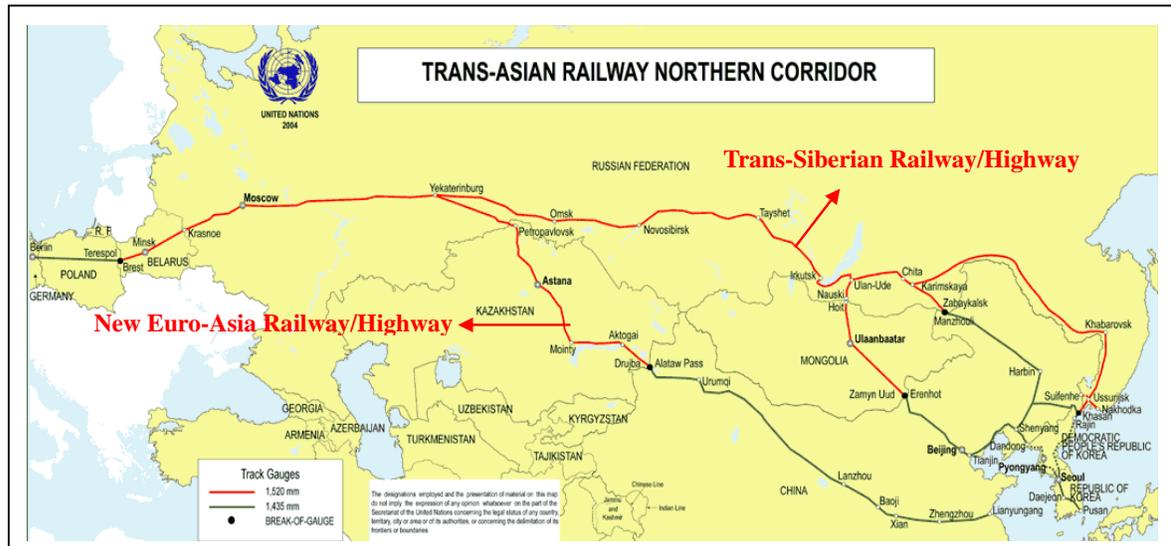


4 ASSESSMENT ON TRANSPORTATION AND LOGISTICS

4.1 Major Transport Routes in the Region

80 In North Asia, there are two major land transport routes linking Asia and Europe. They are the **Trans-Siberian Railway/Highway** and the **New Euro-Asia Railway/Highway** (illustrated in Figure 4-1). The former links Europe through Russia and Mongolia (the section of the railway within Mongolia runs in a north-south direction and spans 1,110km) to PRC. The latter links Europe through Russia and then Kazakhstan (via Mongolia) to PRC.

Figure 4-1 Trans-Asian Railways



81 The Trans-Siberian Highway spans nearly the width of Russia, stretching over 10,500 km from St. Petersburg (west) to Nakhodka (east). The road was largely unfinished up till early 2004. Today, there is still a 1,000 km section near Lake Baikal that lacks proper paved roads and is covered by forest, making it difficult for vehicles to pass through.

82 Running alongside the Trans-Siberian Highway is the Trans-Siberian Railway which is a network of railways connecting Russia to Mongolia and PRC. This railway consists of three tributary routes. The main route runs from Moscow to Vladivostok via southern Siberia and was built between 1891 and 1916. At 9,288 km long, this route requires a travelling period of about seven days. The second route is the **Trans-Manchurian** route which branches off Tarskaya (about 1,000 km east of Lake Baikal) to head southeast into PRC and its capital, Beijing. The third route is the **Trans-Mongolian** route which branches off the main line at Ulan Ude on Lake Baikal's eastern shore. From Ulan-Ude, the Trans-Mongolian heads south to Ulaan Baatar before making its way southeast to Beijing. Major points along this route include:

- The connecting point with the main Trans-Siberian line (5,655 km from Moscow)
- Naushki (5,895 km), Russian border town
- Russia-Mongolia border (5,900 km)
- Sukhbaatar (5,921 km), Mongolian border town
- Ulaan-Baatar (6,304 km), the Mongolian capital
- Zamyn-Uud (7,013 km), Mongolian border town
- Erlian (842 km from Beijing), Chinese border town
- Datong (371 km)
- Beijing

83 The **New Euro-Asia Railway/Highway** (also known as the New Euro-Asia Continental Bridge) is a revived international passageway also beginning from Europe through Russia to PRC. This route breaks earlier while in Russia to enter Kazakhstan instead of later to pass through Mongolia. From Kazakhstan, the railway runs through the Druzba-Ala pass in Xinjiang and then through Xi'an and Lanzhou before ending off in PRC's eastern seaport of Lianyungang.

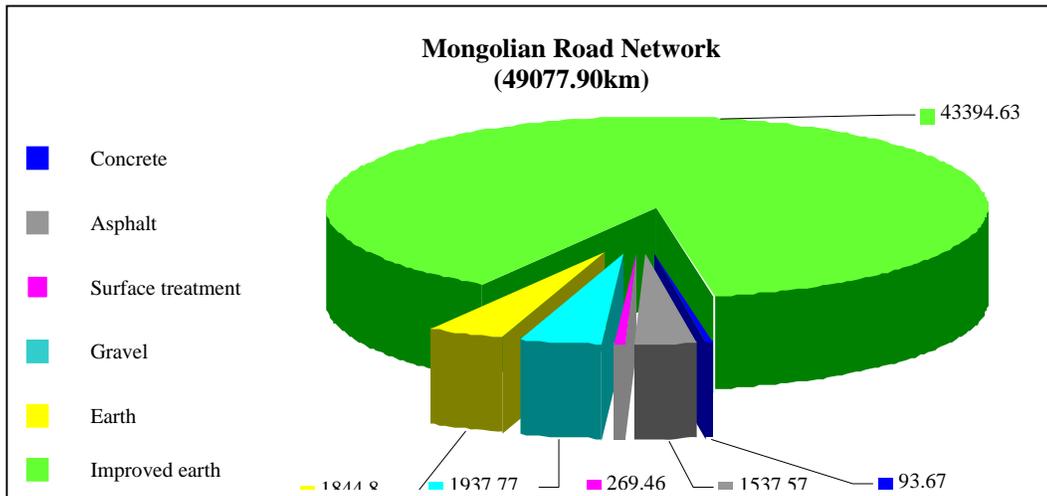
84 The long-term success of Mongolia's role as a transit country lies dependent on the attractiveness of the Trans-Siberian Railway vis-à-vis that of the New Euro-Asia Railway/Highway. On a positive note, Russian authorities are now reviewing rail freight charges in an attempt to promote the greater use of the Trans-Siberian Railway. Any positive interest generated is however somewhat dulled by existing issues of inefficiency and inflexibility. For example, exporters using the Trans-Siberian Railway are required to provide thirty days of advance notice whereas those employing the alternative sea route need only place a booking seven days in advance.

85 Due to its close proximity, the New Euro-Asia Railway/Highway invariably poses considerable competition to the Trans-Siberian Railway. Should the New Euro-Asia Railway/Highway be successful in attracting and diverting traffic away from the Trans-Siberian route, Mongolia risks being marginalized from the region's major trade flows. However, the New Euro-Asia Highway is also currently facing its own transit issues. This presents a window of opportunity for Mongolia to improve its infrastructure and industry quickly and secure a first-mover advantage in servicing transit trade flows.

4.1 Road Transport

86 A Road Masterplan had been developed for Mongolia in 1995. Since its implementation, most of the projects listed in the masterplan have been completed (resulting in the construction and rehabilitation of 1,300 km of new roads). At present, Mongolia has 49,077.9 km of roads, of which 45,239.43 km (92%) are low quality tracks and 3,838.47 km (8%) are paved roads. The paved roads are mainly located along the northern section of the north-south railway. [Figure 4-2](#) provides a more detailed breakdown of the type of roads in Mongolia.

Figure 4-2 Categories of Roads in Mongolia^{iv}



87 Mongolia's road density remains very low at 3.13km of road per 100km² (one-sixth of PRC's national average). Many of the roads in Ulaan Baatar are also showing signs of physical deterioration as they were built more than 20 years ago. It is estimated that only 0.1% of Mongolia's GDP was spent on road development when the international average is 1% of national GDP. At present, available funding comes from the State (through petrol and diesel taxes) and from each individual Aimag or province (through vehicle licensing fees and municipal taxes). There is an urgent need for the injection of fresh funds to finance the construction of new roads as well as for the upgrading and maintenance of existing roads.

88 To address the inadequacies of the national road transport system, the Mongolia government has recently identified several areas of targeted improvement as part of the country's 'Government Action Plan' (2004-2008)^v, including:

- Implement programs to develop an integrated network for roads, communication, information and energy.
- Improve the public infrastructure at tourist destinations.
- Raise the accessibility of remote areas such as the western regions of Mongolia (by constructing roads and bridges)
- Continue the focus on developing the Millennium Road networks.
- Widen income sources for the 'Road Fund' by improving the regulatory and tax environment.
- Promote private sector investment and involvement in the construction and maintenance of roads.
- Upgrade the conditions of selected road networks.

89 The national coordinating body for all such road transport initiatives is now the Department of Transport Policy and Coordination, Ministry of Road, Transport and Tourism (MRTT). The MRTT also works closely with Non-Government Organizations (NGOs) such as the Mongolian National Chamber of Commerce and Industry (MNCCI) as well as the

Mongolian Road Transport Association (MRTA) to improve the regulatory framework, investment conditions and the level of professionalism in the industry. In working on road infrastructure projects, the MRTT believes in public private partnership principles. For instance, the MRTT subcontracts most of the construction and maintenance works to the private sector. The MRTT is also now exploring the BOT (Build-Operate-Transfer) model⁵.

90 For the Mongolian government, the immediate emphasis in road improvement is the Millennium Road Project (of which some of the networks coincide with the Asian Highway routes. Comprising a long lateral length and five vertical sections, the Millennium Road network promises to bring a whole new level of accessibility to the underdeveloped western and eastern regions of Mongolia. A total of 7,546km of paved roads will be developed, of which a 2,653 km horizontal section will link Tsagaan-Nuur at the northwestern tip to Sumber border post in the eastern Dornod province.

91 Two other important highways form part of this network – that is the AH3 and AH4 highways. AH3 is a 1,009 km long highway that connects Sukhbaatar in the north and Zamyn-Uud in the south. This highway will complement the north-south railway by running alongside to provide multi-modal transport options across the country. At present, only the portion between Altanbulag and Sukhbaatar to Ulaan Baatar is well developed. ABD has plans to develop the section from Ulaan Baatar to Choyr while the remaining stretch from Choyr to Zamyn-Uud will still consist of low quality earth tracks.

92 The other AH4 is a 758 km long highway that links Russia and PRC via a land link (Yarant to Tsagaan-Nuur) in the western part of Mongolia. Though Russia and PRC already share a common border, local sources reveal that large/heavy trucks do usually transit through Mongolia due to its better road conditions vis-à-vis those in Russia. Through the construction of AH4, Mongolia would further strengthen its transit role in the region.

93 In addition to the above, there are also other road projects in Mongolia – mostly in the northern area where the main economic centres like Ulaan Baatar, Darhan and Erdenet are located. Interest has been forthcoming from international development agencies, including ADB, World Bank and the Kuwaiti Fund, to help support such developments. Meanwhile, smaller projects in the less developed areas have also begun to attract the attention of domestic investors (who will however need the government's support in developing more major trunk roads to these locations).

