II. REVIEW OF CROSS-BORDER TRANSPORT IN THE REGION: CASE STUDIES

A. Jiegao Border Crossing, China

The Jiegao border crossing is the most important land border gate between China and Myanmar, accounting for 64 per cent of the total volume of trade between Myanmar and Yunnan Province of China, and 26 per cent of trade between China and Myanmar. In 2011 the border was crossed by 2.54 million vehicles, 11.09 million people and 1.07 million tons of goods. Jiegao is located 4 kilometres from the border town of Ruili, China and bordered by the town of Muse in Myanmar.

The main traded products from Myanmar are agricultural and forestry products in addition to mining and industrial finished goods. Products from China consist of capital goods, raw materials and consumer products. There is also significant jewelry processing activity in Ruili, and Jiegao is the biggest market in the world for unfinished jade. Economic activity in the local area has been encouraged through the establishment of border economic zones in both China and Myanmar.

China and Myanmar have both signed the GMS Cross-Border Transport Agreement (CBTA). However, the ratification and implementation of the agreement and its annexes is still under way. There is also no bilateral agreement on road transport between China and Myanmar, which prevents free movement of vehicles over the border.

There is however a local agreement between the border towns of Ruili and Muse which was signed in 2008. The agreement allows movement of vehicles between Ruili and Muse, beyond which cargo has to be carried by a local vehicle. For vehicles staying within Jiegao border economic zone, there is also an exemption in requirements for insurance, guarantee and visa for drivers. For vehicles moving beyond Jiegao to Ruili no guarantee is required, but an insurance has to be purchased at the cost of RMB 175. Residents of Ruili and Muse can also apply for the border pass, which is based on residency and renewed annually. The border pass acts as a passport and allows movement within 7 kilometres of the border in Myanmar and within the Dehong Prefecture, Yunnan Province, China.
Figure 1. Border check point between China and Myanmar.

Source: Study team.

Figure 2. Joint inspection building, entering Jiegao special economic zone.

Source: Study team.
Because of the limitations to movement of foreign vehicles in both China and Myanmar, transloading of goods takes place at the border. Containerization of cargo is not common, but semi-trailer trucks are popularly used on the Chinese side. Instead the transport of cargo to the border is arranged by the exporter. Goods are transferred to warehouses in Jiegao from which they are released according to order. Importer arranges onwards transport independently. The operational practice supports an active local logistics industry, with around 70 logistics companies and 1,514 small transport companies operating in Ruili.

Figure 3. Semi-trailer trucks at Jiegao border crossing.

Source: Study team.

The border also serves as a gate for tourists travelling between Yunnan Province and Myanmar. The border town agreement allows the entry of passenger busses to Ruili from Myanmar and to Muse from China. Tours are offered by operators of both countries.

Several measures have been implemented to improve efficiency at the border crossing. On the Chinese side customs documentation can be pre-submitted and an appointment made for customs inspection. This reduces time lost at the border, as the transport of goods can be timed to arrive once the required documentation is ready. There is also a joint inspection centre for Chinese border authorities. In addition, a new highway is currently being constructed from Ruili to Kunming, improving the Asian Highway 14 route Kunming-Ruili-Muse-Mandalay.
B. Petrapole Border Checkpoint, India

The Petrapole Land Customs Station is located in the state of West Bengal 95 kilometres from Kolkata, India. It handles 60 per cent of the Bangladesh-India trade and 80 per cent of India’s total exports to Bangladesh, making it the busiest land border between the two countries. In 2011/12, the total number of trucks cleared reached 110,370 vehicles and in addition the border was crossed by roughly 1,500 people per day.

The major imports into India are jute products, betel nuts, fish, cotton rags and ready made garments. The major exports consist of cotton fabric, chassis, yarn, steel/iron and chemicals/dyes. Trade is heavily skewed towards Bangladesh with trade to India totaling INR 1,798 crore (equivalent to USD 324.9 million) and trade to Bangladesh INR 8,787 crore (equivalent to USD 1.59 billion) in 2011/12.¹

Currently there is no transport agreement between Bangladesh and India to allow vehicles in each others territory. This makes transloading of goods necessary either in Petrapole, Indian side, or Benapole, Bangladesh side, within 2 kilometres of the border. Transloading is organized by the exporter/importer or his/her agent, which is normally a customs agent. There is no formal relationship between the transport operators in the two countries for transloading. Cargo is mainly non-containerized and carried by small rigid trucks with one consignment sometimes being carried by several vehicles.² Imports to India are manually transloaded in an open area adjacent to the border, with the exception of jute products and fish which are transloaded in the customs warehouse.³ Exports from India are transloaded in warehouses in Benapole.

