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# **TRADE AND TRANSPORT FACILITATION IN SOUTH ASIA**

## Systems in Transition

**Volume I: Summary and Main Report**

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Sustainable Development Unit  
South Asia Region



## Abbreviations and Acronyms

ADB	Asian Development Bank	JIS	Just-in-schedule
AITD	Asian Institute for Transport Development	JIT	Just-in-time
ASYCUDA	Automated System for Customs Data	JNPT	Jawaharlal Nehru Port Trust
ATTA	Afghan Transit Trade Agreement	KDLP	Karachi Dock Labor Board
BACS	Bhutan Automated Customs System	KICT	Karachi International Container Terminal
BR	Bangladesh Railways	LCL	Less than container load
BSC	Bangladesh Shipping Corporation	MFA	Multi-Fibre Agreement
CARE	Customs Administrative Reform	MFN	Most Favored Nation
CFS	Container freight station	MRP	Maximum Retail Price
CHA	Customs House Agent	NHAI	National Highway Authority of India
Concor	Container Corporation of India	NMT	Non-motorized transport
CVD	Countervailing Duty	NTCIP	National Trade Corridor Improvement Program
CWC	Central Warehousing Corporation	NVOCC	Non vessel operating common carrier
DEPB	Duty Entitlement Pass Book	PaCCS	Pakistan Customs Computerized System
DES	Duty Exemption Scheme	PICT	Pakistan International Container Terminal
DFRC	Duty Free Replenishment Certificate	PR	Pakistan Railways
DGFT	Directorate General Foreign Trade	PRAL	Pakistan Revenue Automation Ltd
DRB	Duty Drawback	QICT	Qasim International Container Terminal
DRP	Duty Rebate Procedure	QR	Quantitative Restrictions
DWT	Deadweight tonnage	RMS	Risk management system
FEU	Forty-foot-equivalent-unit	SAD	Special Additional Duty
FCL	Full container load	SAFTA	South Asia Free Trade Area
FNCCI	Federation of Nepalese Chambers of Commerce and Industry	SAPTA	South Asia Preferential Trade Area
GD	Goods Document	SCI	Shipping Corporation of India
GDP	Gross Domestic Product	SME	Small and medium enterprises
GOA	Government of Afghanistan	TEU	Twenty-foot-equivalent unit
GOB	Government of Bangladesh	TRQ	Tariff rate quota
GOI	Government of India	UNCTAD	United Nations Conference on Trade and Development
GOP	Government of Pakistan	US	United States of America
ICD	Inland container depot	VDC	Village Development Committee
ICEGATE	Indian Customs and Central Excise Electronic Data Gateway	WB	World Bank
ICP	Integrated check posts	WFP	World Food Program
INSA	Indian National Ship-owners Association	WTO	World Trade Organization
IR	Indian Railways		

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# TRADE AND TRANSPORT FACILITATION IN SOUTH ASIA

## SYSTEMS IN TRANSITION

### SUMMARY OF FINDINGS AND RECOMMENDATIONS

#### *The Importance of Competitive Trade-Transport Systems*

1. Over the past few decades, the world trading system has become increasingly open and competitive. Tariffs have been reduced in both developed and developing countries and quantitative restrictions have been progressively eliminated. Countries have adopted outward-looking economic policies, seeking to promote growth and employment through expanding export production and attracting inward investment. World trade is increasing at a significantly faster rate than global economic growth, spurred on by the fragmentation of production. This has generated a massive growth in the movement of parts, components, semi-manufactured goods and sub-assemblies between production units in different countries before the final products are assembled and sold.

2. Intense competition compels firms to reduce costs throughout their manufacturing and distribution processes. Outsourcing to lower cost firms and countries has been one major source of cost reduction, reduced inventory costs through just-in-time manufacturing, and distribution systems has been another. Both are predicated on efficient, reliable and low-cost supply chains. With the worldwide fall in tariff levels, the efficiency of supply chains and the associated logistics costs are becoming core determinants of the competitiveness of both firms and countries. They may also influence the destination of inward direct investment; many countries can offer low labor costs and tax incentives, fewer can offer quick, efficient, reliable and low cost logistics.

#### *The South Asia Context*

3. South Asia has moved from import substitution to more liberal trade policies and export promotion, and its international trade has grown very rapidly. The region, however, continues to have a very small share of global trade (less than 2 percent) and exports still play a limited role in GDP. Trade is overwhelmingly with the rest of the world, intra-regional trade constitutes less than 5 percent of total trade, the lowest level of any region in the world. This is due partly to the size of India relative to the other economies, but a rather similar situation exists in East Asia (with China) and intra-regional trade is magnitudes higher.

4. South Asia is often perceived as having very poor external supply chains – inefficient ports, long delays, cumbersome customs procedures, etc. Published international surveys, such as the World Bank's "Doing Business", have tended to confirm the perceptions. South Asia performed poorly on all "trading across border" measures requiring more documents, time, and cost than either developed countries or East Asia. Most of the countries in the region have become exporters of textiles and garments and the region has achieved world market penetration in a number of garment sectors. Long delivery cycle times have mainly confined South Asia to the lower value end of the garment sector spectrum and Bangladesh is restricted to the very low value mass market.

5. While the perceptions certainly reflect past conditions, there have been substantial policy changes, reform initiatives, and investment in recent years. Perhaps more importantly, a number of

governments now recognize the crucial importance of trade and transport facilitation in determining trade competitiveness. The National Trade Corridor Improvement Program (NTCIP), for example, has been formulated specifically to provide Pakistan with international quality supply chains. NTCIP addresses, in a comprehensive manner, all the aspects of trade transport facilitation: the ports, road and rail services along the main trade corridors, customs reform, trade facilitation and air transport. Substantial financial support for NTCIP is expected from the World Bank and other donors for both infrastructure investment and the development of the National Trade and Transport Facilitation Committee. The impact of the improvements in trade facilitation and links in the supply chains are becoming evident for some South Asian countries as evidenced in the “Doing Business 2008”.

6. This report reviews the present state of trade-transport facilitation in continental South Asia, identifies major issues and provides recommendations for increasing trade-transport competitiveness.

### ***Trade and Transport Facilitation in South Asia***

7. Trade and transport facilitation in South Asia, for its trade with the rest of the world, might be summarized by “much better than it was, but not as good as it could and should be”. Major improvements have and are being made in some countries, while others are lagging. Similarly, there has been much greater success in some sectors than in others.

8. ***Shipping and Port Services:*** Both India and Pakistan have ports which provide broadly international levels of handling productivity. The transition from public sector operations to privately managed terminals with much higher productivity has improved not only port services but also raised the quality of the shipping services to the region with increasing numbers of direct container services to the main ports (Nhava Sheva, Karachi and Port Qasim) rather than feeder services. Direct services are now also beginning to privately managed terminals at other ports, such as Chennai. Bulk handling is largely mechanized and acceptable levels of productivity are achieved.

9. Shipping rates in both the bulk and container trades are reasonable and have been on a general downward trend (though they have risen in the last couple of years, reflecting the surge in demand for shipping to China). South Asia has a shipping time and cost advantage over the Far East, to Europe and the US East Coast (the main markets) but a significant disadvantage to the US West Coast; the world may be shrinking, but distance still counts. The great majority of sea freight is carried by foreign vessels, especially in the container sector. A change in the taxation regime to a tonnage tax and the rapid growth in trade are leading to an expansion in the Indian shipping fleet and some renewed interest by the private sector in Pakistan.

10. While the container terminals have international levels of handling productivity, the overall port systems are still not up to international quality. Container dwell times are still well above international norms and procedures remain complex, though there have been improvements, especially in Pakistan with the new customs clearance system.

11. The glaring exception to this reasonably positive picture has been Chittagong, Bangladesh’s main port. Its draft limits the port to feeder vessels, but the levels of productivity and the reliability of vessel turnaround are so poor that the feeder services are unable to operate on scheduled timetables. Consequently, exporters have to build additional time into their deliveries in order to ensure meeting mainline shipping dates at the hub terminals. Charges at the port, both formal and informal, are much higher than elsewhere. The port of Chittagong may well be the single greatest constraint to economic growth in Bangladesh though there have been reports of significant improvements in performance during 2007.

12. ***Road Transport and Highways:*** Trucking is now the dominant freight mode in South Asia; even in India, road transport accounts for 70 percent of the freight market. Road freight rates in India and Pakistan, for bulk cargo, are probably about the lowest in the world but the level of service is low with

long and unpredictable transit times, no cargo insurance, etc. The trucking industry is extremely fragmented with few medium and very few large companies. Trucks are mostly small, two and three axle, and massively overloaded. Large, multi-axle tractor-trailers are, however, increasing in number on long hauls. Low cost, low quality trucking meets the requirements of most shippers. When higher levels of service are needed, premium services can be arranged. In India, the economy is diversifying and the transport of higher value products increasing; there is a trend toward higher quality trucking services and a shift from reliance on trucking agents and the spot market to longer term contracts incorporating performance standards.

13. Unit trucking costs in Bangladesh are substantially higher than in India and Pakistan, partly because two axle trucks still predominate and partly because the hauls are much shorter. While road container traffic is increasing elsewhere, most containers in Bangladesh are still stripped/stuffed at the port and the contents moved as loose cargo. It is reported that there are fewer than 1000 trucks capable of loading 40ft containers.

14. High quality trucking services, with fast and reliable delivery times, require high quality highways and South Asia is only now beginning to provide such infrastructure. Four lane highways are now being completed on some of the main trade corridors, but they are not generally to expressway standards and capacity and service standards are limited by the mix of motorized and slow moving non-motorized traffic. Intra-regional trade and transit trade is largely trucked on roads away from the main corridors and transit times can be very long; for example, four days for the 700 km from Kolkata to Nepal. Major highway construction programs have been announced but they face major issues in terms of both financing and implementation.

15. **Rail Transport:** Railways in Bangladesh (BR) and Pakistan (PR) now carry very little freight and have become very largely passenger operations. Little investment has been made in their freight businesses and consequently their wagon fleets would be better suited to the museum or scrap yard. They do, however, provide container services along the main corridors and there is clearly substantial unmet demand. Both railways are financially dependent upon government for, at least, debt servicing and investment.

16. Indian Railways (IR) has lost market share to trucking but its freight traffic has consistently grown. Container traffic, managed by Concur, has grown rapidly but, as with the other railways, it has not been able to satisfy demand. In the last few years, there has been marked improvement in the financial and operational performance of IR, with a more commercial approach to the freight sector. Most importantly for the future, perhaps, IR has now adopted a business model which emphasizes more private participation in the sector. The container sector has been opened up to new operators and now 15 companies have been licensed to operate container services under hook and haul contracts. The major emerging constraint is track capacity along the main corridors and the decision has been taken to construct dedicated freight corridors (DFC) which will provide both a quantum leap in freight capacity and the opportunity to offer a much higher quality of freight service. The DFC are huge investments and will take time to construct; providing the necessary capacity during the intervening period has to be a major priority.