4.1.1 Key Assessment

94 Mongolia's huge land geography coupled with a low population base implies that public infrastructure projects in the country would typically require huge capital outlays with a significantly long payback period. With the lack of critical mass for profitable operations, the BOT model (with road toll systems) is expected to suffer from feasibility issues for the private

⁵ This could be somewhat difficult to implement as the Mongolians are not used to paying for road usage (there is currently no road toll system in the country).

sector investor. As such, public financing would seem to be the more realistic option. The Mongolian government could accordingly explore obtaining concessionary loans from international organizations, strengthening the tax environment and efficiency, as well as identifying a more effective model for allocating state and provincial budgets to road transport development.

95 It is important that the gaps in Mongolia's road transport system are quickly addressed. Roads are critical in lowering the country's typically high land transportation costs and in providing the last mile of distribution services (i.e. intermodal transport) that rail transport cannot address.

4.2 Rail Transport

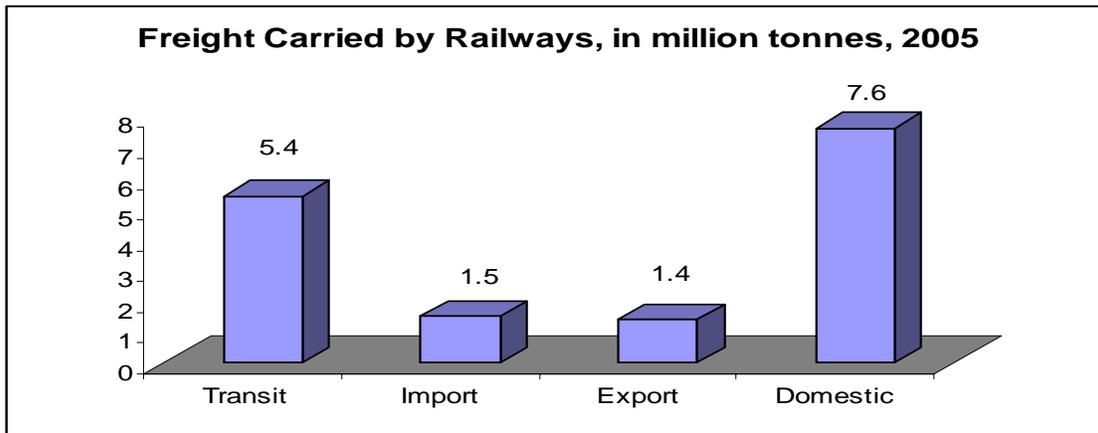
96 At present, Mongolia has 1,810km of railways of 1,520mm broad gauge width. The country's entire railway system is under the control of Mongolian Railways (MTZ) which is the 50-50 joint venture between the Mongolian and Russian governments. Due to the huge land mass that needs to be traversed, the railway mode has invariably become the essential backbone of Mongolia's land transportation. Products that are almost always carried by rail include those on international transit (including crude oil, timber and wood products, fertilizers and machineries), as well as the high value and bulky items such as foodstuff, scrap metal, chemicals, spare parts, animal hides and cashmere.

97 The north-south rail linking Sukhbaatar to Zamyn-Uud via Ulaan Baatar is the main artery in Mongolia's rail system. This line is a single-track rail that supports an annual freight capacity of four million tonnes of goods^{vi}. There is also another shorter (250 km) railway track in the eastern parts of Mongolia - starting from the city of Choybalsan to the border post Ereentsav, and then entering Soloveovsk (Russia). This track is however not linked to the main north-south line and is thus much less pertinent for transit trade.

98 Railways tariffs are currently regulated by the government and also subject to discount cuts for transit transport to encourage growth in this area. While rail transport offers more competitive pricing overall, road transport has been increasing in popularity due to more flexible schedules.

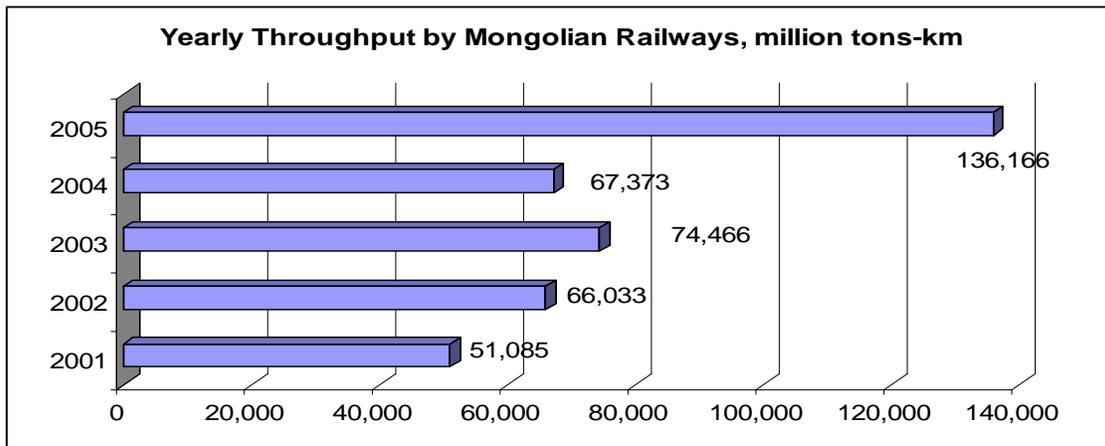
99 In 2005, total tonnage carried by rail in Mongolia was 16 million tonnes (see Figure 4-3)^{vii}. 34% of this volume was contributed by transit trade while domestic freight accounted for nearly half of the total quantity. Though transit traffic lags behind that of domestic transportation in terms of volume, the transit business is decidedly much more lucrative. For instance, revenue from transit freight contributed 76% of total freight revenue for Mongolian Railways in 2004. Transit transport also registered a higher margin relative to the other categories.

Figure 4-3 Freight carried by Railways (million tonnes), 2005



100 Figure 4-4 shows the annual throughput (in terms of tons-km⁶) of MTZ from 2001 to 2005. Evidently, the rail freight industry has seen much growth – with the annual throughput expanding nearly three times within a span of 5 years.

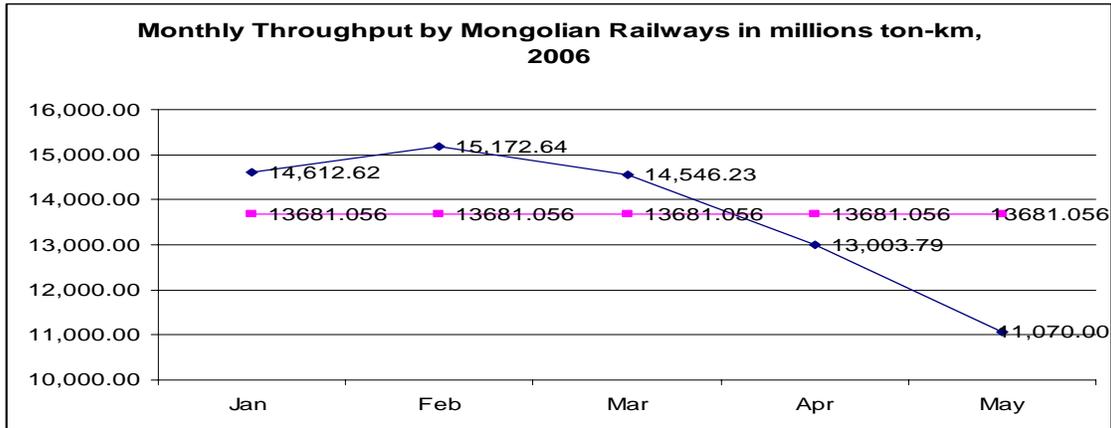
Figure 4-4 Yearly Freight Throughput carried by Railways (million ton-km)



101 Figure 4-5 shows a more recent performance in monthly throughput in 2006. Following a growth over the period of January-February 2006, the figure shows a steady drop from March 2006 to May 2006. The drop is attributed to the decrease in the discounts in railway tariffs for transit transport. This resulted in some diversion of freight to alternative routes and even road transport.

⁶ Rail tariffs are typically calculated by the distance traveled and the tons carried, thus 'throughput', which is the product of both distance and tons is a better measure than tons alone on the financial performance of a rail company.

Figure 4-5 Monthly Freight Throughput carried by Railways (million ton-km) for 2006



102 Despite its monopoly over the country’s railway system, MTZ has been operating at a deficit (partly due to its obligations towards its 15,000 staff). To improve its financial situation, MTZ may either raise its charges or secure more freight business. MTZ should also look into attracting investments to replace/service its ageing locomotives and even tracks. The lack of maintenance and increasing freight volume has since led to the deterioration of certain railway sections. MTZ’s locomotives are likewise old - about 20 years old on average. Huge capital outlays are now required to build new tracks and also to maintain existing assets.

103 Like in the case of road transport, the Mongolian government has made plans to improve the rail transport system in its ‘Government Action Plan (2004-2008)’. The major target areas include (i) raising the market demand and profitability of the rail transport system through aggressive promotion and competitive pricing, (ii) attract new railway investments, and (iii) studying and adopting new methods and technologies to increase the overall capacity of the railways. Recently, a program for track repair and upgrading has been initiated, including the installation of heavier rail and concrete sleepers. In addition, the government is considering various options to partner with the private sector for the raising of fresh funds (based on market principles) for future expansion.

104 The government also has plans to build electrified lines and a dual-track railway for the north-south line, which will raise the annual capacity to 15 million tonnes. Other planned developments include building a railway line from Zuun Bayan to Oyu Tolgoi (332 km) and another extension from Oyu Tolgoi to Tavan Tolgoi (150 km). These developments are in acknowledgement of Oyu Tolgoi’s (with its rich deposits of copper, coal and gold) potential as an economic (mining) cluster. These lines will facilitate the imports of heavy machines (to help in drilling and exploration) to the Oyu Tolgoi region. It was however assessed by this team that a railway extension southwards from Oyu Tolgoi to the border post of Gashuun Sukhait could be a better alternative to export bulky commodities to the Inner Mongolia and

PRC markets⁷.

4.2.1 Key Assessment

105 Railway remains the most important and dominant mode of transport for Mongolia. Already, major freight forwarders in Mongolia are putting together large-scale container block express train service packages for international freight in the region. Such packages provide dedicated rail services that links Ulaan Baatar to other markets with fixed schedules. One of the packages is the “Mongolian Vector” that enables transport between Europe and Mongolia while the other is called “Friendship” linking Mongolia to PRC.

106 The “Mongolian Vector” (see Figure 4-6) was conceptualised by Tuushin Co. Ltd⁸ who works with six other partners⁹ on this service to ensure a smooth journey. This vector is a rail service between Frankfurt and Huh-Hot, that leaves on the 15th and 30th of each month. To help manage the costs for traders, goods are given free storage at the warehouses in the two cities until enough consolidation is done for transport in standard-size containers. An armed guard accompanies the train throughout the service, helping to allay any safety and security concerns.

Figure 4-6 The Mongolian Vector



107 The “Friendship” service was launched by the International Freight Forwarding Centre (IFFC) of Mongolian Railways to ply the Xingang-Ulaan Baatar route. This is a fixed service that departs from Mongolia twice a week. Started since 28th May 2002, the service involves also the participation of China Railway Container Transport Centre and some freight forwarding agents.

108 In view of the private sector’s affirmation of the route’s feasibility, it is now extremely timely to target the development/rehabilitation of railway infrastructure. Such efforts may include constructing new railway lines which will require the government to explore different

⁷ It is a relatively expensive and time-consuming route to transport the minerals via a new eastern extension to the north-south line and then southwards to Zamyn-Uud.