¹ 1 Crore equals 10 million.
² Most of the cargo is not containerized, as containers are considered too expensive by the transport operators. They estimate that transloading a container would cost INR 2,000 (USD 36), and USD 2 per TEU would be used on rent. Renting a trailer would cost INR 1,000 (USD 18).
³ According to transport operators in the region, the customs warehouse available at the border is not popular for transloading due to the relatively high cost: the transloading of one packet is priced at INR 6 compared to INR 2 payable outside the formal facilities.
Figure 4. Customs warehouse at Petrapole border checkpoint.

Source: Study team.

Figure 5. Manual transloading of goods at Petrapole border checkpoint.

Source: Study team.
On passenger side, an international bus service has been running between Dhaka, Bangladesh and Kolkata, India since July 1999 as a joint venture between the state transport companies of Bangladesh and India with a change of bus at the border. In 2011-12, over 50,000 passengers were served on the route. In addition to the direct service, there are busses to the border from Dhaka and Kolkata. The total passenger movement through the border crossing was around 585,000 passengers in 2011/12.

There is very limited transport of cargo by rail between Bangladesh and India, with only a few export wagons per week and no imports. There is no break-of-gauge issue between Bangladesh and India but the wagons of Bangladesh Railways are incompatible with the air-braked stock of Indian Railways. Therefore transloading of cargo and change of locomotive and crew takes place in Benapole. On passenger side an international passenger train service also runs twice a week between Kolkata and Dhaka. The train crosses the border at Gede-Darshana.

For exports, information required for customs clearance can be submitted electronically in advance, though similar system is not yet in place for imports. A new integrated check point (ICP) is also expected to be completed by January 2013. The ICP will be equipped with dedicated passenger and cargo terminals and include improved facilities for immigration, customs, warehouse, banks, parking terminals and passenger amenities. Once the ICP is operational, the capacity of the existing customs warehouse will be doubled, easing current congestion. The new facilities will also address many existing issues with security and efficiency of clearance of goods and vehicles.

Figure 6. Goods waiting for access to Bangladesh, Petrapole border checkpoint.

Source: Study team.
As an additional facilitation measure, a car pass system was introduced in 2010 by the 6th Meeting of Indo-Bangladesh Joint Group of Customs Officials and implemented in Petrapole in January 2012. The car pass is used for vehicles moving between land customs stations in Bangladesh and India, with adequate facilities for parking, loading and storage of goods. The car pass contains details of the vehicle, driver and consignment, and has a unique serial number. The car pass is per truck per consignment and allows trucks to enter the neighbouring country for 24 hours for the purpose of unloading and loading in border areas. It is intended to eliminate the need for verification of documents at each customs check point and facilitate movement of trucks. The pass is issued by customs after checking the products loaded in vehicle and documentation. Three copies are made, of which one stays with customs, one copy is given to driver and third copy given to Bangladesh customs upon arrival. The documentation is handed back to Indian customs upon return.
C. Padang Besar and Bukit Kayu Hitam Border Crossings, Malaysia

Malaysia and Thailand have historically excellent trade relations. Transport between Malaysia and Thailand is relatively balanced, with roughly equal transport flows to both directions. Principal exports of Thailand to Malaysia are natural rubber, electronics, fish, canned food, fresh vegetables and fruits. Malaysian exports include electronic parts, rubber products, food products and furniture.

Transport operations between the two countries are quite developed. The busiest land border for road transport is Bukit Kayu Hitam (State of Kedah, Malaysia), bordering the Thai province of Songkhla. Padang Besar (State of Perlis, Malaysia) on the other hand is a key rail border crossing for both cargo and passengers. In 2011, Padang Besar border crossing was used by 95,200 trucks and 165,300 train containers, and by 2,175,500 passengers by road and 67,047 passengers by rail. In the same year Bukit Kayu Hitam was used by 316,600 commercial vehicles.

