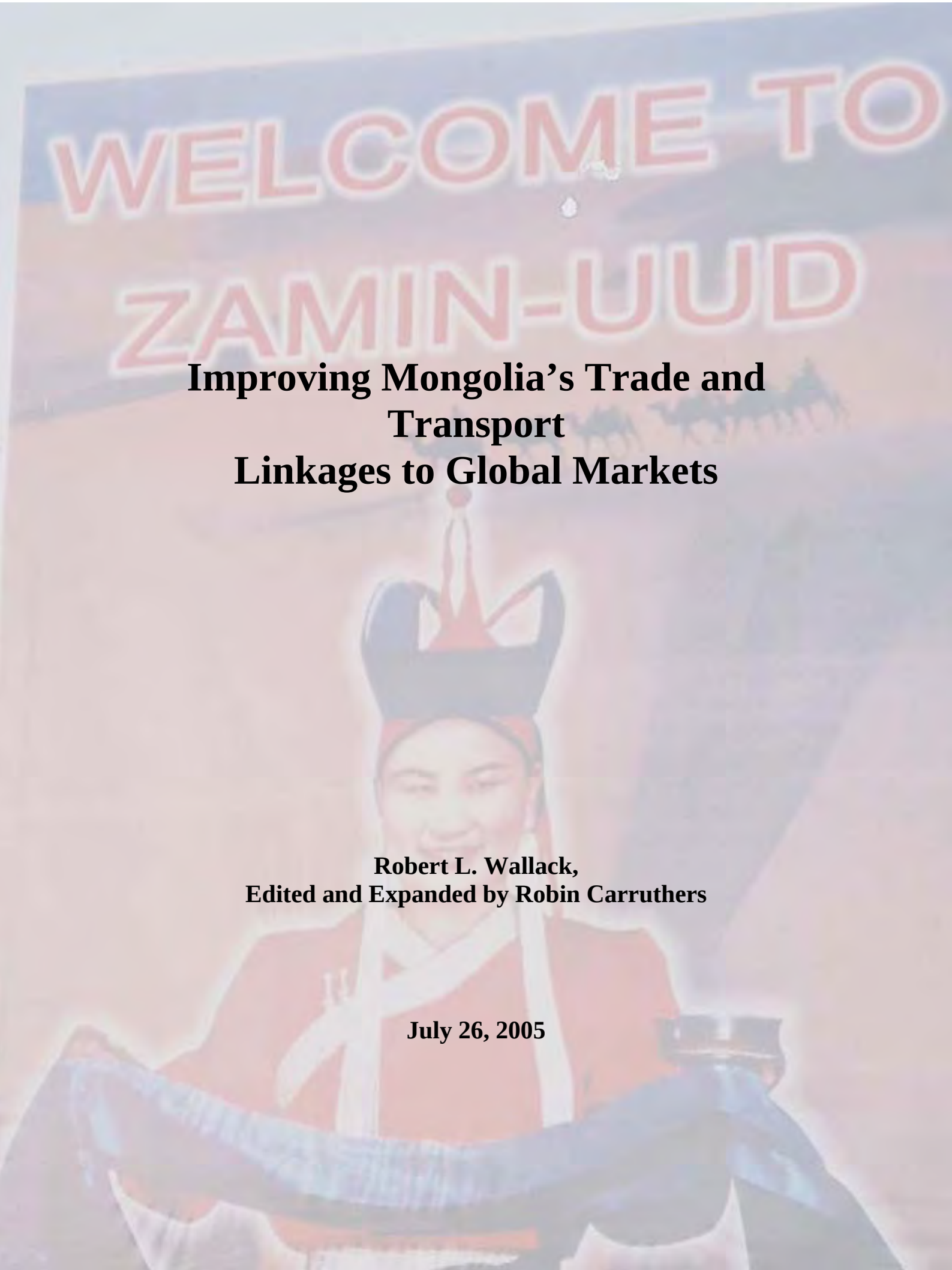

Improving Mongolia's Trade and Transport Linkages to Global Markets

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Contents

I. INTRODUCTION

Mongolia's economic development is subject to the powerful twin influences of distance and isolation: Distance in relation to the rest of the world and the world's leading markets for its products, and isolation in reference to the distance of the majority of its people from the centers of economic, social and political activity. Reducing trade-related transactions costs and thereby the cost of doing business is the main challenge facing landlocked Mongolia's greater integration in the global economy. These costs include both the cost (and time) of transporting goods to and from Mongolia and the cost (and time) that Mongolia's traders incur in complying with "behind and at the border" trade-related procedures and formalities. Cost-effective trade-related services make up a country's investment climate and reducing such costs will besides enhancing the country's trade prospects, improve Mongolia as a destination for Foreign Direct Investment (FDI) and thereby provide the opportunities for accelerating economic growth that is essential for sustained poverty reduction.

Several estimates highlight the role of trade-related transactions costs in the Mongolian economy. Mongolia' Ministry of Trade and Industry estimated that transport and distribution costs accounted for as much as 14 to 15% of the cost of importing goods in the economy. An UNCTAD study shows that about 15% of Mongolian exporters' earnings are incurred in trade-related transaction costs, while its neighbors incur less than 6% in these activities.[1]

This report identifies the operational impediments to trade in Mongolia and makes recommendations for improving Mongolia's trade and transport linkages to global markets. The structure of the report is as follows: The first section identifies the products that have demonstrated export success in Mongolia in recent times. This section identifies the constraints facing the exporters of these goods. The second analyzes the physical infrastructure and institutional issues confronting Mongolian exporters. The third section concludes with recommendations for enhancing Mongolia's competitive advantage in the global economy.

Background

With a population of roughly 2 million and a surface area of 1.5 km^2 in 2003, Mongolia has a population density (1.5 persons per km^2) that is lower than in any country with more than one million people and comparable to that of Alaska. The country is prone to climatic variations, with extreme winter and summer droughts. It is landlocked, sharing borders with Russia in the north and with China on the south, east and west respectively. The country's ability to integrate with the global economy is dependent on easy access and efficient transport links to seaports and gateways through China and Russia.

[1] UNCTAD (2002) Transit Traffic Framework Agreement between China, Mongolia and the Russian Federatuib: Project Document. MON/02/xxx/A/08/40.

Mongolia's economy made the transition from a state-controlled command system to a market-oriented, private sector driven system in 1990. The country has to a large extent succeeded since then in making a successful transition through currency and exchange rate reforms, price and wage liberalization, financial reforms and putting in place the basic framework of laws, policies and regulations to support a business-friendly market-based system. In the field of foreign trade, Mongolia acceded to the WTO in 1997 and following its accession to the multilateral organization, Mongolia has liberalized its trade regime through a combination of trade policy reforms such as reducing tariffs, removing restrictive and discretionary import licensing arrangements, eliminating a number of WTO incompatible non-tariff barriers, removing most export taxes and taking steps for providing transparent customs valuation procedures through acceding to the WTO's Agreement on Customs Valuation (ACV).

Due to these sustained policy changes undertaken consistently through the 90s, the private sector's share of GDP in the economy has increased substantially. The private sector contributed 80% of GDP in 2004 (as compared to nearly zero in 1990 when there was virtually no private sector activity in the country)[2]. Mongolia's progress in transforming the structure of the economy is reinforced by the findings of the World Bank Doing Business survey, which reports that on certain dimensions of business-friendly regulatory practices (such as those associated with the procedural complexity of starting a business, getting a license or flexibility in hiring and firing practices), the business practices in Mongolia in 2004 were comparable to not only those found in other transition economies but also in some emerging East Asia economies as well.[3] These sustained reforms have aided Mongolia to dealing with various setbacks, such as the Soviet Union's collapse and termination of its aid, and the Asian and Russian economic currency crises with its strong characteristics of contagion in 1997-98.

Mongolia's annualized average growth rate was around 2.8% from 1996-2000. This compares with a long period of negative growth rate in the 1990-95 period. Though there were some setbacks to economic growth in 2001 and 2002, due to severe weather conditions leading to heavy losses of animal husbandry- the driving force of the economy, the set back was not only short-lived and even during these years, the growth rate was although low, positive. Since 2002, growth has resumed and Mongolia's economy has been growing at over 5%. The challenge to Mongolia is to sustain or accelerate this growth rate.

There has been a structural transformation of the economy in Mongolia- both in terms of GDP composition and in terms of occupational distribution. The agricultural sector's contribution to GDP has been declining while that of the service and mining sector increasing. In 2004, agriculture contributed 20% of GDP (as compared to 38% in 1990) whereas the service and mining sectors contributed 61% and 19%,respectively. The services sector is also the major employer and provides jobs for nearly half of the total employment in 2003 (as compared to the agricultural and mining sectors which provided jobs for 41% and 14%, respectively, of the population). The mining sector in

[2] Mongolia, Trade Policy Review, 2005. WTO.
[3] World Bank, Doing Business Database.

Mongolia is driven by production of gold and copper which are also two of Mongolia's exports. The driving force of Mongolian agriculture is animal husbandry which is also one of Mongolia's leading exports. The relatively small size of the domestic market and the narrow resource endowment base underscores the importance of foreign trade and global integration for accelerating economic growth.

Trade

Another indication of Mongolia's transformation from its pre-1990 structure is provided by its outward orientation since 1990. The openness ratio (defined as the sum of exports and imports to GDP) for Mongolia was 120% in 2004 (as compared to 77% in 1990). Of this, the share of exports to GDP had nearly doubled from 24% to 53% during these years (the share of imports went up from 56% to 64% during this period).[4]

Mongolia's export structure however remains concentrated, in terms of composition.(see Table 1 and 2).. Over three-quarters of Mongolia's exports are primary-sector (agricultural and mining) base, with minerals representing over half of total exports. Three goods- copper concentrate, wool (mainly cashmere) and hides and meat account for about 85% of Mongolia's exports. Another important export is that of gold. Tourism is also emerging as a foreign exchange earner, although Mongolia is yet to tap its potential as a tourists destination. Mongolia's main imports in 2003 included food imports, manufactured products (including non-electrical machinery, transport equipment and other semi-manfuactures).

Table 1 Export Concentration Of Selected East Asian Countries

Country	Top 3 exports	Top 5 exports	Products		
China	13.8%	21.8%	Telecoms equip.	Computer	Apparel
Thailand	20.9%	26.2%	Office equip.	Transistors	Fish
Indonesia	23.6%	29.7%	Gas	Petroleum	Veneer
Korea	27.3%	38.5%	Transistors	Cars	Telecom
Malaysia	39.9%	50.0%	Transistors	Office equip.	Computers
Vietnam	44.3%	60.3%	Petroleum	Textiles	Seafood
Singapore	48.4%	60.8%	Transistors	Computers	Petroleum
Philippines	59.9%	66.6%	Transistors	Computers	Office equipment
Cambodia	78.3%	80.2%	Garments	Timber	Rice
Mongolia	**84.5%**	**93.4%**	**Copper**	**Wool**	**Hides**
PNG	64.6%	74.5%	Gold	Petroleum	Copper

Source: Global Economic Indicators, 2002, quoted in Carruthers,Bajpai,World Bank,p.29

[4] World Bank Database

The main destinations for Mongolia's exports were China, (47%), the United States of America,(23%) and the Russian Federation (7%) in 2003. While China remains by far Mongolia's main export market, the United States had overtaken the Russian Federation as its second largest destination between 1999 and 2003- due to the Mongolia's exports of clothing to US under the Multi-Fiber Agreement (MFN).