⁸ The concept was formed by Tuushin during the Crete Conference for Euro-Asia transport corridors in 1994. The operations commenced on 15th March 2002.

⁹ The partners are railway authorities from Russia (Rikon), Belorussia (Belintrans), Huh-Hot, Poland, Czech and Germany.

financing options (the estimated cost of construction is US\$1 million per km of tracks). Alternatively, the government may also look into raising the capacity of existing railways by building a double track or electrifying the lines.

4.3 Air Transport

109 Mongolia has one international airport (renamed Chinggis Khan International Airport on 5th May 2006) with direct flights to Beijing and Huh-Hot (PRC), Moscow and Irkutsk (Russia) and Berlin and Frankfurt (Germany), Inchon (Korea) and Tokyo (Japan). There also plans to extend flight services to Singapore and Hong Kong. Another airport in the Dornod Aimag (province) was opened recently with flight links to South Korea. Overall, Mongolia has 48 airports^{viii} (of which 14 have paved runways and 34 have unpaved runways).

110 Passenger traffic has steadily increased over the years, and the airport authorities are now planning to expand the airport capacity. Airfreight however remains unpopular vis-à-vis land alternatives.

111 Local airlines MIAT and Aero Mongolia service domestic airports. For express and courier services, DHL Express is a leading player in the country. Due to legal restrictions on foreign enterprises, DHL partners with the Mongolian Postal Services for door-to-door deliveries in the country.

4.4 Water Transport

112 Mongolia has 580 km of waterway. Lake Hovsgol (135km); Selenge River (270km) and Orhon River (175km) offer navigable routes but carry little traffic. Most rivers and lakes freeze over in winter, so they are only operable from May to September. As such, waterway transport makes virtually no contribution to the overall transport industry.

4.5 Logistics Industry

113 Mongolia presently has about 60 freight forwarders, with only one-third providing integrated logistics services while the rest offer limited form of transportation. The major freight forwarders are International Freight Forwarding Centre (IFFC) of Mongolian Railways, Tuushin Co. Ltd, Erin International, Progresstrans Co. Ltd, and Mongoltrans Co. Ltd. Transit traffic forms a significant part of the business for most of them. Overall, about 10 Mongolian companies handle 60% of transit while Russia handles the remaining 40%. The IFFC holds a monopoly over the issuing of cargo manifest for rail freight.

114 In general, the key logistics players provide a more complete range of logistics services such as multi-modal transport, import and export documentation, customs brokerage and other value added services. They also provide better and bigger facilities like cargo terminals and warehouses. Tuushin has a container freight station near the Mongolian

Railways Station while Erin International has a customs special zone (similar to a mini-FTZ) where Russian timber is imported and processed before re-exporting to Japan. They also invest in better information systems.

115 In terms of customs coordination, the major freight forwarders typically house small customs offices (which are electronically linked to Mongolia Customs' main information technology system - GAMAS) within their own logistics centres to facilitate goods clearance. The smaller logistics players do not have this facility however and their customers will have to visit external common customs houses to clear their goods.

116 Recently, a limited number of foreign owned companies have had established their presence in Mongolia - mainly in the air express and courier and land freight sectors. For air express and courier, DHL, FEDEX and UPS are the existing foreign players. Due to foreign investment regulations, they are however required to form partnerships with Mongolian providers for local door-to-door deliveries. DHL, for example, has formed a joint venture with the Central Post Office while FEDEX is working with Tuushin deliveries. For road freight, PRC companies are now active in the areas of Zamyn-Uud and the Omnogovi Aimag for the transport of minerals (e.g. coal, copper) into Inner Mongolia.

4.5.1 Key Assessment

117 Mongolia's logistics industry is still underdeveloped. There are, for instance, no freight forwarding regulations in existence, though the government is currently evaluating the enactment of such a law to regulate practices on international trade and transportation. There is also a lack of electronic fund transfer (ETF) systems which requires freight forwarders to pay cash for rail reservations and transactions (this raises the risks in corruption and pilferage losses). Overall, freight forwarders in Mongolia currently face several issues including:

118 Lowering of tariff discounts for transit freight. Transit traffic provides an important source of business for local service providers. In acknowledgement of this, the Mongolian government usually offer a 15-30% discount for rail freight from Russia to PRC through Mongolia and a 30-50% rate cut in the opposite route. Starting March 2006 however, the Mongolian Railways has cut some of these discounts, resulting in a diversion of traffic away from the north-south railway and loss of business for the logistics companies.

119 Restricted access to Ulaan Baatar. With a population of close to one million people and increasing due to rural-to urban migration, traffic jams are very common in Ulaan Baatar during peak hours. As such, cargo trucks are not allowed to enter the city centre during working hours. This forces logistics companies to operate for long hours (sometimes 24 hours) which add to their operation costs.

120 Lack of consolidation in logistics facilities. There is basically no consolidation of logistics activities and no shared facilities in Ulaan Baatar at present (there are also no regulations on setting up such a zone). This results in a loss of economies-of-scale and thus higher unit costs for the local logistics providers. To address this, the government should look into centralizing storage facilities into one zone earmarked for industrial and logistics development, and building a large-scale modern integrated logistics centre to house the smaller players. This will allow them to upgrade their facilities and reap economies of scale from common supporting services like better security, power lines, water supply and container yards. This zone should also be located outside the city centre and near to the Railway Stations to raise transport efficiency.

121 High costs of information technology systems. Data management programs for freight forwarders are generally expensive¹⁰. It typically costs companies about US\$500 for the purchase of networking equipment, US\$50 for monthly broadband access and an average of US\$650 per user licence. Smaller logistics players thus find it hard to adopt IT improvements even if they are beneficial to their operations (loans are also expensive at 2.5% interest per month).

122 Inconsistent performance and poor service quality. Ground surveys have shown that the knowledge and service level of Mongolia freight forwarders are generally low. Some individuals do not understand INCOTERMS well and lack experience in handling international freight.¹¹ It is hoped that with a service grading system in place, companies may take more initiatives in improving their service quality and human resources.

123 Equipment deterioration. 40% of the vehicles (mostly located and registered in Ulaan Baatar) are more than 10 years old and showing signs of wear and tear. Such old vehicles are more expensive to maintain and add to the variable costs of running the operations. They also compromise the efficiency of the road transport industry. However, most freight forwarders continue to employ them due to the high costs (high interest rates) of upgrading.

4.6 Customs and Transport Agreements

124 On bilateral agreements, Mongolia signed a transit transport agreement (1992) and a road transport agreement (1996) with Russia, while a similar road transport agreement was signed with PRC in 1991. These bilateral agreements allow, in principle, mutual movement of trucks and goods between the countries. In practice however, Mongolian trucks are not permitted to enter into Russia and PRC territory. Russian and PRC trucks, on the other hand, do ply the Mongolia routes. Russian drivers transporting food and other necessities travel from north Mongolia directly to Ulaan Baatar while PRC trucks transport coal from Tavan

¹⁰ There are now about 60 software companies in Mongolia, with four companies being more established.

¹¹ This was brought up during the interviews and the UNESCAP workshop conducted in 17th to 19th April. An example was highlighted, where World Vision engages a small local freight forwarder to transport goods from overseas to Mongolia. The cargoes were seized at the Chinese customs for months due to incorrect and incomplete documentation.

Tolgoi (260 km from the border) to Gashuun Sukhait in the southern parts.

125 For transit access to seaports, Mongolia has signed a trade agreement with PRC in 1992 to use three of its ports. They are Tianjin (Xingang), Qingdao and QingHuangDao ports. The Xingang-Ulaan Baatar corridor is the main corridor being used by Mongolia sea exports to markets in Europe, America, Japan and South Korea. Port congestion is however very common at Xingang port, resulting in frequent delays (of three to five days) for Mongolian exports.

126 On 29th April 2006, the railway authorities of Mongolia and PRC signed a bilateral agreement to improve freight forwarding between the two countries as well as to reduce transit tariffs¹². The Chinese authorities promised to resolve the common problems of customs delays at Erlian for coal trains while Mongolia agreed to cut tariffs on all transit freight by 30% to 50% (except for oil). With this agreement, oil freight of above 5 million tonnes and carried by Mongolian Railways through Erlian will enjoy a discount of US\$1 per tonne as compared to the route through Manchuria. This helps to reinforce Zamyn-Uud's position as a gateway for Mongolia-PRC trade.

127 Nations Conference on Trade and Development (UNCTAD) is facilitating a tri-party agreement between Mongolia, PRC and the Russia on transport facilitation through Mongolia. Represented by the Ministry of Foreign Affairs. Although Mongolia had been working actively with the other two countries on customs documentation, systems, practices and tariffs, progress has been slow. There were varying concerns and issues on the negotiations that were beyond the control of Mongolia.

128 On multilateral agreements, Mongolia has joined the Convention on Transit Trade of Landlocked States (1965) and the TIR (2002). Additional benefits are seen to be forthcoming when PRC ascends into the Convention.

4.7 Key Conclusions

129 The key notable conclusions from this chapter's analysis may be summarised as below:

- a. As a landlocked country, Mongolia's geographical location between Russia and PRC offers both opportunities and challenges. Transit trade essentially becomes critical to the country's future economic progress.
- b. Mongolia's transit trade depends closely on the development of the Trans-Siberian Railway/Highway vis-à-vis the new Euro-Asia Railway/Highway. Services like the "Mongolian Vector" and "Friendship" block train services are excellent in positioning Mongolia as a crucial link in servicing the trade flows between Asia and Europe and deserve official endorsement. The two

12 The agreement was signed by Ulaan Baatar Railway chief Mr. V.V. Magdei and Erlian City Committee Head Mr. Zhan Guo Huo.

services can even be further integrated to link Frankfurt right to Tianjin, resulting in a new pan Europe-Asia highway.

- c. Investment in infrastructure is necessary to increase intra-country connectivity and inter-country linkages as well as to raise overall transportation efficiency. An example of a relevant project is the planned road construction from Choyr to Zamyn-Uud which will help to provide a potentially beneficial multi-modal transportation option in this economic cluster area.
- d. The construction of railways in the Omnogovi region is also recommended due to its strong economic potential. The railway should link the area to Inner Mongolia to facilitate the commodity flow for PRC's growing markets. An issue that could arise however is that of the current differing rail gauge widths between Mongolia and PRC.
- e. Private enterprises have commented that communication from the government could be improved. For instance, the companies felt that details of the national transport plan are important to their operations but not made available to them. The MRTT is encouraged to open more communication channels with the private sector and to continuously engage them. One encouraging sign is that improvements were observed, such as MRTT facilitating the UNESCAP Trade and Transport workshop in Ulaan Baatar from 17-19 April 2006, where there was a good dialogue between the public and private sector.

5 RECOMMENDATIONS

5.1 Mongolia's Strategic Positioning

130 Having analyzed the current situation in Mongolia, this section will outline a recommendation framework with numerous suggestions to address any impediments in trade and transport. Firstly, it is very clear that Mongolia domestic economy is relatively small and thus its very survival depends on external trade, especially riding on the economy boom of its two large neighbouring countries of PRC and Russia. Thus, the strategic positioning of Mongolia should be of a **'Transit Nation' which offers integrated, safe and efficient transportation such that goods and passengers can move seamlessly.**

131 To support this vision, Mongolia needs to implement favourable policies, adopt market principles, invest in infrastructure and enhance the capacities of the logistics sector, such that trade and transport impediments are minimized. To do this effectively, both the demand- and supply- side factors would need to be addressed for the transport industry.

