

Efficient Cross-Border Transport Models



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2015

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This publication is issued without formal editing.

ACKNOWLEDGEMENT

The present publication was prepared by Transport Division, ESCAP. The study was managed by Ms. Heini Suominen, Associate Economic Affairs Officer, Transport Facilitation and Logistics Section, Transport Division, ESCAP, under the guidance of Mr. Li Yuwei, Chief of the Section. Ms. Pimolpun Visesthanakorn assisted in formatting and finalizing the report.

The study extensively benefited from the visits made by the ESCAP secretariat to Dehong Prefecture Transport Bureau and Erlian Customs, China; Central Board of Excise and Customs, Department of Revenue, Ministry of Finance, India; Royal Malaysian Customs Department, State of Kedah and State of Perlis, Malaysia; and Ministry of Road, Transport, Construction and Urban Development, Mongolia. The assistance provided by these organizations and their officers for the study is duly appreciated.

Acknowledgments are also extended to the staff of Transport Division, who provided peer views on the publication.

The study was made under a project entitled “Deepening Asian Connectivity - Capacity Building for Trade and Transport Facilitation through ICT Development”, which was jointly implemented by Trade and Investment Division, Transport Division, and ICT and Disaster Risk Reduction Division, ESCAP.

CONTENTS

	<i>Page</i>
I. INTRODUCTION	1
II. REVIEW OF CROSS-BORDER TRANSPORT IN THE REGION: CASE STUDIES	3
A. Jiegao Border Crossing, China	3
B. Petrapole Border Checkpoint, India	6
C. Padang Besar and Bukit Kayu Hitam Border Crossings, Malaysia	10
D. Erlian - Zamin-Uud Border Crossing between China and Mongolia	13
III. IMPROVEMENT OF CROSS-BORDER TRANSPORT BY ROAD	19
A. Review of key non-physical barriers in cross-border transport by road	19
B. Overview of the existing practices dealing with Non-physical barriers	20
C. Model for efficient cross-border transport of goods	22
1. Technical aspect	26
2. Operational requirements	28
3. Institutional requirements	33
4. Application of the model	34
5. Evaluation of benefits and costs	35
D. Model for efficient cross-border transport of passengers	38
1. Technical aspect	41
2. Operational requirements	42
3. Institutional requirements	45
4. Application of the Model	45
5. Evaluation of benefits and costs	46

CONTENTS (Cont'd)

	<i>Page</i>
IV. IMPROVEMENT OF CROSS-BORDER TRANSPORT BY RAIL TRANSPORT	48
A. Overview of non-physical barriers in rail transport	48
B. Good practices in international rail transport of cargo	50
C. Good practices in international rail transport of passengers	54
V. USE OF BORDER POLICIES FOR ENHANCED EFFECT	60
ATTACHMENT 1: TEMPLATE FOR AGREEMENT ON TRAILER SWAP OPERATIONS	65
ATTACHMENT 2: TEMPLATE FOR AGREEMENT BETWEEN POOL MANAGER AND EQUIPMENT OWNER	87

LIST OF TABLES

	<i>Page</i>
Table 1. Typical non-physical barriers to road transport	19
Table 2. Evaluation of freight transport arrangements	23
Table 3. Comparison of freight transport arrangements	25
Table 4. Evaluation of passenger transport arrangements	40
Table 5. Comparison of passenger transport arrangements	41
Table 6. Break-of-gauge solutions	51
Table 7. Tools for efficient transshipment operations	53
Table 8. Border control practices for international train travel	54
Table 9. Comparison of different approaches for clearance of international train passengers	58
Table 10. Special border area policy recommendations	62

LIST OF BOXES

	<i>Page</i>
Box A. Break-of-gauge in the Trans-Asian Railway Network	49
Box B. Case study: Malaysia-Thailand	59

LIST OF FIGURES

	<i>Page</i>
Figure 1. Border check point between China and Myanmar	4
Figure 2. Joint inspection building, entering Jiegao special economic zone	4
Figure 3. Semi-trailer trucks at Jiegao border crossing	5
Figure 4. Customs warehouse at Petrapole border checkpoint	7
Figure 5. Manual transloading of goods at Petrapole border checkpoint	7
Figure 6. Goods waiting for access to Bangladesh, Petrapole border checkpoint	8
Figure 7. Cargo waiting for customs clearance, Bukit Kayu Hitam	11
Figure 8. Transloading of container to wagon, Padang Besar	11
Figure 9. Passengers arriving to Padang Besar station	12
Figure 10. Erlian border crossing	14
Figure 11. Trucks waiting to reach Zamyn-Uud border crossing	15
Figure 12. Transloading at Zamyn-Uud rail terminals	16
Figure 13. International passenger train at Zamyn-Uud station	16
Figure 14. Jeeps at Zamyn-Uud border crossing	17

LIST OF ABBREVIATIONS

ASEAN	Association of Southeast Asian Nations
CAIS	Customs Administrative Information System
CBTA	Cross-Border Transport Agreement
ESCAP	Economic and Social Commission for Asia and the Pacific
FTA	Free Trade Area
GMS	Greater Mekong Subregion
ICP	Integrated Check Point
ICT	Information and Communication Technology
Lao PDR	Lao People's Democratic Republic
RFID	Radio-frequency identification
SCA	Special Commercial Area
SEZ	Special Economic Zone

I. INTRODUCTION

Improving regional connectivity is becoming increasingly important to promote intra-regional trade and economic resilience in the Asia-Pacific region. Improvements in infrastructure have helped to increase the efficiency of transport operations and created new opportunities. Cross-border transport, however, still faces numerous barriers that impede the smooth and efficient movement of people and goods, such as the lack of opening of domestic routes for international transport, restrictions on foreign vehicles and goods, lack of harmonization of technical standards and excessive immigration requirements.

The countries of the Asia-Pacific region have indicated their commitment to regional connectivity through the adoption of initiatives such as the Intergovernmental Agreement on the Asian Highway Network, the Intergovernmental Agreement on the Trans-Asian Railway Network and the Regional Strategic Framework for the Facilitation of International Road Transport. In the long-run it is therefore expected that cross-border transport will face decreasing barriers. However, while it may be recognized that bilateral and multilateral agreements have the potential to have a significant beneficial effect for the countries involved, such institutional solutions can be time-consuming to design, negotiate, approve and implement. Meanwhile both the public and the private sector must adjust to the operating environment and the existing institutional framework.

This study analyzes the solutions available for efficient cross-border transport in terms of improving operations, lowering operating costs and reducing the time spent at the border. It provides both suggestions for private sector operators, and recommendations for the public sector on how private business arrangements can be supported. The intention is to provide models for efficient border crossing which do not replace international facilitation agreements, but rather offer a way to develop trade and transport while the countries work towards reducing non-physical barriers.

The study covers freight and passenger transport by road and rail. The analysis is based on desk research and site visits, during which discussions were held with both control authorities and transport operators to collect information on perceived barriers, challenges and good practices.

The models are being developed under an inter-Divisional project of ESCAP entitled “Deepening Asian Connectivity-Capacity building for trade and transport facilitation through information and communication technology (ICT) development”, which was jointly implemented by Trade and Investment Division, Transport Division, and ICT and Disaster Reduction Division, ESCAP. The model is also a part of the initiatives under the Regional Strategic Framework for the Facilitation of International Road Transport that was adopted by the Ministerial Conference on Transport held in Bangkok in March 2012.

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.



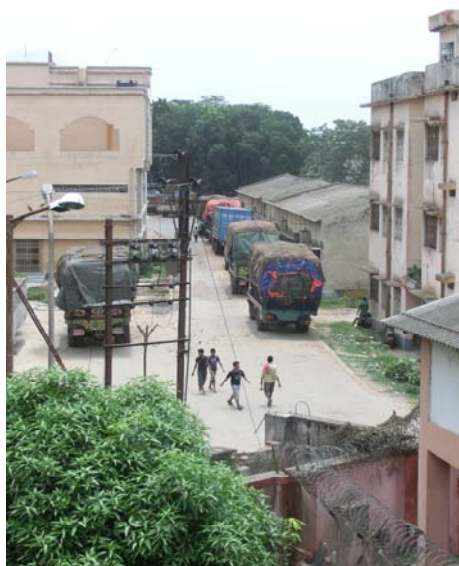
Source: Study team.

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.

Figure 7. Cargo waiting for customs clearance, Bukit Kayu Hitam.



Source: Study team.

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.



Source: Study team.

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.



Source: Study team.

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 - Zamyn-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

⁵ Customs declaration takes place in Sadao. Only immigration is present at the border.

⁶ Radio frequency identification.

and freight transport. The permits 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.



Source: Study team.

Figure 11. Trucks waiting to reach Zamyn-Uud border crossing.



Source: Study team.

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.⁷

⁷ According to Mongolian officials, only 3-4 per cent of rail cargo is in containers.

Figure 12. Transloading at Zamyn-Uud rail terminals.



Source: Study team.

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 13. International passenger train at Zamyn-Uud station

Source: Study team.

Figure14. 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:
 - All businesses involved in international trade are registered with Mongolian customs.
 - Risk management software is used in Mongolia to determine the level of examination required.
 - Trains are scanned in movement in China, and scanning facilities are planned for the Mongolian side of the border.
 - 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.
 - 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.

III. IMPROVEMENT OF CROSS-BORDER TRANSPORT BY ROAD

A. Review of key non-physical barriers in cross-border transport by road

Significant efforts have been made in the region to promote connectivity and improve transport infrastructure to support trade and economic growth. Much of the infrastructure in the regional network, as defined by the Intergovernmental Agreement on the Asian Highway Network signed by ESCAP member countries in 2004, has already been constructed. Significant progress has been made in terms of improving and connecting roads. However, international transport operations are still affected by a large number of unresolved institutional constraints.

Table 1 presents some of the common non-physical barriers to international road transport in the region. For a given pair of countries it is likely that a combination of barriers is relevant, with the significance of the barrier depending on local circumstances.

Table 1. Typical non-physical barriers to road transport

Non-physical barrier	Explanation note
a. No permission for cross-border transport by road.	There are no inter-governmental agreements to allow vehicles to cross border for commercial transport in some countries.
b. Difficulties with road transport permits and traffic rights.	<p>(a) Transport permits may be issued for a single trip and prolong time for transport.</p> <p>(b) Transport permits may be issued for a specific route by a specific vehicle only, which constrains service scope and prevents door-to-door or freight centre-to-freight centre transport in many cases.</p> <p>(c) Quota limit cannot allow all vehicles to provide cross-border transport services.</p>
c. Difficulties with visas for professional drivers and crew of vehicles.	Visa issuance is largely subject to bilateral agreements and there are no special provisions for professional drivers. Visa may need to be applied for in embassies and consulates in major cities and are subject to delays. Visas may only be granted for single entry.

Non-physical barrier	Explanation note
d. Difficulties with temporary importation of vehicles.	For the vehicle of one country to enter another country, it is mostly necessary to pay a deposit or fee, or to find a local agent.
e. Difficulties with insurance of vehicles.	Due to absence of regional, subregional or bilateral insurance scheme, vehicles usually need double insurance in two countries. It is sometimes compulsory to purchase insurance at the border.
f. Different standards on vehicle weights and dimensions.	There are few unified standards on permissible weights and dimensions across border.
g. Lack of commonly recognized driving license, vehicle registration and inspection certificates.	Use of national languages and characters in driving license, registration plates and inspection certificates is common, causing delays in clearance at border.
h. Different side of steering wheels.	Some countries permit the use of only one-side steering wheel vehicles.
i. Empty return trip.	Many foreign trucks return empty due to lack of local network of customers and market protection.

The list presented is not exhaustive and other barriers may coexist with those mentioned. In long term bilateral and multilateral agreements should be pursued to resolve the existing barriers. However, in some cases all the non-physical barriers cannot be totally removed in a short time period. Also the given the time required to implement international agreements, in the short and medium term barriers must be addressed in an indirect way.

B. Overview of the existing practices dealing with non-physical barriers

While non-physical barriers hinder movement of people and goods, a number of approaches have been developed to deal with the restrictions. Many countries have been trying to address the issues through bilateral or multilateral agreements. Meanwhile, business sector has also developed some approaches to overcome the difficulties. Most of them involve a change of vehicle at the border, meaning that international services are run as a combination of domestic transport operations. The prevalence of each transloading approach is dependent on factors, such as the vehicles in use, rate of containerization, maturity of the transport industry and types of goods transported.

The practice of manual transloading can be found at many borders in the region. Under this option the transport of goods to the border is generally organized by the exporter. At the border the goods are either stored in a warehouse to wait for onward shipment or manually transloaded into a vehicle arranged by the importer. In some cases the transport operator can also act as the trader. Manual transloading operations can be carried out using any vehicle which makes it a flexible approach, particularly when trade volumes or infrastructure do not support the use of heavy vehicles. The process is labour intensive but does not require any equipment.

On routes with more formalized transport operations manual transloading is replaced by container swap transshipment. The containers of cargo are transported to the border on trucks, trailers or semi-trailers. Either at the border or at a designed transloading location the container is lifted off and lifted on a truck or trailer which can belong to the same operator or a cooperating operator in the destination country. The container is then carried to the final destination by a vehicle registered in that country. The lift-on/lift-off operations are carried out using transloading equipment, such as a crane, and vehicles which fit similar sized containers.

An alternative to a container swap is a trailer swap which refers to the change of prime mover at the border. In this case the cargo remains untouched on the trailer or semi-trailer, and instead of lift-off/lift-on, the trailer or semi-trailer is detached from the prime mover and attached to another prime mover. Matching trailer and semi-trailers are used but no equipment is required for the operation.

On some routes double registration of vehicles is possible which allows a foreign transport operator to run a cross-border service. In this case no transloading is required at the border. The vehicle used is registered with the authorities of both countries and pays the appropriate fees. In some cases there may be restrictions on the number of permits, the types of goods that can be transported and the routes available to the foreign operator. For example, in Malaysia such system is in place for transit of perishable goods travelling from Thailand to Singapore only.

Non-physical barriers also limit passenger road transport between countries. In cases when the existing transport agreements between countries do not allow for an international service, passengers are most often required to change vehicle at the border. In some cases

international services can be run as a cooperation of companies from both countries so that the change of bus is arranged by the operator and the passenger is able to buy a ticket to his/her final destination. In other cases the operations to the border run as separate services and the arrangement of onward travel is the responsibility of the passenger.

C. Model for efficient cross-border transport of goods

Based on the existing practices in the region four operational options emerge: trailer swap, container swap, manual transloading and no transloading. Each option has its advantages and disadvantages. To compare the options a common set of criteria was compiled giving consideration to institutional barriers, operational requirements, commercial needs and threats to operations. As a consequence altogether 26 relevant typical issues were identified. A list of solutions was also considered and each solution was rated for difficulty and cost using a scale of 1-5 with higher number indicating increasing difficulty and expense. For other issues the level of difficulty and cost was evaluated in terms of their impact on business.

Each operational option was evaluated using the framework based on the overall regional situation. By summing up the scores for the issues identified as present, a total difficulty and cost score can be calculated for each option. When more than one solution exists, the option with the lowest difficulty score was considered making the assumption that the short term priority is easy implementation. In cases where the barriers were considered to be present but to a significantly smaller degree relative to the other operational options, half of the scores were included. The results for the overall regional analysis are presented in Table 2.