Table 2

Exhibit 1: Exports and import values by commodity groups, price and quatity indexes (Mongolia, 2003-2004)

Exports and imports	Value, current $			Indexes		
	2003	2004	2004 minus 2003	Nominal change	Quantity index	Price index
	$million	$million	$million	%	%	%
Export						
Total	615.9	853.3	237.4	38.5	9.9	26.1
Gold	139.9	239.9	100.0	71.5	53.2	11.9
All, except gold	476.0	613.4	137.4	28.9	-1.1	30.3
Copper and other minerals	218.2	355.1	136.9	62.7	4.2	56.2
Cahmere products	52.2	79.0	26.8	51.4	53.5	-1.3
Textiles, exp. cashmere	112.9	116.1	3.2	2.8	-14.0	19.4
Meat, leather & other	92.7	63.2	-29.5	-31.8	-31.9	0.1
Import						
Total	801.0	1,011.6	210.6	26.3	12.5	12.2
Petroleum products	153.3	216.6	63.2	41.2	5.3	34.1
Metals	52.8	85.5	32.7	61.8	13.9	42.1
All, except petrol and metals	594.8	709.4	114.6	19.3	14.7	3.9
Food	109.5	151.5	42.0	38.4	24.0	11.6
Consumer durables	88.0	117.0	28.9	32.9	40.9	-5.7
Textiles	83.5	100.9	17.4	20.8	0.6	20.1
Machinery	185.6	209.9	24.3	13.1	25.5	9.9
Other imports	128.1	130.1	2.0	1.5	-3.3	5.0

Source: http://www.eprc-chemonics.biz/article_en.php

In sum, Mongolia has successfully made the transition to a market-based economy in the 1990s. The relatively small size of the domestic economy underscores the need for Mongolia's greater global integration for accelerating the economic growth that is required for sustained poverty reduction. Reflecting the narrow resource endowment base, Mongolia's current export structure is as yet undiversified. Although such an export structure does render the Mongolia vulnerable to economic shocks and so it would be in Mongolia interests to diversify over time, *in the short and medium terms, it would be in Mongolia's interests to increase value-added from the existing resource base in livestock and minerals through locating and specialized markets, adding unique product features, shifting from commodity exports to exports of products and reducing transport costs, and over time developing complex export capabilities.*

Exports from Mongolia are concentrated to date in goods in which it has a production cost advantage in livestock products including cashmere and meat, semi-processed copper and gold. *With the exception of meat all of the exports have a high value to weight ratio needed to tolerate the cost of transport to world markets*. The following section discusses the challenges and opportunities for Mongolia to build competitive advantage on the three goods (cashmere, textiles and meat products) in

which Mongolia has demonstrated production cost comparative advantage.

The choice of products was made based on the following considerations: Cashmere was included as it has been and will continue to be a leading export product in value terms for Mongolia in the near future. Textiles were included because they have been significant part of the economy of Ulaanbaatar prior to the ending of the Multi-Fiber Agreement (MFA) in 2005. Animal products, including leather and processed meat, were included because they have potential to become major export products. Tourism was also included because of its potential foreign currency earning potential.

i) Cashmere

Cashmere is a luxury fiber extracted by combing the hair of a goat. Mongolia is capable of producing some of the best quality cashmere in the world. Its dry, cold climate combined with substantial grazing areas and a population with a long tradition of animal husbandry makes it ideal for production of high quality cashmere[5]. While the world prices of cashmere are volatile, in recent years the international price of cashmere has been very high (depending on quality). In 2003, raw cashmere from Mongolia sold for a maximum of about US$40 and prices of cashmere from China were even higher.

Mongolia is the world's second largest producer of raw cashmere, after China. The cashmere production in Mongolia is estimated to be approximately 4,000 tons. This represents over a quarter of the world production. The cashmere industry in Mongolia is also the economy's single largest employer, providing livelihood for over 16 percent of the work force and accounting for over 6.3% of GDP during the 1993-2002 period. Another interesting point of note is the fast growing goat population since 2003. Goats have not been traditionally raised for meat export purposes, but more for the wool they produce, specifically cashmere. Developing an efficient and competitive cashmere industry that exploits strategic linkages between and across the industry to add value will be one of the main measures of Mongolia's successful transition from a command to a market economy.

Mongolian cashmere is either processed domestically or exported as raw cashmere, mainly to China. Mongolia at present domestically, processes only about a quarter of the amount produced. Exports of raw cashmere are liable for an export tax. The recorded official export figures considerably understate the importance of the industry to the Mongolian economy, as over 38 percent of the raw cashmere produced — worth about $16.8 million — is exported illegally to China. The reasons usually cited for the illegal exports of raw cashmere to China include: One, the domestic marketing system does not provide enough incentives for producing processed higher quality cashmere. Two, the ability of local manufacturers to compete with Chinese traders on price is perceived to be limited. This is due to the lack of financing or trade credit mechanisms that local manufacturers can avail of to make advance payment to herdsmen for raw cashmere until it is sold on the international market, a process which can involve a time-lag. In contrast, the Chinese traders are able to pay a higher up front price for raw

[5] The Mongolian Cashmere Industry- Richard Filmer, Report prepared for the World Bank, 2001.

Mongolian cashmere. Three, China imposes transport and trade constraints on legally sold raw cashmere (as on all animal products), as it travels through China. All animal products are subject to transloading from rail to truck at the border and stringent phyto-sanitary inspections in China.

The Mongolian cashmere industry has experienced a series of booms and busts over the last decade. Unsatisfactory public sector policies contributed to this result. External factors such as the unfavorable economic environment of the early 1990s, the aftermath of the East Asia currency crisis with its strong characteristics of contagion, and weather conditions have affected its performance in recent times.

During the 1993-96 period, cashmere exports from Mongolia doubled from US$33 million to US$71 million (cashmere's share in Mongolia's exports increased from 9 to 17 percent). Cashmere exports weakened in 1997 and 1998, recovered briefly in 1999-2000, and faltered again in 2002 to US$45.2 million, below their 1996 levels. Cashmere's share in exports recovered to more than 9% of the total by 2004 and the total value had increased to almost U$ 80 million.

Exports of cashmere- either raw or processed- has a high value to weight ratio that is needed to tolerate the cost of transport to world markets. To date, Mongolia's cashmere industry has moved only marginally up the value-added chain beyond primary production, leaving it especially vulnerable to changes in market demand. The industry suffers from four principal shortcomings:

One, internal supply shocks. The production of cashmere is limited by the capacity of the land to support more grazing animals. Also, production of wool is dependent on climatic conditions (such as the heavy losses during the severe winters of 1999-2000 and 2000-01). Although, livestock numbers in general and goat population in particular which is traditionally raised not for meat export purposes but for the wool (cashmere) they produce have expanded since then, the domestic supply still remains susceptible to extreme climatic conditions. Two, deteriorating quality of Mongolian cashmere. Following the increase in the world price of cashmere in recent times, there is a perception that Mongolian exporters are concentrating on quantity at the expense of quality of cashmere. Three, inadequate marketing and distribution systems in the domestic processing industry. The main problem faced by domestic processors is lack of access to sufficient raw cashmere to justify the available dehairing capacity. This problem is closely linked to the difficulty of raising the necessary working capital to purchase raw cashmere when prices are volatile. Four, inadequate or poor institutional capacity to guide the development of the industry. The lack of an efficient public sector to provide public goods, inadequate strategic business development policies, and unregulated and outdated production patterns have stifled competition and prevented the industry from reaching its potential.

So, transport and logistics concerns are just one of the many issues that need to be addressed to make this industry more successful. Only when the institutional, supply and marketing problems are addressed will transport and logistics appear as

a significant problem. Nevertheless, resolution of current trade facilitation impediments to exporting cashmere would go some way to making its production more profitable.

ii) Textiles

Textile exports which were almost nil in 1990 contributed about 14% of Mongolia's export earnings in 2004. In the early 2000s, textile assembly became one of the fastest-growing industries in Mongolia and textile workers made up 30% of the total industrial labor force. The recovery and growth of the Mongolian textile industry was aided significantly by foreign investment. This substantial increase was primarily due to the outsourcing by foreign-owned companies prior to the dismantlement of the MFN agreement. Nearly 100 foreign-invested textile companies operated in Mongolia in 2004. Of this, 48 of them were from China, taking advantage of Mongolia's quota for textiles and clothing in US (mainly) under the MFA (multi-fiber agreement).

Mongolia does not produce fabric, and 100% of the raw materials (zippers, buttons, thread, etc.) must be imported. Even most garment designs are developed abroad. There are doubts that the productivity of Mongolian textile labor is competitive enough to sustain a domestic industry without artificial support.

The impetus to the development of the industry also came from the decision by the U.S. to include Mongolia in the United States – Generalized System of Preferences (GSP). (the U.S. GSP is a program designed to promote economic growth in the developing world. Under this scheme, the US provides preferential duty-free access for more than 4,650 products from the 144 designated beneficiary countries and territories. The program, instituted in 1976, and authorized under the Trade Act of 1974 was to be enforced for a 10-year period. The scheme has been renewed periodically since then, most recently in 2002 with legislation that reauthorized the program through 2006). Products bearing a "Made in Mongolia" label , under this program can be exported to US without any quantitative limitations. The European Union also offered a tariff discount for Mongolian products. The future of the industry again depends on these US and European trade concessions.

With the removal of the MFA in 2005, textile exports have dropped in Mongolia. Although official statistics have not been published to date, it is believed that Mongolia's exports of textiles and clothing have become insignificant in Mongolia.

iii) **Animal products**

While the value of cashmere exports and textile exports had been increasing, the value of exports of other animal husbandry products fell by about the same percentage as cashmere increased, to just U$63 million.

Leather Garments

Russia is the main export destination of Mongolian leather exports, despite measures to diversify sales to China, Japan, Korea and Europe. For example, Mongolia exported leather and raw hides to Russia in 2001 in order to repay a US$18.3 million debt to the Russian state

The International Finance Corporation (IFC) was one of the first foreign investors in Mongolia's leather industry, with a loan in 1996 to expand the activities of G&M Industrial Co. Ltd, Mongolia's largest private sector tanner. G&M, a Mongolian-German joint venture, built a $3.5 million leather garment sewing plant with an annual capacity of 80,000 garments. The IFC provided a $1.45 million loan and invested $300,000 in equity. G&M makes use of its internally tanned, high-quality goat and sheep leather, skilled labor force, and support from German tanning, sewing, and marketing specialists .

The finished leather garments were sold initially to the domestic market, China and neighboring regional export markets, specifically, to Siberia, Russia, and Inner Mongolia, China. Exports to other European markets are being developed.

This project was intended to have an important demonstration effect and set the stage for similar, private investments in Mongolia. However, the sector is still slow to develop its potential and has not yet realized its early high expectations. The main constraint here being, as with other animal products exported through China, leather is subject to phyto-sanitary inspections. The new possibility of exporting to Europe via the new rail service via Russia might overcome this problem.

Processed foods

The agricultural sector traditionally has been an important economic sector for Mongolia.. Although other industries, such as the services and manufacturing sectors, have been gaining importance in recent years, agriculture still accounts for a significant percentage of the Mongolian economy. This sector employs about half of the population and represents 25% of gross domestic product.

Presently, there are over 1,800 small and medium sized business entities engaged in the food industry. These companies produce products such as meat, milk, flour products, sweets, beverages, spirits and beer as finished or semi-finished products. Production of these foods accounts for 12% of Mongolia's gross industrial output. Up to 14% of Mongolia's total industrial workforce is engaged in this sector.

Russia is the foremost meat export market, accounting for about 95% of meat exports. Mongolian meat and animal by-products such as sausage casings and blood and bone meal have potential markets in Central Asia, the Middle-East, Europe, Japan, and China. Exports could be increased with the introduction of better packaging, as well as chilling and refrigeration facilities, but particularly with greater awareness of what the potential markets are looking for. Australian beef, sold as final cuts, enjoys a high price

advantage over Mongolian beef, sold as quarter sides, in the Siberian market. At the prices available in 2004, it was not profitable to export beef to Siberia, but if the product had been tailored to the market, and if it could have earned half the price of Australian beef, it would have been a profitable venture (according to a Mongolian beef processing company). Beef exports from Mongolia to Russia are subject to strict phyto-sanitary inspections, but not as strict as those for China. Russia proposes to reduce import quotas of meat by about 50% before 2010. While such a policy might prejudice Russia's negotiations for entry to the WTO, it does appear to be in process of implementation.

In 2003, Mongolia and the European Union discussed possible ways of obtaining EU-certification for Mongolia's meat exports, for example the matter of dispatching veterinary experts from the EU with the aim of introducing more hygienic slaughtering methods, and of studying and advising on the structure and conditions in the veterinary sector. The EU delegation was made aware of Mongolia's wish to be included as "Category A" on the list of countries which are free of-BSE (Bovine Spongiform Encephalopathies). A revised version of this list is under preparation, but its finalization is not likely to take place until 2005.

There is large potential market for Mongolian lamb and mutton in the Middle-East, but the cost of transport makes it prohibitive to serve this market. Some trial air shipments of both lamb and live sheep to Jordan have been attempted but these have not yet been deemed to be commercially viable as yet. Some specialized processed and vacuum packaged horsemeat is air shipped to Japan where it is sold as dog food. This is a promising market but not for large scale exports. A potentially larger market is for frozen horse meat for human consumption, a trade that began in the mid-1990s. One wholly owned Japanese horse farm and slaughter company is presently expanding this market but is constrained by the difficulty of exporting by land via Tianjin and the cost and inconvenience of exporting by air.