132 The demand- side factors refers to increasing the demand for transport services, achieved mainly through attracting foreign investors to relocate or establish factories and plants in Mongolia, and the government adopting an export oriented trade strategy. The proposed Free Trade Zones (FTZs) /Special Economic Zone (SEZ) are important developments that deserve more focused governmental support and directions. This will build up the manufacturing capabilities of Mongolia (crucial to the country's long term development) as well as stimulate the demand for basic and advanced transport modes.

133 On the supply side, the existing transport infrastructure must be upgraded and expanded, and the logistics service must improve its capacity and quality to cope with increased demand. This report advocates the importance of 'Demand-first' priority, which then justifies the improvement initiatives for the supply side factors. Such an approach helps to reduce the probability of 'white elephant' logistics projects which lack market demand and usage after being constructed.

Figure 5-1 The Strategic Architecture

Strategic Positioning

"Mongolia as the Transit Nation, offering the route of choice that provides integrated, safe and efficient and seamless movement of goods and passengers.

Strategic Drivers

Demand-side Proposals – (i) Promote Manufacturing and Trade, (ii) Strengthen Industries, (iii) Improve Current Services and Introduce New Ones (iv) Develop Free Trade Zones/Special Economic Zone

Supply-Side Proposals – (i) Raise the Capacity of Rail and Roads, (ii) Construct and Upgrade Logistics Facilities (Integrated Logistics Centres, Trucking Terminal, Container Terminal), (iii) Develop the Logistics Industry

5.2 Demand-Side Proposals

5.2.1 Promote Trade and Manufacturing

134 It is strongly recommended here that Mongolia capitalize on the GSP¹³ Plus scheme to attract overseas investors to locate factories and plants in Mongolia. With no restrictions on duties and quotas to the European markets, it is expected that Mongolia's trade with the European Union (EU) will increase (Figure 5-2 shows the recent bilateral trade growth between Mongolia and EU). Mongolia can create a special department in the MIT to spearhead trade promotion with North Asian countries like PRC, Japan and Korea to setup manufacturing bases in Mongolia. PRC should be keenly interested as they can locate to Zamyn-Uud and further capitalize on the SEZ status. Besides directing interest to the SEZ, certain growth areas like the Ulaan Baatar – Darhan - Erdenet triangle can also offer investors another area to establish a manufacturing base.

Figure 5-2 Bilateral Trade between Mongolia and EU (Euro, millions)^{ix}

| | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 |
|---------------------------------|------|------|------|------|------|------|------|
| EU imports from Mongolia | 40 | 53 | 40 | 32 | 23 | 43 | 50 |
| EU exports to Mongolia | 60 | 78 | 88 | 78 | 96 | 105 | 99 |
| Balance | 20 | 25 | 48 | 46 | 73 | 62 | 49 |

135 On manufacturing, it is recommended a two-pronged strategy be adopted. The first is to increase the value of the local exports while the second is to add value to items in the transit trade. They shall be elaborated in the following sections.

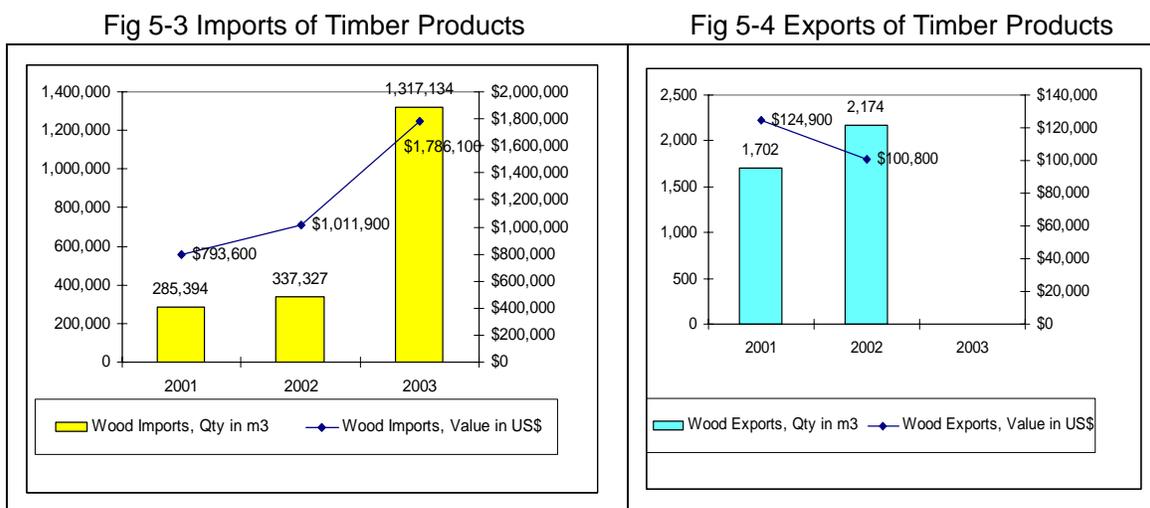
136 The first strategy considers the strengths of Mongolia's local produce and builds an industrial eco-systems to enhance their export competitiveness, along the metrics of quality, cost, reliability, efficiency or service level. Mongolia has been adopting this strategy as evident by the production facilities in the Ulaan Baatar-Darhan-Erdinet triangle. For example, cashmere producers like Gobi Cashmere are moving from production to design as well, up the value chain, instead of exporting only raw fur. Targeting heavy or high-tech industries immediately may be an unwise decision because of the large capital outlay and the lack of industry eco-systems to support such manufacturing.

137 The second strategy requires an analysis on raw materials that originates from overseas and passes en route to another country. By establishing production plants and logistics facilities along the main transport route, Mongolia can add some value to transform it from a raw material to an intermediate product. For instance, a value chain surrounding

¹³ GSP stands for Generalized Systems of Preferences, a scheme by the European Union that grants the status of Most Favoured Nation (MFN) to selected countries. Mongolia and Sri Lanka are the only two Asian nations that receive MFN. Under GSP, Mongolia can enjoy duty-free and quota-free access to 25 countries in EU on 7,200 products, including textile and meat.

woodwork and furniture processing be identified as a key industry. Based on the large amounts of high-quality timber from Russia via Mongolia to PRC, Mongolia can develop her own manufacturing capabilities in timber processing and related value chains to capture higher value and greater GDP. Furniture processing is also favoured because it is relatively low capital intensive, high labour intensive and low barriers to entry. The government can design incentives and expand the role of customs special zones in current warehouses and factories to encourage this industry.

138 Figures 5-3 and Fig 5-4 compare the import and export value of timber products. It is noted that the volume and value of timber imports (Fig 5-3) far exceeds that of exports (Fig 5-4). This implies there is much potential for Mongolia to exploit in adding more value to transit products. Raw timber coming from Russia via Altanbulag can be sent to timber processing plants, sawmills, and furniture centres to convert into intermediate or finished goods.



Source : Mongolian Customs General Administration (MCGA)

5.2.2 Strengthen Industries

139 Mongolia’s pillars of economic growth lie in mining and livestock/meat processing. These shall be examined separately, with different stimulus and improvement packages proposed for each.

140 Mongolia is well endowed with natural resources but the international community perceives investing in the mining sector as high risk. This perception is compounded by the weak infrastructure that adds to transport costs for importing specialized mining machines and exporting the commodities. On the perception side, the Foreign Investment and Trade Agency will have to take a more active and aggressive role in promoting the sector overseas. The government has also adopted measures to stimulate this industry, such as removing import taxes for drilling machines.

141 In addition to the three proposed FTZ/SEZ sites, it is recommended that Omnogovi Province be also studied as a potential site for a FTZ. In particular, the government can consider establishing Omnogovi as a 'Special Mining Zone' (SMZ) that enjoys the privileges stipulated under the Mining Law. To promote the 'Desert Economy', an industrial roadmap on strengthening the value chain integrating mining, oil and gas and related industries need to be planned (these plans will include policies to promote coal gasification, building oil refineries, etc.)

142 Mongolia's output of coal is seven million tonnes per year in 2005. Of this, 4.2 million tonnes are used for industrial use, 0.8 million tonnes for household and two million tonnes for exports. The price for each ton is US\$ 20 / ton for exports and US\$12 / ton for domestic uses. It is estimated that increasing the transport capacity of the region can increase the coal exports further.

143 On the livestock/meat processing industries, there are various recommendations. Firstly, aimags with high-risk exposure to stock losses (due to weather) will require the building of farmhouses that act as logistics centres to protect the livestock. Secondly, the SSIA can formulate a national policy on veterinary, agriculture and production for all related Mongolian companies to comply with, thus raising the hygiene level. Partnering with the Mongolian Meat Association (MMA), the third suggestion is to adopt the international standards of Hazards Analysis and Critical Control Points (HACCP)¹⁴ in all Mongolian meat processing centres, factories and transporters.

144 The MMA can also provide training, consultancy and audit services for implementing HACCP. Next, the MMA can spearhead the use of cold chain logistics, partnering with MFFA and MRTA. By controlling the hygiene level from production, storage, processing and distribution of meat, Mongolia should be able to convince Russia markets to raise their export quotas. At the same time, Mongolia should also look at diversifying meat exports into other markets such as PRC, Japan, Korea, Southeast Asia and South Asia.

5.2.3 Improve Current Transport Services and Introduce New Ones

145 There are two container block train services that serve transit trade in Mongolia. They are Tuushin's twice monthly "Mongolian Vector" that travels between Frankfurt and Hul-Hot, and IFFC's twice weekly "Friendship Express" that links Xingang to Ulaan Baatar.

146 Regarding the Mongolian Vector, the limitation is that the train only sets off on the 15th and 30th of each month. This implies a waiting time of about 15 days for a consignee if the

¹⁴ HACCP is a food safety management program aimed to identify possible points of contamination from production to delivery and adopts a preventive approach to reduce those risks. The principles are now integrated into a new ISO standard under ISO 22000.

goods reach the railway terminal¹⁵ just after the block train has left. The main reason for the twice-monthly schedule now is due to the limited volume of export and transit goods, and that is the reason why demand-side factors should be addressed to stimulate the growth of manufacturing and trade. With sufficient demand growth, it will be possible for the “Mongolian Vector” service to offer another schedule – e.g. leaving three times a month and shortening the waiting time to 10 days. Increasing the frequency of departure will be crucial because transport efficiency is compared based on price and frequency, especially for time-sensitive cargoes.

147 Another recommendation is that Tuushin can explore the feasibility of relocating the cargo consolidation centre from Hul-Hot to Zamyn-Uud. Currently, all Europe-bound goods are sent from all parts of PRC to Hul Hot to consolidate and stuff into containers, which then travel through Zamyn-Uud and Ulaan Baatar. It is difficult to fully control the safety and quality of goods and punctuality of trains’ departure in PRC. By relocating to Zamyn-Uud, it will boost the status of Zamyn-Uud as a SEZ and a transshipment hub. This move necessitates the construction of a cargo consolidation centre that has large storage facilities for goods in transit, railways networks and cross-docking terminal to facilitate intermodal transport¹⁶.

148 With regards to the “Friendship Express” service, it was revealed that the shipments (especially imports) sometimes face delays during customs clearance at Xingang. MCGA may need to officiate a meeting with the PRC customs to review the performance levels and explore how goods can be expedited to leave the port faster. Some suggestions include stating the final destination ‘Ulaan Baatar’ on the cargo manifest and labels of the cartons instead of ‘Xingang’, so it is easier to segregate goods meant for PRC or Mongolia.