17. **Air Transport:** International air freight in the region totals about 1.2 million tons, a tiny proportion of the total trade volume (approaching 500 million tons), but a much higher proportion of trade value. Air tends only to be used when sea is not a viable alternative, e.g. perishable commodities, high risk items (such as gems and jewelry) or, as in the garment sector, when rapid transport is needed to compensate for production delays and avoid delivery penalties. Air freight is increasing in all countries, other than Nepal, but at rather lower rates than the growth in total trade. Freight is carried as belly cargo on passenger services and on scheduled freighters supplemented, in peak seasons, by charters. The air freight market is competitive and rates reflect supply/demand conditions; increasing passenger services to India have led to increased competition for freight and a fall in rates. Domestic air

freight is rising and international express delivery companies have established extensive networks, reflecting perhaps the inadequacies of land transport for express delivery.

18. **Customs:** All governments in South Asia have embarked on customs reform/streamlining, but progress has been faster in some countries/functions than in others. India and Pakistan may be approaching fully computerized customs clearance, conforming to the principles of the Revised Kyoto Convention, at their main trade gateways. Surveys suggest that customs is no longer the main cause of cargo dwell time at their ports. Bangladesh has improved procedures and reduced clearance times for exports and temporary imports, but normal imports have remained an issue. Nepal has introduced a computer based system but its use seems largely confined to the revenue and statistics functions and the manual clearance systems continue. Bhutan has introduced a customized computer system which is reported to cover all customs functions. Afghanistan is making progress in re-establishing a fully functional customs administration and substantial progress is being achieved, although major issues regarding the management and control of border and transit facilities remain.

19. While improved customs systems/processes/procedures have been introduced, trade procedures still appear complex and cumbersome, continuing to require numerous documents and even more copies and signatures. The trade regimes in South Asia are complicated and becoming more so, with the proliferation of trade agreements, duty exemptions, and export incentives as well as tax and duty rebates. There are, for example, at least six modalities for Indian exports, each slightly different documentation requirements. There is also the continuing legacy from the previous era of strict trade controls, with the involvement of multiple government agencies. Customs may have computerized and streamlined their systems, but the overall trade systems continue to be far from computerized and streamlined.

20. **Logistics in South Asia:** Most international trade and domestic distribution in South Asia involves straightforward movements and consequently logistics is relatively simple and unsophisticated. Exports are shipped FOB and imports are CIF or C&F. Logistics providers arrange the cargo movement to/from the ports with few, if any, value-added services. However, economic diversification into more complex manufacturing is changing the logistics requirements and providing opportunities for larger companies to offer more integrated services covering not only transport but warehousing, inventory control, retail distribution, etc.

21. International freight forwarding/logistics companies are entering the market, especially in India which offers the greatest number of opportunities. Domestic freight forwarding companies are growing both in scale and range of activities; some are beginning to expand overseas. The proposed partial opening of the distribution sector to firms like Wal-Mart could have major spin-off benefits in other sectors. The supply chains and production systems required to provide fresh fruit and vegetables, of a consistently high quality, to domestic supermarkets could also form the basis for the export of high value, high quality perishable fruit and vegetables.

22. **Intra-Regional Trade:** Trade within the region has increased rapidly in the last few years but its total level remains very small. Its economic importance to the countries is inversely related to their size – very important for the small economies but of minimal economic consequence for India, even though India accounts for some 60 percent of total intra-regional trade. In addition to the formal trade flows, there are large flows of informal trade across most of the borders, as well as a considerable flow of misreported trade to circumvent Pakistan's restrictions on Indian exports. While trade and transport facilitation for inter-regional trade has improved, little has changed with respect to intra-regional trade.

23. Even where the new customs systems have been rolled out to the main border stations, they may not be applied to all trade, or may be ineffective because they require reliable power and communications, neither of which is available at most land borders. Consequently, trade across the land frontiers is still subject to manual systems, requiring much personal interaction between trader/agent and border agency officers and plentiful opportunities for rent seeking. These problems compound

those of the limited hours that land borders are open for the processing of trade flows. Limited clearance processing capacity can result in long delays to trucks and cargo.

24. Intra-regional trade, by sea, has improved with the introduction of direct container services between India and Bangladesh, and India and Pakistan. The major problem in South Asia is the land-based trade. With limited exceptions (such as India – Nepal), trucks cannot deliver cargo across borders; the trucks have to be unloaded and the cargo reloaded onto a truck of the importing country. This puts up the cost, increases the time, and raises the probability of loss and damage; it results in horror stories, like Petrapole - Benapole. Instead of trying to develop cross-border delivery, and remove the need for transshipment, governments are planning to construct the equivalent of seaports along their land frontiers. These landports might well become permanent blots on the regional economic landscape with vested interests resisting their removal.

25. While trade by rail takes place, India rails low value commodities like building aggregates to Bangladesh, it is limited by the outdated wagon fleets of BR and PR, the gauge and wagon weight restrictions on BR, and possibly a rather low management/commercial priority, compared with long distance domestic hauls. Rail should be an attractive mode for intra-regional trade as it usually provides faster and less cumbersome border crossings than truck transport. It can also provide faster transit, given the conditions on many of the region's highways. Very substantial cost and time savings could be achieved with rail, but trade is carried by sea or truck.

### ***Increasing Trade-Transport Competitiveness***

26. Substantially improved trade logistics and facilitation would significantly improve trade competitiveness which would then:

- Increase the profitability of existing exports and encourage expansion in production
- Reduce the delivery time and cost of imports, benefiting both domestic and export sectors
- Allow manufacturers to enter higher value market segments, such as premium garments, which require shorter delivery cycles
- Allow South Asia to enter entirely new markets, such as high value horticulture – flowers, fruit and vegetables
- Consolidate and expand the region's potential in newer exports, such as the automotive sector.

27. In the USA, total logistics costs are estimated to be around 8 percent of GDP; in India, the most often quoted estimates are 13 – 14 percent of GDP. There is clear scope for reducing costs and raising service standards, even in those areas of trade-transport where South Asia is at broadly international levels of productivity.

***Ports and Shipping:*** These are perhaps the most visible elements of trade-transport and may tend to influence perceptions of the overall systems. Governments cannot control shipping rates which are very largely determined in the market but can strongly influence them by providing an efficient, low cost, high quality enabling environment:

- *Adequate port capacity:* the present high growth rates are expected to persist, and South Asia's ports seem often to follow rather than be ahead of demand. High occupancy rates, whether at the berths or in the stacking yards, reduce productivity and risk congestion. Inadequate capacity is a continuing danger and governments need to reduce the excessive lead time in terminal development.
- *Adequate port draft:* container vessels are getting larger and require deeper draft. South Asia may not attract the mega-vessels which are now entering service, but the current mainline vessels will be cascaded to other routes, such as to South Asia, and the main ports do not have the draft to accommodate them. Deeper drafts would also allow the use of larger bulk vessels

with lower unit freight rates which form a significant part of the final delivered cost of very low value commodities, like coal.

- *Lower port charges:* vessel dues are extremely high and though cargo handling charges are broadly at international levels, they could be reduced further. Highly profitable ports may be attractive to port operators but are effectively a tax on trade. Charges could be reduced by:
  - Lowering port costs, most notably by reducing excess staffing
  - Increasing efficiency, by introducing private management in traditional port trusts
  - Increasing incentives, by revising tariff regulation from cost plus/rate of return
  - Revising concession bidding terms, from revenue sharing, to lowest handling charge.
- *Improved inland transport:* cargo may remain in the ports, longer than necessary, if inland transport capacity has inadequate capacity, or containers have to be stripped/stuffed at the ports if appropriate inland transport is not available. Cargo should be moved from the ports as quickly as possible; they should be transported through interfaces not intermediate storage areas.
- *Further streamline procedures:* increased use of green channels, direct delivery from the berths, streamlining procedures/processes of all port-related official agencies.
- *Ensure focused professional management:* the public sector should emulate the private operators and employ professional port managers at the highest levels rather than naval officers or members of the senior civil service. The ownership and management of large non-operational landholdings of many port trusts should be re-assessed. Ports may well not be the most appropriate location for the management and development of such land. These activities may dilute/distract the focus of managers from port management.
- *Eliminate residual shipping protection:* present cabotage restrictions may limit the development of new frameworks of shipping services. Domestic shipping sectors should be encouraged through the tax regime.

The port sectors in India and Pakistan have already successfully incorporated major change, through private terminals and ports, and the actions proposed would simply reinforce the existing strategy direction. Ports in Bangladesh remain largely unchanged and more extensive and radical restructuring in terms of management, systems and staffing is required, if maritime service levels are to be raised to levels where they no longer impose major constraints to economic development. It is not surprising that the present government in Bangladesh views the port of Chittagong as very high on its reform agenda.

28. **Road Transport:** Trucking is a customer focused service sector which will provide the type and level of services that the market demands. Governments can, however, influence the sector and quality of services by ensuring that market distortions are removed and conditions are conducive to change:

- *Effective control of overloading:* trucking rates are low because trucks are massively overloaded, and the economic and social costs are much higher (road damage, slow speeds and poor safety standards). Reducing axle and vehicle weights would have profound effects on the sector, encouraging the switch to modern multi-axle trucks. Trucking rates would rise initially, but would subsequently decline with larger vehicles and increased utilization.
- *Revised vehicle fees:* user charges should reflect social costs. Presently, user charges on trucks are below their social costs and should be raised to reflect the damage and other costs caused by different truck categories. This would provide more encouragement for the shift to large multi-axle vehicles.
- *Carrier registration:* a voluntary registration scheme for enterprises reaching specified management, financial and safety standards would not restrict market entry, but would provide information and incentives for market differentiation, especially if accompanied by effective vehicle and cargo insurance.

- *Modern highway networks:* recent investments have added capacity and reduced transit times along the major trade corridors but South Asia is still far from having the highway standards found in developed countries or China. High speed, high capacity, controlled access highways provide the operating environment for high quality, low cost trucking services.

29. **Railways:** Rail has the potential to play a much greater role in trade transport throughout the region. Key to the achievement of this potential will be giving freight much higher priority in the railway business, in terms of both management and investment. It will also be important that, in competitive markets, rail concentrates on its core strengths of managing the tracks and hauling the trains, and brings in the participation of the private sector to retail services to shippers. IR is already moving on these lines with the opening of the container market and the decision to construct the DFC. The immediate issues are not what to do, but how to implement the decisions in a successful and timely manner and to safeguard the priority presently accorded to freight rather than diverting attention and resources to high profile initiatives such as very high speed passenger trains.