There are 26 meat -processing plants in Mongolia with a processing capacity 60,000 tons of meat and by products. Total export of meat from Mongolia was 23,300 tons in 2002, 45% more than in 2003. Almost 80% of total meat exported is beef, 28% horsemeat and 2% is mutton. In the past Russia was the only importer of Mongolian meat products. Now, China, Japan and Arabian countries have emerged as importers of meat products from Mongolia. Beef, horsemeat and mutton are main exports from Mongolia in that order.

In 2002 Mongolia exported 13,900 tons of frozen beef - mostly to Russia (98.5% of the total), Kazakhstan (1.02%) and China (0.18%).. Mongolian meat is considered low on cholesterol and devoid of heavy metals, radioactive substances and pesticides and therefore capable of entering niche market.

Processed milk and milk products also have some export potential but are not presently exported. There are 39 large and medium sized dairy plants, with a total daily capacity of about 7,2 million liters of fresh milk, butter, cheese and other dairy products. Many of these facilities utilize only a small percentage of their capacity, while local dairy

production has not been able to meet the population's demand. The amount of imported milk products is increasing, pointing to high investment opportunities in this sector. Mongolia imported 34,000 tons of rice in 2002, domestic production is nil. Of rice imports 45% comes from China, 7% from Italy, 45% from the US. Mongolia imported 26,000 tons of sugar in 2002, 68% from China, 7% from Belgium, 3% from Korea, 6% from Brazil, 5% from Malaysia and 4% from Thailand.

Tourism

Until the late 1980s, tourism played a minor role in Mongolia's foreign exchange earnings. About 10,000 foreign visitors came each year, mostly from Russia and Eastern Europe on business. There were few visitors to Mongolia from North America, West Europe or Asia. There has been some change in the tourist trade. The number of tourists exceeded 300,000 in 2004. China is now the largest source of visitors (about 46%) followed by Russian Federation (about 27%), the European Union and Korea (about 8% each). The number of tourists from Japan and North America account for about 8%. Income from tourism in 2004 was estimated at US$ 181 million, about 10% of Gross Domestic Products (GDP).

Table 2 Number of Foreign Visitors to Mongolia

	1999	2000	2001	2002	2003	2004
Visitors	158,743	158,205	192,051	235,165	204,845	305,617
Tourists	137,961	137,374	165,899	228,719	201,153	300,537
Africa	114	183	236	143	209	263
America	6,069	7,217	7,700	7,973	6,900	12,198
East Asia and the Pacific	79,421	80,720	93,075	122,106	122,378	188,250
Europe	72,430	69,354	90,168	97,673	74,308	98,592
Middle East	115	106	140	155	229	260
South Asia	584	625	730	655	806	974

Source: Ministry of Transport and Tourism
Note: Tourists excludes diplomats and some other special categories of visitors

Transport corridors for trade

The Mongolian government is negotiating with its neighbors to gain better access to ports through trade corridors, utilizing the Global Framework for Transit Transport Cooperation between Land-locked and Transit Developing Countries, endorsed by the General Council of the United Nations in 1995. At a recent Consultative meeting of Land-locked and Transit Countries held in Ulaanbaatar, an Action Policy Plan was adopted with nine key elements. Implementation of this plan and observance of the principles behind it would go far in addressing Mongolia's problems of accessibility to the rest of the world. However, it will not produce results quickly and other measures are needed to achieve more immediate benefits.

The most useful corridors are those from Ulaanbaatar to the ports of Tianjin, China and Vostochny, Russia. While the corridor to Tianjin is much shorter, it is in Mongolia's interest to maintain two trade corridors, so as not to be dependent on a single neighboring country. Since both China and Russia have been reluctant to help Mongolia develop its export corridors, so a more pro-active strategy on the part of Mongolia is needed to encourage them to provide Mongolia with efficient and better access to ports.

Rail

Railway is Mongolia's main mode of transport for exports, imports and transit of bulk and containerized cargo. The most crucial transport link is the Ulaanbaatar Railway, which serves the three largest conurbations, Ulaanbaatar, Darkhan and Erdenet, and links Mongolia with China and Russia. There has been a dramatic increase in transit traffic between Russia and China, mostly oil and timber. The oil traffic has the potential to grow even more, if the quality of service can be improved and the traffic kept competitive with the competing direct but much longer route via Manchuria.

Table 3 Rail Freight traffic (thousand tons)

Traffic	1990	2000	2001	2002	2003	2003/2000
Domestic	8,756	5,722	5,960	6,268	6,643	5.1%
Export	2,753	769	844	850	975	8.2%
Import	2,210	916	872	1,058	1,080	5.6%
Transit	978	1,512	2,163	3,086	3,640	34.0%
Total	16,687	10,919	11,840	13,264	14,341	11.4%

Source: Tuushin International Freight Forwarders, D.Enkhtuvshin,2005

The Mongolian railway is a 50:50 joint venture between the Mongolia and Russia governments. It is 1,524 mm wide gauge and single track throughout.. Although it is the same gauge as Russian Railways, China Railways operates at the standard gauge of 1,435 mm. The change of axles on the wagons or the transfer of containers from one wagon to another at the China:Mongolia border can cause significant delays and uncertainty in transit times.

Road

Inadequate road transportation within Mongolia and between Mongolia and Russia (there is no regular road transport yet with China as there is no road linking the two countries) is a major impediment to Mongolia developing an efficient and competitive logistics industry.

Table 4: Mongolia Road Freight

	1999	2000	2001	2002	2003	2003/2000
Freight (m tons)	1121	1480	1658	1889	5336	53.3%
Freight (ton km)	125	126	130	134	242	24.3%

Source: Tuushin International Freight Forwarders, D.Enkhtuvshin, 2005

There is a paved road between Ulan Baatar and the border with Russia, and the paved road from Ulan Baatar to the border with China at Zamyn Uud is expected to be completed within five years. This will complete an important section of the trans-Asia Highway connecting China to Russia, and will offer the opportunity of introducing competition between road and the current railway monopoly on this route.

Internal communications are provided by a number of East – West roads. The government of Mongolia has been promoting the construction of the Millennium Road, a paved road linking Mongolia's eastern border with China to its western border with Kazakhstan, a distance of almost 2,000km. About one fifth of this ambitions project have been completed, but due to inadequate funding to complete the remainder, the project is to date incomplete, mainly in the western part of Mongolia. There are however, two earth tracks leading westward from Ulan Bataar after about 200km of paved road, partially upgraded to paved or gravel surface with World Bank funding A third road leading to the west, closer to the Russian border, has been partially upgraded to paved condition with support from the Kuwait Fund.

The lack of adequate gravel or paved roads makes truck transport very expensive, and until the paved road is completed to the China border, only infrequent and irregular road traffic is possible in this corridor, using earth tracks across the Gobi desert. For a road trip between Ulan Baatar and Tianjin, the operating cost using a conventional five-axle semi-trailer would be about U$1,500 per container, not very different to the current rail tariff and the time for the 1,600 km would be about three days, again not very different to the rail time. The hope of Mongolian exporters is that transit time will be lower and more important, predictable- if they can avoid the delays waiting for Chinese wagons at the border. However, before the trip could be made in a Mongolian truck there would have to be a revision to the current Transit agreements, and these could take a long time. Presently, Mongolian trucks are not allowed into China and Chinese trucks are not allowed into Mongolia other than for short trips for transfer of freight to trucks of the other country. Both Mongolian and Chinese freight transporters are also looking for the opportunity to operate value-added freight centers at the border.

Table 5: Road network (kms)

	Paved	Gravel	Formed Earth	Sub-Total	Other formed earth roads	Total
State roads	1,350	1,660	1,291	4,301	0	4,301
Other roads	343	480	516	1,339	7,055	8,394
Total	1,693	2,140	1,807	5,640	7,055	12,695

Source: Taming the Tyrannies of Distance and Isolation ((updated) World Bank

Air transport

There are few specialized facilities for air freight in Mongolia. However, the cargo terminal at the international airport includes a cool storage facility that is not working at full capacity. It does not seem that any investments are currently needed[6]. Total air freight, at 2,200 tons in 2003 was only about 75% of the level in 2000.but international air freight, at 138,000 tons (mostly imports) was up by nearly 20% over the same period. The main products exported by air are some cashmere products, some high value specialized processed horse meat.

Trade corridor traffic and tariffs

There was an increase in Mongolia's container traffic through Tianjin, from 15,732 twenty-foot equivalent units (TEU) in 2001 to 23,000 TEUs in 2004. In total, Tianjin Port Group handled 3.8 million TEUs in 2004 and Mongolia's share accounted for less than 1 percent of the total. The rather low share of Mongolia's container traffic probably is the main reason for the Port Group's lack of interest in giving special preference to Mongolia's traffic. The imbalance between import and export traffic on this corridor (exports are only 10% of imports) is part of the explanation of the high tariffs. However, the cost to move to /from Mongolia through Tianjin are slightly lower than they were a few years ago. Industry sources quoted in a 2003 United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP) report indicated import costs of U$ 1,400 by all rail and U$ 1,712 for road/rail per TEU from Tianjin to Ulaan Baatar.

Currently, transportation providers serving the Tianjin-Ulaan Baatar (UB) corridor quote full container load costs for an import TEU of between U$1,050 and U$1,350 for the all rail route and about U$1,200 for combined road/rail. Export costs are slightly higher at approximately, U$ 1,500 per TEU for road/rail. About 70% of both import and export containers now use the road/rail combination route, because of the lower cost and more reliable transit time For both routes, quotations for import

[6] According to airport officials, cargo transit has decreased about 10% each year during the past years. The reason may be that cargo is increasingly transported by rail.

containers include the additional charge to return of the empty container to Tianjin because of the imbalance of imports to exports. In addition, there is a demurrage charge by ocean liners of U$ 20-30 per day, if the empty container is not returned to Tianjin within 30-35 days, which is frequently the case. So the total cost for an import container can amount to U$ 2,150 compared to the apparent minimum tariff of U$1,050.

Ocean freight charges to and from Los Angeles add to the cost of reaching international markets. These rates are very variable over time. A major ocean liner provided the indicative charge amounting to more than U$5,000 for a 20 foot container and just over U$7,000 for a forty foot container.

Table 6: Los Angeles to UB via Tianjin TEU Cost

Charge	Amount	% of total
Ocean freight, Los Angeles to Tianjin	3,035	60%
Rail transport, Tianjin to Ulan Baatar	1,300	25%
Shippers export declaration	100	2%
Chassis useage	40	1%
Carrier security surcharge	6	0%
Handling charge CY	500	10%
Alameda corridor surcharge	0	0%
BAF Pacific	0	0%
Documentation fee	50	1%
Freight forwarder fee	40	1%
Total	*5,071*	*100%*

Source: Shipping Agent in Los Angeles

Transit times and delays

The quotes on transit times between Ulan Baatar and foreign destinations vary, depending on source. An ocean carrier quoted total transit times of 24 days from Ulan Bataar to Los Angeles (of this, 8 days from Ulan Bataar to Tianjin, including waiting time in the port, and 16 days ocean voyage time). For import containers the total time is estimated to be the same- although the transit from Tianjin to Ulan Bataar only takes 6 days.

The expected transit times in the corridor from Tianjin to Ulaan Baatar ranges from three to eleven days (although in exceptional circumstances, the transit time could be over fifteen days, if there are documentation problems.

Logistics service providers (freight forwarders) quote rail only transit times as low as 3 days but an expected time of between 5 and 7 days because of delays waiting for Chinese rail wagons at Erenhot (or at Tianjin in the reverse direction). The shorter time can be more certain if road transport is used between Erenhot to Tianjin Averages

computed from data collected from a major user of the corridor shows 8 days transit times for a container using road/rail combination. Inbound bulk shipments by rail took 15 days per 60 tons maximum weight but again only 7 days minimum for the road/rail combination. However, the latter has a maximum load of only 25 tons compared to the 60 ton limit by rail.

Table 7 Road and Rail Cost and Time from Tianjin to Ulanbaatar

	Road			Rail		
	Cost	Time (hours)		Cost	Time (Hours)	
	$/TEU	Min.	Max	$/TEU	Min.	Max
Tianjin port	500	24	72	500	24	96
Tianjin to Erenhot	690	12	32	400	24	48
Eranhot to Zamin Uud	250	24	120	250	12	48
Zamin Uud to Ulanbaatar	400	18	24	400	48	72
Total	1840	78	248	1550	108	264

Source: Freight forwarders and Korea Transport Institute

Customs delays and waiting for rail cars are often cited as the main reason for why rail freight takes so long. The waiting time for rail cars is particularly long in winter, when China Railways typically uses all its available rail wagons for transporting coal. However, even in summer, transport of fertilizers can tie up the wagon fleet.