Table 2. Evaluation of freight transport arrangements

Issues	Trailer swap	Container swap	Manual transloading	No transloading	Solution/Arrangement	Difficulty	Cost
Transport permit for motor vehicle				x	Multilateral agreement	5	5
					Bilateral agreement	3	3
					Double registration	2	3
Permission for foreign trailer to enter the country	x			x	Multilateral agreement	4	4
					Bilateral agreement	3	3
					Double registration	2	3
					Double registration	2	3
Third party liability insurance of vehicle For prime mover				x	Subregional or regional insurance scheme	5	5
					Bilateral insurance scheme	4	4
					Double insurance	1	3
For trailer	x			x	Subregional or regional insurance scheme	5	5
					Bilateral insurance scheme	4	4
					Double insurance	1	3
Temporary importation Of prime mover				x	Accession to international convention	4	4
					Bilateral agreement	4	3
					Double registration	1	3
Of trailer	x			x	Accession to international convention	4	4
					Bilateral agreement	3	3
					Double registration	1	3
Of container	x	x		x	Accession to international convention	3	3
					Bilateral agreement	3	3
Mutual recognition of driving license				x	Accession to international convention	4	4
					Multilateral agreement	5	5
					Bilateral agreement	3	3
					Change of driver	2	2
					Change of driver	2	2
Mutual recognition of vehicle certificates/registration				x	Accession to international convention	4	4
					Multilateral agreement	5	5
					Bilateral agreement	3	3
Use of compatible vehicles and equipment	x	x			Agreement between transport operators, taking into account national regulations	2	3
Compliance with local standards regarding weight and dimension	x	x		x	Harmonization of regulations	5	5
Compliance with local emission regulations				x	Adjustment of fleet/transport equipment	2	2
					Harmonization of regulations	5	5
Side of steering wheel				x	Adjustment of fleet/transport equipment	2	2
					Multilateral agreement	5	5
					Bilateral agreement	4	4
Visa requirement				x	Amendment to domestic law	3	3
					Multilateral agreement	5	5
					Bilateral agreement	3	3
					Change of driver	2	3
Compliance with local laws				x	Exchange of information of laws	3	1
					Training	2	2
Requirement for transloading equipment		x			Operator's own facilities	2	4
					Facilities provided by private company or public sector	2	3
Transloading labour		(x)	x		Operator's own facilities	2	4
					Facilities provided by private company or public sector	2	3
Requirement for local partner	x	x	(x)		Same company, different branch	2	3
					Two companies	2	2
Risk of damage or loss of goods or container		(x)	x		Change of driver	3	3
Possible route limitations				x	Multilateral agreement	5	5
					Bilateral agreement	4	4
Guarantee for trailer and container	x	(x)			Addressed in cooperation contract, financial guarantee	1	2
					Addressed in cooperation contract, no financial guarantee	1	1
Market access				x	Quota of permits	4	4
Local knowledge throughout route				x		4	3
Road safety				x		3	3
Access to local services				x		3	2
Use of containers		x				2	2
Total number of issues	8	7.5	2.5	19			
Total difficulty points (min)	14	16	6	46			
Total cost points (min)	20	18.5	7	54			

Note: x = Issue relevant, (x) = Issue relevant to some degree

1= low cost/difficulty, 2= some cost/difficulty, 3 = reasonable cost/difficulty, 4 = high cost/difficulty 5 = considerable cost/difficulty

The table reveals the following insights:

- Manual transloading is the least costly option of operation and least demanding in terms of operational requirements and non-physical barriers. This explains its enduring popularity in the region.
- No transloading ranks the highest in terms of number of issues, difficulty and cost. The great number of barriers that need to be addressed restrict the implementation of this solution.
- There is no great difference between using a trailer swap or container swap in terms of difficulty and cost. Trailer swap is slightly easier to implement, but requires a higher cost.

In addition to difficulty and cost consideration has to be given to the reliability and efficiency of operations. Efficiency of operations has direct cost implications and impacts the profit of transport operators. Time spent for transporting cargo is time during which the equipment is not available for other tasks. This means that time saved in operations allows for more to be done with the same capital. It is, therefore, in the interest of the operator that the trucks are running for majority of the time. In addition, faster delivery of goods also encourages business.

Out of the operational options presented, manual transloading was estimated to be the most time consuming. The time required depends on the goods and vehicles in question, but is estimated to take from 30 minutes to several hours compared to 2-3 minutes required for a change of trailer or 5-10 minutes for movement of a container. Manual transloading is, therefore, given the efficiency rating of 5, indicating high level of inefficiency. The option of no transloading is considered to be the most efficient and assigned efficiency rating of 1. Trailer swap and container swap are considered to be very efficient arrangements. For container swap, a crane is required to move the container off the trailer and onto another. This equipment is often limited and there may be a queue to use it. Therefore, container swap is rated 3. No equipment is required for a trailer swap. Therefore, it is rated 1 for efficiency.

Each option was rated for reliability after an assessment of the predictability of delivery and risk of delay. Both trailer swap and no transloading are considered to be reliable, as no moving of container is involved minimizing the risk of delay. Container swap and manual transloading are rated 2 and 3 due to requirement for equipment and labour respectively.

Table 3 summarizes the total score for each option. To allow for easy and intuitive comparison, the total scores for cost and difficulty were transformed to a 1-5 scale. Points are expressed to the level of quarter point for easier differentiation.

Table 3. Comparison of freight transport arrangements

Factor	Trailer Swap	Container swap	Manual transloading	No transloading
Difficulty	2	2.25	1.25	4.5
Cost	2.5	2.5	1.5	5
Efficiency	1	3	5	1
Reliability	1	2	3	1
Total	6.5	9.75	10.75	11.5

The table reveals that while manual transloading is the least difficult and least costly operational arrangement, it has serious shortcomings in efficiency and reliability. Therefore, when the total score is taken into account it appears much less desirable as an operational arrangement than when only cost and difficulty are considered. On the other hand, the option of no transloading is both difficult to implement and costly, but is much more desirable in efficiency and reliability than the other options.

Based on the total score, trailer swap is the most beneficial choice with only 6.5 points. In terms of difficulty and cost, it is nearly identical with container swap as discussed before. However, it is evaluated as a more reliable and efficient choice. The next section of the publication will, therefore, focus on this approach to cross-border road transport and the details of its implementation.

The rating and results presented above are based on an overall regional view of relative advantages and disadvantages of the approaches. To take into account the particular

conditions at a given corridor, a group of countries or a pair of countries, a similar exercise can be taken to evaluate the operational options. The list of issues should be reviewed to reflect the operating environment and possible consequences of each option. At a country or bilateral level it is also possible to estimate to greater degree of confidence the level of cost and difficulty for the necessary adjustments to operations and legislation. As a consequence the most suitable operational option can be identified.

Taking into account the difficulties in cross-border transport presented above, the Efficient Border Crossing Model presented in this Section aims to minimize unnecessary delays, facilitate provision of international transport services and address control concerns by eliminating the need for trucks to enter a foreign country.

The concept of international transport implies an origin and destination that are located in different countries. The model is based on the concept of trailer swap and assumes that two transport parties, one based in the origin country and the other in the destination country, have a commercial arrangement to offer international door-to-door services.⁸ These parties may be independent operators or then collectives of small and medium sized enterprises.

This Section presents the technical aspects of the model and the operational, commercial and institutional requirements for efficient and effective cross-border freight transport.

1. Technical aspect

(a) Order

The customer in origin places his order with the domestic transport company or collective through which payment is also arranged. The domestic transport service provider informs a counterpart in the destination country of the incoming consignment and the necessary arrangements for vehicles are made. In the case of a transport collective, the administration of the collective assigns the consignment to a suitable transport operator with free capacity. Each of the operators is responsible for the customs procedures in their own

⁸ The details of the agreement are discussed in Section 2 (c).

country, either directly or through a clearing agent. If there is a facility to submit customs information in advance, this is done to minimize time spent at the border.

The customer benefits from the unified services in two countries. He only needs to submit information required for customs declaration once and the information is shared between the service providers. All communication is received through the domestic operator or collective who holds the contract with the client. In effect, the transporting party in the destination country acts as a subcontractor to the party in the country of origin on the consignment.

When receiving the details of the consignment, the service provider in the destination country, i.e. transport operator or collective, matches the estimated time of arrival to the border with the estimated arrival times of outgoing cargo. An appropriate prime mover is assigned as the receiving truck and the details of the receiving truck are submitted to the service provider in the origin country. For the outgoing cargo the same process is repeated but in the reverse, so that the destination country becomes the origin country.

(b) Trailer swap

Goods are transported to the border using a semi-trailer truck. Cargo goes through the standard customs procedures of the origin country and completes other border controls relevant to exit, such as immigration. The vehicle then moves to the assigned transloading facilities.

The facility is accessible to vehicles and trailers of both countries and has a secure parking lot for the trailers. The prime mover is detached from the trailer and the trailer is left in the parking lot. At this stage, the prime mover has been assigned to a return trailer by the company or collective. The details of the trailer and cargo are passed on to the driver or to a coordinating agent of the transport service provider at the border. Once identified, the appropriate trailer is attached to the prime mover and the truck can start the journey to final destination of cargo.

In the case of two cooperating companies it is likely that the prime movers effectively swap trailers at the border, so that they receive a trailer from the prime mover

they give a trailer to. In the case of a number of domestic operators providing services under a collective this may not be the case and instead the allocation is made giving consideration to factors such as destination, type of goods and size of consignment. Operations should be planned to maximize utilization efficiency, i.e. minimizing the average waiting time for prime movers.

There are several options in terms of the location of the transloading facility, depending on the design of the border.

- If there is a neutral zone, the transloading facility can be provided there. The advantage is that drivers do not need to go through immigration procedures of the destination country. However, the area is outside the control of both customs authorities and therefore does not qualify as a customs warehouse. It may not be possible to use waiting time for import clearance. Also, it may not be clear who is responsible for the operations and maintenance of the facility.
- Transloading facility can also be located immediately next to the border. The benefit is that the trailer can be placed immediately into customs controlled facilities. For one of the drivers, the route is also entirely domestic with no need to move across the border. However, the other driver will need to cross the border twice and comply with appropriate immigration procedures.
- The facility can also be provided in an alternative suitable location. For example, when allowed within bilateral border agreements, it may be preferred to carry out transloading within a few kilometres of the border to avoid congestion in the immediate border area.

2. Operational requirements

(a) General recommendations on vehicles

The model is based on the use of trailer or semi-trailer trucks, which eliminates the need for either lift-on/lift-off operations or manual transloading. The exact size and model of the vehicle depends on several factors:

- The average load per consignment determines how large the vehicle needs to be to be able to accommodate most orders. Trucks that are too large on the other hand are less fuel efficient and more costly as investments.
- The condition of the infrastructure can limit the size of the trucks used.
- The national requirements regarding weight and dimensions of vehicles.
- The type of goods generally carried – the characteristics of trade can impose additional requirements on the vehicle.⁹
- The vehicles currently used on the route.

For the operation of the trailer swap, the vehicles used by operators have to be compatible. Therefore, the choice of vehicle needs to consider all points above from the perspective of the entire route, not only the domestic portion. For example, it is necessary to ensure adherence to rules and regulations of both countries, even if there are discrepancies. As the prime mover does not move beyond national borders, the inconsistencies in regulations on prime mover specifically are not a concern. However, as the trailer travels in foreign territory, and significantly contributes to the weight and dimensions of the vehicle, it is necessary to consider regulations of all countries on route. The partnership of operators needs to evaluate the regulatory demands of both countries and agree on the standards accepted for the joint operations.

Compliance with agreed limits is crucial for successful cooperation. Overloading causes not only a road safety hazard for the driver and those on the road but may also lead to penalties and delays in the delivery of goods. In this case, the benefit (more cargo transported) and cost (possible penalties) are not distributed equally as the offender is at the point of origin but the delay is experienced in the country of destination. While repeated offences can cause resentment and termination of otherwise profitable shared venture, it is recommended that the formal agreement between service providers addresses how this type of problem will be dealt with.

⁹ When operating as a collective, this requirement is relaxed as some operators may wish to specialize in a particular type of good.

Harmonization of national requirements through a multilateral or bilateral intergovernmental agreement can simplify international cooperation between private sector operators.

(b) Recommendations on facilities

Trailer swap can take place even when no specific facilities exist. It is not necessary to invest in transloading equipment and no extensive labour is required. However, for more successful operation a set of recommendations are made regarding facilities at the transloading location. This can help reduce congestion around the border and increase safety of users and staff.

There needs to be a clearly indicated space for the trailer swap to take place, away from the flow of cargo at the border to avoid congestion. The area should be secured so that trailers can be safely left to wait for prime movers. The parking lot should have adequate space for vehicles with cargo and a separate area for trailers waiting without prime movers. In case trailers need to be moved, the facilities should have a yard tractor. As demand for the trailer swap facilities increases, more elaborate services can be offered. The area can host for example offices for customs clearance agents and companies offering value-added services.

It is recommended that some facilities are provided as part of the public border facilities. This supports the international operations of small and medium sized enterprises and lowers barriers to entry. Alternatively the collective of transport operators, where applicable, or individual companies with large-scale operations can build their own facilities with similar functions. Capital may be available at a lower cost for collectives compared to individual operators making access to credit easier.

Trailer swap at the border increases driver responsibility in the form of coordination of swap and identification of correct consignment. This may cause resistance among drivers, and appropriate training should be made to reduce risk of human error.

Other border infrastructure as described in the model can also be adjusted to facilitate operations. For example, a fast lane for trucks returning empty could facilitate return to country of origin in cases of uneven trade and allow the prime mover to be used more efficiently.

(c) *Commercial arrangements*

The model relies on cooperation (directly or through a collective) by transport operators registered in their own country. This is to overcome several non-physical barriers. For the operation of the model, trailer must be allowed to access to the whole route. This can be achieved by registering the trailer in both countries. As it is the case in Malaysia, domestic regulations may prevent registration of prime movers and trailers by companies that are not registered in the country in question. Double registration is therefore not an option for foreign carriers operating alone. With cross-border cooperation of transport operators it is possible to run an international service as a combination of two domestic services without breaching these restrictions.

The model as described involves two transport operators or collectives of operators. Setting up cooperation through collectives has the advantage that barriers of entry for small and medium sized operators are reduced as cooperation between two individual companies requires large scale operations. Through cooperation, many of the advantages of large companies can be achieved. Additionally, there may be greater flexibility in terms of services provided due to the use of several operators. Diversified cooperation can also promote knowledge sharing which can benefit the domestic transport industry.

It is also possible that, as a common practice in transport between Malaysia and Thailand, two operators offering a joint service are part of the same parent company. This set-up has several benefits. Partnership can be more easily enforced when there is a common global or regional direction and shared corporate culture. Setting up cooperation can also be faster and less costly if operations already exist in both countries. As the model is intended as an interim solution to overcome non-physical barriers, cooperation of two branches of the same company offer a solid platform to further streamline operations as non-physical barriers are gradually reduced.

Regardless of the set up of the partnership it should be based on a formal commercial arrangement which clearly indicates the terms of the joint venture. Additionally when operating as a collective, an additional binding agreement should be in place between the members to indicate their individual responsibilities and rights and the responsibilities of the collective. The contracts should cover details of the following aspects:

1. Regulatory compliance

Each transport operator is responsible for regulatory compliance, including guaranteeing that the operator is fully authorized to provide transport services. The collective is responsible for the regulatory compliance of all its members to the foreign partner.

2. Cost and revenue sharing

The client should be able to place an order with a domestic representative which covers the entire route for the consignment. This implies that the agreement between transport operators, both domestic and international, covers the terms under which revenue and cost are shared. This includes cost of insurance. The trailer and its contents should have valid insurance in both countries and it should be agreed how cost of insurance will be shared. In cases where there is a considerable difference in insurance costs, it may be preferable that some cross-subsidizing takes place.

3. Conditions of use for trailers

The agreement should also clearly address the conditions of use for the shared equipment, i.e. the trailers. In addition to specifying which type of trailer will be used all participating operators have to be equally committed to the investment and maintenance of the equipment. It could be preferred that the trailers received as part of trailer swap are not used for domestic operations but rather returned at the earliest opportunity to the international partner. This should be clearly stated in the contract. Knowing that the acquired trailers will be returned encourages investment in better equipment. If seen necessary, the conditions of use can also include a financial guarantee.

Domestic regulation on temporary importation may pose restrictions on how long the trailer and container can stay in the country. This time should be built into the agreement on operations.

4. Damage to trailers

The contract should specify who is responsible for damage to the trailers, containers or cargo and specify the procedure for repaying for the damage.

5. Reliability of service

The contract can include details of expected level of timeliness of participating operators, e.g. what proportion of consignments is expected to be delivered by the time specified. It should also specify the expected communication to partner regarding the status of the delivery.