There is no bilateral transport agreement to allow movement of vehicles between Malaysia and Thailand. All vehicles involved in commercial transport have to be registered and insured locally by a local operator. Malaysian domestic legislation also states that transport enterprises in Malaysia can only be established by Malaysia nationals. An exception is made for the transport of perishable goods from Thailand to Singapore through Malaysia. In this case, double registration is allowed for a limited number of vehicles on pre-specified routes.

In addition, there is a historical local agreement in place which facilitates movement of people and goods. In Malaysia, foreign trucks are allowed to move within 2 kilometres of the border. In Thailand, the border area is extended to include Hat Yai, about 55 kilometres from the border. Local residents on both sides of the border can acquire an annual border pass which allows them to move in the border areas. The benefit of the pass is the cost, which is much lower than for an international passport. Border cooperation is strengthened by quarterly meetings of a border management committee.
As cross-border transport is not possible with current regulatory framework, transloading of cargo takes place within 2 kilometres of the border in Malaysia after clearing the goods by customs. Semi-trailers are the most commonly used type of vehicles and around 80 per cent of cargo is containerized. Transport operations are mainly carried out by large multinationals, between the daughter companies in Malaysia and Thailand respectively. The companies have private warehouses with transloading equipment close to the border, where a container swap takes place.

Figure 8. Transloading of container to wagon, Padang Besar.
Padang Besar is the only direct rail link between Malaysia and Thailand. There is no break-of-gauge but at the border a change of locomotive and crew is required. As majority of cargo handled by the container yard is latex products from nearby Thai provinces, the rail-to-rail facilities are rarely used. Majority of cargo arrives to the station at Padang Besar by truck and travels by rail to Penang Port, Malaysia. Customs clearance takes place at the station based on pre-submitted information after which the container is placed on a wagon to wait for departure. The rail container yard is operated by a subsidiary of the Malaysia Railway which collects a transloading fee of MYR 150 (or USD 48).

Both Bukit Kayu Hitam and Padang Besar have facilities for passengers arriving by road. Given the local agreement, several Malaysian operators are able to run an international bus services between Hat Yai, Thailand and Kuala Lumpur, Malaysia. In addition, the border tourist buses occasionally cross the border on basis of a temporary permit. Padang Besar also has a rail crossing for passengers.4

*Figure 9. Passengers arriving to Padang Besar station.*

4 The rail border crossing has been described in more detail on page 59 (Box B).
The facilitation measures in place to expedite clearance of goods and passengers include:

- Paperless electronic customs system allowing for pre-submission of information;
- Electronic payment of customs duties;
- Priority release of perishable goods;
- Special procedure for “priority” companies which can be released based on documentation only;
- Single window facilities on the Thai side of the border in Sadao;5
- Green lines for passengers with no goods to declare; and
- Risk-based physical examination of passengers and luggage.

In addition, RFID6 technology is being piloted to replace conventional seal and detect container movement. The current customs procedures are under reform as the Malaysian customs moves towards single inspection with Thailand as a part of ASEAN customs agreement and the launch of the ASEAN Economic Community in 2015.

D. Erlian - Zamin-Uud Border Crossing between China and Mongolia

The Erlian - Zamin-Uud border crossing is located around 380 kilometres from the capital city of Inner Mongolia Autonomous Region, China, Hoh-hot, and around 670 kilometres from Ulaanbaatar, Mongolia. Around 70 per cent of Mongolian imports and nearly all exports go through Zamyn-Uud, making it an important gate for trade between China and Mongolia, transit of Mongolia through China and transit between China and the Russian Federation. The border is crossed by around 6,000 passengers each day and annually by around 700,000 vehicles. As a landlocked country Mongolia is dependent on its neighbouring countries, China and the Russian Federation, for most products and transit, including daily consumer goods. The main exports of Mongolia are copper, coal and animal products.