Since Mongolia acceded to the World Trade Organization (WTO) in 1997, tariffs have been quite low in Mongolia. Import duties average 5 percent on most products with a seasonal 15 percent rate on flour and vegetables (August-April). Export taxes are levied on very few raw materials (cashmere, herder skins and scrap metal). The real constraints facing traders in general and exporters in particular is not due to trade policy per se, but due to transportation, physical infrastructure and institutional problems.

Border crossings between Mongolia and China

There are at present six points at which the goods traded between China and Mongolia can cross the border, but only one point is functional throughout the year. To date, Mongolia and China do not have an agreement that would enable the operation of Chinese or Mongolian trucks in the other country's territory. For such an agreement, several international treaties and bilateral agreements have to be negotiated and ratified. Even without such an agreement, Mongolia has to overcome two important impediments to trade on the Chinese side. One is the lack of adequate road access from Erenhot to Tianjin and two, informal barriers to inter-provincial truck movements that are likely to impinge even more on the movement of foreign trucks.

II. PHYSICAL INFRASTRUCTURE AND INSTITUTIONAL ISSUES

Existing framework relating to Mongolian Transit transport

Mongolia has the following bilateral and trilateral agreements.

Bilateral Agreement

1. Transit agreement with Russia (1991)

2. Transit agreement with China (1991)

3. Road transport agreement with China (June, 1991) Despite this agreement, Mongolian trucks are still prohibited from entering China- although Chinese trucks can enter Mongolia (at least up to the border town)

4. Road transport agreement with Russia (February, 1996). Under this agreement, Russian and Mongolian trucks can transport goods into each other countries.

Trilateral Agreement

Mongolia, China and Russia are currently negotiating a transit framework agreement[i]. This agreement is intended to provide the legal framework for an efficient transit system linking the three countries. In particular, the agreement should provide for guaranteed freedom of transit by all modes of transport between and within the three countries and promote the simplification, harmonization and standardization of customs administrative procedures and trade documentation procedures. The proposed modalities of the agreement have been under negotiation for at least a decade, and despite Mongolia's efforts, there has not been a consensus to date. Even though the Mongolian Ministry of Foreign Affairs has taken the lead in these negotiations, the involvement of the Ministry of Infrastructure is considered critical for the resolution of the negotiations, as the main barriers appear to be in the practical interpretation of some clauses. Further contentious issues are expected to arise during negotiations pertaining to border control.

The 1965 New York Convention

Mongolia is signatory to the Convention relating to the transit trade of land-locked states, signed on 8 July 1965 in New York. This Convention recognizes that the transit trade of landlocked countries (comprising one fifth of the nations of the world) is critical to economic co-operation and the expansion of international trade. The difficulty for Mongolia is that China is yet to accede to this convention and hence its principles are not binding on China.

The TIR Convention

Mongolia has acceded to the Convention on the International Transport of Goods under Cover of TIR Carnets (TIR Convention, 1975) on October 1, 2002.[ii] The TIR Convention entered into force for Mongolia on 1 April 2003.

The TIR system is designed to facilitate the international movement of goods under Customs seals. The system provides transit countries with required guarantees to cover customs duties and taxes. A balance is struck between the responsibilities of the Customs authorities and those of the international trading community.

The TIR system offers the following benefits to the different stakeholders involved in the international movement of transit goods:

- By reducing transport costs through reducing formalities and transit delays
- Facilitate transit movements by applying standardised controls and documentation
- Encouraging international trade.

For the transport industry

- goods would move across international frontiers with minimum interference
- by reducing transit costs and delays
- by developing simplified and standardized documents
- removing the need to make Customs guarantee deposits at transit borders

For Customs authorities

- duties and taxes at risk during international transit movements are guaranteed up to USD 50,000;
- since only bona fide transport operators are permitted to use TIR carnets, the security of the system is expected to be enhanced
- reducing the need for physical inspection of goods in transit
- by facilitating customs control and documentation
- use of internal clearance points for export and import allows more efficient deployment of Customs personnel.

The International Road Transport Union (IRU) has authorized the National Road Transport Association in Mongolia (NARTAM) as a TIR carnets issuing association and the process of authorizing NARTAM as a guaranteeing association *vis-à-vis* the Mongolian Customs authorities. The TIR procedure has been in use in Mongolia since June 2003. Russia is also a member of the TIR Convention but not China, although discussions are well advanced on China acceding to the Convention. So TIR documents can only be used at present for trade with Russia.

Freight Forwarding-Logistics Service Providers

The Mongolian freight forwarding industry is fragmented. There are three large companies that are FIATA certified. These three handle the bulk of the business. However, there are also a myriad of small operators competing at the bottom end of the market, and due to the operation of these small operators, the oligopolistic practices of the large operators is reduced to an extent.

Many export and import companies allege that the three large companies offer identically high rates and inadequate services. One of the three large freight forwarding companies is the International Freight Forwarding Center (IFFC). This is 100% owned by Mongolia Railways and this company is perceived to use this close relationship to the government to enhance its market share.

However, the small companies are unable to offer even the minimum quality of service that a trading company would look for, so these small companies mainly serve the smaller family trading enterprises. Few of the small enterprises provide insurance services or issue bills of lading (BOL). When large traders try to use the small logistics companies to take advantage of the lower rates, they frequently have in the end to ask one of the three larger companies to take over the contract.(In one instance, a rice donation from Taiwan of 5,000 tons in 93,000 bags, handled initially by one of the smaller Mongolia freight forwarding companies, was transported in a chartered North Korea vessel that sank resulting in some loss of cargo and considerable damage to the remainder. The remaining shipments in the consignment were eventually handled by a more experienced Chinese freight forwarding company).

Although there is a Mongolian Association of Freight Forwarders, it lacks any institutional capacity or ability to control its members or negotiate with the government. Anecdotal evidence shows that there are 1-2 person freight forwarding businesses described as “bed companies.” The only formal requirement for operating a freight forwarding business is to demonstrate availability of start up capital of U$ 2,000

The lack of a qualified and competitive industry leaves many niche logistics opportunities unfilled. For example, there is a less than trailer or container load (LTL/LCL) market made up of small family size importers and exporters. Lack of suitable freight forwarders or agents means that these traders have to make the trip to China to purchase goods. These traders have no confidence in the Mongolia freight forwarders large or small to service their needs at competitive prices.

Many developing countries have followed the practice of developed countries such as requiring professional credentials and qualifications in order to conduct freight forwarding business. Customers in developed countries rely on logistics service providers (LSP) in deciding optimal modes of transportation from point of origin to point of destination. The skills, service offerings and prices needed involve forwarding, packing, insurance, warehousing, invoicing, and Customs operations. For example, in the United States, logistics costs have reduced as a percentage of GDP from 16% in 1980 to

less than 9% in 2003. Presently, estimates from the Ministry of Industry and Trade of Mongolia place logistics costs at about 25% of the value of imported manufactured costs, with total export logistics costs for manufactured goods estimated to be even higher. While a higher logistics costs is inevitable for a landlocked country, logistics as a percentage of product value should be no more than about two thirds of those currently found.

It is recommended that the government more strictly regulate the Mongolian freight forwarding industry, at a minimum requiring that registered freight forwarding companies have:

- At least one staff member FIATA qualified, and that the company itself be FIATA certified
- A minimum capital of U$50,000
- Authorization to issue Bills of Lading

So that these requirements do not create an oligopoly of the three largest companies, FIATA should be encouraged to run training courses for obtaining its qualifications and certificates. Since it would take a minimum of one year for logistics operators to gain the qualifications, the new requirements should come into force sometime in 2007. While the new requirements are being prepared, the government should also:

- Establish a new insurance law for international trade.
- Privatize IFFC in such a way that it is not taken over by one of the existing Mongolian logistics companies (perhaps through a staff buy-out financed by a government loan that is repaid by equity in the new company).
- In the context of the UN sponsored Transit Agreement, review China's requirement for Mongolia logistics providers to use Chinese logistics companies in Tianjin.

Trucking Industry

The transition from a state owned enterprise system to private ownership for road transportation has not fared well in Mongolia. Currently, there is a single shareholding Mongolian trucking company, "TAV" Transportation Co.,Ltd. This company is constrained by truck capacity, poor roads, and limited cross border access into China and Russia. Other road transport services are provided by numerous independent truck operators, mostly with just one small or medium-size and ageing Russian-built truck. These operators provide inefficient and not particularly low cost domestic transport and to the Russian border, with occasional trips to the Chinese border at Zamyn Uud

Goods exported by road include washed cashmere from UB to the Chinese border and mining equipment to the Russia border and most imports by road are food from Russia. Experience with border crossings to China other than Zamyn Uud have not been successful and were subject to an investigation by a team from the ADB in May, 2005. There is poor coordination between the Aimag and central government agencies, as well as between various agencies at the same level of government. Importers have alleged that staff of each agency are looking for bribes to allow goods into the country even when

the documentation in complete and in order.

China's path to joining TIR may benefit Mongolia's exporting by road to China. The China Road Transportation Association (CRTA) under the Ministry of Communications in Beijing is reviewing agreements related to TIR and is to set a time frame for joining after 2005. The review involves researching and joining some of the following: Customs Container Transport Convention; Road Traffic Convention; Road Marks and Signals Convention; Harmonization Control for Goods at Frontier; and Convention for Vehicles and Temporary Import/Export which are contained in UNESCAP Resolution 48/11.

The CRTA believes that China's joining the TIR should develop the infrastructure between Mongolia and its borders. The Chinese government drafted a plan for building a road network throughout China. Also, the present research involves investigating matters pertaining to transportation and infrastructure along eight provinces namely Xinjiang, Inner Mongolia and Heilongjiang bordering Mongolia. However, CRTA highlighted the need for involvement of local government transport authorities.

There is a critical need for roads, such as the UB-Zamyn Uud completion, and for financing heavier trucks to handle containers. However, negotiations are still necessary on institutional and policy matters regarding prospective agreements. It is recommended that discussions by the World Bank and other international organizations take place with Mongolia, Russia and China for the following goals over the short and long term:

- Institute a truck tax collection system through a possible independent trucker licence law. Use of information technology to implement in cooperation with Mongolia's Tax Administration and Ministry of Roads.
- Organize the truckers in the road transport industry under the Mongolia trucking association in cooperation with the Ministry of Roads and National Road Transport Association, Mongolia.
- Maintain liaison with local and national government officials in China and Mongolia (Ministry of Communications, PRC, Ministry of Roads, National Road and Transport Association, South Gobi governor, Transport Regulation Authority) to discuss compliance with China's 1991 road transport agreement for Mongolia trucks entering into China territory at all crossings and for year round opening of seasonal border crossings.
- Meet with Russia road transport and security authorities about safe passage of Mongolia truckers into Russia. This could be a point to discuss for Russia's WTO goals in the long term. "WTO members are required to offer unimpeded transit rights to fellow members."(Article 5, GATT)[7]
- Join China research and negotiations for TIR. Mongolia could help to provide information needed by China in their quest to join TIR. Already Mongolia's National Road Transport Association contacted CRTA to increase cooperation agreements which may result in improving Mongolia's truck movements across the

[7]"Mongolia: Trade Policy Review," Pragma Corp,2003.

borders.

- Discuss freight forwarder needs in China and Mongolia for anticipated increase of road traffic once the South-North highway in Mongolia is completed. A Chinese freight forwarder, ITE, built a warehouse in Erlian,China and expects that more space is needed for storage once the road is completed in Mongolia.

Railway services

Most of Mongolia's export traffic goes by rail to Tianjin port in China. A 1991 agreement between China and Mongolia established this as a free trade corridor for a landlocked country, which gave some guarantee to Mongolia that discriminatory tariffs and operating practices would not be applied. From the Mongolian border to Tianjin the rail distance is 982 km out of a total of 1,686 km.

An alternative route for containers to Europe is via the Trans-Siberian railway to Brest, in Belarus. The transit time is between 8 and 14 days for a distance of about 7,600 km. The total transit time to most Western European cities is about 20 days compared with about 50 days for the ocean via Tianjin. There is now a weekly container block train between Hohhot, Inner Mongolia, (China) via Mongolia to Brest, organized by a Mongolia freight forwarder (Tuushin) and partners in Russia and Belorussia. Extensions to the service are planned to Frankfurt, Germany.