6. Method for conflict resolution

There should be a clear and enforceable procedure for resolving disagreements between the operators, both domestically and internationally.

3. Institutional requirements

The model aims to provide solutions which require minimal bilateral agreements, as the process of introducing and implementing these agreements can be lengthy and sometimes impossible. There are still some institutional requirements to allow for efficient operations.

In terms of multilateral or bilateral agreements, the following agreements facilitate the application of the model:

- Ideally, there is an intergovernmental transport agreement which allows the use of trailer in a foreign country. The agreement should address issues such as insurance and temporary importation.
- The issue of insurance can also be addressed through a regional, subregional or bilateral insurance scheme.
- Issues of temporary importation can be addressed by accession to relevant international conventions.
- A border area agreement which allows access to areas immediately next to the border, with minimal procedures for immigration, customs (temporary importation of vehicle), transport permit and insurance.
- Agreement on joint inspections, either in facilities of one country or in shared facilities in neutral land.

Occasionally, it is not feasible to introduce such agreements. In this case, there are measures which can be implemented unilaterally for the same effect:

- Facilitation of movement of trailers can be achieved by allowing double registration of trailers.
- Border area relaxation of policies can be introduced unilaterally.
- If joint inspection cannot be achieved, it is advisable to facilitate customs clearance and other border procedures through use of e-customs and other IT solutions, risk-based inspections and technical equipment such as scanners.

4. Application of the model

It is important to recognize that there are factors which influence how beneficial the implementation of the model is. A corridor-specific evaluation of the factors below needs to take place before application to determine the level of benefit that can be realized.

- **This model deals with truck-to-truck operations.** Therefore its usefulness increases as the proportion of trade by road increases compared to other modes of transport.
- **The model is also more successful when the infrastructure around the border is adequate for international transport.** Infrastructure can limit the choice of vehicle even when there are no issues in terms of weight and dimension regulations.
- **Border procedures should be as streamlined as possible.** The procedure of trailer swap can be carried out in a matter of few minutes. The impact of time saved will be perceived in the context of the total time required for border procedures. By increasing overall efficiency the significance of time gained is increased.
- **Current transloading practice is time-consuming.** One of the major benefits of the model is that it only takes a few minutes to change the prime mover for the trailer. Delay in transloading can take place because transloading is done manually, or because there is lack of equipment for lifting of containers. If this is the case, time saving can be achieved by using the described model.

- **Current transloading practice is costly.** Transloading can also be costly, either because of labour costs, or because of transloading fees paid. Trailer swap can be carried out with limited labour and equipment. The higher the cost of current practice, the more weight this benefit carries.
- **Acknowledging the mutual benefit of improved conditions for trade can significantly enhance the benefits of the model.** Most importantly, it is already a priority in many development strategies that there needs to be an equal level of development on both sides of the border. Otherwise the gains made at one side of the border will be hindered by delays once cargo reaches the second border post. However, the model can be implemented with commitment from one side of the border only.
- **There may also be some trade characteristics which contribute to the impact of the model.** For example, the most efficient use of the model arises when there can be a reduction in empty runs. This means that as frequently as possible both trailers should arrive to the border loaded with cargo and no legs of the journey are travelled empty. This can be difficult to achieve when trade is very imbalanced. However, the operators can reduce the proportion of empty runs by close cooperation in matching and timing orders, particularly when working as a collective.
- **Distance of the intended destination from border increases the benefit** as distance enhances the effect of non-physical barriers.

5. Evaluation of benefits and costs

(a) *Benefits generated by the model*

The model aims to offer a solution which facilitates a more efficient organization of international operations. This benefits:

The transport operators

- Less empty runs, i.e. a more efficient use of drivers and prime mover, meaning reduced costs per consignment;
- Decrease in transloading cost either due to a fall in cost of labour for manual transloading or then reduced need for costly transloading equipment;

- Reduced frustration due to delays at the border;
- Reduced risk of wastage due to opening of containers, in particular for perishable goods for which manual transloading of goods interrupts the cold chain and can cause goods to spoil;
- Simplified procedures (e.g. customs) by removing the need for prime mover to move in foreign country;
- Increased security and reduced risk caused by foreign business environment as well as easier access to local services as local knowledge is used throughout route; and
- Control over domestic routes maintained by local transport industry.

The customers

- Faster delivery of goods;
- Wider range of services, conveniently arranged through domestic operator; and
- More experienced staff in both countries.

The authorities

- International operations allowed without compromising safety and control concerns caused by foreign vehicles;
- Reduced congestion, increased safety and facilitated control in a more organized border area; and
- Reduced concerns over road safety as local transport operators are familiar with the environment and rules of traffic.

The wider economy

- More sustainable transport industry both commercially and environmentally, through reduced fuel consumption and emissions per unit of cargo; and
- More trade and particularly exports with more efficient border crossing, which means increased income for the economy.

A more efficient border crossing means a reduction in the time spent at the border. The monetary value of this time takes into account the cost of driver, vehicle and the cargo

carried. Therefore, the more high-value the cargo is, the more costly delay is and greater the benefits generated by the model are.

Developing a wider range of international services through partnership is also beneficial for the transport industry, encouraging more sophisticated business models. There is scope for knowledge sharing in terms of business practices and country-specific institutional and commercial factors. Development of the industry can further lead to lowering of logistics cost, increased trade and improved employment opportunities.

(b) Costs needed by the use of the model

It is also important to consider the costs incurred if the model is implemented. The actual cost depends on current practice and the existing facilities. The closer the existing practice is to the model, the lower the cost of introducing the procedures described.

The main costs fall on the transport operators or their collective. There are costs involved with the establishment of an international business agreement, the level of which depends on the complexity of the agreement in place. The operating cost per company can be reduced by increasing participation in the scheme. Collectives may also find it easier to find a partner to cooperate with in the foreign country. Therefore, some costs of finding a partner can be reduced. These costs can also be reduced if there is already a platform for the companies to become familiar with each other, both domestically and cross-border. By providing and supporting such platforms the government can promote the development of domestic industry.

Once a partnership is agreed on, the participating operators need to agree on using compatible equipment. When the existing equipment is not suitable, there is a cost involved in switching to a new type of vehicle for individual operators. If it is decided to use containers, there is a cost involved in either buying or hiring the containers.

Trailers need to be able to move in both countries for the operation of the model. This requires increased level of insurance, so that the trailer and cargo are insured throughout the route. There is also an additional cost in acquiring double registration for the trailers, if registration fees are collected by the government.

As an alternative to double registration, non-physical barriers can be addressed by negotiating multilateral or bilateral agreements or accessing to international conventions. While these procedures impose a significant cost, the long term benefits are considerable and future costs for transport operators are reduced. In the short and medium term, the main cost for authorities is the necessary upgrade of the border facilities to allow for large scale efficient operation of the model. This can include the improvement of parking facilities to include a swap yard, creating additional lanes and facilities for operators.

The government also has a role in encouraging and supporting businesses as they make adjustments to adopt the model. Financial constraints can limit to what extent in particular small and medium sized enterprises participate in international operations, even when operating in partnership. The government can facilitate access to credit for the purpose of necessary equipment upgrades. Support can also be provided for finding international partners and in upgrading skills. As transport operations become more complex and the role of transport operators evolves, it can be beneficial to provide training in trade processes and legal aspects of cooperation. These trainings can be provided by the private sector or their associations.

D. Model for efficient cross-border transport of passengers

Solutions for passenger transport by road should focus, as freight transport, on cost, difficulty of implementation, efficiency and reliability. Additionally passenger convenience should also play a part in determining the best practice.

Three operational options emerge for cross-border transport of people. Firstly, it is possible in some cases to run an international bus service, with the vehicle registered in one country crossing the border. At the border passengers go through border control as normal and board the same bus to final destination. Secondly, two operators can cooperate to provide a transport service, e.g., through a jointly owned international service. While the passengers are required to change busses at the border, they have the benefit of coordinated services and common ticketing. Lastly, it is possible for both operators to offer a service to the border only, with no formal cooperation. The passenger then treats the two legs of the journey as separate, with separate timetables and ticketing.

The three options were evaluated using the method described in this Section. Altogether 17 relevant typical issues were identified. Many are common with freight transport as they relate the required arrangements for allowing a commercial vehicle into the country. The analysis is presented in Table 4. Based on the challenges present and minimum level of cost and difficulty attached to tackling them, the option of two unrelated services to the border faces the least problems and is least costly to implement. This is intuitive as the option involves no coordination between the two countries. The option of providing a service jointly by two operators is considered to be nearly equally inexpensive and easy. Arranging an international service is understandably the most difficult and costly.

The table does not take into account convenience of service to passengers, efficiency and reliability. Change of vehicle inevitably causes some inconvenience for passengers as they need to disembark with all their luggage and then readjust to the new vehicle. Additionally the risk of delays and confusion increases, for example if the receiving bus is delayed or difficult to identify. Language barrier may make change of bus difficult. When the connection is run as one service, some of these problems can be reduced. Therefore this option is ranked as more convenient and reliable than the two services, but less convenient and reliable than one bus service.

Table 5 summarizes the total score for each option. To allow for easy and intuitive comparison, the total scores for cost and difficulty were transformed to a 1-5 scale. The table shows that when the total score is taken into account, the most desirable option is providing one service with two busses, based on low level of difficulty and cost, reasonable convenience, efficiency and reliability. Given the high level of difficulty and cost for providing a one bus service it does not emerge as a strong alternative. However it is relatively much more convenient, efficient and reliable and therefore need to be promoted in the longer term.

Table 4. Evaluation of passenger transport arrangements

Issues	One bus	Two busses, one service	Two busses	Solution/Arrangement	Difficulty	Cost
Transport permit for motor vehicle	x			Multilateral agreement	5	5
				Bilateral agreement	3	3
Third party liability insurance of vehicle	x			Subregional or regional insurance scheme	5	5
				Bilateral insurance scheme	4	4
				Double insurance	1	3
Temporary importation	x			International convention	4	4
				Bilateral agreement	4	3
				Double registration	1	3
Mutual recognition of driving license	x			International convention	4	4
				Multilateral agreement	5	5
				Bilateral agreement	3	3
				Change of driver	2	2
Mutual recognition of vehicle certificates/registration	x			International convention	4	4
				Multilateral agreement	5	5
				Bilateral agreement	3	3
Compliance with local standards regarding weight and dimension	x			Harmonization of regulations	5	5
				Adjustment of fleet/transport equipment	2	2
Compliance with local emission regulations	x			Harmonization of regulations	5	5
				Adjustment of fleet/transport equipment	2	2
Side of steering wheel	x			Multilateral agreement	5	5
				Bilateral agreement	4	4
				Amendment to domestic law	3	3
Visa requirement	x			Multilateral agreement	5	5
				Bilateral agreement	3	3
				Change of driver	2	3
Compliance with local laws	x			Exchanging information of laws	3	1
				Training	2	2
Requirement for local partner		x		Same company, different branch	2	3
				Two companies	2	2
Possible route limitations	x			Multilateral agreement	5	5
				Bilateral agreement	4	4
Market access	x			Quota of permits	4	4
Local knowledge throughout route	x				4	3
Road safety	x				3	3
Access to local services	x				3	2
Issuance of several tickets		(x)	x	Shared ticking	1	1
Total number of issues	15	1.5	1			
Total difficulty points (min)	39	2.5	1			
Total cost points (min)	42	2.5	1			

Note: x = Issue relevant, (x) = Issue relevant to some degree.

1 = low cost/difficulty, 2 = some cost/difficulty, 3 = reasonable cost/difficulty, 4 = high cost/difficulty, 5 = considerable cost/difficulty.

Table 5. Comparison of passenger transport arrangements

Factor	One bus	Two buses, one service	Two services
Difficulty	5	1	1
Cost	5	1	1
Convenience	1	2	3
Efficiency	3	2	2
Reliability	1	2	3
Total	15	8	10

1. Technical aspect

As the cross-border operation is considered as one service, the customer can purchase a ticket for the entire journey. Travel documentation should be checked upon purchase to avoid possible issues at the border due to, e.g., expired passport or lack of visa. The name and passport number of the passenger should be noted down. The full passenger list can be provided to the cooperating operator and control authorities electronically or by fax upon departure.

After departure, appropriate border documentation, such as exit/entry forms, can be distributed to passengers to facilitate border crossing procedures. At the border passengers get off the bus and proceed to appropriate border controls. They carry luggage with them so that appropriate customs checks can be carried out.

To ease congestion at the border, bus passengers should have a lane separate from those arriving by private car for border controls. By prioritizing bus passengers the authorities can encourage the use of public transport and reduce number of cars at the border.

Once the passengers clear all border procedures, they can proceed to the receiving bus. The bus should be easily identifiable, e.g. by using unified branding for the service involving both a symbol and text and/or colour(s), and have destination marked clearly.

The driver can identify from the passenger list whether all passengers have boarded the bus. In case of problems, it is easy to establish which passenger is missing. Once all passengers are on board the bus departs for final destination.

The service described above assumes that all passengers embark the same bus once the border has been crossed. When the passenger flows are limited this may be the most appropriate arrangement. As it is assumed that both buses arrive to the border with passengers, groups of passengers are effectively swapped between the two vehicles. However if there is a large number of passenger traffic, both side of border may use scheduled services to increase efficiency and reliability. In such case, if any passenger is delayed due to border crossing formalities, other passengers are not affected. This approach makes the service more advantageous than the one-bus service.

2. Operational requirements

(a) Recommendations on vehicles

The operational arrangements pose very few restrictions on the type of vehicle that can be used. The main requirement is that the receiving vehicle can accommodate as many passengers as is the capacity of the delivering vehicle. As an alternative, several smaller buses can be used to accommodate the passengers from the larger bus. Vehicle capacities need to be coordinated by the two operation partners based on traffic forecast.

A beneficial arrangement would also be launching the service under a shared brand with distinct logo. This can greatly facilitate the identification of the bus and reduce confusion at the border. The identifier on the bus should involve a figure and colours, particularly in the case when the script of the two countries differs or rate of illiteracy is high. Identification should not be based on colour only to take into account individuals with disabilities. Destination should be provided in both local and Roman script.

A procedure must be in place to confirm that the correct number of passengers is on board and to identify the missing individuals. This is easily achieved by checking passengers against the shared passenger list as they get on the bus. As for scheduled services, head counting prior to departure may be skipped.

(b) Recommendations on facilities

The authorities may support international passenger traffic by facilitating the border crossing procedure. This includes investment in the facilities. The efficiency of the service is tightly connected with the efficiency of the border authorities. All authorities may be housed in the same building as moving between buildings can cause confusion and delay. The flow of procedures may be clearly indicated in languages of the two concerned countries and English. Numbers can be used to indicate the order of controls.

Border crossing can also be facilitated by providing the passengers arriving by bus a fast lane. As their travel documents are initially checked with advanced passenger list there should be less scope for problems at the border. Therefore, the queue could be expected to move faster than the regular queue for border checks. If possible, scanners can be used to avoid manual inspection of luggage.

Ideally the passengers should be able to clear the border controls of both countries in the same building or adjacent buildings. If such arrangements cannot be achieved and distance between the buildings of two countries is significant, delivering bus needs to be permitted to reach the control building of another country.

(c) Recommendations on commercial arrangements

Cooperation of two operators is required for the operation of the model. This implies that a formal contract needs to be in place between the service providers that lists the details of the cooperation. The contract may cover at least the following aspects:

- *Regulatory compliance:* Each party is responsible for compliance of the service with domestic regulations, including the permission to run commercial services.
- *Distribution of revenue and cost:* Shared ticketing implies that an agreement must be in place on how revenue is distributed between the two operators. In principle, revenues should be shared on the basis of costs. In cases where running the service is much more costly in one of the countries, cross-subsidization might be considered.
- *Insurance:* Each operator should be responsible for the appropriate insurance for vehicles and passengers in his country. The contract may state what the expected level of insurance is.
- *Expected quality of service:* The contract should state the expected level of service delivered to the passengers, including an expected rate of timeliness, language skills of key staff, information provided to passengers and to the partner operator, and condition of vehicles.
- *Responsibilities for passengers and luggage:* The contract should state what the procedure is in case of passenger complaints or problems and which party is responsible for responding to grievances. Liabilities of each operator should be clearly spelled out for various possible cases.
- *Method for conflict resolution:* The agreement should include details on the procedure for conflict resolution between partners.