30. PR and BR have both announced reform/restructuring programs and investment plans which will increase freight capacity. Changing relative priorities within the railways from passengers to freight will require high level commitment, given the institutional culture of these railways. PR created a separate freight business in 2000, but it had little evident success; to achieve the priority needed, it may well be desirable to make freight a subsidiary of the proposed corporation with its own locomotives and scheduled train paths along the main corridor. PR is already wholesaling some freight services, and this approach should be adapted to the container market, but private container rail services may be preferable, bringing in not only management expertise but also wagons and possibly locomotives.

31. BR has unmet demand in the container sector and investment is planned to increase both track and movement capacity. There are, however, no plans for attracting private sector participation, and BR will remain firmly within the public sector. The reform proposals appear similar to those tried unsuccessfully on many railways previously but establishing BR on a lines of business approach may give higher priority to freight or, at least, provide the basis for future change. However, a Concor type arrangement might well provide greater focus for the container business.

32. **Air Freight:** Air freight does not appear as a major trade constraint. Similar recommendations to those made for sea transport are appropriate – ensure low cost, efficient terminal facilities, facilitate the activity of the private sector, etc. In addition, it is clear that additional passenger services have spillover benefits for air freight, in terms of additional capacity, increased competition and lower rates. Governments need to consider very carefully the relative benefits of protecting national airlines compared with a more liberal air policy, moving toward open skies.

33. **Customs and Trade Facilitation:** India and Pakistan have already demonstrated the benefits of customs reform and computerized customs systems. All the basic elements have been put in place and the priorities for these countries are to extend effectively the systems both geographically and functionally:

- Geographically: extending the systems from the major trade gateways to a uniform system covering all significant trade entry/exit points;
- Functionally: extending the systems to all traffic, allowing full electronic clearance with electronic signatures and banking, strengthening the risk management, green channel and post-clearance checks and audit systems, etc.

Once these are achieved, or in parallel, the priority should be simplification of the rest of the trade system procedures and documentation; effectively removing the legacies of “the licence raj”. It is inconceivable that so many documents, copies and signatures are needed other than to maintain agency and personnel employment.

34. The development and implementation of computer-based documentation and procedures for transit traffic would generate major benefits for the landlocked countries in the region. The present systems remain effectively unchanged: cumbersome, complex and manual, costly for both customs and trader without necessarily achieving the objective of preventing trade diversion. New transit systems would help establish the foundations for new developments in international transport in the region; for example, a land route between India and China, or transit between Pakistan and Central Asia.

35. Afghanistan, Bangladesh and Nepal have still to implement fully the ASYCUDA system and replace their manual systems. Full implementation of the computer based systems, including direct trader input of documentation should have high priority, to reduce the need for personal interaction during the clearance process, though this may require investment to provide the communication systems necessary. Afghanistan has also to determine the respective roles of numerous agencies at the borders, including basic management of the facilities.

36. The computer based systems provide the opportunity for performance monitoring of both the customs administration and customs officers. This capability should be utilized fully. For the administrations this should include the establishment of performance targets and regular monitoring on the extent to which they are achieved. These targets and the monitoring results should be put in the public domain. Monitoring of officer performance should be used to help professionalize the administration and personnel development.

37. ***Intra-Regional Trade:*** The priority to extend effectively the new customs clearance systems and procedures to the land borders has already been detailed. The other basic priorities are the formulation and implementation of systems which allow the cross-border of trucks, the development of effective rail freight systems for intra-regional trade, and customs clearance inland from the borders. All would generate very major benefits for intra-regional trade and thus for the region's producers and consumers.

38. ***Cross-border trucking:*** this is not the equivalent of rocket science, it happens almost everywhere else in the world, even in South Asia. The requirement for goods to be unloaded from one truck, possibly stored, and then reloaded onto another truck is all unnecessary. There are a number of possible approaches to eliminating the requirement or, at least, reducing substantially its costs and avoiding the need for the development of landports which could become serious obstacles to the future facilitation of trade within the region. Time limits, route licensing, dual country licensing, joint venture companies are all possible approaches.

39. The real issue is whether the governments see intra-regional trade as a significant benefit and should be facilitated. Issues of domestic trucking industry resistance to the potential loss of traffic could be addressed by the issuing of national quotas for cross-border trucking. Security may be an issue, but such issues are already addressed at ports and modern technology, in the form of scanners, can also be deployed at land border posts, though it may be necessary to concentrate trucking through designated crossings. Technology can assist, but the more fundamental need is for intelligence, risk management and cross-border sharing of information.

40. ***Cross-border rail freight:*** enhancing the capacity of BR and PR to carry freight with modern, high capacity wagons is necessary but may not be sufficient. It needs to be accompanied by the facilitation of cross-border movement of containers, especially if intra-regional trade moves up to higher value products. These basic requirements need to be accompanied by more effective wagon interchange arrangements which remove the disincentives that the railways face with respect to cross-border traffic. The present wagon balance agreement, for example, between IR and PR, provides no incentive for PR to give cross-border freight priority, even though the potential economic benefits to Pakistan are very large. Given past history, with border closures and the stranding of wagons on foreign network, such arrangements may not be simple to agree and may need some form of guarantee.

41. An alternative approach, as railways are beginning to open to private sector participation, might be some form of cross-border concession. A concessionaire would own and manage the wagon fleet, and market the services: the railways would haul the trains on either side of the border. Such an arrangement would be comparable to the container market arrangements currently operating on IR. Cross-border concessions may be difficult to negotiate, but they have been successfully agreed elsewhere for much more complex arrangements, covering both operations and infrastructure.

42. *Inland customs clearance*: clearing cargo away from the initial point of entry is well established, even in South Asia. However, it has generally been applied only to cargo entering through the major international gateways and may be restricted to cargo moving inland by rail. Afghanistan, on the other hand, has moved to the inland clearance, and is successfully operating a transit pass system on some of its major routes. Allowing the cross-border movement of trucks would be a major benefit for intra-regional trade, but the benefits would be largely negated if they had to be unloaded at the borders for the customs clearance and inspection of cargo. Allowing customs clearance away from the border would possibly require some form of customs guarantee or bonding system. It is a problem not unique to South Asia; if the countries of East Africa can manage trucks crossing three borders without unloading, then South Asia can surely manage trucks crossing one border.

43. ***The Framework for Streamlining Trade and Transport Facilitation***: Trade systems and supply chains are composed of many elements, agencies and stakeholders: transport infrastructure operators, transport service providers, logistics companies, clearing agents, banks, insurance companies, Chambers of Commerce, government agencies, traders, etc. Changes in one part of the chain may have little immediate impact if other links in the chain are not also modified/streamlined. Changing many elements together may well have synergy. Port and customs reform have moved a long way in India, but the port systems still do not provide the service levels found elsewhere, because not all the elements of the chain have been addressed.

44. Trade facilitation committees have been established but their impact can often be limited as they can be too narrowly focused on particular aspects, such as customs reform. A much more comprehensive approach to streamlining South Asian trade systems would be desirable. More comprehensive both in terms of focus and in terms of the inclusion of both private and public stakeholders. The National Trade Corridor approach in Pakistan is a comprehensive attempt to bring trade logistics to international standards and increase the country's competitiveness in the global economy. The approach may be applicable for other countries and trade corridors.

45. India is a very much larger country than others in the region, with no single national trade corridor but several very important trade corridors. Some elements of trade facilitation may be common to all corridors but others are corridor specific. There may thus be a role for both national and corridor specific approaches. The dedicated rail freight corridors could cost the Indian economy upwards of US\$25 billion; they have the potential to transform India's trade-transport systems, but to achieve their full potential (and traffic) the other elements in the trade transport system need also to be in place and functioning efficiently. The DFC could provide the focus for the streamlining of the entire trade transport facilitation system along the corridors.

46. A corridor approach may be equally applicable to the streamlining of intra-regional trade; indeed it may be even more applicable, providing a focus for practical and realizable improvements rather than the discussion of generalities covering all aspects of bilateral trade and trade relations. Focusing on individual corridors may allow substantial improvements to be made on the major links without changing entire systems. Solving problems and streamlining processes at Petrapole-Benapole, Attari-Wagah or Raxual-Birgunj may be much more manageable than solving the entire problems of trade between Bangladesh-India, India-Pakistan or India-Nepal.

47. Crucial, however, is the basic appreciation that streamlined trade-transport offers major economic benefits, coupled with very high level commitment to its achievement.

# ACTION PROGRAM TO STREAMLINE TRADE-TRANSPORT

## INTER-REGIONAL TRADE

### (a) Actions for the Short Term

- Afghanistan:**
- Continue implementation of customs reform program and application of ASYCUDA
  - Work with neighboring countries to develop regional transit agreement and procedures to facilitate access to the sea from and through Afghanistan
  - Resolve border control management issues
- Bangladesh:**
- Extend application of ASYCUDA to all trade and move toward paperless clearance system with minimum personal interaction between trader and customs inspectors
  - Introduce effective green channels for accredited traders
  - Develop modalities for off-dock clearance of containers, and bonded movement of uncleared containers by road
  - Allow bonded warehousing for wholesalers, paying duty at the time of sale
  - Remove restrictions on foreign freight forwarding companies to encourage the introduction of modern logistics systems
  - Concede new container terminal at Chittagong to the private sector
  - Develop restructuring plan for the existing terminal facilities at Chittagong
- India:**
- Complete the roll-out of ICEGATE and its development into a fully paperless clearance system
  - Ensure effective Risk Management Systems and post-clearance audit and verification procedures
  - Introduce direct delivery of containers from the quay
  - Review terminal concession and tariff regulation in the port sector
  - Ensure rail track capacity for increasing container trains on main corridors
  - Provide level competitive framework for the container rail sector
  - Review cabotage regulations for coastal container feeder services
  - Progressively enforce axle load and vehicle weight regulations
- Nepal:**
- Extend application of ASYCUDA to provide full computerized customs clearance at major border crossings and establish customs communications network
  - Establish ICDs as dry ports allowing establishment of shipping agencies and the use of through bills of lading
  - Negotiate with GOI a computerized transit system to replace the present manual systems and allow transit entry to ports other than Kolkata and Haldia
- Pakistan:**
- Continue implementing short actions of National Trade Corridor Improvement Program, in particular:
    - Extend PaCCS to all cargo and major customs collectorates
    - Progressively reduce port dues and cargo free time
    - Establish rail freight as an effective business unit
    - Move forward with the corporatization and restructuring of Pakistan Railways
    - Move forward with effective axle-load control and modernization of the trucking sector
    - Review civil aviation policy to encourage more international passenger services and thus additional air-freight capacity