Some shortcomings of the current service are: (1) availability of containers; (2) insufficient backhaul cargo from Europe to China; (3) delays at the many border crossings between different railway jurisdictions

Customs Administration

Tianjin Port, Xingang

Mongolia businesses and their trade intermediaries (LSPs) confront difficulties with Customs procedures and documentation. In Tianjin at Xingang, one Chinese freight forwarder described China Customs as a problem of "mismanagement" caused by "many factors." For exports, all animal products (leather, fur, cashmere, meat) require detailed inspections which entail involvement of many different agencies.

One Mongolian car importer (Ukasan) is confounded with a Chinese Customs procedure for their time sensitive deliveries. The car importer must first prove that their transportation costs are paid before Customs releases the car shipment for Customs duty payments. This time delay can be up to one week, or even longer in the summer.

A problem with documentation delay involves lack of harmonization of product descriptions. Languages used are Chinese, English, Mongolian, or Russian and there is room for error in translation of products. As a result, China Customs stops the whole process to rewrite the papers.

"MONGOLIAN VECTOR" CONTAINER BLOCK TRAIN SERVICE BETWEEN BREST AND ULAANBAATAR

New express block train service for dry normal containers between Station Brest, Belorussia and Ulaanbaatar, Mongolia within the frame work of the

INTERNATIONAL COORDINATION COUNCIL on TRANSSIBERIAN TRANSPORTATION

Supported by:

Mongolian Railway, Belorussian Railway

The Ministry of the Railway of the Russian Federation

Advantages of new landbridge between Europe and Asia:

Management and high quality service

Customized regulation of handling, trans-loading and on-forwarding operation

Tracing and information system accessible through internet

Speed, frequency and stability of deliver

Regular scheduled shipment with transit time of 10 days

Technical reliability of the train and wagons

Security of the cargo

Concentrated security system

-Cost competitiveness

Discounted through freight rate offered by operators based on volume

Other problems in Chinese Customs are lack of pre-clearance procedures which require electronic transmission of documentation prior to the arrival of shipment in customs. Currently, international security standards require arrival of manifests 24 hours before the ship leaves for targeting suspect cargo. Chinese Customs still rely on excessive paperwork and there is no electronic linkages between China and Mongolia.

Although Mongolia and Chinese Customs have good working relations, there are some issues pertaining to information systems. China is yet to establish trade data connectivity with trading partners. Furthermore, although Mongolia and China agreed in principle on Customs Mutual Assistance, in practice this agreement is not functioning effectively. The exchange of data at Customs border points is only through paper, facsimile or telephone. Mongolia's Ministry of Industry and Trade highlights the need for accurate trade statistics through proper data collection methods.

Efficient and secure external trade depends on expedited clearance of customs and trade documentation formalities. Hence, the shortcomings of China Customs, even for the low volumes moving through the Port, need reform up to international practices so that higher volumes of Mongolian goods can speed through.

It is recommended that the following actions occur in the short and medium term to rectify some of these problems:

- Written agenda to discuss systems (pre-clearance) for clearance of Mongolian shipments without excessive delays in Customs.
- Review Customs harmonization for classification of products to eliminate delays caused by product description problems in language translations.
- Develop customs electronic connectivity between China and Mongolia.
- Determine if the staffing is adequate in Xingang port to handle the traffic of nearly 4 million TEUs during peak seasons and examine the possibility of extending hours
- One freight forwarder (CBW) suggests a new procedure at Xingang. All Mongolian shipment manifests state final destination as "UB, Mongolia" and not the current, "Xingang" on the documents. This would facilitate pre-clearance.

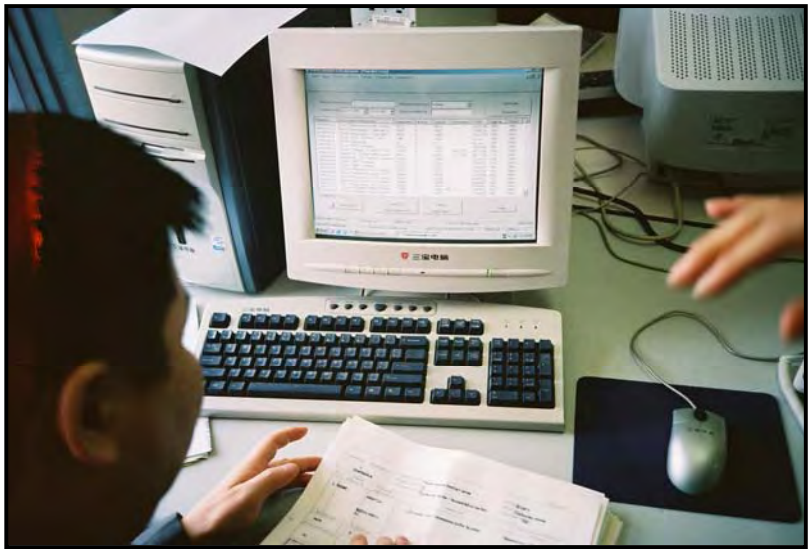
Russia Border (Sukbaatar-Altanbulag,Mongolia)

There are problems are encountered by traders at the northern border -through Sukbaatar to Russia. Transit cargo from Russia to China is trucked through Altanbulag, where there is very little exporting or trading activity, to Sukbaatar for loading onto rail cars in a yard.

The Sukbaatar Customs House in 2004 recorded 7.6% exports, 35.3% imports and 57.1% transit cargo. Exports were 5 percent from UB (carpet,wool,cashmere) in containers for European countries; 20 percent for Erdenet (copper) to Khazhakstan; 70 percent from Gobi-Sumber province (mining bulk) to Sverdlosk,Russia and 5 percent from Selenge (meat) for Ulan Ude and Chita, Russia. All documentation is prepared in the UB Customs office and by the exporters at the points of origin.

Customs cited problems pertaining to lack of coordination of the Mongolia railway schedule with the advance receipt of documentation. However, the UB Customs office receives advance general information from Russia for transit cargo. This lack of coordination can result in a situation with two trains arriving at identical times and hence there is not enough time to properly inspect the containers. The documentation and the inspection of wagons matched against the documents takes up to two hours. Other problems are:

- Lack of computerized information systems. (a new system is to begin in July,2005) Current computer systems appear to be not automated.
- Need for a 40 ton not 20 ton crane to quickly lift and inspect containers, a paved



container yard with a new office building. Private investment is working on the financing, currently.

- Rail Car shortages
- Need for X-Ray inspection equipment
- Time consuming process of one document for each railcar of the same products when the same shipper and receiver are used.
- Russia Customs delays are bureaucratic and have a slow loading process. Russia at present requires many documents for exports from Mongolia. Some are manual and few electronic which can hold cargo at the border.
- Restrictive tax regime in Russia on Mongolia exports.
- Mongolia exporter (Gobi Corporation) packing and insurance concerns because of products missing on rail cars in Russia.
- Exporters (Gobi Corporation) have to make advance planning because of Russia capacity problems.
- Exporters (Buligaar Skin Tannery Co.) restricted from shipping processed leather skins (any animal products) to their Czech Republic customers over Russia railways, since 2003. Buligaar is in a joint venture with Italy and GOM (60%) and works at 30% capacity. The reasons are: privatization was a loss to his customer base; Chinese competition; and animal vaccinations needed. Some of the 30% capacity of 150,000 processed skins per year are to South Korea and China.
- Exporters (SG Group) of meat controlled by Russia government on price, railcar schedules, and permits so that no profit is earned.

Overcoming these obstacles faced by Mongolia exporters requires the following courses of action for short and long term implementation:

- World Bank assistance on reviewing Mongolia's computer system, GAMAS, for advance shipment notification (ASN) before railcars arrive at the border station.
- Review equipment needs at the border station with private firms (Tuushin).
- Change process from one document for each rail car to one document for the train when the shipper and receiver are the same for each rail car.
- Meet with Russia Customs to review border crossing procedures to avoid delays.
- Long term goal of Russia joining WTO needs to start with eliminating restrictions on

Mongolia exporters. Such as, processed skins to Czech Republic markets.(Article 3(4),GATT)[8]

- Review of TIR carnets system and its application between Mongolia and Russia for through and bilateral transit.
- Meet with Buligaar Skin Tannery Co. to find details of Russia restricting skin exports to the Czech Republic market.

China Border (Zamyn Uud-Erlian, China)

Customs at Zamyn Uud on the China border reported total throughput of U$ 88.1 million in 2004 (of this, imports were U$ 76 million, exports U$ 12.1 million, and transit cargo of 5.7 million tons). Exported goods were cashmere, wool and skins, clothes (mainly to US). Coal exports are also reported to be increasing. Imports consist of food, construction material, manufacturing and construction equipment.

Ulaan Baatar Customs is connected to Zamyn Uud Customs with an on-line computer system. This system is intended to aid exporters in saving time for complying with clearance and declaration procedures. This system is called GAMAS was devised by Mongolian software experts as a low cost system designed specifically for Mongolian Customs. Some companies will be able to connect to Customs if they use compatible software. However, the connection to Tianjin port could not me made due to objections from China, even though Mongolian experts claim that it is technically feasible.

The lack of information system linkages between Mongolia and China presents the problem of false documentation, inaccurate valuations, and poor statistics which slows external trade. Mongolian Customs claim that documents for container imports are altered in Tianjin and that some documents are not even presented in Mongolia.

Chinese customs accuse Chinese and Mongolian traders of presenting false documents often in collaboration with Chinese and Russian traders. However, according to the Ministry of Industry and Trade, Mongolia the price list used for valuation by Customs is not accurate, so this inter-ministerial dispute creates further delays for clearing consignments.

Zamyn Uud Customs states that there is a lack of cooperation with China on tallying border trade for statistical purposes. Since in principle, Mongolian export numbers should be the same as Erlian import numbers, such discrepancy is mainly due to the lack of information technology linkages.

For Mongolian traded manufactured goods to pass more easily through China, closer coordination is needed between Chinese and Mongolian customs. Since such coordination is more pressing for Mongolia than to China, Mongolia should take the initiative in negotiations. A beginning could be made by Mongolian Customs adopting a software system that is acceptable to the Chinese Customs agency. It would be an

[8]"Mongolia Trade Policy Review,"Pragma Corp.2003, p.66.

advantage if Russian were to have a compatible system as well.

Inspections and Railway

Animal products of meat, wool, cashmere and processed skins face additional barriers due to excessive paperwork delays. In China, Erlian Customs at the border stated that "the quarantine on Mongolia agriculture products has not ended." Currently, direct exports of meat to China and Russia are though possible in principle, are difficult in practice. However, third country exports and imports of animal products from Mongolia via China are even more difficult, according to the information supplied by freight forwarders.

An example of Chinese requirements that should be relatively easy to resolve is the requirement that all wool and cashmere products by rail be loaded to trucks at Zamyn Uud before entering China for inspections. This procedure of physically removing all wool and cashmere to trucks takes from 8-15 hours, according to Zamyn Uud Customs. This rule was imposed in 2001 due to the fear of transmission of disease, but that risk is not present anymore.

In Ulaan Baatar, Mongolia Customs have authorized laboratories and a State Professional Inspections Office so that businesses can have the wool and cashmere tested in Ulaan Baatar. The State Inspection Office document and certify the wool and cashmere. However, the Mongolian lab tests are not acceptable to China to allow transport into China by rail.

The meeting with the China, Ministry of Railway (MOR) in Beijing, revealed a different interpretation of the reloading requirement. In Erlian, on the Chinese side of the border, there is only an inspection warehouse for road transportation and it is claimed that the volume of Mongolian wool and cashmere exports by rail are not sufficient to operate a separate rail facility – a surprising claim since all Mongolian exports arrive at the border by rail.

Another inspection problem delay involves Mongolia Customs procedures for chemicals used in processing skins. Ninety percent of chemicals used in processing are imported and 30 percent of the total costs in processing are from the cost of these chemicals. Each import from China requires testing at the border for Mongolian certification, which takes seven days and requires visits from UB to Zamyn Uud by the importer. If the chemicals could be cleared in Ulan Bataar, where more laboratory facilities are available, the total transit time and facilitation cost could be significantly reduced. This should be feasible for products that are transported by rail only from Tianjin to Ulan Bataar.

The obstacles to meat exports are the permits which can take up to one month besides the lack of refrigerated and frozen infrastructure capacity. According to the IFFC, initial approval is needed from the Chinese government authority for the meat to transit through China. Also, there is a need to apply to the head office of the China

Inspection Quarantine Bureau (CCIQ) in Beijing. Subject to approval, the CCIQ issues a letter. This process involves monetary costs approximately equal to 2.5% of the cargo volume and time cost as well.