The service can be run as a cooperation between two local partners when a willing company can be found and an agreement reached over the details of the joint service. Another alternative is a new company to be set up with the two partners as co-owners and acting as domestic branches of the venture. Separating the international service from the domestic operations of the two companies may simplify the commercial relationship between the operators. An independent service can be further strengthened by unified branding of vehicles, tickets and service points.

3. Institutional requirements

Because the model does not require for international movement of vehicles, there are no institutional requirements for operations. However, the service can be supported by introducing policies that facilitate the operations.

Border crossing can be improved for passengers by introducing joint border controls by the neighboring countries. This is particularly the case for bus passengers as the timeliness of the service is dependent on the clearance of a large group of people. Eliminating distance between the checkpoints can increase clarity and expedite the process. The necessary domestic and bilateral agreements need to be in place to allow for joint inspections either at neutral zone or then giving the border authorities of the neighboring country the power to operate on host country territory.

The passenger flow at the border can also be improved by introducing a bilateral agreement to allow passenger vehicles to enter border area. This would allow the buses from both sides to be parked next to each other, facilitating the transloading of luggage from one vehicle to another. Luggage could be checked on random basis. In this case agreement can also waive procedures for temporary importation of vehicle, insurance and visa requirements for the driver.

4. Application of the Model

The described model is relatively easy and not costly to implement in the cases where restrictions on road transport mean that no international service can be provided by a single operator. There are also factors which contribute to a greater benefit being derived from the use of the model. These factors should be considered from a corridor- or country-specific point of view to evaluate the extent of benefit that can be generated. Conditions for benefit include, inter alia:

- Infrastructure supports long distance travel by road;
- A particular route is not permitted for foreign buses;

- Current border crossing formalities are time-consuming;
- Border does not provide direct access to a major destination;
- Road conditions on two sides of border are largely different;
- Large culture differences in the two countries exist; and
- High operating costs for foreigners.

There may also be difficulties in running such service if the destinations required from border are multiple rather than a clear point-to-point route to regional hubs. This is because it becomes more challenging to create a commercially viable service. The model can be in that case adjusted so that rather than the passengers re-embarking on one vehicle after crossing the border, they re-embark several buses which are clearly marked with their final destinations.

A large neutral zone between border checkpoints can make the application of the model more difficult. It is recommended that a joint facility or adjacent facilities is built for the purpose of border controls by both countries. Alternatively, delivering buses or receiving buses should be allowed to reach the border of the neighbouring country.

5. Evaluation of benefits and costs

Implementation of the model can lead to improvements in the flow of passengers across the border and generate many benefits.

- As a direct consequence of the model, the time spent at the border crossing is reduced and operations become more efficient;
- The passenger experience is improved as a result of increased clarity and convenience;
- Better operations encourage international road travel by public transport, contributing to lower emissions; and
- Shift to public transport may lead to a reduction in private vehicles, leading to less congestion for passengers and easier monitoring of luggage.

Additionally, the following possible costs have been identified:

- The transport operators incur the cost of establishing an international cooperation, including contract and negotiation costs;
- In the case of rebranding of the service, the operators incur an additional cost. There may also be a cost involved in upgrading fleet to the requirements of the service; and
- For authorities, there may be a cost involved in upgrading facilities to support the model. This can include building joint border control facilities.

Building upgrades and rebranded vehicles are not a requirement for the use of the model though they contribute to its more effective use in the long term. Therefore they can be implemented over a longer period of time in order to distribute costs.

IV. IMPROVEMENT OF CROSS-BORDER TRANSPORT BY RAIL TRANSPORT

The region is characterized by long distances within and across countries. This is particularly challenging for landlocked countries which rely on their neighbours for access to sea ports and international markets. Rail transport has been promoted as a sustainable and cost-effective option for long haul cargo and passenger traffic. While more limited in route and subject to many challenges, railways can cover long distances in a more effective and efficient way when combined with other modes of transport.

This chapter presents an overview of the challenges remaining in cross-border transport by rail and indicates some good practices in dealing with the barriers.

A. Overview of non-physical barriers in rail transport

In line with the Intergovernmental Agreement on the Trans-Asian Railway Network signed in Busan, the Republic of Korea, in November 2006, major connections most beneficial for international trade have been constructed in the region. Significant progress has therefore been made on physical connectivity while many missing links are being addressed.

Rail transport is because of its easily controlled nature less affected by non-physical barriers than road transport. Allowing access for foreign trains to national territory is less controversial due to the restrictions on mobility posed by the railway network. However many regulatory and operational barriers exist which limit international services.

There is no globally unified regime to cover rail transport in the same way as it exists for air and maritime transport. This complicates international rail operations as there is a lack of consistency in the legal regimes for railway operations. The risk

associated with dealing with multiple legal frameworks discourages international use of railway services.

As with road transport domestic regulations can also create difficulties for international operators. National operating rules, signaling systems and safety standards vary between countries giving rise to compliance issues and requiring additional training of staff to ensure safe operations. Formalities not related to transport, such as visas for train crew and Customs procedures, can also cause unnecessary delay and cost.

A significant challenge specific to rail transport is the presence of break-of-gauge. This occurs when the railways of neighbouring countries have different track gauges, i.e. the distance between the inner surfaces of each rail of the track is different. As a consequence rolling-stock cannot be exchanged across borders and measures need to be taken to transfer people and cargo.

BOX A. Break-of-gauge in the Trans-Asian Railway Network

- China (1,435 mm) and Viet Nam (1,000 mm);
- China (1,435 mm) and the Russian Federation (1,520 mm);
- China (1,435 mm) and Mongolia (1,520 mm);
- China (1,435 mm) and Kazakhstan (1,520 mm);
- Democratic People's Republic of Korea (1,435 mm) and the Russian Federation (1,520 mm);
- Islamic Republic of Iran (1,435 mm) and Turkmenistan (1,520 mm);
- Islamic Republic of Iran (1,435 mm) and Azerbaijan (1,520 mm); and
- Turkey (1,435 mm) and Armenia (1,520 mm).

In addition to break-of-gauge, other differences in technical standards prevent interoperability in the region. This can include among other things differences in minimum specifications for rolling stock, axle load, dimensions of containers that can move on the rolling stock and specifications for railway infrastructure. For the rolling

stock and wagons to be usable in a foreign country the infrastructure and equipment need to be compatible. When this is not the case, harmonization of operations can involve significant coordination and cost.

International rail services can also be hindered by inefficient and lengthy border formalities and lack of coordination between domestic agencies and neighboring authorities.

B. Good practices in international rail transport of cargo

In the long term it is advisable that non-physical barriers of rail transport are addressed through international agreements on standards and regulations. However, this is a lengthy process and meanwhile considerable transport needs are met through operational and commercial arrangements by private operators and public railway companies.

Many non-physical barriers can be addressed through measures such as change of locomotive and crew when there is no break-of-gauge and the appropriate inter-governmental agreements are in place. Break-of-gauge is an additional obstacle to flow of traffic, but generally it does not constitute a major problem. Trains are required to stop at the border in any case for border controls and railway requirements (e.g. safety check), which is also where most break-of-gauges occur. There are numerous solutions available which can efficiently and effectively address the issue. Some solutions are presented in Table 6.

Table 6. Break-of-gauge solutions

Solution	Type of solution	Description
Single track standard	Infrastructure	Conversion of tracks of different gauges to a single gauge standard.
Dual gauge	Infrastructure	The provision of two different track gauges on a single track foundation through the insertion of a third rail (or sometimes a fourth rail to obtain the so-called 'composite gauge').
Bogie change	Equipment	Operation by which wagons are lifted on a set of jacks, bogies of one gauge rolled out and bogies of the other gauge rolled in.
Variable gauge	Equipment	Bogies which enable wagons to be pulled along a special transition track at reduced speed. During the process, the distance between wheels is adjusted from one track gauge to another.
Transshipment	Operational	Transfer of freight by manual or mechanical means from wagons of one gauge to wagons of another gauge.

Infrastructure solutions require a level of coordination and cost that is not realistically achievable in some cases. Therefore, they can be easily applied to overcome break-of-gauge problems within a country or cross-border movements over a very short distance to address a specific operation, e.g. to gain access to a mining site or a large factory. Bogie change and variable gauge may be more useful for light trains. Transshipment has been found more practical for cross-country rail operations in absence of necessary institutional measures.

The efficiency of operations is a significant concern for both private operators and control authorities. Customs and other agencies can work to minimize the time required

for clearances at the border to facilitate the movement of goods. Efficiency should also be considered when addressing break of gauge. Transshipment of goods from one wagon to another is not time consuming particularly when containers are used. Lifting a container on a wagon can be carried out in a few minutes and the total time spent loading a train can be reduced by increasing equipment available and using efficient equipment and effective design. Transshipment time increases when manual transloading is required.¹⁰ Queues can also form when there is not enough rolling stock to support the experienced trade flow by rail. In this case, expansion of facilities is needed. If the transshipment is under supervision of customs with a facilitation system (such as mutually recognized electronic seal and common guarantee), such operation may be undertaken smoothly and efficiently.

The cost of operations depends on the equipment and infrastructure required. In all three cases, the infrastructural adjustments to tracks are limited to short distances, making the solutions easier to implement. In terms of equipment, investment is required at the border and for rolling stock. Operation with variable gauge bogies implies that all bogies used in international operations need to be upgraded to be compatible with several gauges. This can be costly at larger quantities of trade. For transshipment there are fewer challenges in terms of investment, but more equipment is required at the border with break-of-gauge for transloading.

Unnecessary movement of goods increases the risk of damage and loss. Variable gauge bogies and change of bogie involve very little movement and limited impact on goods. When using transshipment as a way to deal with break-of-gauge, containerization can reduce the risk of damage compared to manual transloading. On the other hand, transloading operations imply that it is not necessary for the rolling stock to leave the country. This can reduce risk and cost in the cases when the return of rolling stock is unpredictable.

¹⁰ Officials at Zamyn-Uud rail border crossing, Mongolia, reported that loading an average train took 30 minutes when containers were used compared to 2-4 hours when manual transloading was required.

An evaluation of the rail transport corridor needs to be carried out to determine the appropriate way to address the break-of-gauge issue. In addition, many steps can be taken to encourage use of rail transport for cargo by private sector operators, government and their cooperations. Some suggestions are provided in Table 7.

Table 7. Tools for efficient transshipment operations

<p>Government</p>	<ul style="list-style-type: none"> • Moving customs clearance to take place at the departure and arrival point can decrease congestion and delay at the border. • Use of scanners can allow for inspection of wagons in movement, eliminating the need to stop the train at the border unless there is a cause for suspicion.
<p>Government and private sector</p>	<ul style="list-style-type: none"> • The facilities at the border can support efficient transshipment. • The distance cargo needs to be moved can be minimized by placing the tracks of the differing gauges next to each other. Goods can then be conveniently placed on the new wagon. • Capital can be made available for investment in transshipment equipment and rolling stock to meet the demand for rail transport. • Transloading can be carried out on several yards with specialized functions (e.g. agricultural goods).
<p>Private sector</p>	<ul style="list-style-type: none"> • The use of containers where possible can facilitate the transloading process as cranes can be used instead of manual transshipment of goods. • When manual transshipment needs to take place, the process should be mechanized when possible. For example, forklifts can be used to move goods between wagons if appropriate aids are introduced. • In some cases, standardization of packaging of cargo can facilitate manual transloading. • Some operators may prefer to have their own transloading facilities, either purely for their own use or to provide alternative services to other operators.

C. Good practices in international rail transport of passengers

The environmental benefits of international travel by rail compared to road and air are widely recognized. In addition, the railway network can provide greater connectivity when compared to air travel and offer more reliable services than other modes of transport. Innovations in technology have allowed increases in travel speeds, making rail travel a competitive option in many parts of the region.

At the same time increased efficiency and modernization of border controls for rail passenger transport are required to fully realize this benefit. Lengthy border procedures and inconvenient operations can deter passengers in favour of alternative modes of travel, even when international train services exist. Generally passengers and crew need to clear at least immigration and customs formalities for cross-border services. This can cause unnecessary delay at the border. In addition, break-of-gauge or other technical incompatibility can cause procedures such as change of locomotive or bogie to be necessary.

Table 8. Border control practices for international train travel

Arrangement	Description	Examples
At departure/arrival station	Immigration and other border controls take place at the point of departure and arrival.	Eurostar (London, Paris, Brussels)
On train	Border authorities carry out the necessary procedures on the train.	China – Mongolia (Erlian-Zamyn-Uud)
At border station	Passengers disembark the train at the border station for the appropriate checks.	Malaysia - Thailand (Padang Besar)

Three practices for border control that are applied in international rail travel are presented in Table 8. When considering the most suitable arrangement for the procedures in question, one must consider the process from the point of view of both control authorities and the passengers.

For the authorities, emphasis can be placed on the security aspects. Increased passenger flows have to be managed in a way that does not jeopardize prevention of smuggling, trafficking, spread of diseases and other security threats. For this purpose, it is necessary to be able to monitor who is on the train, that no forbidden substances are carried in the luggage, and that no individuals or packages can be introduced on board after the checks have taken place. The risk of interference is lower when luggage and identity are checked at the border, either in the train or at the border station. Control issues are limited when carrying out inspections on the train as no movement in or out of train is allowed.

If border controls are carried out at a station, either at departure/arrival or at the border, then investment on appropriate control facilities is required. The advantage of operating at the border station is that international facilities are required only at one station on each side of the border. When checks are carried out at the departure and arrival stations, providing facilities becomes more complicated as each station which may serve as point of entry to international service must have control facilities and staff. This can be costly if there are many domestic stations before the border. In terms of cost, carrying out border controls on the train can be the least costly set up. Very few facilities are required at the border as passenger leaves the train only if it is his final destination or if a problem is detected by the border authorities. The main expense is the cost of inspection staff.

An additional challenge is that the nature of train travel means that relatively large influxes of passengers arrive at once so services encounter large peaks. This places importance on efficiency to avoid long waiting times and to improve the passenger experience. Efficiency of service will be influenced by the number of procedures at the

border. If passengers are cleared prior to departure, this number can be reduced to zero, or one if bogie change is required. Lengthy waiting times also tie up equipment and prevent efficient use of capital. Carrying out border controls at departure and arrival stations allows for efficient use of wagons as border controls can be carried out before the arrival of the train.

Efficiency of the service can influence significantly the commercial viability of the international service. When alternative passenger services exist, convenience for passengers can also play an important part for sustaining demand for the service. The aim should be to:

1. Limit the number of stops required for border control;
2. Limit the duration of stops; and
3. Limit movement in and out of the train.

Checking documentation upon departure and arrival eliminates stops at the border to a great extent, as there is no document check or need to disembark once on the train. It is therefore a convenient solution when considering these three aims. However, the aims can sometimes be contradictory and a balance needs to be found. For example, some passengers may prefer to wait in their seats while checks are carried out, particularly if station services are limited. However, it may be that necessary border controls are carried out faster if passengers leave the train. The trade-off may be influenced by the particular journey. On a long distance journey passengers may prefer to leave the train for the duration of controls to be able to move around. Preferences may also be influenced by facilities available. Long stops can be very inconvenient if passengers are confined to a train carriage. Border controls, combined with a change of rolling stock, and taking place on both sides of the border, can lead to passengers being confined to the carriage for several hours with limited services available. At the station passengers can use facilities, such as catering services, washrooms, shops and money exchange. In this case there may not be inconvenience attached to carrying out border controls at the station.