## **(b) Actions for the Medium Term**

- Afghanistan:**
- Complete re-establishment of fully functioning customs administration, fulfilling all necessary customs functions including intelligence and control
  - Facilitate the emergence of a modern trucking sector, equipped with trucks capable to operating through Iran to the sea or Europe
  - Re-establish rail transit links through the CIS countries to Western Europe and ports
  - Establish dry port facilities and persuade shipping lines that Afghanistan is an acceptable destination for their containers.
- Bangladesh**
- Implement major organization and management restructuring at the port of Chittagong, reducing labor costs and introducing private sector participation
  - Increase the movement capacity of the Chittagong – Dhaka rail corridor and establish higher capacity rail ICD at Dhaka
  - Complete restructuring of BR on a lines of business approach, seek private sector participation in increasing rail container services
  - Construct a high capacity highway within the Chittagong-Dhaka corridor
  - Facilitate establishment of road based ICDs
- India:**
- Ensure that container terminal capacity keeps pace with container demand
  - Provide adequate port draft for the next generation of vessels likely to want to use Indian ports, 13.5 – 14.0 meters
  - Construct the dedicated freight corridor, Delhi – Mumbai
  - Establish a joint public-private program to streamline overall trade-transport facilitation throughout the corridor
  - Complete construction of high speed, high capacity, controlled access highway network along major trade routes
  - Eliminate or streamline interstate tax and administrative check posts
  - Review and streamline export incentive/trade control regimes to streamline the entire trade documentation and procedures system which remains hugely cumbersome
- Nepal:**
- Review with India overall transit systems to cover not only Nepalese access to Indian ports but also India's access through Nepal to China
  - Review the feasibility of cross-border extension of broad gauge to ICDs in Nepal
- Pakistan:**
- Complete construction of high capacity, controlled access highway along the National Corridor
  - Complete restructuring of Pakistan Railways and creation of an effective freight business enterprise
  - Provide access for private sector management and investment in the rail freight sector
  - Implement modern train control and communications systems to provide additional track capacity and improve rail safety
  - Ensure that Karachi and Port Qasim have the draft required by container shipping lines, 13.5 – 14.0 meters
  - Implement the national trade community single window computer system

## **INTRA-REGIONAL TRADE**

### **(a) Actions for the Short Term**

- Region:**
- Under the auspices of SAARC, perhaps, undertake an in-depth study of the modalities and safeguards necessary to implement cross-border movement of commercial freight vehicles within the region.

- Develop model regional commercial vehicle convention
- Establish framework for closer customs coordination and cooperation

***Afghanistan – Pakistan:***

- Establish bilateral taskforce to review intra-regional and transit trade-transport facilitation, and agree to new Trade-Transport Agreement
- Establish cross-border exchange of customs information and data

***Bangladesh –India:***

- Establish bilateral taskforce to prepare proposals for streamlining intra-regional trade-transport through the Benapole – Petrapole crossing
- Extend fully the computerized customs clearance systems, operating at the international gateway ports to the major land customs stations
- Agree to arrangements for the cross-border movement of containers by both road and rail
- Bangladesh to remove land transport commodity restrictions

***India – Nepal:***

- Review and remove restrictions on the cross-border movement of rail wagons at Raxual
- Review and revise the time limits for cross-border movement of commercial freight vehicles

***India – Pakistan:***

- Pakistan to review its present positive list approach to intra-regional trade and adopt MFN with, if necessary, a negative list
- India to work with Pakistan to identify and eliminate the non-tariff barriers to bilateral trade
- Establish joint taskforce to streamline land transport trade, both road and rail, between Amritsar and Lahore
- Develop customs and security modalities for the cross-border movement of containers
- Extend computerized customs clearance systems to the land border crossing
- Review the wagon interchange agreement between IR and PR to remove operating restrictions and encourage the through movement of rail freight

**(b) Actions for the Medium Term**

***Region:***

- Agree to regional freight vehicle movement convention as the basis for bilateral and multilateral freight transport agreements
- Establish regional equivalent of TIR for cross-border movement of freight vehicles
- Establish regional freight vehicle insurance scheme

***Bilateral Road Transport:***

- Bilateral agreement for the through movement of freight by road
- Customs arrangements for customs clearance at destination rather than at border

***Rail Transport:***

- Bilateral wagon interchange agreements to encourage trade by rail
- Removal of operating restrictions on IR trains into and through Bangladesh
- Re-activation of rail freight connection between Nepal and Bangladesh
- Facilitation of the establishment of international rail freight companies on hook and hail arrangements.

***Customs:***

- Linkage of customs systems for the interchange of customs information
- Movement to single customs clearance at main border stations

# TRADE AND TRANSPORT FACILITATION IN SOUTH ASIA

## 1. INTRODUCTION

### 1.1 Global Trade Trends

1. Over the past few decades, the world trading system has become increasingly more open. Tariff rates have been reduced and quantitative restrictions (quotas) have been progressively eliminated, e.g. the Multi-Fiber Agreement (MFA). Most countries have adopted more outward-looking economic policies, seeking to increase growth and employment through expanding exports. Such outward looking policies have even been adopted by countries which previously pursued policies based on import substitution as in South Asia. Protective trade restrictions still persist, but tend to be in terms of more subtle non-tariff barriers (such as sanitary or phyto-sanitary standards), though anti-dumping measures and temporary quantity restrictions are still used by many countries to shield domestic producers. Trade regulations no longer solely attempt to protect domestic producers; their scope has extended to cover the need for enhanced security and the desire for greater consumer protection through the traceability of the production chain for many agricultural products.

2. The rapid growth in world trade has been generated not only by the increased openness of the world economy, but also by the transformation of production patterns and processes. No longer is international trade a flow of primary products in one direction and manufactured and processed commodities in the other. Such traditional transactions have been supplemented by massive trading of parts, components, semi-manufactured goods and sub-assemblies moving between production units in different countries before final goods are produced and sold. This involves trade flows between developed countries, between developed and developing countries and even between developing countries. The pattern of production based on integrated manufacturing has essentially fragmented, with outsourcing of low-cost manufacturing to specialized companies becoming today's production paradigm. The role of large manufacturing companies is becoming increasingly restricted to research, design, and final assembly of components/sub-assemblies produced elsewhere. The changes might be summarized as the "disintegration of production".

3. With fragmented production processes, supply chains within and between firms provide the integration required. Efficient, reliable and low cost supply chains have become the key to the manufacturing process, and thereby the competitiveness of both firms and countries. Transport and other supply chain costs are progressively becoming the core determinants of where goods will be produced and inputs sourced. Moreover, as ocean freight rates fall with larger vessel sizes, the importance of total geographic distance declines and manufacturing firms will source inputs from more distant locations, larger retailers will contract from multiple countries and wholesalers will order goods from throughout the world. As the world shrinks, dimensions such as time and reliability, inland transport and other costs associated with trade-transport increase in importance.

4. To gain competitive advantage, greater attention has been given in the past two decades to reducing the costs of transport and logistics. This has led to substantial impacts at all levels. In Europe, for example, the proportion of total final product prices accounted for by logistics, and the transport cost component have more than halved in the last 20 years, Table 1.

**Table 1 Logistics and Transport Costs in Europe**  
(% of final prices)

	<b>Total Logistics Costs</b>	<b>Transport Costs</b>
1987	14.3	7.0
1993	10.1	4.6
1998	7.7	3.1
2003	6.8	3.1

Source: Global Prospects 2005

markets has been intensifying. Total logistics costs, including reliability and the length of order cycles, have become prime factors in the comparative advantage of businesses (and ultimately countries). Many studies have shown the high costs associated with poor trade logistics and facilitation; one recent study concluded

*“On average, each additional day that a product is delayed prior to being shipped reduces trade by at least 1 percent”<sup>1</sup>.*

Failure to reduce such costs and streamline supply chains diminishes a country’s ability to maximize its potential in the global markets and thus its economic growth, employment and poverty reduction.

## 1.2 Trade Logistics And Facilitation

7. In this report, a more expansive definition of trade facilitation has been adopted than used elsewhere<sup>2</sup>; it includes all aspects of supply (logistics) chain performance. Trade procedures and customs and other regulatory structures/agencies remain a central concern but to these are added transport services and the increased use of information technology to monitor product flow and supply (logistics) chain integration. Trade logistics and facilitation are diverse and challenging but with potential benefits for both business and government at national, regional, and international levels. They involve political, economic, business, administrative, technical and technological, as well as financial issues, all of which must be taken into consideration. Efforts to reduce trade logistics costs and facilitate trade can be addressed by both the public and private sectors.

8. Public sector efforts address problems associated with technical and physical barriers to trade: for example, cumbersome licensing and clearance procedures, increasingly stringent sanitary and phytosanitary regulations, and restrictions on trade finance, as well as inadequate public infrastructure and its inefficient management. Private sector initiatives address problems of complex transactions, excessive numbers of participants in the supply chain, poor quality or limited scope of logistics services, and lack of coordination among logistics service providers in the supply chains.

9. The report focuses on the performance at the international borders and gateways as well as on the corridors connecting them with the major domestic markets. The report does not examine in detail firms’ in-house firm logistics<sup>3</sup> which, in some instances, may be as inhibiting to overall cost reduction and competitiveness as external trade facilitation.

<sup>1</sup> Trading on Time: Djankar, Freund and Pham WB Policy Research Working Paper WPS3909, 2006

<sup>2</sup> Such as UN/ECE definition of trade facilitation (as adopted in some recent publications): “The simplification and harmonization of international trade procedures and the information flows associated with them”.

<sup>3</sup> In-house logistics would cover such aspects as order processing, procurement, inventory management, documentation and communications with buyers and suppliers, etc.

### 1.3 The South Asian Context

10. This report concentrates on the larger economies in continental South Asia, Bangladesh, India, and Pakistan, although Afghanistan, Bhutan, and Nepal are also discussed. Until relatively recently, the region was inward-looking in terms of economic policy; dominated by the public sector, with policies designed for domestic production/import substitution/self sufficiency. International trade was largely confined to those sectors where domestic production was either impossible (due to lack of basic resources), or prohibitively expensive. Trade regimes were characterized by high external trade tariffs, quantitative restrictions, strict licensing and multiple layers of regulation and bureaucracy. Customs and trade procedures were extensive and cumbersome, enforcing the restrictive, inward-looking economic and trade policies. Ports and other major transport infrastructure were owned and managed by the public sector and external trade/transport links and efficiencies were accorded relatively low priority by governments.

11. From the early 1990s, South Asian countries have shifted to more outward looking policies, reducing regulations and restrictions on private sector involvement and freeing up the economy. Export promotion has replaced import substitution as the central theme for most governments; although there may still be echoes of more mercantilist attitudes – increasing exports, while still attempting to restrict imports. Such shifts towards market liberalization do not take place instantaneously, but are rather a process over a number of years. While important changes have been made to support more open economies, remnants from the previous economic philosophies may still remain, often described as “the legacy problem”.