The following is an illustrative example of horsemeat exported to Japan: The Mongolian government issues a health and sanitary certificate- a process which can take 2-3 days. Following this the freight forwarder has to apply to CCIQ from Erlian to Beijing- a process which can take up to a week. Also, the customer comes from Japan to inspect the frozen meat. The documents required for such inspections are: Mongolian State Specialized Supervision Inspectorate Agency; Certificate of Conformity; General Systems of Preference Certificate of Origin (combined export declaration form and certificate); letter of description; and Chinese authorization.

The Ministry of Industry and Trade recognizes the obstacles to meat exports based on the sanitary conditions for slaughtering, veterinary, and strong international (EU) requirements. "According to UNIDO (2002), the presence of diseases in Mongolian livestock impedes the export of raw and processed meat. Other constraints are inadequate meat quality control, (93 percent of the animals are slaughtered in backyard facilities)."[9] Furthermore,"it is recommended that Mongolia adopt the guidelines of the Code of Meat and Meat Products (Codex Alimentarius)."[10]

The following proposals will be useful in the short run for tightening and establishing the links needed for testing of animal products.

- Determine from UNIDO the requirements that Mongolia has to comply with for being removed from the blacklist on meat.
- Adopt a time frame of steps for bringing Mongolia meat processing to international standards.
- Mongolia's Ministry of Industry and Trade in collaboration with Mongolia State Professional Inspection Office, meat industry officials and the United States Department of Agriculture agree on the modalities for streamlining requirements for meat exports.
- Streamline the chemicals import inspection process for skin processing exporters. Mongolia could also examine the possibility of processing electronically to save the businesses the time of going to Zamyn Uud each time there is an import of chemicals.

Mongolian exporters' excessive dependence on railways for time sensitive shipments is a barrier for penetrating external markets. Gobi Corporation produces 350,000 cashmere products per year of which 80-85% is exported to Western Europe, North America, Japan and South Korea. Large customers buy over US$ 50,000 of goods in containers. A shipment to the US west coast will take 45 days and costs are US$ 3,400, with a possible US$ 200-300/TEU premium for quicker delivery service. Each TEU container has 8-10,000 garments with 30 garments per box. The transport costs of such

[9]"Mongolia Trade and Policy Review," Pragma Corp.,2003, p.81-82.
[10]"Mongolia Trade and Policy Review", Pragma Corp.,2003, p.65.

consignments are rather low. On time shipments, the first priority has to be minimal delays.

IFFC claims that even if the departure schedule is followed for the train, then its arrival in Ulan Baatar is still delayed and Customs delays in Ulan Baatar adds to the delay of releasing containers. While the delays are inconvenient and add to the cost of importers, they can be critical for exporters who have made advance reservations of space on ships departing Tianjin. Either they must send their freight on the train a week earlier, involving higher storage costs, or they risk loosing their reserved space on the ship and have to negotiate from a point of weakness for space on another ship.

A critical requirement by retail customers is for stock replenishment without the burden of higher inventory carrying costs along the points to final delivery. Many major retail chains have now eliminated intermediate warehousing and ship directly from the overseas supplier to the retail outlet. The uncertainties in transit times make it impossible for Mongolian exporters to comply with these requirements.

There is need for greater certainty in the transit time of Mongolian exports via Tianjin. The agencies presently involved in trying to improve this service have failed to bring about any significant change. The main problem is that railways in both China and Mongolia are state owned and not responsive to users needs, and further, for Chinese railways the Mongolian requirements are not a priority. Even the main freight forwarder involved, IFFC, is wholly owned by Mongolian Railways, and the other freight forwarders have little negotiating power with the railways as they have no alternative transport supplier. While completion of the road from Ulan Bataar to Zamyn Uud will open up the possibility of road competition, the railway should still be able to operate efficiently and reliably. This can be achieved if the Mongolian part of the rail service is operated by a private company with commercial objective and freedom to negotiate agreements with China railways and the other agencies involved.

Infrastructure

Other than the lack of a paved road from Ulan Bataar, of the weakest infrastructure links for Mongolia's external trade is in the Zamyn Uud-Erlian border-crossing. At this point, wagons from the Mongolia-Russia broad gauge (1,520 mm). must make a bogie change to travel on the Chinese standard gauge tracks (of 1,435 mm). The change takes place at Erlian for wagons destined for China and at Zamyn Uud for wagons destined for Ulan Bataar, and customs and other documentation procedures take place at the same locations.

Erlian Customs stated that the physical process of changing bogies can be completed within three hours for changing 100 bogies. However, the physical process often lakes longer and the accompanying documentation process can take more than a day. In fact, the arrival of the train determines the total time needed. For Mongolian train arriving at the border in the morning, the approvals are completed by the following day. For trains arriving in the afternoon, the process can take longer. This is because while the railways works round the clock, China and Mongolian Customs work only eight hour a day

Apparently, the operation and process in Erlian, China to changing wheels is not very efficient. The overhead cranes in the shed lift the rail car and then remove the wheels from the front end which requires de-coupling the cars from the train. However, since the main constraint is documentation time, there is no pressing need as yet to make the physical bogie change any faster.

There is not a dedicated fleet of wagons assigned to the UB- Tianjin freight service. For a weekly 50 wagon train in each direction, and with sufficient spares to maintain a schedule, about 125 wagons might be needed, at a cost of about U$30,000 each. Setting this dedicated wagon service would entail an investment of about U$3.75 million. So long as the exclusivity of the wagons for the service could be guaranteed, this would be a worthwhile investment to help ensure the timely arrival of export containers in Tianjin and import containers in Ulan Bataar.

MOR claims that it is not rail car availability as much as track capacity that makes operating a scheduled service impossible. While it is true that China Railways does not operate any freight trains on a regular schedule basis, it does so for passenger trains, including the Trans Siberian service between Beijing and Moscow via Ulan Bataar. So there are some trains on the route between Tianjin and Ulan Bataar that operate to a fixed schedule. A private operator of the container train would be better able to negotiate with China Railway for a track slot to run a schedule service.

In 2005, the MOR is expected to broaden the Erlian station and increase the line capacity from Erlian to Jining to over 10 million tons. This will double the present capacity While this increase is aimed to satisfy demand for coal transport within China, it should also make it easier to negotiate a train path for the weekly Mongolia container train.

Refrigerated cargo

Exports to Russia by SG Group, Mongolia of refrigerated horse and cow beef amounted to 2,000 to 3,500 tons per year over the last five years. The destinations are Ulan Ude and Chita, Siberia.

Availability of refrigerated rail cars is a constraint to the expansion of this service. Freight cars must be ordered by SG Group from Russia eight days in advance, and each set of cars is accompanied by two Russian mechanics. In addition to paying the

cost of the mechanics, the exporter must pay an additional U$ 20./ton cooling charge for the transportation from their factory to Darhan up to the Naushki port at the Russia border. Given the low price obtained for these products in Russia, these additional charges contribute to making trade commercially, unviable. While the transport and facilitation problems needs to be resolved, the profitability of the trade depends more on getting a product to the market that will command a higher price.

Earlier sections of this report detailed the difficulties in Mongolia meat exports through China. Potential markets are in Japan, South Korea, North America, Europe and the Middle East. The lack of refrigerated containers, storage facilities, border and Port refrigerated plug capacity (to keep containers refrigerated while stacked) and training of staff on how to handle refrigerated cargo are major obstacles to development of these potential markets. OOCL shipping lines and CBW (P&O Nedloyds) expressed an interest in advising and helping establish the logistics chains of refrigerated infrastructure, if the potential cargo is sufficient to justify it.

Free Economic Zone-Customs Bonded Warehouse

The service capabilities of the logistics and transport sectors are constrained by the lack of adequate facilities at the border crossings and in the Tianjin Port area. As a result, the struggling private sector is underserved to reach international markets. The nascent Free Trade or Economic Zones in Zamyn Uud and Atlantbulag offer undeveloped space to construct necessary logistics centers.

The need for less than container or trailer load storage area is expressed by freight forwarders. The pilferage of goods is another problem facing external traders. Exporters of cashmere stated a need for better planning to meet overseas market demand.

Tuushin, a major Mongolia freight forwarder and logistics provider, is investigating and planning for logistics center warehousing. The idea is to capitalize on the proximity to the China market with the Zamyn Uud border and Altanbulag FTZs.

In Altanbulag, Russian traders would not need to go to China for consumer goods, if warehousing services are set up. Similarly, in Zamyn Uud, Mongolia border traders of animal raw materials and finished goods, and light industry manufacturing by China businesses are possible.

Warehousing space and their modern information systems would enable logistics services to thrive by moving closer to the markets. The LCL shipments could be gathered; shipping and receiving services based on warehouse management systems

would prevent the incidence of stealing as well as support planning, and there would be a place for Mongolia to test and realize its comparative advantages in electronics assembly, for example. There could also be a facilitation for quicker Customs and inspections.

Currently, these two Free Trade Zones are inactive and barren. The areas at Zamyn Uud are sandy and lack any pavement or concrete. In Altanbulag, there is a bonded warehouse with mostly imports and the rare export of carpets and grass by trucks. Furthermore, Russia's tax restrictions and lack of WTO status prevent Mongolian trade. The Zamyn Uud Free Economic Zone plans to develop industrial, trading and tourism services which may include a casino. Recently, Best Paradise, Virginia Isles, Great Britain was selected as the *developer of the Zone*.

Zamyn Uud proposed Free Trade Zone

The advantages of Free Trade Zones are significant as are the risks of improper project analysis. Free Trade Zones can bring employment (income), foreign direct investment (FDI), technology transfer, value added services and foreign exchange earnings. In the U.S., FTZs began in order to streamline Customs procedures for international traders. However, World Bank experience shows that the probability of failure for poorly prepared projects within three years of a project life is seven times greater than that of well-prepared projects.[11]

Information Systems

Mongolia's trade and transport linkages to global markets would benefit significantly from improving the level of software technology in the information systems. Mongolia has fiber optic cables and proprietary Customs software called GAMAS for connecting Customs, internally, but lacks cooperation with China and Russia to connect all trading partners. The delays from Customs at the borders and in China and Russia are costly and can be reduced through better integration of information systems

There are problems with cashmere and meat exporters needing to link into Mongolia's GAMAS computer system. Traders stated that the new system saves money, but not time since paperwork is still matched against electronic documents. Also, the

[11]"Assessment of Mongolia's Free Trade Zone Program and Site Evaluation," Ceron, USAID, March,2004, Section V.

airport is not able to link into the GAMAS system because of the lack of fiber optic cable at the airport. This defeats the purpose of fast delivery by air. It is unclear if the computer system is automated which is the full benefit of electronic data interchange (EDI) in international trade.

The Automated System for Customs Data (ASYCUDA) implemented to increase efficiency, lower risk of fraud, raise revenue receipts and provide accurate statistics is not used. Mongolia Customs in Zamyn Uud used ASYCUDA for customs declarations, but each customs house could not exchange data from UB-Zamyn Uud. So, the GAMAS system is used for now. The United Nations system of ASYCUDA can also be used for TIR.

The excessive 24 hours Customs clearance time is caused by a lack of Customs harmonization between countries. Local Customs needs to report to Customs directors for approvals with a networked computer not by electronic data interchange (EDI) and also repeat the process delay with other animal products inspections. In China, General Customs in Beijing has a plan for Mongolia-China electronic connectivity. Currently, China is testing a data connection at the rail entrance in the border city of Manzhouli with Russia.

Processes need to be defined and paperwork and handoffs at the border points between transport providers and Customs reduced. However, once steps from point of origin to point of destination are mapped and defined, then processes can be automated and synchronized between transport provider documents and Customs documents for faster delivery times and reduced costs. Some of these track and trace technologies over the Internet are used by freight forwarders, but are neither widespread nor workable as a normal course of business.

Some short term recommendations to reach the long term goal of a single window of connectivity and information flow by all trading partners (product, information, financial flows) are:

- Perform an information technology gap analysis on the GAMAS system for automation of processes.
- Work on harmonizing documentary and data requirements with other countries through assistance from World Customs Organization.
- Determine financing and sources of donor support
- Determine the problems of ASYCUDA and explore the use of the Single Window, UNeDocs. (XML,Web Services)
- Review the optical fiber network of Mongolia Railcom with China railway commmunication company from December,2000 and with TransTeleCom of Russia from January, 2002 to determine the feasibility of software applications development for automated EDI trade and transport facilitation.