An additional benefit of carrying out border procedures at the border station is that in some cases it may be possible to introduce joint controls with the neighbouring country. This can reduce the number of stops required and increase efficiency and convenience for passengers. For joint operations to be possible, an agreement needs to be in place which gives the guest country the authority to carry out border procedures in the host country. Facilities for authorities of both countries are also required. The cost of infrastructure can be shared between the countries. An example of such operations is provided in Box B.

The choice of border control arrangements is influenced by the relative importance placed on security, cost, efficiency and convenience, and the difficulties that are expected in implementation. Table 9 provides suggestions on how some shortcomings may be addressed through the station design and operational arrangements.

Table 9. Comparison of different approaches for clearance of international train passengers

Arrangement	Security	Facilities	Efficiency	Convenience
At departure/arrival station	<ul style="list-style-type: none"> • The risk of interference can be reduced with fewer domestic stops. • At the departure and arrival stations, international passengers should be separated from domestic passengers. 	<ul style="list-style-type: none"> • Reduced stops decrease the required investment on border control facilities. 	<ul style="list-style-type: none"> • Scanners need to be used when possible to replace manual search of luggage. • Congestion at the station can be reduced by separating international and domestic passengers. 	<ul style="list-style-type: none"> • The arrangement is very convenient for passengers.
On train	<ul style="list-style-type: none"> • Train doors and windows may need to be locked. • Train restrooms need to be cleared and remain locked. • Train may need to be controlled by border guards. 	<ul style="list-style-type: none"> • Only offices for control staff are required. 	<ul style="list-style-type: none"> • Bogies may be changed while clearing passengers. • Sufficient personnel should be available to carry out checks. • Advance list of passengers is needed or portable passport readers can be used to speed up the checking process. 	<ul style="list-style-type: none"> • The arrangement can be very uncomfortable for passengers and the time required for border controls should be reduced to minimum.
At border station	<ul style="list-style-type: none"> • Station should have controlled area for border formalities to reduce risk of interference. For example, the international service could be accessible from only a part of the station, which could be securely isolated from the rest of the building. 	<ul style="list-style-type: none"> • Cost of infrastructure can be reduced by establishing joint controls with neighbouring country. 	<ul style="list-style-type: none"> • Bogies may be changed while clearing passengers. • The flow of controls should be indicated clearly. • Establishing joint controls with neighbouring country can increase efficiency. • Scanners can be used when possible to replace manual search of luggage. 	<ul style="list-style-type: none"> • Convenience can be increased by offering services at the station, such as catering facilities and money exchange. These retail outlets can also offer employment for local people.

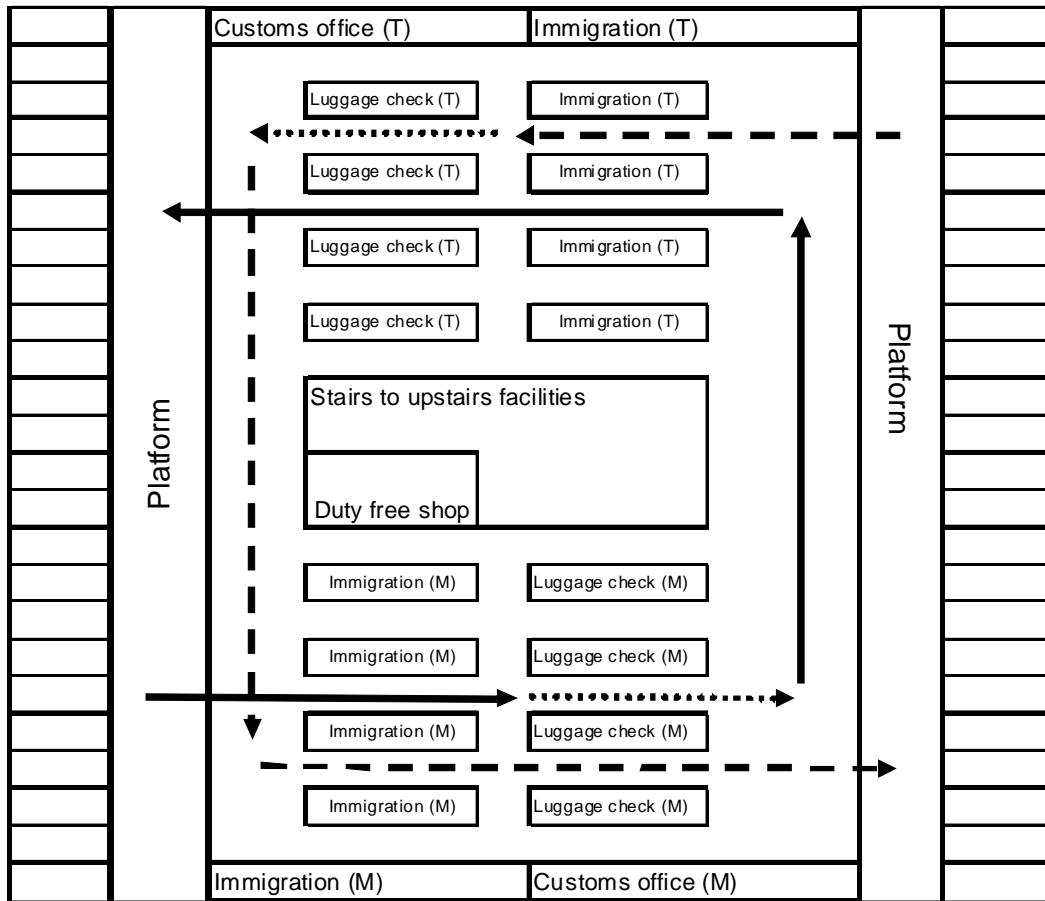
BOX B. Case study: Malaysia-Thailand

Passenger trains connect Hat Yai with Kuala Lumpur twice per day through the border stations at Padang Besar. A historical agreement between Malaysia and Thailand allows for the border controls of the two countries to be carried out in shared facilities, at the Padang Besar station on the Malaysian side of the border.

Upon arrival, passengers exit the train to the platform with their luggage and move to clear the exit immigration procedures of the country of departure. After this, they move to the opposite side of the controls building, where they go through the passport control and luggage check of the destination country. Customs is responsible for ensuring that each part of the train is checked. Upon clearance the passenger can board the train directly or then use the facilities, such as cafeteria, while the locomotive of the train is changed.

The process takes about one hour and the flow of controls is indicated clearly. The border agencies report good cooperation and flow of communication between the two countries. Border agencies of Thailand have their respective offices at the station though officials are only present when a train is arriving.

Figure B.1: Border control facilities, Padang Besar station, Malaysia



Note: Showing flow from Malaysia to Thailand (solid arrow) and Thailand to Malaysia (dashed arrow). Dotted arrow indicates omitted check.

V. USE OF BORDER POLICIES FOR ENHANCED EFFECT

Border areas often face multiple economic and social challenges. They are often far from the national capital and regional economic centres, reducing the economic opportunities available locally. Economic disadvantage is associated with many social problems such as unemployment, health deficiencies and substance abuse. Border areas are also often home to ethnic minorities which face very specific challenges and social needs. Many governments have therefore introduced measures to promote the economic and social development of these areas, such as national development programmes for border regions.

Promotion of economic and social development in the region has included the use of special economic zones (SEZs). SEZs, free trade areas (FTAs), and special commercial areas (SCAs) all involve differential (generally relaxed) policies on investment, income and trade within a limited geographical area within national boundaries. The commonly specified aims of special economic zones include attraction of domestic and foreign investment, development of industry, encouragement of exports, creation of employment and promotion of tourism.

Connectivity and adequate infrastructure are important elements of attracting investment. Therefore many special economic zones have been located close to large cities or ports, with easy market access. However, some SEZs have also been built in border areas with the combined aims of encouraging trade and industry, and stimulating the local economy. Such areas already in operation include Lao Bao Special Economic-Commercial Zone (located in Viet Nam, bordering Lao PDR) and Ruili Border-Economic Zone (in China, bordering Myanmar). In addition, many are in the process of being implemented such as Zamyn-Uud Free Economic Zone (in Mongolia, bordering China). Most often SEZs are implemented domestically but locating the area by the border opens the opportunity for international cooperation with the neighbouring country in improving the investment environment. An example of such joint venture is the Special Economic

Zone developed in connection with the Khorgos International Cross-Border Cooperation Centre located at the border of China and Kazakhstan.

While facilitation of transport is not generally specifically included as an aim for SEZs, the concept of a clearly limited area with more flexible regulations and special incentives could also be used to support development of international transport. The border crossing models presented in this paper do not require vehicles to travel extensively in foreign territory but instead offer solutions which rely on access to the border area only. Relaxing relevant policies in the border crossing areas can facilitate the implementation of the model by private businesses. Development of border facilities also encourages trade, which in turn increases the flow of people, goods and wealth throughout the region. This can encourage business in the local area, through involvement in trade or by providing services. This is in line with the general aims of special economic areas. The inclusion of transport considerations to the policy making in border special economic zones can therefore further support the achievement of the goals of economic and social development in border areas.

Table 10 lists policy suggestions for effective use of efficient border crossing models in the SEZ context. All policies can also be implemented as a part of a bilateral border area agreement.

Table 10. Special border area policy recommendations

Policy area	Possible policies
Transport	<ul style="list-style-type: none"> • Issuance of transport permits can be abolished in the border area. • Some of the domestic technical standards can be waived, including regulations on the side of steering wheel and possible local escort requirements. • Because of the short distance travelled in foreign country, vehicle identification less of an issue. • If a SEZ is established with the neighbouring country, vehicles registered in the border area could be considered domestic by both countries.
Immigration	<ul style="list-style-type: none"> • Border area can be established as a visa free zone. • Alternatively streamlined processes can be introduced such as visa on entry or granting multiple entry visas.
Insurance	<ul style="list-style-type: none"> • The special border area can be considered within range of insurance services in both countries and covered by operator's national insurance scheme.
Customs	<ul style="list-style-type: none"> • The requirement for deposit or fee can be waived due to the limited geographic reach of operations.
Support of business ventures	<ul style="list-style-type: none"> • Tax incentives can be established for capital investment, supporting development of dry ports and other private facilities for transshipment operations. • The special border area can facilitate the process of finding a cross-border partner for transport operations. • The possible clustering of companies in the area can also support the creation of business and logistics services in the area.

As SEZs elsewhere in national territory, special border area policies can be established entirely at a unilateral basis, removing the need for international agreement. The benefit of this set up is that its implementation is easier as political will and investment is only required in one country. There is also greater flexibility as policies involve domestic considerations only. The disadvantage is that it may be that reform initiatives are not supported by facilities and policies on the other side of the border. This can have a detrimental effect on the impact of the SEZ. For companies that wish to implement cooperative operations such as described in this paper, unequal incentives limit flexibility in business arrangements.

Introducing measures on both sides of border can therefore support further facilitation of transport and border area development. Each country can establish a special zone in their territory. This arrangement still has the benefit of easy implementation as the border areas can cooperate but also run national policies independently. As a disadvantage, there may be duplication of effort, leading to competition between the two areas.

A third option is a shared special economic zone, with common special policies for the two sides of the border. In this case the area can benefit from the strength of both countries which can increase impact on employment and industry creation. Processes can also be streamlined to minimum. Implementation of common rules and legislations can however be a time-consuming process and requires serious political will if true single zone approach is wanted. As an example, border facilities in Khorgos were finished in November 2011, but the new border crossing is not yet operational due to pending legal arrangements.

SEZs can promote border area development in many ways. Some of the expected benefits include:

- *Increased trade and industry:* As SEZ policies are generally designed to attract domestic and foreign investment, it is expected that new business ventures are set up in the area.
- *Increased employment:* Creation of industry can promote local employment.
- *Diversification of livelihood:* In traditionally agricultural areas there is potential to develop agricultural processing industry for value creation. Special economic zones are also often accompanied by tourism promotion which can offer further opportunities in the area for work and business.
- *Improvement of livelihood:* A more dynamic local economy can prevent outward migration and the generated income can increase living standards in the area.
- *Increased tax revenue:* Increased economic activity can boost the local government revenue in the area and thus increase resources for social projects.
- *Social development:* To attract investment it may be beneficial to develop the educational system to produce quality labour for the new enterprises. Also medical facilities need to be adequate to meet the increased need.
- *Social equality:* As these changes are implemented, there is an opportunity to specifically address those groups most vulnerable to social inequalities, such as women and ethnic minorities. Simultaneously changes need to not threaten traditional lifestyle or pose a burden to the environment.
- *Economic reform:* The SEZ can serve as an experiment of economic reform. In this way new policies can be proven effective before extending nationally.

ATTACHMENT 1: TEMPLATE FOR AGREEMENT ON TRAILER SWAP OPERATIONS

A. Introduction

The purpose of this document is to present the key elements to be covered in an agreement between operating partners in neighbouring countries when entering into cross-border trailer-swap operations.

By “trailer-swap” we understand international freight transport by road mainly on articulated trucks, i.e. semi-trailer plus motive unit, where the semi-trailer moves into the destination country complete with its load, without trans-shipment, whereas the motive unit remains in its home country, being replaced at the border by a motive unit from the destination country.

The text of the agreement and of its annexes is intended purely as a general guide. The purpose is to present points which need to be covered in any such agreement. The parties to the agreement may amend it as they wish, to suit local circumstances and their own preferences.

The guide contains:

- Agreement template (pages 2-11);
- Appendix 1: Operational procedures at the border (Proposed text) (page 12-13);
- Appendix 2: Trailer handover report and checklist (pages 14-16);
- Appendix 3: Formula for adjustment of traction charges per kilometre to take account of charges in the price of diesel fuel (page 17);
- Appendix 4: Rates for the provision of traction as agreed by the Parties to the Agreement on the date of signature of the Agreement (pages 18-19);
- Appendix 5: Suggested standard consignment note format (page 20); and
- Appendix 6: List of equipment covered by the Agreement (page 21).¹¹

¹¹ *Note to reader:* This may be required by border authorities as a condition for allowing equipment to pass the border.

B. Agreement template

1. Definition of terms

For the purpose of this Agreement,

“The Agreement”

Means this document and its appendices including, but not limited to, the operational procedures at the border, the trailer handover report and checklist, the formula for adjustment of rates, the tariff structure, the suggested consignment note, and the list of equipment covered by the Agreement.

“Party/Parties”

Means the signatories to the Agreement. The signatories may be registered public or private companies, partnerships, managers of cooperatives,¹² associations or other groupings of transport companies and truck-trailer-owners, or individual truck-trailer owners.

“Controlling Party”

In the context of return-loading means the Party to the Agreement who originally presented the loaded trailer at the border. This is the Party who controls the trailer during a particular out and return-bound trip, who may or may not be the actual owner of the trailer.

“Owner”

Means the company or individual legally registered as owner of the trailer or motive-unit concerned. This may, or may not be one of the Parties to the Agreement but may also well be a subcontractor or contractual partner to one of those Parties.

¹² *Note to reader:* This document does not contain any definition of the “Cooperative Manager” or the like as this definition is liable to differ from country to country. The role of the manager is to act as a contact point, intermediary and guarantor for owner-drivers and SME’s in his/her own country who do not individually have the commercial infrastructure to participate in international transport but nonetheless wish to do so.

“Trailer”

Means a semi-trailer duly registered and permitted for freight transport on public roads as an articulated vehicle, in conjunction with a similarly registered and permitted motive-unit or tractor-unit.

“Equipment”

Either trailers, motive units or both taken together, as applicable.

“Border”

Means a specified international border-crossing point between two countries. The term is used both for either of the two sides of the border individually and for the two taken together.

“Provide Traction”

Means providing a motive unit or tractor unit to pull the trailer.

“Origin and Destination”

Means the original loading and final destination points of the cargo.

2. Parties to the Agreement

This Agreement is signed between

[Party A]

being a [Company/Partnership/Manager of a cooperative, association or grouping/Motive unit or trailer owner (delete as appropriate)] with registered office at [Address], represented by [Name]

and

[Party B]

being a [Company/Partnership/Manager of a cooperative, association or grouping/Motive unit or trailer owner (delete as appropriate)] with registered office at [Address], represented by [Name].

3. Purpose of the Agreement

The Parties agree to cooperate in providing traction for each other's trailers from border to destination and back to the border on their respective sides of the designated border.