12. With liberalization, South Asian exports have been growing rapidly, although, as will be seen in the next chapter, trade has the least importance, as a proportion of GDP, of almost any region. Trade facilitation appears to be a key area where policies, systems and infrastructure have still to adjust fully to the new economic approach. There is a general perception that port services are very inefficient and that, in many ways, trade facilitation remains in the previous era, restraining rather than promoting trade, and thus a serious constraint upon unlocking the region’s full potential.

13. The situation may have improved from the incredibly cumbersome processes reported, in 2004 by Jayantra Roy, for Indian exports, Table 2.

**Table 2 Documents for Export Clearance: India**

	<b>Documents</b>	<b>Copies</b>	<b>Signatures</b>
Commercial documents	3	13	24
Shipper’s documents	12	46	101
Clearing Agent	8	31	105
Carrier	5	27	27
Bank	1	1	1
Total	29	118	258

But, several surveys suggest that South Asia has much higher trade-transport costs and more complex trade procedures than either developed countries or, perhaps more importantly, its major competitors in international trade. More firms in South Asia (almost 60 percent) report that customs and trade regulations are a major or moderate constraint than in other regions, substantially higher than firms in East Asia (36 percent). The World Bank’s “Doing Business 2007” assessed the cost, time and complications of countries participating in international trade. The results showed South Asia at a marked disadvantage, Table 3.

**Table 3 Trading Across Borders: Procedures, Delays and Costs\***

	-----EXPORTS-----				-----IMPORTS-----			
	Documents	Signatures	Days	US\$	Documents	Signatures	Days	US\$
<b>South Asia</b>								
Bangladesh	7	15	35	902	16	38	57	1287
India	10	22	27	864	15	27	41	1244
Nepal	7	12	44	1599	10	24	37	1800
Pakistan	8	10	24	996	12	15	19	1005
Sri Lanka	8	10	25	797	13	15	27	789
<i>Average**</i>	<i>9.4</i>	<i>19.1</i>	<i>27.3</i>	<i>886</i>	<i>14.5</i>	<i>25.6</i>	<i>38.6</i>	<i>1197</i>
<b>East Asia</b>								
Cambodia	8	10	36	736	12	18	45	816
China	6	7	20	335	12	8	22	375
Malaysia	6	3	20	481	12	5	22	428
Thailand	9	10	23	848	10	10	22	1042
Vietnam	6	12	35	701	15	15	36	887
<i>Average**</i>	<i>6.3</i>	<i>8.0</i>	<i>23.9</i>	<i>488</i>	<i>11.9</i>	<i>8.2</i>	<i>22.6</i>	<i>484</i>
<b>G8</b>								
Germany	4	1	6	731	4	1	6	750
Japan	5	3	11	789	7	3	11	847
UK	5	5	12	676	4	5	12	756
USA	6	5	9	625	5	4	9	625
<i>Average**</i>	<i>5</i>	<i>3.2</i>	<i>8.8</i>	<i>703</i>	<i>4.9</i>	<i>3.3</i>	<i>9</i>	<i>704</i>

\* Transport and transaction costs within the country for a 20 ft container

\*\* Weighted average by value of trade

Source: Doing Business, 2007.

South Asia performs poorly on all 'trading across border' measures; the comparisons with China are particularly stark<sup>4</sup>. Other indicators show broadly the same picture though, in some, the differences between East Asian and South Asian countries are rather less marked, for example, Table 4.

**Table 4 Trade Facilitation Indicator World Rankings<sup>5</sup>**

	Port Efficiency	Customs Environment	Regulatory Environment	Service Sector Infrastructure	Average Rank
China	60	53	53	62	57
Malaysia	19	41	40	39	35
Thailand	31	56	59	34	45
Vietnam	76	78	60	69	71
Bangladesh	78	76	55	71	70
India	55	57	67	58	59
Sri Lanka	57	65	9	47	45

The trade facilitation rankings show relatively little difference between China and India, nor between those of Bangladesh and Vietnam.

14. The importance of streamlining trade facilitation and reducing overall logistics costs is endorsed by studies that have attempted to estimate their economic impact. Several studies show that South Asia has the most to gain from improved trade facilitation of any region. One simulation of the impact of

<sup>4</sup> China's transport cost advantage reflects industries being established specifically for exporting and located close to the coast. In South Asia, most industries were established for the domestic economy and mainly located inland.

<sup>5</sup> Wilson, Mann and Otsuki database: World Bank Working Paper No. 3224

raising South Asia's trade facilitation performance toward international levels shows large gains for both intra and inter-regional trade, Table 5.

**Table 5 Trade Gains from Improved Trade Facilitation<sup>6</sup>**  
(US\$ millions)

	<b>Port Efficiency</b>	<b>Customs Environment</b>	<b>Regulatory Environment</b>	<b>Service Sector Infrastructure</b>	<b>Total Gains</b>
Intra-regional	712	429	278	1,224	2,644
Inter-regional	8,421	3,881	3,809	15,452	27,560

If the projected levels of trade facilitation efficiency were attained, intra-regional trade within South Asia would increase by almost 60 percent, though from an extremely low base, and trade with the rest of the world would increase by over 30 percent.

15. None of these comparisons are conclusive as they are often the result of dated information, collected before the impact of recent reforms. Nevertheless, it is clear that the efficiency of their external trade and transport systems has become a major concern for several governments in South Asia. The Government of India established an Inter-Ministerial Group in 2005 with the following remit:

*“Recognising the urgency of reducing the dwell time for cargo, the Committee on Infrastructure, chaired by the Prime Minister, constituted an Inter Ministerial Group.....to make recommendations for streamlining customs procedures and the functioning of Container Freight Stations.....The goal is to match international benchmarks.....to enable Indian ports to attain world class standards”.*

A broadly similar committee has been established in Pakistan, under the direct chairmanship of the Prime Minister, with an even wider remit, namely, to raise the operating performance of the National Trade Corridor, linking Karachi with northern Pakistan, to world class standards. This comprehensive approach brings together the ports, trade facilitation, railways, roads and the road transport industry to introduce world class infrastructure, up-to-date procedures and modern transport and logistics management.

16. The increased attention given by some of the governments in the region to trade facilitation and the streamlining of customs procedures appears to be producing substantive results, Table 6.

**Table 6 Trade Documentation and Time Requirement**

	-----No. of Documents-----				-----No. of Days-----			
	<b>Exports</b>		<b>Imports</b>		<b>Exports</b>		<b>Imports</b>	
	2005	2007	2005	2007	2005	2007	2005	2007
Afghanistan	n.a.	12	10	11	n.a.	67	97	71
Bangladesh	7	7	16	9	35	28	57	32
Bhutan	10	8	14	11	39	38	42	38
India	10	8	15	9	36	18	43	21
Nepal	7	9	10	10	44	43	38	35
Pakistan	8	9	12	8	33	24	39	19
Sri Lanka	8	8	13	6	25	21	27	21
China	6	7	11	6	20	21	24	24

Source: Doing Business 2006 and Doing Business 2008

According to the Doing Business surveys, there has been a marked reduction in the number of documents required for importing in most South Asian countries and, in several countries, significant reductions in the time required for both exports and imports. According to Doing Business 2008, it is

<sup>6</sup> For example: Trade Facilitation and Regional Integration in South Asia: Accelerating the Gains to Trade with Capacity Building, Wilson and Otsuki, World Bank, 2004

now faster to export a container consignment from India (to vessel loading) than from China, and faster to import into India, Pakistan and Sri Lanka. Bangladesh still has significantly longer trade times than the other coastal countries but times have fallen, especially for import consignments. The landlocked countries remain at a significant disadvantage with regard to trade times, especially Afghanistan.

#### 1.4 Objectives Of The Report

17. The main objective of the report is to provide a comprehensive regional audit of the present state of trade and transport facilitation in South Asia with regard to both inter-regional and intra-regional trade. On the basis of the regional audit, the report:

- assesses the broad trade-transport competitiveness of the region, especially in comparison with East Asia, its major competitor in several key areas, especially the textile and garment sector;
- identifies the major issues and constraints faced by each component of the trade-transport systems; and
- proposes agenda of potential changes to the systems (including, investment, policies and procedures) which would enhance the region's competitiveness.

The report is structured in five sections:

- Overview of South Asia Trade
- Inter-Regional Trade: The Transport Sector
- Inter-Regional Trade: The Customs Sector
- Inter-Regional Trade: The Logistics Industry
- Intra-Regional Trade

The emphasis on inter-regional trade reflects its predominant place in the region's total trade and the priorities of the governments in the region, which give much higher emphasis to such trade.

18. The report has deliberately been kept short and, in some respects, general. Greater detail and discussion is given in the accompanying annexes. In addition, to providing the detail on each of the sectors, the annexes also include:

- A review of the transit issues faced by the landlocked countries in the region. These issues, which somewhere differ to those of intra-regional trade, exacerbate the problems that the landlocked countries face in inter-regional trade.
- An examination of a number of supply chains in South Asia (fruit and vegetables, textiles and garments, and the automotive industry) to illustrate the actual impact of trade-transport facilitation and the limitations that it can impose.

19. The report brings together previous trade and transport facilitation audits undertaken by the World Bank in the South Asian region (Bangladesh and Pakistan), additional studies in India and Nepal undertaken specifically for this report, information from on-going Bank financed customs reform/trade facilitation activities being undertaken in Afghanistan and Pakistan, as well as Bank activities in the transport sector throughout the region. One of the findings of the audit is the speed with which trade and transport facilitation is changing in South Asia. The report presents essentially a snapshot of the position in 2005 – 2006; an attempt has been made to incorporate recent changes, but in some respects the information and observations may already have been overtaken by events, hopefully in a positive fashion.

## TRADE AND TRANSPORT FACILITATION IN SOUTH ASIA

### 2. OVERVIEW OF SOUTH ASIAN TRADE

#### 2.1 Introduction

20. This section provides a very brief trade overview of continental South Asia (Afghanistan, Bangladesh, Bhutan, India, Nepal and Pakistan), designated as the SARC region. The island countries in South Asia, the Maldives and Sri Lanka, account for 1.4 percent of the region's population and 5.4 percent of its exports. The rest of the world has been grouped into 8 regions:

- EAP: medium and lower income East Asia and Pacific Countries
- ECA: Europe (other than the EEC15), and Central Asia
- MNA: Middle East and North Africa
- SSA: all of Sub Saharan Africa
- LAC: Latin America, except Mexico
- EAPH: high income East Asia and Pacific countries
- EEC15: France, Germany, the United Kingdom, etc
- NAFTA: the United States, Canada and Mexico

The primary socio-economic parameters of South Asia and the other regions are outlined in **Table 7**.