Tourism Facilities

Mongolia has natural, historical, and cultural sites of interest to foreign tourists, such as the Nemegt Valley's "dinosaur graveyard," the ancient city of Karakorum, and the medieval Erdene-Dzuu monastery at Kharakhorum, about 300km west of Ulaanbaatar. While hunting proved to be an attraction for tourists in the 1990s, the government is now more focused on attracting eco-tourists to see the fauna (wild horses, goats, sheep, camels, and yaks as well as elk, ibex, gazelle and wolves) through trekking and camel and horse tours. Many of these include visits to nomadic communities as part of their attraction

Despite the growth of eco-tourism, the lack of suitable accommodation both in Ulaanbaaar and in the countryside is a constraint on tourism growth, compounded by a lack of paved roads and air services to reach the main tourist destinations. While there are a few hotels that would qualify as three-stars on most international ratings, there are no four or five star category hotels, although a five star is now under construction. Outside of Ulaanbaatar accommodation is mostly in tourist ger (tent) camps that offer only basic facilities.

Given the difficulty in reaching Mongolia from most tourists origins, there are at present inadequate facilities to attract other than the most adventurous. Those who do come from Europe and North America often combine their visit with time in China. However, Korean and Japanese tourists are particularly attracted to what Mongolia has to offer and spend more time there.

The few paved roads away from Ulaanbaatar means that most visitors depend on air travel to reach their destination area, even if they use horse, camels or jeeps once they are in Mongolia. Domestic air services are provided by the national airline MIAT and sporadically by one or two private airlines, but this year (2005) all services have been drastically curtailed, to the extent that many visitors cannot reach their destinations by air. In early summer 2005, MIAT was serving most tourist destinations only once or twice a week as its domestic services were reduced to being served with just one aircraft (the others had lost their air worthiness certificate because of the aircraft age). Air Mongolia, a privately owned airline with domestic only routes served by two F27 aircraft had suspended operations as its aircraft had been impounded by the bank that issued that loan through which they has been purchased.

There are several tourist agencies in Ulaanbaatar that provide services for international tourists, in addition to the previously state-owned monopoly provider. There is a common complaint from these agencies that the unreliability and lack of peak period capacity of international air services to Mongolia is as great a constraint on tourism development as lack of facilities within the country. During the short summer season, there are once or twice daily services from China (Beijing), Japan (Tokyo and Osaka), Korea (Seoul) and Germany (Berlin via Moscow) and to Irkutsk (Siberia). These destinations are served by MIAT and the national airlines of the appropriate countries (Aeroflot, Air China, Korean Air, and Japanese Airlines). From June, 2005, Korean Air

is operating a five days a week service from Seoul using a 237 seat Airbus 330 aircraft.

The irregularity of international services has been reduced by changing the arrival and departure times of services at Ulaanbaatar airport. The orientation of the single runway makes the airport susceptible to close by strong winds on summer afternoons, so many flights are now scheduled for early morning and nighttime arrival and departure.

Visitors can also reach Ulaanbaatar on the twice weekly service of the Trans Siberian railway, from Moscow to Beijing. The travel time is about three days from Moscow and a day and half from Beijing.

The short summer season makes it difficult for investment in tourism facilities, (particularly hotels outside Ulaanbaatar and aircraft for domestic services) to be profitable. Attempts to extend the season have so far been unsuccessful although there still hopes of introducing week-end breaks for residents of Beijing and Tokyo to take advantage of the natural beauty and solitude of Mongolia. Ideas for winter skiing holidays in the mid-western mountains are more speculative than realistic. High value, exclusive hunting and fishing travel to the Lake Hovsgol area are more realistic, and while unlikely to attract large numbers of tourists, their expenditure levels could be high enough to make investment in facilities for them worthwhile. A similar approach, attracting high income tourists who are prepared to pay the higher costs that would make facilities viable over the short tourist season, could be a solution for the rest of the tourist market.

Several tourism studies have been made in the last five years, but none of them have made realistic projections of the feasible numbers of tourists, the investments needed to attract them and the revenue that might be earned from them. The projections in the most authoritative of the studies, that funded by TACIS in 1999[12], failed to foresee the large growth in tourism in the early part of the present century, and indeed cautioned on the negative impacts of too high growth in tourism if the industry was not better prepared to deal with the numbers of tourists. This is largely what is happening now, with many tourists complaining particularly about the lack of domestic air services and the difficulties in booking return flights from domestic destinations to Ulan Bataar.

Domestic Aviation[13]

Currently, MIAT generates a net annual profit of about U$ 0.5 million. The profit composition, however, raises concerns as it is composed of a US$2.5 million profit from international operations and US$2 million losses from domestic operations. One of the main challenges is MIAT's current tariff structure[14]**,** which is based on the government

[12] Strategic Tourism Plan, TACIS, 1999

[13] This section is largely based on Mongolia: Technical Note on the Air Transport Sector, World Bank, 2005

[14] Tariffs and yields: Mongolia's pricing policies mix commercial and social objectives. On the international side, MIAT's yield is US cents 7 per passenger km, a favorable level and sufficient to generate profits. On the domestic side, MIAT offers a tariff designed to allow wide popular access to air

policy to keep tariffs, especially domestic tariffs, on an affordable level. However, this level does not cover operational cost of any type of aircraft.

On the domestic routes, MIAT operates 5 Russian built Antonov 24/26[15]. Of these aircraft, only one is currently serviceable. In addition, all AN24/26[16] have reached their operational lifespan and must be retired from service within the next 12 months[17]. Also, MIAT operates 11 AN2, which is primarily used for agricultural missions. However, none are currently serviceable. MIAT has established a state-of-the-art maintenance facility, which was certified by the European Aviation Safety Agency (EASA). The facility allows MIAT to perform "A" and "B" checks on most of their aircraft. In the future it could be developed into a maintenance operation that serves international clients.

MIAT has considered using new aircraft that would be purchased for its international routes to service its domestic routes with night time flights. This would increase the utilization of aircraft from the present six or seven hours a day, to closer to ten or twelve hours per day, and perhaps make the aircraft purchase commercially viable. However, this solution would not work is MIA were sold or concessioned to the airline of another North East Asian country, another option under consideration. Under this scenario, Mongolian international routes would be served by aircraft of the airline taking over MIAT, and they would unlikely to have flying time available for Mongolian domestic services.

The current open skies policy for domestic services has not worked because the controlled fares are too low for an operator with only domestic services to make a profit, even using low cost aircraft such as the F27 and F100 of Mongolian airlines.

Airports

The current airport system of the country consists of Ulaanbaatar International Airport (BUIA), which functions as a hub airport serving most of the domestic air services as well as international air services, and 26 domestic airports, of which one

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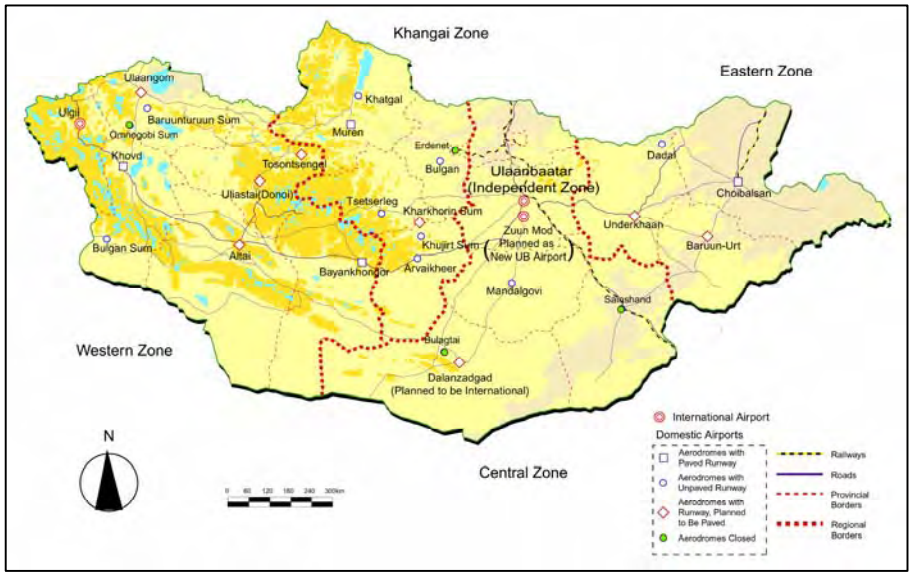
transport despite low income levels, featuring ticket prices incorporating a discount of 70% off the published tariff for Mongolian travelers. This results in a domestic yield of about US cents 3.6 per passenger-km, far too low and guaranteeing losses for MIAT. Furthermore, although there have been six tariff raises in the last 10 years, these are inadequate. The last increase was in February 2001, and adjusted for inflation, still leaves fares at levels that are one-third below those established in 1993.

[15] The AN24 is a twin turboprop aircraft with 42 seats. The AN26 is the identical version that was built for cargo operations (reinforced floor, larger doors), but later converted into a passenger version.

[16] MIAT's AN26 and AN2 have reached the limit of their operational lifespan. The aircraft are parked in the lawn in front of MIAT's main hangar. However, the maintenance facility could be further developed to serve international customers. A prime example is the Central American carrier TACA that has successfully established maintenance facilities that serve US carriers such as American or Jet Blue.

[17] The Russian Civil Aviation Authorities have limited the lifespan of the AN24/26 to a maximum of 30 years. There might be a costly possibility to extend the serviceable life for another five years. The MCAA has the power to extend or grant an unlimited lifespan with certain maintenance conditions (as done by Western CAA). However, it is very unlikely that the MCAA will accept such a responsibility. Therefore, it must be assumed that all AN24./26 are to be retired soon and will not be part of any privatization.

serves international traffic[18]. Only four other domestic airports, Khovd, Muren, Bayankhongor and Choibalsan, have paved runways and runway lighting. Of the country's 27 airports, only 23 airports are considered as operational[19]



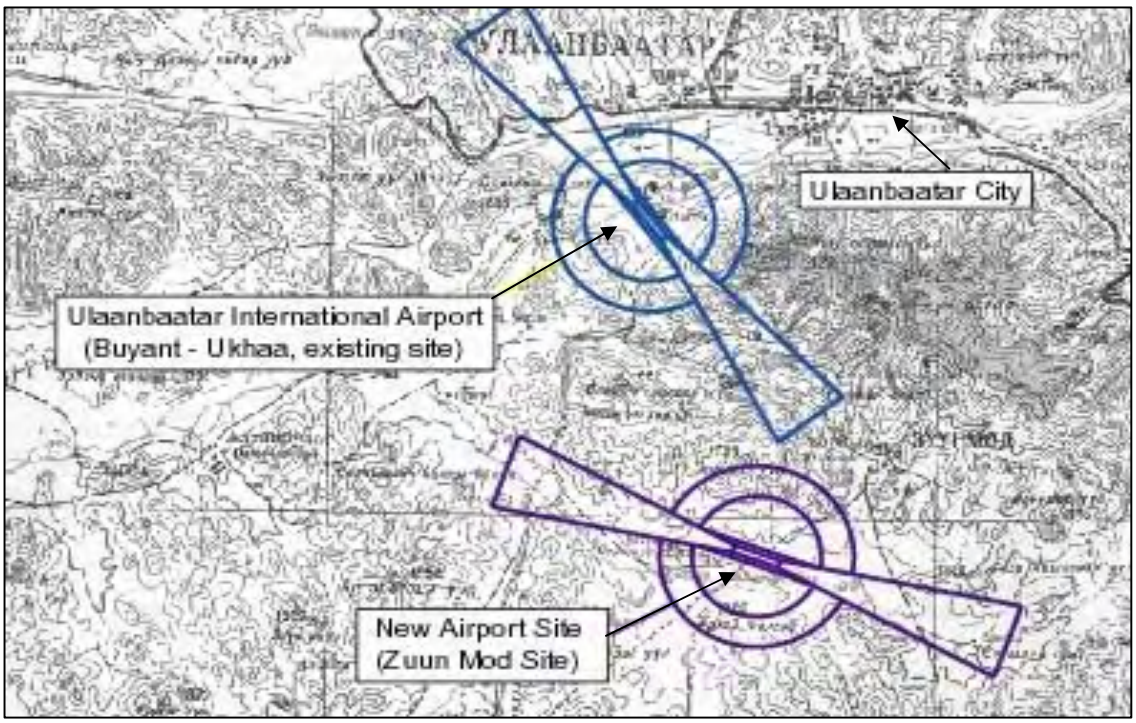
Location of major Mongolian Airports

The Mongolia Civil Aviation Master Plan (MONCAMP) states as one of the priorities the construction of a new airport replacing the current Ulaanbaatar International Airport. The main reason lies in the fact that the current airport operates with a unidirectional runway[20], which makes operations tail wind sensitive and requires longer visibility range.