This particular Agreement refers to the border-crossing point [Name], between countries of [Country A] and [Country B].

4. Obligations and representations

Each Party to this Agreement accepts that, whatever their legal status, the legal structure of their organization they represent, or the ownership of the trailers and motive units concerned, the Parties themselves shall remain responsible for all duties and obligations specified in this Agreement relating to equipment which they have brought into these operations.

Similarly the Parties, however structured, will directly receive all income and shall pay all costs, charges, or penalties resulting from operations of equipment which they bring into this Agreement.

The Parties confirm by their signature to this Agreement that they have the right and the permission of the Owner to use all the equipment which they bring into the agreed operation.

Any subsequent settlements between the Parties and the actual Owners of the equipment they use, shall be that distribution of income, costs, and penalties, or payments of fees for use of the equipment, are internal to that Party and of no concern to the other Party.

Each Party shall, however, be held directly liable by the other party for any delays, service failings, costs or penalties incurred as a result of a dispute between the Party and his/her equipment-owners.

5. General operational responsibilities of each Party

The Parties have agreed to the following conditions regulating their cooperation:

- 5.1. Each Party is responsible for presenting to the other trailers, which
 - 5.1.1 Are in good mechanical order, including but not limited to good brakes, a full set of tyres with good tread and no structural damage, a full set of working lights, and bodywork, tarpaulins, curtain sides, or equivalent fittings intact and without holes.
 - 5.1.2 Are in length, height, weight and all aspects of construction legally entitled to circulate on the roads of both origin and destination countries as well as any transit country and are compatible in terms of coupling type, electrical/hydraulic fittings and every other respect with all other equipment covered by this Agreement.
 - 5.1.3 Have currently valid paid-up registration in the country where they are based. The originals of this registration are to accompany the trailer.
 - 5.1.4 In the case of loaded trailer, carry cargo which is
 - legally in the possession and care of the party;
 - neither hazardous nor perishable, unless specifically otherwise agreed;

- suitably packed, loaded and lashed for safe and secure transport;
- within the safe legal weight capacity for the trailer within both origin and destination countries, as well as any transit country;
- correctly and completely declared and listed on the accompanying documents, including a completed Standard Consignment Note, as provided in Appendix 5;
- in every way without problems or negative consequences for the traction-provider taking over the trailer; and
- clean both internally and externally, and are in the same good mechanical and structural condition in which they left their base-country.

5.1.5 If returning empty

- are clean both internally and externally, and are in the same good mechanical and structural condition in which they left their base-country.

5.2 Each Party shall be responsible for joint completion of a handover report (Appendix 1 and 2) at the border point.

At the signing of the handover document the responsibility for the trailer and any cargo moves from one Party to the other.¹³

5.3 Each Party shall be responsible for moving the trailer from the border to the unloading point and thence back to the border, perhaps via a return-loading point, in a timely fashion and in its original good condition.

¹³ *Note to reader:* Although at all times the trailer remains the property of its registered owner and the cargo remains the property of the shipper, *responsibility* for both trailer and cargo changes at the border at the time the handover report is signed.

Time frames for all movements are to be agreed in advance between the Parties.¹⁴
Failure to comply with the time-frame may result in detention charges.

- 5.4 If a trailer is returned, or presented for initial handover already damaged, with equipment missing, replaced by inferior equipment or excessively worn through unprofessional use, the receiving Party may refuse to sign acceptance.

In such a case,

- A second inspection must be carried out by senior members of the companies concerned.

If damage is confirmed,

- The Party in possession of the trailer at the time may/must carry out repairs immediately, at a facility of his/her choice, and
- It is understood that the trailer may only be restored to a condition equivalent to that in which it was originally handed over, not necessarily “as new”. If that is not practical a cash settlement for the “over-repair” may be negotiated.

- 5.5 Each Party shall be responsible for the trailer and any cargo as long as the trailer is in his/her care, i.e. until he/she has passed the responsibility to the other Party through a handover report. This responsibility includes any fines, or punishment imposed on the trailer, its operator or the cargo, any damages to trailer, cargo or third parties as well as any loss of trailer and/or cargo.

- 5.6 Each Party shall be responsible for ensuring that his/her operations are legal, responsible and ethical, that drivers’ hours and traffic regulations are respected,

¹⁴ *Note to reader:* Each Party is responsible for moving loaded trailers handed over to them at the border, after completion of border formalities, to the address of the consignee or the destination customs office or to the one via the other. A reasonable transit time should be agreed on a case-by-case basis between the operational staff of the Parties. In the case of regular movements, this can be by contract or ad hoc in other cases. The same applies for the time needed to collect return loads.

that drivers do not abuse substances and that tractor-units are well maintained, correctly registered, taxed and insured.¹⁵

6. Method of operation at the border

The Parties agree to draw up a standard operating procedure outlining responsibilities for operations at the border crossing point and beyond. Items to be covered in this standard operating procedure are set out in Appendices 1 and 2.

7. Commercial arrangements

The present equipment joining the operation under this Agreement is enlisted in Appendix 6. The list may be amended as agreed by the Parties.

8. Back-loading

The Parties agree to arrange return loads to the border of entry for the trailers wherever possible.

The Party having originally presented the trailer (“controlling party”) has first priority in the allocation of return loads. If he/she allocates no load, the traction provider may propose a load and offer a price to be paid to the controlling party.

The final decision, to accept the load or not, shall rest with the controlling party.

If no agreement on financial arrangements can be reached, the trailer must be promptly returned empty to the border of the country of origin.

¹⁵ *Note to reader:* Above and beyond legal responsibility for loss or damage, any accident or incident may cause delay to the shipments and indirect negative consequences to the cargo-owner and thus to the other operational partner. High operating standards are thus not only socially desirable, but also commercially necessary.

9. Insurance

Unless otherwise agreed in writing,

- Third party liability insurance on the motive unit will be understood as covering also any trailer being pulled by that motive-unit; even foreign-registered trailers.
- Goods-in-transit insurance shall be the responsibility of the owner of the cargo, but
- The owners of the motive units in both countries accept
 - to set out the level of their liability in case of loss of or damage to cargo and the circumstances under which they accept liability;¹⁶ and
 - to take out liability insurance with a first-class insurer to cover such liability.¹⁷

10. Rates and invoicing

Unless otherwise agreed the following shall apply,

- 10.1 Current rates in [agreed currency]¹⁸ for traction provision as well as for trailer and motive unit detention are listed in Appendix 4 of this Agreement, and subject to regular review.

¹⁶ *Note to reader:* Normally the haulier's liability, both in terms of maximum amount per vehicle/incident/tonne and also in terms of the circumstances under which any liability for damage to cargo is accepted, are set out in their standard trading terms and conditions. Most national trucking associations have introduced standard trading terms and conditions. We recommend that these are used, are cited in all quotations and are printed on the back of all truck waybills. This is usually a precondition for working for multinational customers.

¹⁷ *Note to reader:* This is not insurance for the cargo (Goods in Transit Insurance), which would be the responsibility of the owner of the cargo. It is, instead, insurance which a haulier buys to ensure that, if anything happens and he/she is liable to pay damages, even limited as above, then he/she will be compensated by his/her insurers. Many customers/G.I.T insurance companies and foreign hauliers insist that such insurance be taken out. In some countries liability insurance may be difficult to obtain, in which case national or regional freight transport associations should be able to help.

¹⁸ *Note to reader:* We propose using one standard and neutral currency for quotations and payments within this Agreement in order to ensure fairness, reduce administration complexity and reduce transaction costs.

Rates for the motive unit shall be charged by the traction provider on a basis of “per kilometre” and “per day” for the period when one Party is moving the trailer of the other Party as long as the trailer is moving (or stood) at the order of its owner.

Different rates apply to trailers running empty or loaded.

Detention rates for motive units and trailers shall also be specified.

- 10.2 Invoices, gross from each side, in [agreed currency], shall be presented on the 15th and at the end of each month including all movements to have taken place since the last invoice and listing all these movements individually.

Payment-term for invoices from each Party is 15 days from invoice-date.

- 10.3 To avoid disputes and misunderstandings each Party to the Agreement shall specify in writing which national taxes (e.g. VAT, withholding income tax, sales tax or similar) cannot be waived or refunded and must, by the laws of their country, be levied on invoices sent to foreign partners for services rendered in connection with this Agreement. Such taxes must then be accepted and paid by the foreign partners.

11. Entry into force

The Agreement shall enter into force on the date of its signing by the Parties.

12. Resolution of disputes

Should disputes arise from this Agreement and prove incapable of resolution by bi-lateral negotiation, both Parties shall bring the dispute for arbitration to [Name of agreed arbitrating body], whose decision shall be binding.¹⁹

13. Amendment to the Agreement

Amendment to the Agreement may be proposed by any Parties and shall take effect with consensus of the Parties.

14. Duration of the Agreement

The Agreement shall be valid for a period of one year from the date of initial signature. Thereafter it will renew automatically for periods of a further year unless notice is given three months in advance of the expiry date. In any case the Agreement can be cancelled with three months' notice from either Party at any time.

¹⁹ *Note to reader:* With the Agreement of both Parties, any international freight association or other body, may be used as arbiter. We do however recommend freight associations, as they have the relevant expertise, and regional rather than national ones, to ensure impartiality.

15. Signatories

Signed on date in City

Signatory A Witness A
(.....[Name in print].....) (.....[Name in print].....)

Signatory B Witness B
(.....[Name in print].....) (.....[Name in print].....)

Appendix 1: Operational procedures at the border (proposed text)²⁰

1. The Party bringing a trailer to the border will be responsible for bringing the trailer, cargo (if applicable) and documents to the customs broker for export customs clearance formalities (for both trailer and cargo), and for ensuring that these formalities are completed correctly. This remains the case irrespective of the Party, shipper, haulier, freight forwarder, consignee or consignor's agent, who selects and pays for the services of the customs broker.
2. After the completion of export formalities the trailer will be brought to the trailer handover area, where the trailer handover report checklist (see Appendix 2) will be completed by representatives of the two parties. These representatives will normally be the two drivers, but in the absence of a driver another authorized representative may complete the form.
3. After completion of the handover report checklist, the Party taking over the trailer will be responsible for bringing trailer, cargo (if applicable) and documents to the customs broker for import formalities (for both trailer and cargo), and for ensuring that these formalities are completed correctly. This remains the case irrespective of the Party, shipper, haulier, freight forwarder, consignee or consignor's agent, who selects and pays for the services of the customs broker.
4. To the extent necessary according to local regulations, the traction provider will also cooperate with local traffic or police authorities to complete the documentation required for the trailer to enter into the host country. Any documents from the origin country necessary for this procedure should be provided at handover by the controlling Party.

²⁰ *Note to reader:* In practice every border crossing point is slightly different from all others, in the location of the trailer parking area, in the space available, and in the regulations applicable, among other things. For these reasons Parties to the Agreement must change details by mutual agreement to suit their own circumstances and to conform to the local practice.

5. After import formalities are completed, the trailer may be moved into the country to pick up or drop off its load.

6. After unloading the trailer at destination, the traction provider should either
 - a. Haul the trailer to the loading point for the return load; or
 - b. If the trailer owner has not allocated a return load, propose a return load himself with price to the trailer owner. If that is accepted, the traction provider should move the trailer to that loading point and thence to the border; or
 - c. If no return load is agreed, move the empty trailer to the border as soon as possible.

All moves shall be carried out in a timely fashion. If the trailer or the motive-unit are unnecessarily delayed at the request, or through the inaction, of the other party, detention charges may be incurred.

Appendix 2: Trailer handover report and checklist

Place: _____ Date: _____

1. Trailer details

Trailer number: _____

Trailer owner/operator: _____

Trailer axles _____ wheels _____ tare weight _____

Trailer type: Flat trailer
 Container chassis (with / without container)
 High-sided open-top
 Tilt or curtain-side
 Box-van
 Reefer/reefer container on chassis
 Other (please specify _____)

Trailer en route from (city) _____ to (city) _____

Trailer running: Empty
 Loaded

Company taking over the trailer: _____

Represented by: _____

Position: _____ Tel. No. _____

Taking over from Company: _____

Represented by: _____

Position: _____ Tel. No. _____

2. Checklist - Condition of trailer and cargo

Item	Condition			Comments
	Pass	Fail	n/a	
Tyres <i>Should have tread over the whole surface and no visible damage.</i>				
Spare tyre <i>How many? 1? Condition as above?</i>				
Air hoses <i>Connection type? Function when connected?</i>				
Electrical connections <i>Lights function when connected?</i>				
Lights on trailer <i>Fitted with correct coloured covers? Function when activated?</i>				
Trailer brakes <i>Function when connected?</i>				
Landing gear – trailer legs <i>Damaged or bent in any way? Wind up – down as required?</i>				
Any damage visible on trailer and/or container?				
Tarpaulin <i>Distinguishing marks/ colour/company brand? Intact? Holes/tears?</i>				
Ropes/lashings <i>Number and type used?</i>				

Curtain sides <i>Intact? Any holes/ tears?</i>				
Soft top on trailer/container <i>Any holes/tears?</i>				
Container on the trailer <i>Container number?</i> <i>Any dents/holes/damage?</i>				
Trailer passport/Trailer registration papers present and correct?				
Cargo and cargo documentation (if trailer loaded)	Pass	Fail	n/a	Comments
If the cargo is visible, is it in externally good condition?				
If visible, is the lashing and sheeting/loading/securing of cargo in good order?				
If the cargo space is sealed, is the seal unbroken?				
Is a truck waybill, giving details of cargo, shipper and consignee, available?				
Are commercial invoice and pack list available?				
Are customs transit documents (if applicable) available?				
If hazardous or perishable cargo is on board, are ADR classification MSDS sheets and/or temperature requirement/records available?				

Appendix 3: Formula for adjustment of traction charges per kilometre to take account of changes in the price of diesel fuel

This formula is intended to be used for the review of rates for provision of traction as detailed in Appendix 4.

If “P” is the price of moving the container 1 km;

“D” is the price of diesel in local currency per litre at the start of the contract or at the date of the latest contract price revision;

“R” is the ratio of diesel cost to total contract price per km agreed by the Parties;²¹

“D%” is the increase in the price of diesel over a certain period of time; and

“P%” is the resultant percentage increase in the per km price;

Then

$$P\% = D\% \times R$$

Example

Assume that the price of supplying a motive unit for a trailer in Thailand is \$US2 per km, the price of diesel at the start of the contract is \$US1 per litre and the Parties agree that diesel makes up 50 per cent of the total transport cost.

If the price of diesel goes up to \$US1.33 per litre, this represents a 33 per cent increase.

$$P\% = D\% (33\%) \times R (50\%) = 16.5\%$$

The trucking price per km. would go up by 16.5 per cent.

²¹ *Note to reader:* It is difficult to determine the actual value of R, as the ration would vary from vehicle to vehicle, the terrain which the vehicle is traversing, the quality of the road, the age of the trucks, the skill of the driver and the level of all other cost factors. It is therefore up to the Parties to agree on an acceptable figure.

**Appendix 4: Rates for the provision of traction as agreed by the Parties
to the Agreement on the date of signature of the Agreement**

Prices in Currency Unit (CU) to be determined by the Parties.

In Country: _____

Provision of traction for semi-trailers up to 12m. in length,²² with max loaded weight

_____ tonnes to/from _____

border crossing point:

a) Mileage charge	Loaded	CU _____	per km
	Empty	CU _____	per km

b) Per diem for motive-unit	CU _____	per 24 hrs (or pro rata)
-----------------------------	----------	--------------------------

In Country: _____

Provision of traction for semi-trailers up to 12m. in length, with max loaded weight

_____ tonnes to/from _____

border crossing point:

a) Mileage charge	Loaded	CU _____	per km.
	Empty	CU _____	per km.

b) Per diem for motive-unit	CU _____	per 24 hrs (or pro rata)
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²² *Note to reader:* The details to be modified should equipment be of any other type.