**Table 7 Population, Income and Trade: 2005**

	Population (million)	GDP (\$ billion)	GDP/Capita (US\$)	Trade as % of GDP		Exports/capita (US\$)
				Exports	Imports	
World	6,348	44,384	6,894	23	24	1,614
SARC	1,420	972	684	13	19	89
<i>Afghanistan</i>	<i>30</i>	<i>5.8</i>	<i>240</i>	<i>8</i>	<i>45</i>	<i>19</i>
<i>Bangladesh</i>	<i>142</i>	<i>56.8</i>	<i>423</i>	<i>15</i>	<i>23</i>	<i>65</i>
<i>Bhutan</i>	<i>1</i>	<i>0.7</i>	<i>916</i>	<i>30</i>	<i>48</i>	<i>272</i>
<i>India</i>	<i>1,095</i>	<i>691.9</i>	<i>718</i>	<i>11</i>	<i>17</i>	<i>82</i>
<i>Nepal</i>	<i>27</i>	<i>6.7</i>	<i>271</i>	<i>11</i>	<i>25</i>	<i>31</i>
<i>Pakistan</i>	<i>156</i>	<i>96.1</i>	<i>711</i>	<i>14</i>	<i>23</i>	<i>102</i>
EAP	1,885	3,033	1,609	39	35	629
ECA	487	2,875	5,903	35	33	2,069
MNA	349	1,193	3,421	55	36	1,886
SSA	741	615	830	31	28	256
LAC	448	1,687	3,764	21	17	777
EAPH	236	6,744	28,587	26	24	7,358
EEC15	385	12,614	32,743	29	29	9,550
NAFTA	432	14,339	33,202	10	16	3,421

21. While South Asia has moved from inward to outward looking economic policies, international trade, as a proportion of GDP, is still well below the world average, lower than any other region, excepting NAFTA. Exports from South Asia account for only 13 percent of GDP (2005) compared with the global average of 23 percent. The importance of international trade has increased but from a very low base. During the 30 years, 1975 – 2005, export importance in South Asia has more than

doubled, from 5 to 13 percent of GDP, but in East Asia export importance has risen almost fourfold, from 10 to 39 percent of GDP. In absolute terms, South Asia is a very small player in global trade; about 1.2 percent of world exports and 1.7 percent of imports.

## 2.2 Direction Of Trade

22. International trade in South Asia is directed very largely outside the region. Intra-regional trade totals rather less than US\$6 billion, less than 5 percent of the region's overall trade. In terms of imports, South Asia has the least intra-regional trade in the world, less than half the level of the next lowest trading region (Middle East and North Africa), Table 8.

**Table 8 World Intra-Regional Trade Flows: 2005<sup>7</sup>**

	Exports to Own Region		Imports from Own Region	
	US\$ million	% total exports	US\$ million	% total imports
SARC	5,897	4.7	5,621	3.1
EAP	114,137	9.6	194,475	18.4
ECA	212,520	21.1	215,406	22.9
MNA	14,592	2.2	28,113	6.6
SSA	12,797	6.8	11,631	6.8
LAC	72,531	20.8	71,940	25.2
EAPH	332,032	19.1	267,605	16.5
EEC15	2,140,849	58.2	2,011,361	54.7
NAFTA	870,999	59.0	775,773	34.0

The economic size of India, relative to the other countries, has obvious implications for intra-regional trade, but a broadly comparable situation exists in East Asia and intra-regional trade accounts for 18 percent of the region's imports, magnitudes higher than in South Asia.

23. India generates over 60 percent of the exports within intra-regional trade but takes only 16 percent of the imports and has large trade surpluses with the larger regional economies, Table 9.<sup>8</sup>

**Table 9 SARC Region: Intra-Regional Trade Flows 2005-2006**  
(US\$ million)

Origin	Destination						Total
	Bangladesh	India	Nepal	Pakistan	Bhutan	Afghanistan	
Bangladesh	-	157	4	51	4	7	223
India	1636	-	859	943 <sup>9</sup>	84	147	3669
Nepal	6	347	-	4	1	0	358
Pakistan	228	284	3	-	0	832	1347
Bhutan	0	88	1	1	-	*	90
Afghanistan	9	66	0	53	*	-	128
Total	1879	942	867	1052	89	986	5815

Almost all intra-regional trade in South Asia is between neighbouring countries: India - Bangladesh, India - Nepal, India - Pakistan and Pakistan - Afghanistan.

<sup>7</sup> COMTRADE data for the MNA and SSA regions were still lacking for a number of reporting countries; the partial data may understate the share of intra-regional trade in total regional trade

<sup>8</sup> This pattern is not unusual; in NAFTA Canada - Mexico trade is much lower than trade between either Canada and USA or Mexico and USA. The situation is rather different in the EU, reflecting the shorter distances

<sup>9</sup> Indian exports have risen rapidly since 2003. The increase in FY06 was sugar exports of US\$ 339 million.

24. Intra-regional trade has increased faster than the SARC's overall trade; India's exports to SARC more than doubled between 2000 and 2004, reaching over US\$3 billion, while Bangladesh's imports from SARC almost tripled to US\$1.7 billion. The proportion of intra-regional trade in total trade has increased significantly, especially for the smaller countries, Table 10.

**Table 10 SARC: Importance of Intra-Regional Trade**  
(Intra-regional trade as percent of total trade)

	1990	1995	2000	2005
Afghanistan	12.2%	15.4%	22.1%	35.1%
Bangladesh	6.7%	10.2%	5.4%	9.1%
India	1.3%	2.3%	1.8%	1.9%
Nepal	26.2%	30.5%	40.0%	46.5%
Pakistan	1.9%	1.8%	3.0%	5.7%

However, the importance of intra-regional trade for India, Pakistan and, to a lesser extent, Bangladesh remains small in comparison with trade with the rest of the world. The situation is asymmetric: India is the major regional trading partner, but intra-regional trade has little overall economic significance for India.

### 2.3 The Commodity Structure Of Trade

25. Over a third of the SARC region's exports consist of textiles and clothing; the sector dominates exports from Bangladesh (86 percent), Pakistan (69 percent) and Nepal (51 percent), and is the largest single export sector in India (21 percent). In 2004, SARC exported US\$32 billion of textiles and clothing, while importing US\$5.9 billion, much for further processing. Exports went primarily to the EEC15 (\$14.7 billion) and NAFTA (\$10.8 billion) while imports came from East Asia (\$4.1 billion). The ending of the Multi-Fiber Agreement has had a largely positive impact with textile exports continuing to grow, especially from Bangladesh and India. Nepal, with the most difficult supply chains, has suffered, however, and textile exports have declined.

26. The structure of exports from the SARC region, in terms of intra-regional and total trade, is shown in Table 11.

**Table 11 Structure of SARC Exports: 2004**

Total Trade			Intra-Regional Trade		
MTN	Commodity	% Exports	MTN	Commodity	% Exports
02	Textiles	33.4	02	Textiles	15.3
09	Mineral products	14.9	05	Chemicals	14.8
04	Metals	12.5	97	Petroleum	11.9
05	Chemicals	9.7	16	Grains	11.3
03	Leather, rubber	4.6	09	Mineral products	6.9
97	Petroleum	3.7	12	Fruit/vegetables	5.5
07	Non-electrical machinery	2.9	18	Oil Seeds	4.6
	Other	18.3		Other	29.9

The structure of intra-regional exports differs quite considerably from total exports, although textiles are still the single largest export group. Intra-regional trade is more diversified with a much higher proportion of unprocessed or semi-processed agricultural commodities. Agricultural commodities total 27.5 percent of intra-regional trade but only 9.0 percent of total trade. Petroleum is the third largest intra-regional export, consisting of products from the refineries of the coastal countries to the landlocked countries.

27. The SARC region accounts for only 1.2 percent of world exports but has significant market penetration for some commodities/products. It has substantial penetration in a number of textile and textile/garment related sectors (for example, 17 percent of the world market for made-up textile articles) as well as in iron ore (16 percent), rice (14 percent) and gems and jewelry (13.5 percent).

## 2.4 Formal And Informal Trade

28. While formal trade flows within South Asia are small, relative to other regions, there is also considerable informal trade. Porous borders, straddled by the same ethnic communities, provide a conducive environment for unrecorded cross-border flows. Some of the informal flows are local trading across the border and the high transaction costs of formal trade may contribute to such trade. There are, however, more organized informal trade flows designed to either: (a) circumvent trade restrictions as, for example, the limited list of imports that Pakistan allows from India; or (b) evade high duties and other import-related taxes. Exact estimates of the informal trade flows are obviously not to find possible, but the flows are substantial and a significant part of total trade within the region.

29. It is reported that large volumes of India's exports to Pakistan are routed, at significant additional cost, through Dubai where the goods are re-labeled. A very substantial proportion of the imports into Afghanistan are then informally re-exported to Pakistan. Formal trade between India and Pakistan, during the period 1997 – 2004, never exceeded US\$250 million, but informal trade has been estimated at between US\$0.5 – 1.0 billion<sup>10</sup>. A recent study reported that unrecorded trade between Bangladesh and India may be as high as 75 percent of the formal recorded trade flow<sup>11</sup>. In both studies, the direction of informal trade mirrors the formal flows with a large Indian trade surplus. A rather different situation has supposedly existed between India and Nepal with third country imports being informally re-exported to India, similar to the situation between Afghanistan and Pakistan. However, even if the high estimates of informal and mis-reported trade are added to the formal trade levels, South Asia remains the region with the lowest levels of intra-regional trade.

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<sup>10</sup> “Quantifying Informal Trade between Pakistan and India”, Khan, Yusuf, Bokhari and Aziz. World Bank, 2005. The study estimated informal trade, in 2004, at just over US\$ 500 million but suggests that it might previously been substantially higher but that traders have switched to lower cost sources in China.

<sup>11</sup> “Studies on India-Bangladesh Trade: Trade Policies and Potential FTA”, World Bank, Report No. 37863-BD, 2006

## TRADE AND TRANSPORT FACILITATION IN SOUTH ASIA

### 3. INTER-REGIONAL TRADE: THE TRANSPORT SECTOR

#### 3.1 Introduction

30. The transport systems directly affect trade competitiveness through delivery costs, transit times, and supply reliability. In terms of cost, time and reliability, each commodity has different requirements. Certain characteristics may be sufficient for low value/bulk commodities, while much higher standards are demanded for high value/premium products. Indeed, there is also significant differentiation within commodity groups; the supply parameters for basic tee-shirts are, for example, very different to those for fashion garments. Poor transport chains reduce competitiveness and restrict opportunities.

31. This section of the report examines the performance of the basic building blocks of South Asia's international transport chain:

- Ports and shipping
- Highways and road transport
- Railways
- Air transport

Infrastructure and services are examined and the issues and possible improvements identified. Where relevant, performance is compared with the region's main competitors, especially East Asia.