These three problems are primarily attributable or related to the high mountain peaks at the south of the runway. According to the Ministry of Civil Aviation, they cause a low aerodrome usability factor (AUF)[21] that can only be solved in a cost-effective manner by building a new airport at another location.

The MCA proposed construction of a new international airport for Ulaanbaatar at Zuun Mod, which is some 48 km by road to the southwest of Ulaanbaatar City:

[18] Ulgii Airport, located near Mongolia's western border, only serves scheduled flights from/to Almaty in Kazakhstan, by a private Kazakhstan based airline using small turboprop aircraft.
[19] Four airports no longer function as aerodromes: Bulagtai Resort, Erdenet, and Omnogobi Sum are closed, and Sainshand is now only a sub-centre for the Ulaanbaatar Area Control Center.
[20] Because of high mountains about 1 km South of the threshold of runway 32, aircraft land on runway 14 and takeoff on runway 32.
[21] The ICAO Annex 14 Article 3.1.1 recommendation states: "The number and orientation of runways at an aerodrome should be such that usability factor of the aerodrome is not less than 95 % for the airplanes that the aerodrome is intended to serve." The current AUF is dropping below 85 % for 5 months out of the year, and occasionally below 70 %.



The construction would have taken place in two phases. The Phase 1 development to be completed by 2010 and to accommodate demand up to the year 2015, while completion of the Phase 2 expansion would be in 2015, satisfying demand for the year 2020. The total costs were estimated at about US$ 88 million for Phase 1 and US$ 24million for Phase 2 expansion.

However, given the current level of passengers of about 450,000 per year[22], and a forecasted level of about 500,000 passengers in 2015, it is hard to justify the construction of a new airport. In addition, experience has shown that new airports usually cost far more than the proposed US$ 112 million and construction usually takes far more time[23]. The government seems to have postponed the plans for the construction of the proposed new airport.

The current Ulaanbaatar International Airport needs continued maintenance[24]. Next to the usual snow removal service during winter months, the repair of cracks[25] of the main

[22] In 2004 BUIA had 270,000 international and 150,000 domestic passengers.

[23] The construction of a new airport usually costs a minimum of US$ 300 million and the duration of construction often takes more than ten years.

[24] The runway needs continued maintenance. The cargo facility is currently underused, but has all the necessary facilities (cool storage and IT network).

[25] Problems of cracks in the runway pavements resulting from large temperature differences due to climatic conditions have emerged. Between 1985 to 1987, the main runway was overlaid 3 times using asphalt concrete, and the runway was again overlaid 3 more times using asphalt concrete between 1988 and 1990. The Airport was then upgraded under the Ulaanbaatar Airport Development Project (UADP) over the period of 13 January 1994 – 31 August 1997, at a cost of US$ 50.9 million, financed primarily through a loan from the Asia Development Bank (ADB). The condition of the old pavements and large temperature ranges throughout the year have resulted in frequent runway overlays. Furthermore, the decision to complete a 500 meter runway extension (from 2,600 to 3,100 meters) being constructed by the MCAA, and

runway remains a priority. The main runway will therefore need a new complete resurfacing in the coming years.

Next to the runway repairs, the airport management has stated necessary improvements[26] and investments. The airport is currently barely profitable (or loss making if loan service to ADB is included) and its investment plan states pending investment needs of US$11 to $12 million for the coming years.

The Ministry of Civil Aviation has also proposed investing US$78 million in runway paving, aeronautical lighting and telecommunications at 11 domestic airports. US$49 million has been proposed for Phase I (2004-2005) at Dalanzadgad, Ulaangom, Ulgii, Altai, Baruun Urt, Uliastai and Kharkhorin. These investments have not yet been approved and should be decided on in connection with the discussed subsidies of domestic air transport.

Air traffic control

Air Traffic Management (ATM) has become a crucial factor for the country, which generates about US$30 million per year[27]. Costs to create this income stream are minimal, so that in 2002, for example, MCAA's ATM activities gave rise to a pre-tax surplus of US$ 17.8 million. The optimal distribution of net ATM revenues inside and outside the aviation industry is major aviation policy issue for Mongolia. About US$15 million are allocated to finance the aviation sector (including MCAA) and the rest is transferred to the public treasury.

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to overlay the existing runway, did nothing to solve the problem of the runway longitudinal slope (2.1 % overall average runway slope does not meet ICAO requirement) or of recurrent surface cracking. Cracking became apparent even during the construction period and has persisted ever since.

[26] These include a third air bridge, motion detectors on the perimeter fence, improvements of water supply for the terminal, and the renovation of the old terminal building that could be used for domestic service.

[27] Mongolia has experienced an exploding demand for over-flights of its national airspace in the last decade: from 8,300 over-flights in 1994 to 29,470 over-flights in 2002 and currently about 40,000 over-flights per year. This demand comes from air carriers that are seeking cost efficiency in routing international-intercontinental flights. Technically, to accommodate this growth in over-flight demand, MCAA has needed to invest in a series of air navigation improvements, including a US$ 26.5 million National Air Navigation Development Project funded in part with an ADB loan. Financially, rapidly rising demand for over-flights has generated a very large and expanding stream of ANS revenues: from US$ 2.8 million in 1994 to US$ 23.4 million in 2002, and to currently about US$ 30 million.

Mongolian air traffic control is located at BUIA[28] and provides procedural air traffic services[29] for over-flights. ATC has begun to invest in ADS-C and ADS-B[30] stations that are operational at BUIA Airport (ADS-B) and for over-flight control (ADS-C). The proposed expansion of ADS-B to cover the whole country for over-flight management is still pending, as local experts argue that the acquisition of traditional radar systems[31] should be preferred. However, ADS-B could manage both, over-flights and approaches.

However, given the strategic importance of ATC income for the country, and given the fact that ADS-B is slowly becoming the new standard for ATM systems in lieu of radar systems[32] where these are not suitable or too expensive, ADS-B is seen to be the most cost-effective solution.

[28] BUIA tower uses ADS-B for approach control and ATC uses ADS-C for over-flight management.

[29] The Procedural Air Traffic Management System is the most elementary system. It assures a separation between aircraft of 10 minutes, but does not assure any positive control of the airspace. Communication is assured by a V-Sat communication network that covers most of the territory.

[30] Automatic Dependant Surveillance (ADS) is the newest surveillance technology adopted for aviation. It is based on position data derived from onboard navigation systems, transmitted over a data link to ATC on ground and to aircraft in the vicinity. ADS comes in two versions. The original version is referred to just ADS or ADS-C where C stands for "contract", indicating that the delivery of ADS data is based on a "contract" between an onboard application and an application in the ground ATC system. Data is transferred over a point-to-point data link and information is available only to the involved applications that agreed on the "contract". This means that ADS-C is only supporting traditional ground based surveillance functions. ADS-B, the newest technology, "broadcasts" the aircraft position to ground stations and to other aircraft. It is seen as the future solution for replacing costly radar installations. However, only a few aircraft transmit currently on ADS-B, but the number is steadily increasing.

[31] Traditional radar systems are very costly (US$ 30 – 50 million for one primary and several secondary stations), while ADS-B systems only cost a fraction.

[32] ICAO has not yet defined the regulatory and technical recommendations regarding ADS-B. However, several countries, such as Australia and the US, have successfully begun to implement ADS-B in remote areas. It is very likely that ADS-B will become the standard solution where traditional radar systems are too costly or not feasible (e.g. mountainous terrain).

III. Conclusions and Policy Recommendations

Mongolia has successfully made the transition to private-sector driven, outward-oriented market economy in the 1990s. However, Mongolia's economics is subject to the powerful twin influences of distance and isolation: distance in relation to the world's leading markets for its products, and isolation in reference to the distance of the majority of its people from centers of economic activity.

The relatively small size of Mongolia's domestic market underscores the need for Mongolia's greater global integration. Reflecting the narrow resource endowment base, Mongolia's current export structure is as yet undiversified. While export diversification is indeed necessary over time, in the medium term, it would be realistic for Mongolia to build competitive advantage in products in which it has a comparative advantage based on its resource endowments through locating and specialized markets, adding unique product features, and over time developing complex export capabilities that are not easily replicable.

Reducing trade-related transactions costs and thereby the cost of doing business is the challenge facing Mongolia's forging greater links with the global economy. Providing cost-effective trade-related services which constitute a country's investment climate, will besides improving Mongolia's trade prospects, is expected to increase Mongolia's attractiveness as a destination for FDI, and thereby provide the opportunities for accelerating economic growth that is essential for sustained poverty reduction.

Mongolia's exports are concentrated to date in goods in which it has a production cost advantage in livestock products including cashmere and meat, semi-processed copper and gold. With the exception of meat products all of the exports have a high value to weight ratio needed to tolerate the cost of transport to world markets.

With respect to cashmere, Mongolia has yet to realize its potential. The key issues here pertains to perceptions about the quality of Mongolian raw cashmere and the volatility of prices of raw cashmere. While herd improvement and distribution projects are underway, Mongolia could explore the possibility of introducing simple regional auction systems for improving quality. Such systems besides promoting an awareness of the financial benefits of improved quality may also ensure that herders receive fair prices for their raw cashmere. Agricultural support services such as veterinarian assistance could also be useful, as would assistance provided to herders to manage adverse seasonal conditions. Regarding the volatility of prices of raw cashmere, one solution could be to encourage vertical integration in the industry. Some of the larger processors could purchase their own herds and hire herders to tend these herds. However, for this option to be realized it would be advantageous for the Mongolian government to consider the possibility of some legal reforms to allow foreigners to enter the herding industry and own stock.

Although textiles had been a foreign exchange earner in the past, with the demise of the world quota system in textiles, Mongolia's textile exports have been reduced to

insignificant. Regarding exports of animal husbandry products, Mongolia can benefit from the expanding world market demand for lamb and goat and quality leather products, which match Mongolia's production profile. Mongolia can also benefit from the growing demand for certified slaughtered products in the Middle East Gulf states and markets in South East Asia. Further, Mongolia can explore the potential accorded for raising value-added commercial opportunities for animal husbandry products by developing cost-competitive canned products and premium pet foods.

While the most important missing infrastructure link is now being completed in Mongolia and should yield benefits, it would be in Mongolia's interests to minimize the cost and time delays due to institutional and bureaucratic factors.

The main trade facilitation problems come from Mongolia's institutional problems with the Chinese agencies with which it must deal, principally Chinese Customs and China Railways. Despite years of negotiation on a Transit Agreement between China, Mongolia and Russia, the agreement is yet to be signed. In the meantime, it should be possible to remove many of the practical difficulties that arise in export trade facilitation along the corridor from Ulan Bataar to Tianjin. These include:

- Mongolian railways investing a set of dedicated wagons for use on the container express trains, and negotiating with China Railways for these to be used only for this trains, operated as a block trains without break up of the wagon formation. If Mongolian Railways are unable to make this arrangement, the container service should be concessioned to a private operator who would be in a better position to negotiate with China Railways.
- Mongolian Customs should adopt and implement a documentation system that is compatible with that used by China Customs, and permit the clearance of all rail import freight and export freight in Ulan Bataar.

To facilitation trade in all corridors:

- The tax and duty schedule of prices should be agreed between Customs and Trade and Industry, and preferably be based on prices that are internationally recognized and updated regularly, such as those available from WTO.

- Requirements for Freight Forwarding license in Mongolia should be more stringent and at least include certification by FIATA. For this to be possible, training courses for full FIATA certification should be offered in Mongolia.

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[i] UNCTAD (2001) Draft transit framework agreement between the People's Republic of China, Mongolia and the Russian Federation, UNCTAD/LDC/Misc.47/Add.3

[ii] The Customs Convention on the International Transport of Goods under Cover of TIR Carnets was elaborated under the aegis of the United Nations Economic Commission for Europe (UNECE). It has its origins in two draft UNECE Conventions – on commercial vehicles and on goods transport by road – which entered into force on 16 June 1949 but were of a provisional nature and covered only a small number of European countries. However, as regards goods in transit, a way had to be found to seal the goods in order to apply the transit bond-note system to transport operations and to enable the Customs formalities applicable to imported goods to take place at destination rather than at the border. The solution was found by using approved vehicles which were effectively sealed and by resorting to the, equivalent to the 'carnet de passage en douane' required for road vehicles. The TIR Convention was revised in 1975 taking into consideration the technological progress and the experience in the operation of the system. Indeed, a new method of transport had emerged with the sea container, followed by the inland container and swap-body to facilitate rail-road combined transport. Since its entry into force in 1978, the TIR Convention of 1975 has been updated 20 times. The most recent amendments came into force on 12 May 2002.