149 Regarding export issues, PRC currently mandates that all wool and cashmere exports by rail from Mongolia must be transloaded onto trucks and use road transport to reach Xingang. This is due to PRC’s stringent quality control policy whereby SSIA lab tests are deemed insufficient to permit transport of these sensitive goods by rail. The trans-loading takes a maximum of 8 hours in Zamyn-Uud, and there is only one inspection warehouse for roads at Xingang, thus adding to the potential delay. The Mongolian government will need to both increase the perceived hygiene level of such products and the volume of wool and cashmere, so that the more cost effective “Friendship Express” can be used for the entire journey.

150 In addition, the MCGA should engage the Chinese customs on electronic data interchange, as many of the documents are still handled manually and little form of customs statistics exchange are done between the borders.

¹⁵ Tuushin provides free warehouse storage of the goods while waiting for the next schedule for Mongolian Vector.

¹⁶ From Xingang and other parts of PRC, Chinese drivers can use road transport to reach Zamyn-Uud, but the cargoes need to be transloaded onto the train wagons as the journey between Zamyn-Uud and Ulaan Baatar is only connected by rail.

151 Another recommendation is to promote a new transshipment service centred in Ulaan Baatar. Currently, PRC and Europe are facing a huge imbalance in container movement between the two countries. The trade flow between PRC and Europe is extremely unbalanced, with the flow from PRC to Europe much larger in volume. This results in a huge number of containers being sent to Europe via sea, but due to mismanagement and long distance, the containers are either left in the European ports, or returned after significant delays¹⁷.

152 Mongolian freight forwarders can help fill the market need by promoting transshipment services through Mongolia. Chinese shippers can send the containers to Ulaan Baatar where a Mongolian freight forwarder then unpacks, inspects and packs into Russian containers bound for Europe. The empty Chinese containers are then returned to Xingang or the point of origin. By providing this management services, Mongolian freight forwarders can charge a fee for each handling of containers, and greatly raise the attractiveness of the Trans-Mongolian route versus the sea route. To perform this, a container-handling terminal will be required, run by experienced Mongolian freight forwarders, such as Mongolian Express.

5.2.4 Free Trade Zones/Special Economic Zone Recommendations

153 The Mongolian Ministry of Trade and Industry has informed of their intention to upgrade the Free Trade Zones into Special Economic Zones to allow a wider range of services in these specified zones. They were also in the midst of updating related legislative concerns to reflect the new status and to remove conflicting clauses.

154 The status change to SEZs will allow the individual zone managers to increase their range of activities and also allow investors to tap into wider economic opportunities.

155 Reviewing the three designated zones, it is proposed that the development of the FTZs/SEZ could be prioritised in the order of Zamyn-Uud, Altanbulag and Tsagaanuur. This is notwithstanding the recognition of the strategic, social, economic and political importance of developing all three zones to bring employment and economic prosperity to the regions.

156 It is also recognised that the three zones have varying strengths and weaknesses. These attributes can be leveraged upon to create three zones of different focus. Thus, differing strategies and action plans will be proposed separately for the zones.

157 The importance of creating successful zones should not be overlooked. Successful implementation of one zone will encourage investors to look at opportunities at the other zones as well as the other parts of Mongolia. Conversely, lack of progress in the zones can be a negative indicating factor to the potential investors.

¹⁷ The high cost of empty containers can be illustrated as follows: Sino-Trans give 15 free days after unstuffing of containers, but charge US\$10/day/TEU and US\$20/day/FEU.

Zamyn-Uud Special Economic Zone

158 Zamyn-Uud's proximity to PRC is a huge supporting factor for the recommendation for it to be identified as the first zone for full-scale implementation. Although there is currently no development within the zone, the surrounding areas of Zamyn-Uud town does offer relatively better infrastructure (thus requiring less infrastructure investment as compared to the other two zones). In addition, investors from PRC have already indicated their interest in setting up factories in Zamyn-Uud to manufacture finished products for export to the European Union. This is to take advantage of the tax exemption that Mongolian products enjoy in the European Union.

159 It is recommended that the positioning for Zamyn-Uud be **Mongolia's regional logistics hub and manufacturing centre**. The following identifies several action plans for the commencement of Zamyn-Uud SEZ's development.

Zone Masterplanning

160 To assist the newly appointed zone manager in zone management, it is proposed that a world-renowned consultancy firm be first engaged to conduct a masterplanning exercise for the zone. Before this step is taken however, it is strongly recommended that the contract issues with the company West Paradise be resolved as soon as possible. In the event that West Paradise be deemed not suitable as the zone manager, a selection process for a new zone manager should be launched. The contractual dispute with West Paradise is holding up the development of Zamyn-Uud and investors will have limited time to exploit the opportunities afforded by the MFN status accorded to Mongolia by the EU.

161 Once the ownership issues have been resolved, masterplanning may commence. As a preparatory study, the scope of reference for this masterplanning exercise should include the following:

- Study existing industries and research on the take-up rate for industrial land over the last 10 years.
- Identify growth industrial sectors and assess whether Mongolia can attract these 'growth industries', taking into account the physical and infrastructure constraints within Mongolia.
- Assess the market demand for long-term industrial space in Mongolia and identify the type of potential industrial clusters likely to take up space within the zones.
- Analysis of existing markets for the existing industries. Based on target industries identified, the plan should study the upstream and downstream value chain so as to map out appropriate markets.
- Prepare a list of investors' requirements and assessment criteria that determines their choice of the site to invest.
- International/regional market positioning of Mongolia.
- Assess the sufficiency of skilled and semi-skilled labour in Mongolia in supporting the target sectors.

- Diagnostic review of the operating environment in Mongolia.
- Undertake a social infrastructure audit study in and around Mongolia
- Assess the availability of infrastructure / utilities / transportation / logistics in relation to the development plan.

With a masterplan that is agreed upon by both the public and private sector, the zone manager can then move forward with the implementation.

Infrastructural Development

162 Notwithstanding the results of the masterplan, there are certain infrastructural developments that require the consideration of the relevant authorities if the zone wishes to attract more investors.

Road connections to Zamyn-Uud

163 Existing work on extending a road connection to Choyr should be expanded to connect a road to Zamyn-Uud. The road connection will allow trucks to move from Zamyn-Uud to Ulaan Baatar, thus allowing a second mode of transport and competition for rail operations.

164 The establishment of an alternative to rail operations will also allow more economic activities for individual trucking companies. Similarly for the users of the freight services, they have greater flexibility as trucks can then offer smaller capacities and be dispatched on shorter notice.

Airport

165 Currently, travel to Zamyn-Uud is restricted to rail and the journey from Ulaan Baatar takes about 12-15 hours. This long journey will deter potential investors. A feasibility study could be conducted to explore the feasibility of constructing an airport at Zamyn-Uud.

Logistics Facilities

166 To support the growth of Zamyn-Uud into a full-fledged SEZ, logistics facilities will need to be developed extensively. A central warehouse manager could be appointed to set up a central distribution centre to manage the flow of goods in and out of Zamyn-Uud. It can also be a holding place for finished products in transit for export out of Mongolia. To facilitate multi modal transport, a cargo terminal can be built next to the logistics centre.

167 The customs modernisation process should be continued with plans to link the customs with the other logistics facilities to facilitate and monitor the movement of goods. Tax calculations could also be systemised and automated to allow faster computation and fewer errors. Records would be also being easier kept thus allowing data to be collected for future improvement of the system.

Transport Policies

168 The Mongolian government should consider permitting incoming LCL trucks to trans-load into container terminals while awaiting cargo clearance. The customs could also allow the cargo to be sealed and transported to Ulaan Baatar for clearance. At Ulaan Baatar, goods that are tax-exempt could be released immediately for shipment to clients while the remaining goods can be held for further processing. This would increase the efficiency of the logistics process. Currently, good could be held up to seven days and cost US\$20,000 per truck.

169 In anticipation of higher traffic at the customs terminals, it is proposed that the passenger and cargo lanes be segregated for faster processing.

170 The Mongolian government can also initiate discussions with the PRC government to remove the existing “crossing fees” and “translation fees” at Erlian for Mongolian traders. These fees are implicit taxes on trade and undermine the flow of goods and discourage the growth of the trading community.

171 In anticipation of the ascension of PRC to TIR, a special express lane can be set up for Chinese cargo trucks using TIR.

Local Enterprise Development

172 Local Mongolian enterprises have demonstrated their potential and ambition for a regional role. An example is Tuushin which conceptualised and put in operations the “Mongolian Vector” service. To encourage further such activities, the Mongolia government should support the local enterprises in their growth to become larger international enterprises (for example, Tuushin has indicated their interest in shifting their operations back to Zamyn-Uud in Mongolia from Hoh Hot to reduce the number of customs checks required. Tuushin could be given certain incentives to do this). With more support, other logistics enterprises will be encouraged to set up similar innovative services to raise the profile of Mongolia as a transit hub.

Altanbulag Free Trade Zone

173 Lying at the other end of the Trans Mongolian Railway and located next to the Russian border, Altanbulag is ranked second in the priority list for implementation.

174 Altanbulag’s strengths are due to its proximity to the Russian border, the Trans Mongolian Railway and the nearby industrial towns. Altanbulag has the potential to be developed into **an integrated trade, commercial, retail and tourism hub targeting Russian tourists and business visitors.**

Zone Masterplanning

175 Similar to Zamyn-Uud, a masterplanning exercise for Altanbulag is proposed to be commissioned to produce a blueprint for a zone manager to implement. The masterplanning by an international consultancy will identify the possible industries for development. A well-done masterplan will also help the zone manager to market the zone to overseas investor as the objectives and infrastructure would be clearly defined.

176 While the zone requires further development, the town of Altanbulag already has some tourism facilities that could be exploited to serve the region. Commercial and retail activities can be planned to provide more activities for visitors to the area. The masterplanning exercise should also include the tourism element to evaluate the activities that can be included to attract both locals and foreigners to the area.

Infrastructure Development

Logistics Facilities

177 A central storage facility can be constructed to serve the needs of the zone when manufacturing plants are set up. This facility will serve as a holding area for goods in transit while awaiting export out of Mongolia.

Rail Extension

178 A rail extension from Sukhbaatar should be considered when more economic activities are performed at Altanbulag. A 24-km extension could be built to facilitate faster movement of goods, thereby linking Altanbulag to the mobility that the Trans Mongolian Rail offers. A rail extension will also attract more investors, as it would demonstrate the commitment of the Mongolian government to the development of Altanbulag.

Economic Development Policies

179 The Mongolian government can initiate discussions with the Russian government to allow special day-trip visas for Russian visitors to visit Altanbulag to enjoy the proposed tourism facilities. This will accelerate the growth of the zones to include hospitality, retail and banking facilities, which will in turn attract more investors due to better living conditions.

180 Similar immigration arrangements could also be made for Mongolian to visit the Russian territories. This will allow Mongolian traders to visit Russia and increase economic activities between the two countries.

181 Overall goods and tourists movement should be simplified to expedite the higher flow of traffic between the two countries. This will increase the economic activities and, eventually, prosperity of the region for both countries.

Industry Policies

182 Currently, there is much timber being transited through Mongolia to PRC. Mongolia can tap on this timber flow by establishing a timber-processing centre to produce higher value-added activities such as processed wood, furniture, etc. Evaluation of this proposed

industry should be done quickly and the required infrastructure of timber mills, training school, etc, will have to be set up to service this industry.