32. The analysis concentrates on continental South Asia. Sri Lanka's trade, both with the world and the rest of South Asia, is overwhelmingly by sea and Sri Lanka is the best served country in the region. Colombo is the regional hub port and is served by the mainline container vessels. Sri Lanka has the cheapest and quickest container shipping services to Asia, Europe and the US markets and has also frequent feeder services to the other container ports in the region. Sri Lankan trade with the rest of South Asia is broadly covered by the reviews of ports, shipping, and the main land transport corridors. Transport within Sri Lanka is not, however, covered by the report.

#### 3.2 The Maritime Sector: Ports And Shipping

33. World seaborne traffic reached another record high in 2005, 7.1 billion tons. South Asia depends on sea transport for its trade with the rest of the world<sup>12</sup> but its total sea trade was only 475 million tonnes, a very small proportion of global ocean freight. It has, however, been growing more rapidly than the world trend of 4 – 5 percent/annum: over the last five years, India's and Pakistan's ocean trade has grown at about 12 percent/annum, and Bangladesh's at >6 percent/annum. Most of the sea freight remains bulk cargo, but container traffic has been growing very rapidly, and now accounts for 17 percent of total tonnage. Container cargo has generally a much higher unit value and carry most of the manufactured products which face the most intense competition. Container services are central to the region's competitive position in the newer sectors of the regional economy.

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<sup>12</sup> Air freight tonnages total about 1.2 million tonnes, though in value it has much greater importance.

### 3.2.1 Container Traffic

34. Container traffic to/from South Asia has grown rapidly and now totals 6.7 million TEU, but is dwarfed by flows to/from China and is less than 2 percent of global flows, Table 12.

**Table 12 World and Asian Container Flows: 2005**

Region/Country	TEU Flow (millions)	Percent of World Flow	Annual Growth 2000-2005
World	382	100%	11%
Asia	201	53%	14%
China	73	19%	25%
Indonesia	5	1%	6%
Malaysia	13	3%	20%
Continental South Asia	7	2%	14%
<i>Bangladesh</i>	1	*	11%
<i>India</i>	5	1%	15%
<i>Pakistan</i>	2	*	13%
* <0.5 percent			

The rapid growth in container traffic is expected to continue for the foreseeable future, assuming that economic momentum is maintained and the ports can handle the traffic.

#### *Container Shipping Services*

35. Until the late 1990s, South Asia, other than Sri Lanka, depended almost entirely on container feeder services, connecting through hub ports. Increased traffic and higher port productivity has led shipping lines to introduce direct services to several of the region's ports. At Nhava Sheva, less than 15 percent of containers are now shipped by feeder vessels. Pakistan is served by a combination of direct (mainly to Asia, but some to Europe) and feeder services (mainly to Europe<sup>13</sup> and the US). Until very recently, Chennai, the main container port on India's east coast, was served by feeder vessels despite having the traffic, draft and productivity that would normally justify direct services. This is beginning to change with services direct to Asia and even some services direct to Europe and the US.

36. Other ports in India continue to be served by feeder vessels (mainly from Singapore and Colombo) though some are beginning to have a few direct services (e.g. Kochi, Mundra, Pipavav and Tuticorin). Ports in the Bay of Bengal are served exclusively by feeder vessels. Chittagong has the traffic to justify direct services but the port has neither the necessary draft nor the handling productivity. Indeed, productivity is so low and vessel turnaround so unpredictable that the feeder lines do not provide a timetabled service. This has serious consequences for exporters who must build additional time into their delivery schedules to ensure that mainline connections are made at the hub ports.

37. UNCTAD compiles an annual composite index of liner shipping connectivity which combines fleet assignment, services as well as vessel and fleet sizes. It provides a comparative indication of the level of shipping service, Table 13.

<sup>13</sup> While there are direct services to Europe, the fastest delivery time is via a feeder service through Salalah.

**Table 13 UNCTAD: Liner Connectivity Index**  
(Maximum score in 2004 = 100)

Rank	Country	2004	2005	2006
1	China	100.0	108.3	113.1
2	Hong Kong	94.4	96.8	99.3
3	Singapore	81.9	83.9	86.1
4	USA	83.3	87.6	85.8
10	Malaysia	62.8	65.0	69.2
18	India	34.1	36.9	42.9
20	Sri Lanka	34.7	33.4	37.3
22	Thailand	31.0	31.9	33.9
32	Indonesia	25.9	28.8	25.8
38	Pakistan	20.2	21.5	21.8
49	Philippines	15.4	15.9	16.5
54	Vietnam	12.9	14.3	15.1
109	Bangladesh	5.2	5.1	5.3

China and Hong Kong have the highest ranked connectivity. India is ranked quite highly and its connectivity is increasing, but it still has less than 40 percent of China's level of connectivity. Sri Lanka, with a small economy, benefits from having Colombo as a hub port. Pakistan has about half India's connectivity and Bangladesh has extremely low connectivity, well below its main competitors in the garment sector.

38. All ten of the world's largest container shipping lines operate to South Asia and the market is highly competitive. Freight rates reflect the market conditions and, in the last five years, rates from Asia to Europe have varied from US\$1200 – US\$1800/ TEU. The

“shipping conferences” still discuss and announce rate increases but few “stick” unless they reflect market conditions. Estimates of present freight rates and delivery times are detailed in Table 14.

**Table 14 Container Shipping: Service Standards**

Destination:	Origin:	Pakistan	-----India -----		Bangladesh	China
			West Coast	East Coast		
Europe	US\$/TEU	1150 – 1350	1050 - 1250	1100 - 1300	1200 – 1400	1650
	Days	19 <sup>14</sup>	17	21	22 – 30	19 - 21
US East Coast	US\$/TEU	2700 – 2750	2600	2700	2800 – 3200	n.a
	Days	19 – 22	19 - 21	23	27 – 35	24
US West Coast	US\$/TEU	2750	2500	2600	2400	1800
	Days	22 – 29	26	24	19 – 28	15

South Asia has a time and cost advantage over China for destinations in Europe and the US East Coast but a substantial disadvantage on US West Coast routes; the world may be shrinking, in many ways, but distance still counts. There is very little difference in the rates between feeder and direct services; the direct services use vessels with a capacity of 2,500 – 4,500 TEU, while feeder services combine an expensive short feeder leg and a much longer leg on a very large, low cost mainline vessel (rates from Colombo to Europe, for example, are about US\$800 - 900/TEU). Bangladesh faces the highest freight rates, to Europe and the US East Coast, the longest shipping times, and the poorest service.

39. There is little domestic coastal container shipping in South Asia, and there are restrictions on foreign shipping lines operating such services. Container movements between South Asian countries used to be routed through hub ports but regular container services have been established, in the last two years, between India's West Coast and Pakistan, and between India's East Coast and Bangladesh. The high demand for these services has led the shipping lines to add vessels on both routes. The recently revised Shipping Protocol should strengthen India-Pakistan shipping links.

<sup>14</sup> The fastest service is 15 days, but most are around 19 days

### Container Port Services

40. With the possible exception of Nhava Sheva, there are no totally specialized container ports in the region but all the main ports have dedicated container terminals, Table 15<sup>15</sup>.

**Table 15 South Asia: Main Container Handling Ports**

	TEU (millions)	Country	Terminals	Management	Productivity (TEU/ship day)	Max. Draft (meters)
Nhava Sheva	2.67	India	3	Private/Public	1123	12.0
Karachi	1.14	Pakistan	2 <sup>1</sup>	Private	25 – 27 <sup>2</sup>	10.5
Chittagong	0.83	Bangladesh	1 <sup>3</sup>	Public	300 <sup>4</sup>	9.0
Chennai	0.83	India	1	Private	1151	13.4
Port Qasim	0.58	Pakistan	1	Private	22 – 24 <sup>3</sup>	11.5
Tuticorin	0.32	India	1	Private	903	10.7
Mundra	0.25	India	1	Private	n.a.	16.0
Cochin	0.20	India	1	Private	300	10.0
Kolkata	0.20	India	1	Public	191	6.0
Mumbai	0.16	India	1	Public	320	9.1
Kandla	0.15	India	1	Public	378	11.5
Haldia	0.11	India	1	Public	198	8.0

<sup>1</sup> Containers, on geared vessels are also handled by private stevedores at the general berths

<sup>2</sup> Container moves/crane hour

<sup>3</sup> Construction of a new terminal has been completed; it will be concessioned to the private sector

<sup>4</sup> Productivity was only 207 TEU/ship day in FY2001

The main container terminals in both India and Pakistan are, with one exception (JNPT at Nhava Sheva), privately managed. The public sector Port Trust container terminals operate at substantially lower levels of productivity<sup>16</sup>. It is now generally accepted that future terminal development will be largely financed and managed by the private sector. Public sector funding will be confined to common port facilities, such as ensuring adequate berth and channel depths.

41. The ports in the Bay of Bengal have low levels of productivity. These result from a combination of factors: smaller vessels; smaller consignments; public sector management; and, less productive equipment. Chittagong, Bangladesh's main port, is probably the world's least productive container port handling such numbers of containers. The recent major procurement of specialized container equipment may help raise productivity but the port also needs major and sustained changes in management, systems and incentives.

42. Efficient container facilities are critical for the exports of garments, textiles and other higher value goods. India and Pakistan<sup>17</sup> have container terminals which, while not matching terminals such as Singapore or Tanjung Pelepas, provide broadly international levels of productivity, Table 16.

<sup>15</sup> There also some relatively new dedicated container terminals, privately operated, which have yet to generate traffic of 100,000 TEU/year, e.g. Pipavav and Vizag; Hazira container terminal has yet to start.

<sup>16</sup> The lower level of public sector terminal productivity is also reflected at Nava Sheva where the public sector terminal's (JNPT) productivity has been a third less than the privately managed terminal (NSICT).

<sup>17</sup> A new deep sea port at Gwadar has recently been constructed in Pakistan but traffic has yet to develop.

**Table 16 International Container Terminals: Productivity**

	Berth Occupancy	SSG moves hour	Annual Productivity TEU/m	TEU/SSG
NSICT	{ 87%	25	2,267	170,000
JNPT		19	1,926	164,000
Chennai	46%	22	937	118,000
KICT	{ 40%	27	942	141,000
PICT		25	534	64,000
QICT	50%	25	967	83,000
Shanghai	74%	29	2,010	207,000
Leam Chabang	48%	34	2,016	184,000
Rotterdam	48%	26	1,174	163,000
Algeciras	58%	30	1,574	205,000
Los Angeles	n.a.	28	1,190	142,000
New York	51%	25	836	102,000
Yokohama	27%	47	799	120,000

Nhava Sheva has very high levels of annual productivity, reflecting very high berth occupancy, indeed NSICT operated for several months at 100 percent berth occupancy. Such high rates reduce overall terminal efficiency and indicate the urgent need for additional capacity.