1. In each case rates are charged from the time when the motive-unit picks up the trailer from the trailer parking area to the time when the trailer is returned to that same parking area.
2. Rates are valid from the date of signature of the agreement for a period of three months, after which they will be reviewed.
3. The rates per kilometre may be adjusted only at the three monthly review, and then only if diesel fuel costs per litre in the country concerned have changed by more than 5 per cent on average throughout the period. The formula for recalculation is given in Appendix 3.
4. Both Parties must agree to the reviewed rate in writing.
5. These rates are applicable only for the haulage of trailers and cargo legal to circulate in both countries.

Rates agreed on date _____ Place _____

Signed by _____
(name)

Representing Company _____
(stamp)

And by _____
(name)

Representing Company _____
(stamp)

Appendix 5: Suggested standard consignment note format²³

LETTRE DE VOITURE INTERNATIONALE		INTERNATIONAL CONSIGNMENT NOTE	
		No 24382	
1 Expéditeur (nom, adresse, pays) Sender (name, address, country)		6 Transporteur (nom, adresse, pays), autres références Carrier (name, address, country, other references)	
3 Destinataire (nom, adresse, pays) Consignee (name, address, country)		7 Transporteurs successifs / Successive carriers Nom / Name Adresse / Address Pays / Country Reçu et acceptation / Receipt and Acceptance Date Signature	
3 Prise en charge de la marchandise / Taking over the goods Lieu / Place Pays / Country Date Heure d'arrivée / Time of arrival		8 Réserves et observations du transporteur de la prise en charge de la marchandise Carrier's reservations and observations on taking over the goods	
4 Livraison de la marchandise / Delivery of the goods Lieu / Place Pays / Country Heure d'ouverture du dépôt / Warehouse opening hours		9 Documents remis au transporteur par l'expéditeur Documents handed to the carrier by the sender	
5 Instructions de l'expéditeur Sender's instructions		10 Mérites et colis Marks and Ties	
11 Nombre de colis Number of packages		12 Mode d'emballage Method of packing	
13 Nature de la marchandise Nature of the goods		14 Poids brut, kg Gross weight / kg	
15 Colonne m ³ Volume in m ³		16	
17 A payer par / To be paid by Frais de transport / Carriage charges Frais accessoires / Supplementary charges Droits de douane / Customs duties Autres frais / Other charges		18 Autres indications utiles Other useful particulars	
19 Réassurance Cash on delivery		20 Ce transport est soumis, nonobstant toute clause contraire, à la Convention relative au contrat de transport international de marchandises par route (CMR) This carriage is subject, notwithstanding any clause to the contrary, to the Convention on the Contract for the International Carriage of Goods by Road (CMR)	
21 Établi à / Established in		22	
23		24 Marchandises reçues / Goods received Heure d'arrivée / Time of arrival Lieu / Place	
Signature ou timbre de l'expéditeur Signature or stamp of the sender		Signature ou timbre du transporteur Signature or stamp of the carrier	
Partie non contractuelle réservée au transporteur / Non-contractual part reserved for the carrier		Signature et timbre du destinataire Signature and stamp of the consignee	

²³ *Note to reader:* This document is shown as a sample only. It is based on the CMR standard waybill. The actual format is less important than the strong recommendation that there be a truck waybill, that this be standard format between the two partners, and that it include comprehensive information as does this example. The aim is to ensure that staff are reminded, by the format, to input all required information and that, when taking over a vehicle, the new driver knows exactly where he/she can find all the information he/she needs. In many countries/companies the standard trading conditions also appear on the reverse side of the waybill.

Appendix 6: List of equipment covered by the Agreement

The operations described in this Agreement will be performed using the following equipment:

[List of motive units, trailers and other relevant equipment to be provided by the Parties]

ATTACHMENT 2: TEMPLATE FOR AGREEMENT BETWEEN POOL MANAGER AND EQUIPMENT OWNER

A. Introduction

It is suggested that membership in a “pool” or “association” managed by a legal entity, called here the “Pool Manager”, would enable SME transport operators to participate in cross-border trailer-swap operations.

By “trailer-swap” we understand international freight transport by road, mainly on articulated trucks, i.e. semi-trailer plus motive unit, where the semi-trailer moves into the destination country complete with its load, without trans-shipment, whereas the motive unit remains in its home country, being replaced at the border by a motive unit from the destination country.

Two main types of Operation are envisaged:

- The Pool Manager may arrange traction through a third party on the other side of the Border for the Owner’s loaded export trailers; and
- The Pool Manager may use the Owner’s motive units to haul loaded import trailers belonging to foreign third parties to destinations in the Owner’s home country and then back to the border.

There will also be services rendered to the Owner by the Pool Manager at the border, and other types of operations may be carried out if both Parties agree.

The use of a pool may help small operators to overcome the problems of inadequate commercial infrastructure to participate in trailer swap operations. In addition, the pool may have more credibility in terms of financial resources. For successful operations, the entity must have the financial resources to finance the operations of his/her cooperative members, making payments and receiving income on their behalf,

and to credibly guarantee to foreign partners recompense in case one of his/her members damage or lose a trailer or cargo entrusted to them. Also, the entity or its proprietor will need a reputation for probity and high operating standards to gain the trust of both sides.

The purpose of this document is to present the key elements to be covered in an agreement between the legal entity (“Pool Manager”) and the individual SME equipment Owners. The text of the Agreement and of its annexes is intended purely as a general guide. The purpose is to present points which need to be covered in any such agreement. The Parties to the agreement may amend this draft as they wish to suit local circumstances and their own preferences.

The guide contains:

- Agreement template (pages 3-14).
- Appendix 1: Operational procedures at the border (Proposed text) (pages 15-17).
- Appendix 2: Formula for adjustment of traction charges per kilometer to take account of changes in the price of diesel fuel (page 18).
- Appendix 3: Rates for the provision of traction and other services, as agreed by the Parties to the Agreement on the date of signature of the Agreement (pages 19-21).
- Appendix 4: Suggested standard consignment note format (page 22).
- Appendix 5: List of equipment covered by the agreement (page 23).

B. Agreement template

1. Definition of terms

For the purpose of this Agreement

“The Agreement”

Means this document and its appendices, including, but not limited to, the operational procedures at the border, the formula for adjustment of rates, the tariff structure, the suggested standard consignment note, and the list of equipment covered by this Agreement.

*“Pool Manager”*²⁴

Means the legal entity which, acting on behalf of Equipment Owners, (“Owners”) manages the trailers and motive units (“Equipment”) of these Owners for the benefit of the Owners whilst that Equipment is participating in cross-border trucking operations.

“Equipment Owner” or “Owner”

Means the individual or company legally registered as owner of the equipment, be that trailers or motive units.

“Party/Parties”

Means the signatories to the Agreement. These signatories may be registered public or private companies, partnerships, cooperatives, associations or other groupings of transport companies, truck-trailer-owners or individual truck owners.

²⁴ *Note to reader:* This document does not contain any definition of the “Pool Manager” or advice as to its legal structure, as the optimum solution is liable to differ from country to country. The role of the Pool Manager is to act as a contact point, intermediary and guarantor for owner-drivers and SME’s in his/her own country who do not, individually, have the commercial infrastructure to participate in international transport but nonetheless wish to do so.

“Controlling Party”

In the context of return-loading means the party to the agreement who first presented the loaded trailer at the border. This is the party who controls the trailer during a particular out and return-bound trip, who may or may not be the actual owner of the trailer.

“Trailer”

Means a semi-trailer duly registered and permitted for freight transport on public roads as an articulated vehicle in conjunction with a similarly registered and permitted motive-unit or tractor-unit.

“Equipment”

Either trailers, motive units or both taken together, as applicable.

“Border”

Means a specified international border-crossing point between two countries. The term is used both for either of the two sides of the border individually and for the two taken together.

“Provide Traction”

Means providing a motive unit or tractor unit to haul a trailer. It may also be referred to as “haulage” or “hauling”.

“Origin and Destination”

Means the original loading and final destination points of the cargo.

2. Parties to the Agreement

This Agreement is signed between

[Party A]

Being the “Pool Manager”, the legal entity, i.e. [company/association/individual (delete as appropriate)], who will manage the operations of the equipment in cross-border transport operations with registered office at [Address], represented by [Name],

And

[Party B]

the “Owner” being the [company/association/individual (delete as appropriate)] who is owner of the equipment, with registered office at [Address], represented by [Name].

3. Purpose of the Agreement

The Parties agree that the Pool Manager will manage equipment belonging to the Owner whilst that equipment is engaged in cross-border transport operations.

The Owner will put equipment at the disposal of the Pool Manager for this purpose.²⁵

The Owner will pay the Pool Manager for haulage provided by the Pool Manager to the Owner’s trailers abroad. The Pool Manager will pay the Owner when he/she uses Owner’s motive units to haul third-party trailers within the home country.

²⁵ *Note to reader:* The Owner will presumably not bring all his/her equipment into the agreement and presumably not for continuous periods of time. The contract would work as a framework within which individual trips could be processed.

This particular agreement refers to the border-crossing point [Name], between countries of [Country A] and [Country B].

4. Obligations and representations

4.1 The Pool Manager is responsible for:

- all border operations on the [home country] side of the border in connection with exchange of equipment. This includes, but is not limited to,
 - presenting trailers, cargo and documentation to the concerned authorities to facilitate import and export of trailers and cargo, as listed in Appendix 1;
 - completing the Trailer Handover Report and Checklist on behalf of the trailer Owner and protecting the interests of the trailer Owner with regards to the international operations;²⁶
 - finding both export and return-import loads for the trailers belonging to the Owners;
 - collecting from third parties on behalf of the Owner Haulage fees due to the Owner;
 - all invoicing, receipts and payments on operations under this Agreement, to and from third parties, will be carried out by Pool Manager, in return for a fee or margin as agreed in this Agreement;
 - settling detention charges and other miscellaneous charges between Owner and third parties;
 - all discussions and rates negotiations with third parties on behalf of the Owners;

²⁶ *Note to reader:* We have assumed that the trailer handover and checklist procedure will be carried out just once, between the Pool Manager and the foreign haulier. The assumption is that a sufficient level of trust exists between the Pool Manager and the domestic Owner to allow the Pool Manager to sign on behalf of the Owner, perhaps with the driver co-signing. It is, however, possible that the Owner may prefer to complete the handover twice: once from Owner to Pool Manager, and once again from Pool Manager to foreign haulier. Because of the delay and administrative burden we do not recommend this procedure but, if all parties concerned prefer, it may be followed.

- providing prompt financial statements and settlements of net payable twice per month, as agreed in paragraph 10;
- settling in the first instance all justified claims received from or claimed from third parties relating to the Pool's operations. These claims may be settled with the Owner internally after external settlement; and
- Fair and equitable representation of the interests of all members of the Pool. The Pool Manager may and must earn income to cover expenses, but the profit must be within limits acceptable to the members and he/she should not favour one member at the expense of others.

On operations running under this Agreement, the Owner will deal and communicate exclusively with the Pool Manager.²⁷

4.2 The Owner is responsible for:

- Providing to the Pool Manager equipment and loads to the best of his/her ability;
- Maintaining the quality of his/her equipment and operations up to the standard required by the Pool Manager and the foreign third parties, listed in paragraph 5; and
- Settling with the Pool Manager all external claims received, lodged and settled by the Pool Manager and relating to the Owner's equipment and loads.

5. General operational responsibilities of each Party

The Parties have agreed to the following conditions regarding their cooperation.

²⁷ *Note to reader:* Though border operations may be on a "fee" basis, where freight rates are concerned the Pool Manager may work on a "for profit" basis, adding a margin to the tariffs of all hauliers concerned. The percentage profit margin which he/she may levy may be fixed by mutual agreement or left to market forces, as agreed by the Parties.

- 5.1 Within the framework of this agreement the Pool Manager will be taking over trailers belonging to the owner and presenting them, at the border, to foreign haulers for them to haul into their own country. This will involve the Pool Manager completing, together with the foreign haulier, a trailer handover report and checklist where the one confirms the good condition of the trailer and the other undertakes to return the trailer in that same condition. The Pool Manager accepts responsibility, on behalf of the Owner, that the handover report is completed accurately.

Similarly the Pool Manager, when he/she takes over an inbound trailer, accepts responsibility for ensuring its good condition, before handing it over to the motive unit Owner.

Each Party thus in the normal operation of this agreement, is responsible for presenting to the other equipment which must be in good condition and must be returned in that same good condition.

- 5.2 The Parties thus define “good condition” as meaning equipment which:
- 5.2.1 Is in good mechanical order including but not limited to good brakes, a full set of tyres with good tread and no structural damage, a full set of working lights and bodywork, tarpaulins, curtain sides or equivalent fittings intact and without holes;
 - 5.2.2 Is in length, height, weight and all aspects of construction legally entitled to circulate on the roads of both original and destination countries as well as any transit country;
 - 5.2.3 Has currently valid paid-up registration in the country where it is based. This registration shall be provided with the trailer.
 - 5.2.4 In the case of a loaded trailer, carry cargo which is

- Legally in the possession and/or care of the Party;
- Neither hazardous nor perishable (unless specifically otherwise agreed);
- Suitably packed, loaded and lashed for safe and secure transport;
- Within the safe legal weight capacity and load dimensions for the trailer within both origin and destination countries as well as any transit country;
- Correctly and completely declared and listed on the accompanying documents, including a completed Standard Consignment Note, as provided in Appendix 4; and
- In every way without problems or negative consequences for the traction-provider taking over the trailer.

If returning empty,

- Are clean both internally and externally and in the same good mechanical and structural condition in which they left the country of registration.

5.3 Each Party is responsible for ensuring that his/her operations are legal, responsible and ethical, that drivers' hours and traffic regulations are respected, that drivers do not abuse substances and that both motive units and trailers are well maintained, correctly registered, taxed and insured.²⁸

The Pool Manager is responsible to the Owner for acts, or the consequences of acts, of the foreign haulier involved in operations using the equipment of the Owner.

The Owner is responsible for his/her own and/or his/her employees' acts and the consequences thereof.

²⁸ *Note to reader:* Above and beyond the legal responsibility for detention, loss or damage, any accident or incident may cause delay to the shipments and indirect negative consequences to the cargo-owner and thus to the other operational partners. High operating standards are thus not only socially desirable, but also commercially necessary.

If any Party believes that the other Party is (directly or indirectly) in breach of this clause that Party must notify the other Party in writing immediately requesting them to correct the fault. If the fault is not corrected the dispute may be referred to arbitration as outlined in paragraph 11 of this Agreement.

- 5.4 If a trailer is returned to the border, or presented for initial handover, already damaged, with equipment missing, not meeting the criteria listed in paragraphs 5.2, replaced by inferior equipment or excessively worn through unprofessional use, the either Party is entitled to refuse to sign acceptance or to use that equipment until the shortcomings are rectified.

In such a case,

- A second inspection shall be carried out by senior members of the Parties concerned.

If damage is confirmed

- On an export trailer the owner of the trailer, or the Party representing the Owner, shall carry out repairs immediately, at a facility of his/her choice.
- On an import trailer the Pool Manager will be responsible for ensuring that the foreign haulier or his/her representative carries out the necessary repairs.
- It is understood that the trailer may only be restored to a condition equivalent to that in which it was originally handed over, not necessarily “as new”. If that is not practical, a cash settlement for the “over-repair” may be negotiated.

Similarly, if an owner sends a motive unit to collect a trailer and this motive unit fails to meet the standard required for international operations, the Pool Manager may refuse to allow the motive unit to take the trailer.

The motive unit shall be repaired or replaced before taking over the trailer.

Any objections to equipment must be registered in writing to the other Party immediately after the deficiencies have been noted.

In all cases any detention, fines or other extra costs incurred through the repair or the delay shall be on the account of the party presenting deficient equipment.

- 5.5 Each Party shall be responsible for moving the Trailer from the border to the unloading point and thence back to the border, perhaps via a return-loading point, in a timely fashion and in its original good condition.

The Pool Manager is responsible, as agent of the foreign haulier, for operations in the foreign country. The Owner is responsible for operations in the home country.