183 Similarly, the garment industry has been suggested as a probable industry for Altanbulag. This is due to the larger animal husbandry industry in Mongolia. Raw animal hides are produced directly in Mongolia and there is a need to provide higher-value added through processing of the raw materials. As in the timber-processing industry, evaluation of the garment industry has to be conducted quickly so as to assess the required infrastructure for the development of the industry.

Tsagaan Nuur Free Trade Zone

184 Tsagaan Nuur represents a unique challenge for development as a FTZ due to its sparse population, remote location and extreme weather. However, Tsagaan Nuur is located in the connection between Russia and PRC and once the AN4 is completed, there will be heightened economic activities there between the two countries.

185 Tsagaan Nuur's strategic position near the Chinese and Russian borders makes it a potential candidate to be an economic activity hub for not just the western Mongolian region but also for the neighbouring Russian and Chinese territories.

Zone Masterplanning

Establishing another Free Trade Zone

186 The current FTZ site was chosen for its historical significance as a trading post in the past. There is also existing infrastructure in terms of warehousing. Nonetheless, the lack of paved roads in the region and harsh weather conditions makes it a difficult area for the successful implementation of economic activities.

187 In view of this, it is proposed that a study be undertaken to assess the potential of an alternative adjacent site (while still keeping the current site for future development) near the provincial centre of Ulgii within Tsagaan Nuur. In comparison to the current designated site, Ulgii has a larger population, more developed infrastructure (including an airport), more economic activities and better weather conditions.

Infrastructure Development

AH4 Highway

188 The construction of AH4 should be expedited to facilitate the growth of transit traffic through the region. AH4 will also provide a smoother and quicker access to and from the provincial centre of Ulgii with Russia, PRC and Kazakhstan (via Russia).

Industry Policies

Target Industries

189 Local officials had made several suggestions on increasing the economic activities of the region. These suggestions include

- Processing of wheat imported from Russia and Kazakhstan
- Processing of meat products for re-export to Russia and Europe
- Production of animal feed
- Horticultural development with vegetable farming (e.g. potatoes)
- Fish export with the lakes of Tsagaan Nuur, Kholboonuur, Achitnuur and Tolbonuur as the areas for production
- Production of medical supplies with the use of herbs existing in the area
- Establishment of a brick factory to supply to the FTZ and export to Russia
- Processing of timber from Russia into furniture for sale in the region and export to PRC
- Processing of wool for export
- Production of garments for export
- Establishment of a trade centre

However, more research is required to review the viability of these suggestions prior to implementation.

190 While efforts should be continued to develop the economic activities of the region, the local authorities might want to consider implementing a strategy to gradually build up the local economy by focusing on existing trades and industries. Building up these economic pockets of activities will in turn attract greater investments in other supporting business such as banking, communications etc.

Entrepot Centre for the Region

191 To take advantage of the potential increase in trade between Russia and PRC, a wholesale centre could be set up to serve the needs of traders from the three countries. Traders can use the wholesale centre to trade and negotiate contracts, thus making Tsagaan Nuur the entrepot centre of the region.

192 After setting up the entrepot centre, the local authorities can support its development by waiving taxes on the goods or even providing subsidised rentals for the stalls to encourage traders to set up shops with the centre.

Local Enterprise Development

193 The pre-dominant economic activities of the region are animal husbandry related. Economic development centred on this industry should be encouraged to build up a vibrant local industry. Existing cattle herders could be taught to upgrade their animal husbandry skills.

194 Research centres on the prevention of diseases, productive animal husbandry skills, better cross-breeding techniques could be taught to the herders to raise their skills and awareness of the latest trends in this industry. These research centres should be affiliated to local universities to tap on the knowledge of the academics. In addition, funds should be raised to provide more research on diseases prevention and breeding techniques.

195 In addition, a tannery centre can be set up to process the leather by-products of the meat processing industry. The leather produced can, in turn, be used to produce higher value-added products such as footwear and bags etc.

196 The development of these cottage industries will upgrade the livelihoods of the locals and in turn create demand for higher-end economic activities such as banks, logistics centres etc.

197 Other identified industries include soap production, brick production, cashmere processing, dairy products etc. However, it is crucial that the local authorities undertake research to study market demand before seeking investors in these industries. Certain industries might not be suitable for Tsagaan Nuur due to its location and existing infrastructure.

5.3 Supply-Side Proposals

198 To serve the increase in cargo volume, the capacity of the transport and logistics services must be able to meet demand at a cost effective rate. In this section, recommendations that deal with each mode of transport, as well as enhancing the logistics sector will be elaborated.

5.3.1 Rail Transport

199 The Mongolian government may need to review the structure of the Mongolian Railways company, currently owned equally by the Russian and Mongolian government. The former has not been positive on the expansion of railway capacity and thus may hinder Mongolian attempts to invest in additional tracks and facilities for transit traffic. While it is unlikely that the Russian authorities reduce their shareholdings in the company, the Mongolian government may still work closely with the local private sector to create a new and independent entity that uses a mix of equity and debt to finance new projects. Such public-private partnerships also serve to direct some freight traffic, which could have travelled along the sea route, to the railways. The implementation of this strategy makes economic sense to complement the Special Mining Zone, where there is economic justification for constructing new rail tracks in the Omnogovi region. Mining companies like IMMI could be invited to have a stake in the new entity.

200 Besides new construction, increasing the current capacity of the north-south railways and rehabilitation efforts are also important. Construction of a double-track system along the 1,000km long north-south railways would require an immense amount of investments. It is suggested that the Mongolian Railways investigate another technology called the double-stacked trains to increase rail capacity. Invented in US in 1984, the double stack rail cars provide higher capacity and security by cradling the lower container so that their doors cannot be opened during transit. Using specially engineered rail cars that carry two tiers of containers instead of one, such technology can avoid the need to construct new rail tracks,

reduce the locomotive power and the manpower at the railways terminals. Thus the current resources can be maintained to support two times the current freight volume in theory. Successful operations of double stack railways systems can be studied from APL and Pacer International in U.S.

201 Operational parameters to measure rail efficiency are price, time, reliability and flexibility. Rail transport is typically more cost effective compared to road transport, especially over long distance, but may suffer inferior performance in terms of longer time, less reliability due to different customs practices at the borders and less flexible schedule. On pricing, the Mongolian government needs to review the tariff discounts structure, as data seems to indicate that rail pricing is elastic. By raising prices, the risk is that cargoes are then diverted to alternatives like the new Euro-Asia route, bypassing Mongolia totally. In theory, cargoes transported by railways can reach Europe in 15 days, compared to 45 days by sea. However, border crossing creates much delays and this could only be addressed between governments. Thus the Ministry of Foreign Affairs will need to accelerate the conclusion on the discussion on 'Transit Transport Framework Agreement'¹⁸ with PRC and Russia. Moreover, it is suggested that Mongolian Railways propose the purchase of long-term contracts with Russia to secure lower operating rates in order to increase the cost competitiveness of the Trans-Mongolian route.

202 Finally, as mentioned in the strategy for manufacturing and trade, the government can add incentives to the development of the timber processing industry by providing greater 'preferential discounts'¹⁹ to the shipment of furniture. This is to encourage manufacturing and value added activities, rather than just facilitating the movement of raw timber. Tariff discount is a tool that the government can use to target to accelerate the growth of selected key industries.

5.3.2 Road Transport

203 As railways construction is long term and entails heavy financial commitments, the building of roads presents an attractive alternative to raise accessibility to different parts of Mongolia. At present, different parts of the country have different stages of road infrastructure developments, with the north and the cities of Ulaan Baatar, Darhan and Erdenet enjoying a higher road density than the eastern, western and southern parts of Mongolia.

204 It is proposed that a zonal approach (central, north, south, east, and west) be adopted in planning for road developments in Mongolia. Following market principles where economics dictate the allocation of resources, it is recommended here that the priority of new road construction be made in the following order: (1) Complete the parallel road along the

¹⁸ Six rounds of negotiations have been completed since 1998. The main agreement is done, but the talks are now focusing on the appendixes. No date of completion is stated.

¹⁹ A distinction is made here between rail tariff discounts and preferential discounts. The former relates to current practice of offering discounts to all shippers, while the latter refers to discounts only to certain industries that Mongolia wish to target.

north-south railways, (2) Maintain and upgrade the current roads in the central and north zones, (3) Build a road networks in the south, (4) Extend and upgrade roads in the east zone and (5) Develop and upgrade the roads in the west zone.

205 The first priority is to complete the AH3 highway. This refers to building a 238 km road linking Ulaan Baatar to Choyr, a 225 km road linking Choyr to Saynshand and a road of similar length from Saynshand to Zamyn-Uud. The total length of this road will be slightly less than 700 km, and once completed, will serve as a new trunk road for Mongolia, permitting intermodal transport and creating a new route that complements the railways.

206 Next, most of the central and north zones already have paved roads. Being areas with high economic activities, it is advisable to raise the paved road density higher to facilitate movement of cargoes and passengers. As such, the aimags of Tov, Selenge, Darhan-Uul and Orhon should receive funding for new roads and upgrades. These efforts will create a new transport system with Ulaan Baatar as the focal point.

207 The south zone, notably the Omnogovi aimag, should also have roads that radiate from Dalanzadgad, and passing by the important mines at Tavan Tolgoi and Oyu Tolgoi. It is suggested that two paved roads be built, a 130 km road linking Oyu Tolgoi to Gashuun Sukhait and a 50km road extending from Oyu Tolgoi to the town of Hanbogd soum²⁰. The first road allows greater ease of transport of copper and coal to Inner Mongolia, while the second allows ease of transport for passengers commuting Hanbogd soum to Oyu Tolgoi. Next, the government can discuss the possibility of building a rail line linking Baotou of Inner Mongolia to Oyu Tolgoi via Gashuun Sukhait, thus offering an intermodal transport. A railways line can also extend from Zuunbayan along the north-east line to Oyu Tolgoi and Tavan Tolgoi, thus forming a railway loop.

208 The eastern aimag of Dornod is another area with huge deposits of coal and gas. There is a railway line but it does not connect to the north-south railways, ending at Choybalsan. Examining the data, 40% of railway capacity for transit transport from Russia to PRC is to transport crude oil²¹. To alleviate stress on the railway capacity, Mongolia government can explore the construction of a network of roads with oil pipelines to the east and west of the country. This will allow the transport of liquidified coal or gas through the pipes directly to destinations, without the need to perform domestic transport via trucks to the north-south railways and then trans-load onto trains.

209 The western zone is a challenging area, with relatively lower standards of living, high incidence of poverty, economic activities and rural-urban migration problems. Roads will be an important consideration to improve the standards of living there, but this zone will be the area that requires the most assistance in funding. This is the reason for putting the

²⁰ Hanbogd soum is the nearest town to Oyu Tolgoi. Housing workers permanently in Oyu Tolgoi is expensive, costing US\$30 per person per day due to special housing, food and energy. The bulk of workers should be housed in Hanbogd soum to lower operating costs over long term.

²¹ According to British Petroleum's estimates, PRC's demand for crude oil to drive her economy could be as high as 170 million tons per year.

emphasis of the other zones first, but this does not mean to ignore the western region entirely. Loans and grants, if secured, could be diverted to this zone to complement the building of AH4. The plan for roads will connect Bayan-Ulgii, Gobi-Altai, Khovd, Uvs and Zavkhan. To improve the accessibility of the Tsagaan Nuur FTZ, a 79 km paved road will be needed to connect Olgii and the FTZ.

210 Finally, the formations of the above road plans can be integrated into one national master plan to be updated by the MRTT. These plans should be shared with the private sector and Non-Government Organizations like the MNCCI, MRTA, MFFA etc to receive feedback and for joint investment projects where applicable.