China and Mongolia have a road transport agreement dating from 1992 which specifies routes on which international road transport is allowed. The route relevant to the border crossing in question allows movement of vehicles between Erlian and Zamyn-Uud. Around 150,000 transport permits are exchanged every year for the purpose of passenger

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5 Customs declaration takes place in Sadao. Only immigration is present at the border.
6 Radio frequency identification.
and freight transport. The permissions can be obtained for one trip for goods transport or a duration of 3 months. The local people of Zamyn-Uud and Erlian can also obtain an annual border pass which allows visa-free access to the neighboring town until the end of the day. Without the border pass, Chinese citizens are subject to visa requirements when entering Mongolia. Mongolian passport holders can enter China visa-free.

Several factors necessitate transloading at the border. Firstly, the current road transport agreement restricts movement outside of border towns. Secondly, poor road conditions beyond Zamyn-Uud restrict road transport of cargo and passengers in Mongolia. Thirdly, while there is a direct rail connection across the border, the break-of-gauge implies a need to transload for cross-border transport operations. Both tracks can be found in the border area and leading to transloading points.

*Figure 10. Erlian border crossing.*
Transloading operations are truck-rail (to Mongolia), rail-truck (to China) or rail-rail. For rail cargo, transloading of imports to China takes place in Erlian from the Mongolian broad gauge track to Chinese standard gauge track. Goods for Mongolia on the other hand are transloaded in Zamyn-Uud. Cargo arrives from China to Zamyn-Uud either by rail or in Mongolia-registered trucks with semi-trailers. The trucks enter China empty and pick up goods in Erlian. After this, the trucks return to Mongolia and the cargo is loaded on wagons in one of the three state owned terminals, run as a joint venture between Mongolian government and Russian rail authority, or in a privately run terminal. All terminals have rail facilities. Only a small proportion of cargo is containerized, so transloading is carried out to a large part manually.\footnote{According to Mongolian officials, only 3-4 per cent of rail cargo is in containers.}
Terms of bilateral agreement prohibit crossing the border by foot. To cater for road passengers, there is a regular bus services between the Erlian bus station and Zamyn-Uud railways station operated by both private and public entities. In addition the border crossing is served by a large number of mostly Mongolia-registered jeeps which serve as taxis across the border. Passengers can negotiate a fare with the driver and share the ride with a number of fellow passengers.
Figure 14. Jeeps at Zamyn-Uud border crossing.

Source: Study team.

Erlian bus station is connected to destinations around China but there are no long distance busses from Zamyn-Uud. Therefore most of passengers who arrive in Zamyn-Uud cross the border by rail. There are two international trains per week to each direction, running between Beijing and Ulaanbaatar, and one per week between Beijing and Moscow. The train is stopped at both Erlian and Zamyn-Uud for customs, quarantine and immigration checks. Checks are carried out in the train, during which time passengers are not allowed to leave the train. The rail rolling stock is also changed in Erlian.

The border area is currently very congested, but steps have been taken to solve the capacity issues present. For example, Mongolia has taken the following facilitation measures:

- Customs Administrative Information System (CAIS) was introduced in March 2010 which allows electronic submission of customs declaration and other documentation.
- Close cooperation between customs and chamber of commerce has allowed further reduction of documentation.
- Arrangements have been made to hire more wagons to solve the shortages and delays present currently.
• Measures have been taken to minimize the need for physical inspection:
  o All businesses involved in international trade are registered with Mongolian customs.
  o Risk management software is used in Mongolia to determine the level of examination required.
  o Trains are scanned in movement in China, and scanning facilities are planned for the Mongolian side of the border.
  o Containerized cargo on trucks is generally not checked at the border other than superficially. Thorough inspection is carried out at customs office of the destination.
  o Scanning equipment is available at the Zamyn-Uud road border crossing.
• Construction of a logistics centre with integrated Customs and Quarantine facilities was expected to start in July 2012.
• Separate border crossing facilities for cargo and passengers have been introduced.

In addition, there are efforts to harmonize customs software between China and Mongolia to facilitate sharing of information. Customs documentation has already been harmonized.

A special economic zone has been established in Zamyn-Uud with the aim of developing industry in the border area. The zone is planned to serve 60,000 people and contain facilities for industry, trade, and tourism. The area is planned to be ready in 2016.