Time frames for all movements are to be agreed in advance between the Parties on a case by case basis. Failure to comply with the time-frame may result in detention charges.

6. Method of operation at the border

The Parties agree to draw up a standard operating procedure outlining responsibilities for operations at the border crossing point and beyond. Items to be covered in this standard operating procedure are set out in paragraph 4 of the Agreement and Appendix 1.

7. Commercial arrangements

Unless otherwise agreed in writing, this Agreement is non-exclusive and no minimum number of trailers or days of work for a motive unit is guaranteed from either side.

8. Back-loading

The Parties agree to arrange return loads to the border of entry for the trailers wherever possible.

The Pool Manager has first responsibility in allocating return loads. The Owner, either as trailer owner or as motive-unit supplier, may however propose a return load indicating achievable revenue.

The final decision, to accept the load or not, shall rest with the Pool Manager.

If no agreement on financial arrangements can be reached, the trailer shall be promptly returned empty to the border of the country of origin.

9. Insurance

Unless otherwise agreed in writing:

- Third party liability insurance, as well as any other insurance on the motive unit, shall be understood as covering also any trailer being pulled by that motive unit, even when the trailer is foreign-registered.²⁹
- Goods-In-Transit insurance shall be the responsibility of the Owner of the cargo but,
- The Owners of motive units accept
 - to set out the level of their liability in case of loss of or damage to cargo and the circumstances under which they accept liability,³⁰ and

²⁹ *Note to reader:* In principle the responsibility for obtaining insurance cover for the foreign trailer on the same basis as a local trailer will be with the traction provider. However, in practice the legal situation and the available insurance contracts will need to be checked for each country. Should this best-possible cover still be inadequate for the Owner of the trailer, special arrangements will have to be negotiated.

³⁰ *Note to reader:* Normally the haulier's liability, both in terms of maximum amount per vehicle/incident/tonne and also in terms of the circumstances under which any liability for damage to cargo is accepted, are set out in their standard trading terms and conditions. Most national trucking associations have introduced standard trading terms and conditions. We recommend that these are used, are cited in all quotations and are printed on the back of all truck waybills. This is usually a precondition for working for multinational customers.

- to take out liability insurance with a first-class insurer to cover such liability.³¹

10. Rates and invoicing

Unless otherwise agreed the following shall apply.

- 10.1 Current rates in [agreed currency]³² for traction provision as well as for trailer/motive unit detention are listed in Appendix 3 of this Agreement, and subject to regular review.

These are the rates chargeable between the Owners and the Pool Manager. Rates charged by the pool manager to third parties may be higher.³³

- 10.2 The Pool Manager will present to the Owner on the 15th and at the end of each month statements including all movements to have taken place since the last statement and listing all these movements individually.

The statement will include both payments due to the Owner and payments due to the Pool Manager and will be accompanied by an invoice/credit note from the Pool Manager for the net amount due to/from the Owner.

³¹ *Note to reader:* This is not insurance for the cargo, which (Goods in Transit Insurance) would be the responsibility of the owner of the cargo. It is, instead, insurance which a haulier buys to ensure that, if anything happens and he/she is liable to pay damages, even limited as above, then he/she will be compensated by his/her insurers. Many customers/G.I.T insurance companies and foreign hauliers insist that such insurance be taken out. In some countries liability insurance may be difficult to obtain, in which case national or regional freight transport associations should be able to help.

³² *Note to reader:* We propose using one standard and neutral currency for all quotations and payments within this Agreement in order to ensure fairness, reduce administrative complexity and reduce transaction costs.

³³ *Note to reader:* This assumes a commercial relationship based on a “for profit” Pool manager. The rates offered by the Owners to the Pool Manager already include their own profit. The margin of the Manager can be limited by agreement or not. In theory other relationships are possible. The hauliers can be shareholders in a profit-sharing cooperative, or profits can be shared job-by-job on a revenue-share scheme. The “for profit” format is used here as the simplest method but the actual format to be chosen is up to the participants.

Payment must be made within 15 days from invoice-date.

- 10.3 To avoid dispute and misunderstandings, the Pool Manager shall share with all owners the extent to which, in line with his/her agreement with foreign hauliers, taxes such as VAT, withholding income tax, sales tax and the like, can or cannot be refunded or waived and which taxes as a result may or must feature on in or outgoing invoices for a specific foreign country.

11. Resolution of disputes

Should disputes arise from this Agreement and prove incapable of resolution by bi-lateral negotiation both Parties shall bring the dispute for arbitration to [name of agreed arbitrating body], whose decision shall be binding.³⁴

12. Duration of the Agreement

The Agreement shall be valid for a period of one year from the date of initial signature. Thereafter it will renew automatically for periods of a further year unless notice is given three months in advance of the expiry date.

In any case the Agreement can be cancelled with three months' notice from either Party at any time.

³⁴ *Note to reader:* With the agreement of both Parties any international freight association or other body may be used as arbiter. We do however recommend freight associations, as they have the relevant expertise.

13. Signatories

Signed on date in City

Signatory A Witness A
(.....[Name in print].....) (.....[Name in print].....)

Signatory B Witness B
(.....[Name in print].....) (.....[Name in print].....)

Appendix 1: Operational procedures at the border (Proposed text)³⁵**Export loads or foreign trailers being returned to the border**

1. The Owner bringing a trailer to the border will contact the representative at the border of the Pool Manager.
2. The Pool Manager will accompany the trailer, cargo (if applicable) and documents firstly to the customs broker responsible for export customs clearance formalities for both trailer and cargo. The trailer will be moved by the owner's motive unit in accordance with the instructions of the Pool Manager, including haulage to/from the customs inspection area should that be required. The Pool Manager will ensure that these formalities are completed correctly. This is the case irrespective of which Party, shipper, haulier, freight forwarder, consignee or consignee's agent, selected and/or pays for the services of the customs broker. If agreed in advance, the Pool Manager may advance the customs broker's fees, but not taxes or duties.
3. After completion of export customs formalities the same motive unit will haul the trailer to the trailer handover area where he/she will uncouple and the trailer handover report and checklist will be completed by the representatives of the Pool Manager working on behalf of the Owner, and by the representative and/or driver of the foreign haulier who will be taking over the trailer. It is recommended that the Owner's driver witness the inspection and signature.
4. As from this point the trailer and (if applicable) its load, are no longer the responsibility of the Owner but are the responsibility of the Pool Manager and his/her

³⁵ *Note to reader:* In practice every border crossing point is slightly different from all others, in the location of the trailer parking area, in the space available, and in the regulations applicable, among other things. For these reasons Parties to the agreement must change details by mutual agreement to suit their own circumstances and to conform to the local practice.

subcontracted foreign haulier. They will be responsible for moving trailer and load to the other side of the border as well as for import formalities and procedures for both trailer and (if applicable) cargo.

Import loads or home trailers being returned from abroad

1. The Owner's motive unit will meet up with the representative of the Pool Manager at the trailer handover area. The Pool Manager or his/her representative will inspect the motive unit to confirm that it is in a suitable condition to haul the inbound trailer.
2. The Pool Manager will meet with the trailer arriving at the trailer handover area from the foreign country, inspect it and, together with the foreign driver or the representative of the foreign haulier, will complete and sign the trailer handover report checklist. It is recommended that the Owner's driver witness this inspection and signature before coupling up to the trailer.
3. The Owner's motive unit then couples up to the trailer and the Owner takes over responsibility for trailer and (if applicable) its load.
4. The Pool Manager will accompany the trailer, hauled by the haulier's motive unit, to the border authorities and, using the documents which should be accompanying the trailer, will complete formalities to allow the trailer to enter into the country.
5. Subsequently, if the trailer is loaded, the Pool Manager will accompany the trailer to the customs area and to the customs broker responsible for import customs clearance of the cargo and, if necessary, the trailer. The Pool Manager will ensure that these formalities are completed correctly. This is the case irrespective of which Party, shipper, haulier, freight forwarder, consignee or consignee's agent selected and/or pays for the services of the customs broker. If required by customs, the Owner's motive unit will

also haul the trailer to and from the customs inspection area. If agreed in advance, the Pool Manager may advance the customs broker's fees, but not taxes or duties.

6. The Owner's Motive Unit will then haul the trailer back to his/her depot (if empty), to the destination point of the return load, or to another agreed point if there is another export load to be collected and brought back to the border.

All moves must be carried out in a timely fashion. If trailer or motive unit are unnecessarily delayed, at the request of or through the inaction of any party, detention charges may be incurred.

Detention charges on the motive unit may be charged from the Owner to the Pool Manager if it is delayed waiting for loading, unloading, customs clearance or waiting, at his/her request, for a load to be found.

Detention charges on the trailer may also be charged from the Owner of the trailer to the Pool Manager should the latter fail to return the trailer to the border at the earliest possible time or should he/she leave the trailer standing in the host country for any reason other than request of the trailer owner.

Equipment Owners and the Pool Manager shall decide on a case to case basis what periods of time may be considered detention-free and what levels of detention charge should then apply.

Appendix 2: Formula for adjustment of traction charges per kilometer to take account of changes in the price of diesel fuel

This formula is intended to be used for the review of rates for provision of traction as detailed in Appendix 3.

If “P” is the price valid to date of moving a trailer 1 km;

“D” is the price of diesel in local currency per litre at the start of the contract or at the date of the latest contract price revision;

“R” is the ratio of diesel cost to total contract price per km agreed by the Parties;³⁶

“D%” is the increase in the price of diesel over a certain period of time; and

“P%” is the resultant percentage increase in the per km price;

Then

$$P\% = D\% \times R$$

Example

Assume that the price of supplying a motive unit for a trailer in Thailand is \$2 per km, the price of diesel at the start of the contract is \$1 per litre and the Parties agree that diesel makes up 50 per cent of the total transport cost.

If the price of diesel goes up to \$1.33 per litre, this represents a 33 per cent increase.

$$P\% = D\% (33\%) \times R (50\%) = 16.5\%$$

The trucking price per km would go up by 16.5 per cent.

³⁶ *Note to reader:* It is difficult to determine the actual value of R, as the ration would vary from vehicle to vehicle, the terrain which the vehicle is traversing, the quality of the road, the age of the trucks, the skill of the driver and the level of all other cost factors. It is therefore up to the Parties to agree on an acceptable figure.

Appendix 3: Rates for the provision of traction and other services, as agreed by the Parties to the Agreement on the date of signature of the Agreement³⁷

Prices in Currency Unit (CU) to be determined by the Parties.

Rates for traction provision

In Country: _____

Provision of traction for semi-trailers up to 12m in length,³⁸ with max loaded weight _____ tonnes to/from _____

border crossing point:

a) Mileage charge	Loaded	CU _____	per km
	Empty	CU _____	per km

b) Per diem for motive-unit CU _____ per 24 hrs (or pro rata)

In Country: _____

Provision of traction for semi-trailers up to 12m in length, with max loaded weight _____ tonnes to/from _____

border crossing point:

a) Mileage charge	Loaded	CU _____	per km
	Empty	CU _____	per km

b) Per diem for motive-unit CU _____ per 24 hrs (or pro rata)

³⁷ *Note to reader:* Rates in the country of operation of the two Parties to this Agreement will be quoted by the Owner. Rates for haulage in the foreign country will be quoted by the Pool Manager from his/her agreements with foreign hauliers/traction providers.

³⁸ *Note to reader:* The details to be modified should the equipment be of any other type.

1. In each case rates are charged from the time when the motive unit picks up the trailer from the trailer parking area to the time when the trailer is returned to that same trailer parking area.

2. Rates per kilometer may be adjusted only at the 3 monthly review, and then only if diesel fuel costs per liter in the country concerned have changed by more than 5 per cent on average throughout the period. The formula for recalculation is given in Appendix 2.

Rates for Operations at the Border³⁹

Per trailer export, from arrival border to takeover by foreign motive unit	CU _____ per Trailer
Per trailer import from arrival trailer park to leaving border	CU _____ per Trailer
Advance of fees to customs brokers or other agencies at the border	_____ per cent of sum advanced

(By prior arrangement only and not including duties, taxes or fines)

1. Other services/fees by the Pool Manager are to be quoted on a case by case basis.

2. Rates are valid from the date of signature of the Agreement for a period of 3 months after which they will be reviewed.

3. These rates are applicable only for the haulage of trailers and cargo legal to circulate in both countries.

³⁹ *Note to reader:* These rates are quoted by the Pool Manager to cover the cost of his/her staff working at the border accompanying trailers and motive units through CQI and police formalities, handling trailer handover checks, and any other operations needed.

4. Rates are exclusive of any sales/VAT or withholding or similar tax which, if applicable, will be collected in line with governmental regulations.

Rates agreed on date: _____ **Place:** _____

Signed by: _____

(Name)

Representing company: _____

(Stamp)

And by: _____

(Name)

Representing company: _____

(Stamp)

Appendix 4: Suggested standard consignment note format⁴⁰

LETTRE DE VOITURE INTERNATIONALE		INTERNATIONAL CONSIGNMENT NOTE	
CMR		Pays/Country	
No 24382		No 24382	
1 Expéditeur (nom, adresse, pays) Sender (name, address, country)		6 Transporteur (nom, adresse, pays, autres références) Carrier (name, address, country, other references)	
2 Destinataire (nom, adresse, pays) Consignee (name, address, country)		7 Transporteurs successifs / Successive Carriers Nom / Name Adresse / Address Pays / Country Reçu et acceptation / Receipt and Acceptance Date Signature	
3 Passage en charge de la marchandise / Taking over the goods Lieu / Place Pays / Country Date Heure d'arrivée / Time of arrival Heure de départ / Time of departure		8 Références et observations du transporteur lors de la prise en charge de la marchandise Carrier's reservations and observations on taking over the goods	
4 Livraison de la marchandise / Delivery of the goods Lieu / Place Pays / Country Heure d'ouverture du dépôt / Warehouse opening hours		9 Documents remis au transporteur par l'expéditeur Documents handed to the carrier by the sender	
5 Instructions de l'expéditeur Sender's instructions		10 Marques et numéros Marks and Nos	
11 Nombre de colis Number of packages		12 Mode d'emballage Method of packing	
13 Nature de la marchandise Nature of the goods		14 Poids brut, kg Gross weight / kg	
15 Cubage en m ³ Volume in m ³		16 Observations particulières entre l'expéditeur et le transporteur Special agreements between the sender and the carrier	
17 Frais de transport Carriage charges		18 Autres indications, notes Other useful particulars	
19 Frais accessoires / Supplementary charges		20 Ce transport est soumis, nonobstant toute clause contraire, à la Convention relative au contrat de transport international de marchandises par route (CMR) This carriage is subject, notwithstanding any clause to the contrary, to the Convention on the Contract for the International Carriage of Goods by Road (CMR)	
21 Droits de douane / Customs duties		22 Signature et timbre de l'expéditeur Signature or stamp of the sender	
23 Autres frais / Other charges		23 Signature et timbre du transporteur Signature or stamp of the carrier	
24 Remboursement Cash on delivery		24 Marchandises reçues / Goods received Heure d'arrivée / Time of arrival Heure de départ / Time of departure Lieu / Place	
25 Signature et timbre du destinataire Signature and stamp of the consignee		26 Part non contractuelle réservée au transporteur / Non-contractual part reserved for the carrier	

⁴⁰ *Note to reader:* This document is shown as a sample only. It is based on the CMR standard waybill. The actual format is less important than the strong recommendation that there be a truck waybill, that this be standard format between the two partners, and that it include comprehensive information as does this example. The aim is to ensure that staff are reminded, by the format, to input all required information and that, when taking over a vehicle, the new driver knows exactly where he/she can find all the information he needs. In many countries/companies the standard trading conditions also appear on the reverse side of the waybill.

Appendix 5: List of equipment covered by the Agreement

The Owner will provide the following equipment for the operations described in this Agreement:

[List of motive units, trailers and other relevant equipment to be provided by the Owner]



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Economic and Social Commission for Asia and the Pacific
Transport Division
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Bangkok 10200, Thailand

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Fax.: +66 2288 3050, 288 1020
Website: <http://www.unescap.org>