5.3.3 Logistics Facilities

211 The recommendations here are to develop a central logistics centre, a comprehensive trucking terminal and a container-handling terminal.

212 Currently, there is a lack of modern and integrated logistics centres in Mongolia (including in Ulaan Baatar). A common feedback from freight forwarders is that they have to own a facility to run logistics operations. From a financial standpoint, this means tying up working capital that could be better invested in other areas of operations. In addition, many storage facilities are small in size and need repairs. It is proposed that one or more public warehouse be constructed to provide a modern and integrated logistics centre for freight forwarders to house their inventory and distribution functions. By centralizing the facilities, economies of scale in investments can also be obtained by sharing common resources such as security, better power and water systems, etc.

213 The comprehensive trucking terminal is an earlier initiative led by the Transport Regulation Division of MRTT (but which was aborted due to lack of funds). According to MRTT, there are more than 200 trucking companies (mainly one-man operations) that are located in capital without proper facilities for conducting business and operations. It is proposed that a trucking terminal with offices and yards be built for cross-docking operations. This terminal can also contain diagnostics centres for vehicle servicing (which will help to keep servicing costs low).

214 The container-handling terminal will encourage the development of containerization and facilitate the new service of container management described earlier. This is a sizeable investment, which requires large terminal area container docks and expensive equipment like yard cranes. A feasibility study on the specifications on the use of double stack container trains on the terminal also needs to be done.

5.3.4 Logistics Industry

215 The first issue to address is the status of the lead agency that champions the development of transport and logistics. At present, there are many organizations involved

(either directly or indirectly) in transport and logistics development – including the MRTT, MTZ, the Council of Transport and Logistics in MNCCI, the MFFA and the MRTA, as well as the SSIA, the ICTA, MIT etc. An agency that has the authority to coordinate between different organizations will help streamline the approval of new initiatives and provide a one stop shop service on advisory, consultancy and disputes settlement issues.

216 The second issue to resolve is the inconsistent standards in the logistics industry. To improve overall standards, it is proposed that the MRTT (supported by MFFA) takes the lead in implementing national classification systems to rank the companies into Class A, B and C. The best rank is given to full service providers that have shown consistent track records, invested adequately in facilities, staff, resources and information systems and of sound financial standing. Moreover, the MRTA now organizes basic courses for drivers, and it is felt that they could expand their educational services to include FIATA approved courses in international freight forwarding and integrated logistics management. This is to help Mongolia address the shortage of skilled workers in the logistics industry.

217 On the international front, there are some two matters that deserve attention. The first one is PRC's accession to TIR. Mongolia is a signatory of TIR and implemented the protocol in 2004, with six of Mongolia's border posts²² designated as passes for TIR. However, the benefits have been limited so far due to PRC's non-participation in TIR (PRC is still comparing the cost-benefits of joining TIR). To quicken the pace of PRC's accession into the TIR convention, Mongolia may proactively assist in PRC's cost-benefit analysis and help demonstrate the benefits to PRC.

218 The other issue is on mutual access into each other's territory. Bilateral agreements now permit PRC drivers to drive 100km into the Omnogovi aimag (mainly to transport coal). Mongolian trucks are however required to stop at the PRC border and not allowed to participate in logistics activities on PRC land. Perceived as unfair treatment, this arrangement has caused friction in the Mongolian industry with possible long term negative effects. Since September 2005 for example, all traffic carrying coal from the Tavan Tolgoi mines to Inner Mongolia was suspended due to protests over PRC's involvement in such freight. This has affected the level of economic activities in that region.

6 IMPLEMENTATION PLAN

219 This chapter discusses the key aspects of project implementation. This includes the identification of stakeholders, public-private partnerships, review and reporting mechanisms, and project financing. Next, a summary consisting of investment proposals (typically requiring significant capital investment for the construction of transport infrastructure and facilities) and capacity building initiatives that include policy reforms, regulations and public-private partnerships are provided.

²² The border posts are Yarant, Tsagaan Nuur, Borshoo, Altanbulag, Ulihan and Ereentsav.

6.1 Stakeholders

220 The effort to enhance Mongolia's transport and logistics infrastructure needs involvement from multiple agencies and organizations. While it is impossible to identify each and every participant, it is important to mention the key stakeholders. They can be broadly categorized into those representing the public sector and those representing the private sector. Key stakeholders in the public sector include MRTT, MIT, MCGA, MTZ, SSIA, ICTA and the various agencies running the FTZ/SEZ. Those representing private sector includes MNCCI, MFFA, MRTA, MMA and established freight forwarders and trucking companies, such as IFFC and Tuushin.

221 Managing multiple agencies will be difficult if there is no lead agency that provides the leadership, coordination and communication. Two ideas are proposed here. First, a national steering committee headed by a Minister be created, where the committee members consist of representatives from the different stakeholders. The members in the steering committee will head the individual working or functional groups, that can be categorized around regions (north, east, west, central and south of Mongolia) or modes of transport (air, road, rail). Second, MRTT can take the role of the lead agency, offering the resources to lead, organize and review the various initiatives.

222 There are strong cases for the recommendation of MRTT to take a stronger role. First, the lead organization is preferably from the public sector, who is directly involved in the legislation and execution of national plans. Private organizations may lack the political clout or the economic resources to implement large scale initiatives. The second reason is the lead organization should be directly involved in transportation and logistics issues. MRTT satisfies both the conditions above. In addition, it is also noted that MRTT has prepared a national plan to improve the transport infrastructure for both passenger and traffic.

6.2 Public Private Partnerships

223 Prudent transport policies and regulations are needed to ensure the long term benefit and sustainability, as measured by three metrics^x (i) economic and financial sustainability, (ii) environmental and ecological sustainability and (iii) social sustainability. Sometimes, trade-offs are inevitable, such as increased economic growth at the expense of environmental erosion. As far as possible, institutional reforms and regulations that can improve all three sustainability metrics should be performed. Mongolian government has a history of intervening in the market such as the formation of MTZ and MIAT, but this is necessary due to the transitional stage of the economy. It is advocated that the government continues to serve as a regulatory role, but explore more opportunities for letting private enterprises and market principles run operations where possible. This will avoid the public sector 'crowding' out effect. PRC is adopting this strategy in the development of numerous logistics centres and parks. Singapore's TradeXchange²³ is a modern example of public private partnership. In this respect, MNCCI will play a very important role in communicating the business opportunities to its members while letting the government know the feedback of any changes in transport policies or investment proposals.

6.3 Review and Reporting Mechanism

224 With so many initiatives, a critical success factor is to develop well-defined key performance indicators (KPIs) to measure the progress and success of each initiative. KPIs are widely used in corporations as a performance measurement tool. For example, road density (km of roads per km² of land) can be a measurement to assess the efforts directed towards measuring accessibility of the country. In the initial period, the focus of the steering committee is to develop a comprehensive and meaningful set of KPIs, via consensus among the different bodies.

225 Next, it is recommended that the working groups meet monthly to review progress and highlight key issues. The steering committee can meet every quarter to decide or strategic issues, such as resource allocation or launch/abortion of certain initiatives. Next, the KPIs and the progress of each initiative can be published on government portals to display transparency and accountability of each project. (It is observed that a number of government agencies do not have a website, but ICTA is aggressively promoting e-Government. It is suggested that ICTA leads in this initiative to link all the public agencies websites). Finally, incentives and disincentives are indispensable to ensure that time, energy and resources are devoted to the completion of each initiative. For the representatives from the private sector, awarding business contracts and investment items would be the strongest motivation.

23 TradeXchange is Singapore's latest effort to re-engineer TradeNet. This project is expected to complete by Oct 2007, and will facilitate cross border trade and seamless communication between all trading and supply chain partners.

6.4 Project Financing

226 To estimate the total investment sum for improving the transport and logistics infrastructure will be the objectives of a second technical assistance (TA). The capital derives from three potential sources, namely the government budget, the private sector and international organizations. Government budget will be required for areas where there is little commercial viability but is needed for environmental and social sustainability, such as extending roads to the remote regions of the country. The recent sharp increase in the prices of commodities like copper prompted some ministers to discuss the adoption of a 'windfall' tax on mining companies. If so, part of the budget surplus could be used to create a fund for the transport and logistics sector. In other areas where there is profit potential and yet heavily regulated by the government, market principles could be permitted where ownership is transferred gradually to the private sector. This encourages competition (by permitting more private enterprises to participate in a formerly monopolistic environment) and reduces the burden on government funding. Finally, for massive projects that require multi-million dollar funding, international organizations like World Bank, IMF and Asia Development Bank could be arranged to discuss grants and loans. Private equity firms are sometimes invited too.

227 A favourite mode of implementation could be BOT (Build-Operate-Transfer), such as building of a toll road. The road will be constructed by an international consortium and run for twenty years, where vehicles pay a toll to the operator. After a certain number of years, the ownership of the road is returned to the government, while the operator has earned a return from the toll fees collected. One of the key tasks for the steering committee is to determine what the best mode of funding for each initiative is.

228 Various recommendations have been provided in Chapter 5 of which some are strategic recommendations that have nation-wide implications while others are tactical in nature targeting to address a specific issue. The two recommendation frameworks are presented in Figures 6-1 and 6-2 respectively. These proposals would serve as a guiding list for the Mongolian government in their prioritising of programs for the country's logistics development. It is further recommended that the MRTT be involved as the lead agency to coordinate and execute these proposals.

Figure 6-1 Investment (Hardware) Proposals

| S/N | Investment Proposals | Descriptions | Stakeholders | Priorities |
|------------|---|--|---------------------------------|-------------------|
| 1 | Complete the building of AH3 | Extend paved roads from Choyr to Saynshand (225km) to Zamyn-Uud (225km) | MRTT | High |
| 2 | Increase road density in north/central region | Upgrade and maintain roads in cities Ulaan Baatar, Darhan and Erdenet, and aimags Tov, Selenge and Darhan-Uul. | MRTT | Medium |
| 3 | Build roads in Omnogovi | Build a paved road between Oyu Tolgoi to Gashuun Sukhait (130km) and Oyu Tolgo to Hanbogd (50km). | MRTT | Medium |
| 4 | Extend railways into Omnogovi | Connect Zuunbayan to Oyu Tolgoi and Tavan Tolgoi to facilitate traffic. | MTZ, MIT | Medium |
| 5 | Build pipelines in Dornod | Utilize the oil pipelines to export crude oil / gas to PRC. | MRTT, MIT | Medium |
| 6 | Build roads in Western region | Complete the construction of AH4 that links aimags Bayan-Ulgii, Gobi-Altai, Khovd, Uvs and Zavkhan. Connect a 79km road from Ulgii to Tsagaannuur. | MRTT, MIT | Medium |
| 7 | Integrated Logistics Centre | Provide a public warehouse for freight forwarders in Ulaan Baatar and Aimag centres. | MRTT, MNCCI, freight forwarders | High |
| 8 | Comprehensive Trucking Terminal | Provide operations, cross-dock and business centre for trucking companies. | MRTT, trucking companies | High |
| 9 | Container Handling Terminal | Provide a container terminal with container | MRTT, freight forwarders | High |

| S/N | Investment Proposals | Descriptions | Stakeholders | Priorities |
|-----|---|---|---------------------|------------|
| | | docks, yards and storage facilities. | | |
| 10 | Build local farmhouses | Identify Aimags with high risk and build farmhouses to protect livestock from the natural elements. | MIT, MMA | Medium |
| 11 | Infrastructural Development in the FTZs | Investing in infrastructure within the zones to attract investors. | MIT, FTZ Management | High |

Figure 6-2 Capacity-Building (Software) Proposals

| S/N | Recommendations | Descriptions | Stakeholders | Priorities |
|-----|---|--|-----------------------|------------|
| 1 | Capitalize on GSP Plus to encourage investments in Mongolia | Promote the benefits of manufacturing in Mongolia. Also promote the country's production capabilities and incentives. | MIT, FITA, MNCCI | High |
| 2 | Target selected key industries to lead economic development (Manufacturing) | Review policies and incentives to spur the development of timber processing industry, cashmere and meat processing. | MIT, Private | High |
| 3 | Policies for Mining Sector: Promote Desert Economy | Review policies and incentives to strengthen Mongolia's mining sector, and relate spin-offs to oil and gas. Reach stability agreements to optimize long term growth and build investors' confidence. Explore feasibility to setup a Special Mining Zone (SMZ) at Omnogobi. | MIT, Private sector | High |
| 4 | Policies for Livestock Sector: Promote Meat Processing | Formulate a national standard on hygiene, adopt HACCP, promote cold chain logistics and | SSIA, MMA, MFFA, MRTA | Medium |

| S/N | Recommendations | Descriptions | Stakeholders | Priorities |
|-----|--|---|--|------------|
| | | diversify overseas market. | | |
| 5 | Support and assist in the operations of the “Mongolian Vector” | Increase the frequency of service; explore relocation of consolidation centre to Zamyn-Uud. | Tuushin, MRTT | High |
| 6 | Support and assist in the operations of the “Friendship Express” | Negotiate with Chinese customs at Xingang to reduce customs delay. | MCGA, IFFC, MRTT | High |
| 7 | Offer transshipment services | Cargo consolidation and deconsolidation, container management in Ulaan Baatar | MIT, MTZ, MRTT, Private sector | Medium |
| 8 | Commission a study to increase railways capacity without building new tracks | Explore alternatives between double tracks and double stack technologies. | MTZ | Medium |
| 9 | Review the tariff discounts | Examine the price elasticity of rail services and determine appropriate policies on tariff discounts | MTZ | Low |
| 10 | Purchase long term rates from Trans-Siberian Railways | Negotiate with Russia to bulk purchase rail rates and lower operating costs. | MTZ | Medium |
| 11 | Establish a lead agency for all transport and logistics improvements | Create a body with relevant representatives from government agencies and private sector | MIT, MRTT, MCGA, SSIA, ICTA, MNCCI, MFFA, MRTA | High |
| 12 | Rank logistics service providers | Classify freight forwarders into A, B and C. Provide different incentives for each and ensure no destructive competition. | MRTT, MNCCI, MFFA, MRTA | Medium |
| 13 | Offer training and development programs to | Provide FIATA courses, introduce logistics and transport management in | MRTA | Medium |

| S/N | Recommendations | Descriptions | Stakeholders | Priorities |
|------------|--|---|----------------------|-------------------|
| | increase professionalism | tertiary course, public education | | |
| 14 | Perform scenario analysis for PRC's accession to TIR | Determine possible problems and advantages and meet PRC counterparts to proactively offer assistance. | MRTA | Medium |
| 15 | Masterplanning for the FTZs | Engage international consultants to conduct Masterplanning studies (including identification of target industries) for the FTZs | MIT, Zone Management | Medium |

7 CONCLUSION AND SUMMARY

229 Previous work on Mongolia has focused either on enhancing the transport and logistics sector, or the feasibility and implementation of the FTZs/SEZ. This report adopted an integrated approach to holistically assess both trade and transport. It provides a comprehensive framework to address both the need to increase the market demand for transport services, and the increase of capacity and capabilities to satisfy those demands.

230 At the international level, Mongolia has a key role to play in facilitating transit trade. The SWOT analysis reveals many opportunities and challenges for Mongolia, where its unique location between Russia and PRC can be capitalized. In foreseeable future, Asia will continue to export increasing volume of goods to Europe and US, while emerging economies like PRC will have huge demand for commodities and energy. Mongolia lies along a critical path and her success ties intimately with the competitiveness of the Trans-Mongolian railways. By adopting various initiatives to improve the infrastructure and the logistics industry, Mongolia can increase her transport capacity and capability. Various recommendations are given in this report, such as the construction of public warehouses, comprehensive trucking terminals and container handling terminal. Over time, trade as a percentage of GDP will rise.

231 With a small domestic market and limited industry clusters, Mongolia will need an international and regional approach to address trade and transport issues, but this does not mean that the local industries are to be ignored. With rich reserves of metals and energy as well as a large supply of livestock, the key issue is how Mongolia can value add to these raw materials to capture higher value instead of exporting them to overseas. The successful implementation of the FTZs/SEZ and the suggested Special Mining Zone at Oyu Tolgoi will play a strategic role in realizing that ambition.

232 Besides infrastructure developments, support pillars like info communication and human resource are also essential enablers. Mongolia has been proactive in applying I.T. to various areas, as evident from the custom's GAMAS roll-out and the national I.T. master plan by the ICTA. MNCCI, MFFA and MRTA can play many roles in improving the quality and the capacity of the workforce through education programmes and continuous training.

233 Finally, project financing is likely to be a critical factor in implementing the various initiatives. There are a few alternatives for funding. It is recommended that the review of the various action plans be reviewed and prioritized, after which domestic and international organizations can be invited as partners for the modernizing of Mongolia's infrastructure and the logistics sector. Many times, the lack of funding is not the obstacle but the lack of political will.

234 The assessment and recommendations in this report provides a broad overview of the current situation. There remains much work to be done, with finer details and information required. To continue on, the new logistics committee may commission a second phase

project to further refine on the actual implementation.

REFERENCES

- i Source : CIA World Factbook (www.cia.gov)
- ii Source : CIA World Factbook
- iii Source : Ivanhoe Mining Mongolia Inc
- iv Source : Transport Policy and Coordination Department, Ministry of Road, Transport and Tourism
- v State Great Hural, 2004, Annex to Resolution No.24.
- vi Source: Interviews with the Transport Policy and Coordination Department, Ministry of Road, Transport and Tourism.
- vii Source : Freight Shipment Department, Mongolian Railway
- viii Source : CIA World Factbook (www.cia.gov)
- ix Source : European Commission
- x "Sustainable Transport : Priorities for Policy Reform", World Bank, Washington, 1996

Annex A List of Organisations Visited and Interviewed

| Organisations | Personnel |
|--|---|
| Airport Customs | Ms. Sambuu Otgonpurev, Director Airport Customs |
| Asian Development Bank (ADB) | Mr. Mandar P Jayawant, Dy Country Director |
| | Mr. Luvsanchultem Vanjildorj, Regional Cooperation Specialist |
| Bayan Ulgii Province | Mr. Z. Sherkhan, Director, Bayan Ulgii Customhouse, |
| | Mr. M. Kendebai, Deputy Director, Bayan Ulgii Customhouse |
| | Mr. N. Badrakh, Head, Tsagaan Nuur Customs Branch office |
| | Mr. Alip, Advisor to the Head, Tsagaan Nuur Free Economic Zone Administration |
| | Mr. Puntsagdorj, Officer, Tsagaan Nuur Free Economic Zone Administration |
| DHL International (Mongolia) Ltd | Mr. Davaanordog Shavirai, Operations & Services Supervisor |
| Erin International Co. Ltd | Mr. Erkhembayar Yamaaranz, Executive Director |
| | Ms. Baljmaa Baatar, Finance and Project Director |
| | Ms. Narmandakh Batbayar, General Manager |
| Gobi Cashmere Corporation | Mr. Enkd-Amgalan Choidogdemed, Senior Manager |
| Hanbogd Soum | Mr. Buyntogtokh, Governor |
| Information and Communications Technology Authority (ICTA) | Mr. T Naranmandakh, Dy Director – General Policy Coordination and Implementation Dept |
| International Freight Forwarding Centre (IFFC) | Mr. L. Khatar, Managing Director |
| | Mr. A Tuguldur, External Relation's Manager |
| Ivanhoe Mines Mongolia Inc | Mr. Munkhbat A., Senior Vice President |
| | Ms Oyumaa Ochirbat, Dy Director, Oyu Tolgoi Govt Relations |
| | Mr. Munkhbat T., Dy Director, Oyu Tolgoi Project |
| Infosystems Ltd | Ms.P. Sarantuul, Managing Director |

| Organisations | Personnel |
|---|---|
| Landex LLC | Ms. Gerelmaa, Managing Director |
| Ministry of Foreign Affairs | Mr B. Altangerel, Director Law and Treaty Department |
| Ministry of Fuel and Energy | Mr. Tumentsort Tsevegmid, Chief of Department |
| Ministry of Road, Transport and Tourism | Mr. Yo. Jargalsaikhan, Officer, Transport Policy and Coordination Department |
| | Mr. Ganbold Khatanbaatar, Officer, Road Policy and Coordination Department |
| Ministry of Industry and Industry (MIT) | Mr. Dagva Batmunkh, Dy Director-General Trade and Economic Cooperation Policy Coordination Department |
| | Mr. D Erdenebat, Head, Altanbulag FTZ |
| | Mr. Samdui, Governor of Altanbulag FTZ |
| | Mr. Ongosh Nigmat, General Manager Tsagaan Nuur FEZ |
| | Mr. Ya. Gantumur, Governor, Zamyn-Uud FTZ |
| Mongol Express Co. Ltd | Mr. D. Enkhbat, Managing Director |
| Mongolian Freight Forwarding Association (MFFA) | Mr. B. Myamar, Secretary General |
| Mongolian Meat Association (MMA) | Dr Deleg S, President |
| Mongolian National Chamber of Commerce and Industry (MNCCI) | Mr. Sambuu Demberel, Chairman & CEO |
| | Ms Lundaa Odonchimeg, Assistant to Chairman |
| Mongolian Railway | Mr. B. Lkhagvasuren, Head of Freight Department |
| | Mr. Hurelbaatar D., Chief of Zamyn-Uud Station |
| Mongolian Customs General Agency (MCGA Headquarters) | Mr. Baagaa Battamur, Deputy Director General |
| | Ms Chadraabal Emkhutuya |
| | Mr. Samdan Altangerel, IT Director |
| Mongolian Customs General Agency (MCGA Border Posts) | Mr. Byambatsogt Gal-Ochir, Director of Customs House, Darhan |
| | Mr. Dondogin Damba, Director of Customs House, Selenge |

| | |
|--|--|
| | Ms. Naran Zagaanchooj, Senior Officer, Altanbulag Customs Office |
| | Mr. Banzragch, Director of Customs House, Zamyn-Uud |
| | Mr. Monkhor Ganbaatar, Head of Customs House, Gashuun-Sukhait |
| National Road Transport Association of Mongolia (MRTA) | Mr Tseden-Ish Togtmol, General Secretary |
| State Specialised Inspection Agency (SSIA) | Mr Enkhtaivan Tsoggerel, Head of Trade, Industry and Service Department |
| | Mr Lkhagvadorj Ragchaa, Head of the Inspection Department of Industry, Tourism & Service |
| Transport Service Center | Mr. Batsuuri Baljin, Hd Vice Director / Director of Transport Regulation Division (MRTT) |
| Tuushin Co. Ltd | Ms N. Enkhriimaa, Vice Director |
| | Mr. Enkhtuvshin, General Manager (Sales) |
| | Mr. Dugersuren N., Chief of Container Freight Station |