43. While handling speeds, at many South Asian ports, are at international levels, average container dwell times remain well above international norms. Customs clearance is generally

no longer the major source of delay, although poor documentation may delay some containers for extended periods. The long dwell times appear the result of: long free storage periods at some ports; inadequate transport capacity to move containers to inland container depots (ICD) for clearance; and, the lack of direct delivery from the berths. In addition, some traders will keep their containers in the ports until the contents are sold, only then clearing them. Unfortunately, long dwell times can have significant economic costs: congested stacking yards feed through to reduced terminal productivity and thus the need for additional investment.

### 3.2.2 Non-Container Traffic

44. Container traffic has been expanding very rapidly but the great majority of trade continues to be low value, particularly fuels and minerals, handled by bulk shipping. There is some residual break-bulk general cargo, such as steel, which is important at a few ports.

#### *Bulk Shipping Services*

45. The size and type of vessel used in the bulk trades depend upon the type of traffic and the draft available. Draft does not appear to be a crucial constraint in either India or Pakistan. Given the distance to the Gulf, most oil is carried in Panamax vessels and bulk exports, like iron ore from India, can be loaded in very large vessels at some of the ports. However, Pakistan importers of coal, iron ore and petroleum report that they would like to use larger vessels. There may also be advantage in providing deeper draft at India ports handling coal imports as very large vessels could significantly reduce the landed cost of coal. More serious problems are faced in the Bay of Bengal where large bulk ships are, in some cases, moored offshore and cargo transhipped to smaller vessels for delivery.

46. With the partial exception of public sector imports, shippers or consignees make their own arrangements using either chartered ships or, in some cases, their own vessels. The rates are those available on the world market and, as bulk ships do not face significant bottlenecks in the main ports (other than in Bangladesh), there are no freight penalties for slow ship turnaround times. Bulk charter rates have been high for the last two years, as a result of the very high demand for shipping to China but, over the longer term, the world market rates have been declining as vessel size has increased.

### *Non-Container Port Services*

47. The South Asian ports handling more than 10 million tonnes of non-container traffic are shown in Table 17.

**Table 17 South Asia Ports: Non-Container Traffic**  
(million tonnes)

		POL <sup>1</sup>	Dry Cargo + Non-POL Oils			Total
			B/Bulk	Bulk	Total	
Vizag	India	15	2	33	35	50
Kandla	India	22	4	13	17	39
Haldia	India	17	1	17	18	34
Chennai	India	11	1	22	23	34
New Mangalore	India	21	1	11	12	34
Mumbai	India	19	7	6	13	33
Mormagao	India	1	*	30	30	31
Paradip	India	1	*	29	29	30
Karachi	Pakistan	11	4	7	11	21
Chittagong	Bangladesh	4	n.a	n.a	15	18
Port Qasim	Pakistan	6	1	7	8	14
Tuticorin	India	1	2	10	12	13
Cochin	India	10	*	1	2	12

<sup>1</sup> Petroleum, oils and lubricants \* <500,000 tonnes

Non-container traffics are largely handled by the public sector port trusts. Private bulk terminals have been developed in Port Qasim and there are a few private ports in India that handle non-container traffic, e.g., Hazira, Mundra and Pipavav, but the traffic has yet to develop substantially. In Karachi, private stevedoring companies work on the berths and plans are being developed for private bulk terminals, as part of Karachi's transformation into a landlord port. Elsewhere, the port trust system remains largely unchanged with public sector employees organized and supervised by public sector management.

48. Most bulk cargo is handled mechanically; approximately 60 percent, in Indian ports, with grain and fertilizer being the major exceptions. Cargo handling speeds are adequate to turn round ships quickly with no significant queuing time and the vessel charter terms are broadly the same as for the region's major competitors. The exception is Chittagong: productivity has increased by 60 percent but, for non-containerized cargo, remains at about 1,500 tonnes/day.

49. Break-bulk traffic has declined enormously with containerization but remains important at some ports (such as Mumbai) and for some industries (such as steel for automotives). High productivity can be achieved for bulk cargo, even at port trusts, as handling is mechanized or partly mechanized. Break bulk handling is labor intensive and the over-manning and restrictive practices at the public sector ports have their greatest impact. At Karachi, break bulk is handled largely by private stevedores who achieve 2,500 tonnes/day significantly above the rates achieved in Chennai or Mumbai.

### **3.2.3 Improving Maritime Services and Reducing Costs**

50. Shipping services are provided within a competitive international market. Governments may have little direct control but they can exert a pervasive influence by establishing the enabling environment for low cost, fast and efficient maritime services. Governments need to act to ensure:

51. *Adequate port capacity*: Port capacity, especially for containers, is perpetually in danger of lagging behind demand, resulting in congestion, poor services and surcharges. New terminals are being opened and others are in the planning process (Karachi, Chennai, Nhava Sheva, etc), but the demand is increasing rapidly and the lead time between the decision to create new terminals and their opening needs to be shortened. Nhava Sheva was operating at full capacity by 2003; this had been forecast, but the third terminal only started operating in 2006.

52. *International level productivity*: Productivity is the key to reduced ship turnaround time, increased predictability, and lower freight rates. It may also result in higher level container services; for some ports, this may mean direct services, in Chittagong, it might mean timetabled services. While several terminals have broadly international levels of productivity, they are not near the top of the league. The most major improvements can be achieved by.

- Reducing container dwell times and thus congestion in the stacking yards. Dwell times have been reduced but they still remain well above “best practice”. A combination of actions may be needed: further streamlining of port, customs, and trade procedures, direct delivery from the berths, reduced free dwell time and rapidly escalating storage charges.
- Improving inland transport. Inland transport inadequacies are a serious issue at many ports, including Nhava Sheva, the Karachi ports and Chittagong. They may increase dwell times, the use of road rather than rail and/or high levels of container stripping at the port.

53. *Adequate port draft*: The size of the largest container vessels has increased to 10,000 TEU and the present mainline vessels of 5 – 6,000 TEU will cascade to other routes. The average size of ship serving South Asia has risen substantially and, as traffic increases, shipping lines will want to deploy even larger ships. The major container ports have limited draft (Karachi 10.5 meters, Port Qasim 11.5 meters, Nhava Sheva 12 meters at restricted times) and, to allow the next phase of container shipping, drafts need rapidly to be deepened to 13.5 or even 14.5 meters<sup>18</sup>. Ports with limited drafts may lose their competitive position and be relegated to feeder port status. Deeper port drafts would also benefit some bulk commodity users.

54. *Lower port vessel dues*: Charges on vessels are very high in comparison with ports in the Middle East and East Asia, Table 18.

**Table 18 Port Dues/Vessel Call**  
(US\$ per 2,800 TEU vessel)

Port	Port Dues
Karachi, Port Qasim	30,000
Nhava Sheva	26,000
Yantian	14,000
Singapore/Hong Kong	6,000
Colombo	5,500
Jebel Ali	3,100
Salalah	2,100

Source: a major shipping line

The high charges deter ships from making additional calls, particularly for relatively low volumes of containers and they feed through to the users in higher freight rates. Overall economic policies may be better served by lower port profits and lower shipping freight rates.

55. *Lower port costs and cargo charges*: Port cargo charges are comparable with other major ports for both bulk and container traffics. Many handling rates for bulk cargo are negotiated and are in line with or perhaps rather lower than international rates. For example, at Karachi, the rates are US\$ 4 – 6/tonnes and this often includes

additional services such as bagging on the quayside and re-handling or stacking. For containers, handling charges in major Indian ports are low, relative to international levels, while those in Pakistan terminals are average or slightly above average, Table 19.

<sup>18</sup> Whether drafts need to be increased to the 16 meters required for the largest container vessels is a much more problematic question.

**Table 19 Indicative Container Handling Charges**

	US\$/TEU		US\$/TEU
Port Kelang, Malaysia	53	<i>India (Nhava Sheva and others)</i>	80-90 (a)
Felixstowe	100	Yantian	100
Singapore	106	<i>Port Qasim</i>	105
Shanghai	107	Rotterdam	110
<i>Karachi</i>	113 (b)	Hong Kong	142
<i>Sri Lanka</i>	159 (c)	<i>Bangladesh</i>	200 (d)

(a) Charges at the Port Trust operated ports may be significantly higher

(b) Handling charges at the general cargo berths are up to US\$ 30 lower

(c) National imports and exports. Revenues from transshipment average only \$58/TEU

(d) Including unofficial (speed money) and ancillary costs

The charges/costs at Chittagong are extremely high by international standards although ports, in some other developing countries, charge similarly high levels. The overall port and inland terminal costs of trade formed part of the analysis of Doing Business 2008 and the high costs in Bangladesh remain very evident, Table 20.

**Table 20 Port and Terminal Costs**

	US\$/TEU	
	Exports	Imports
Bangladesh	420	585
India	150	200
Pakistan	115	239
Sri Lanka	155	245

Source: Doing Business 2008

56. While port charges may be reasonable, they could be reduced with lower port costs. In general, this will require reduced labor costs by eliminating such practices as the Karachi Dock Labour Board and the continuing over-staffing at most port trusts. Mumbai still employs 22,000 workers, despite a large part of its traffic moving to Nhava Sheva, and they account for almost 75 percent of port costs (excluding depreciation); the situation is similar at Chennai.

Substantial cost reductions may also be achieved by restructuring and greater private sector management. Unfortunately, there is often little pressure to contain or reduce costs. The Tariff Authority for Major Ports, in India, uses a cost-plus, rate of return form of tariff regulation, high labor costs can thus be passed to the port user.

57. *Professional and focused commercial port management:* While the private terminal operators employ professional port management, this is often not the case for Port Trusts. The senior management of many Port Trusts comes from outside the sector: in Pakistan, active and retired naval officers and, in India, officers of the Indian Administrative Service. Neither source guarantees the commercial, marketing and operational skills necessary in an increasingly competitive environment. It may also be desirable to limit port management to port activities. Many of the older ports have inherited very substantial landholdings; for instance, in Karachi, Kolkata and Mumbai. The land generates large revenues for the port and often has very considerable development potential. It is not clear why ports should benefit from such land revenues or whether ports are the most appropriate entity for land management and development. It may be much more efficient to hive off the non-operational landholdings, and allow port managements to focus entirely on managing the ports.

58. *Removal of residual protection from national fleets:* South Asian trade is carried very largely on foreign registered vessels. The role of the South Asian national fleets has become very limited

- o India: the percentage of trade carried in Indian ships has fallen from 36 percent in the mid-1980s to about 13 percent.
- o Pakistan: the private sector fleet has virtually disappeared and the Pakistan National Shipping Corporation (PNSC) has declined from 71 vessels (1970) to 14 vessels (2006).
- o Bangladesh: the state owned shipping line (BSC) carries about 5.5 percent and the total national fleet perhaps 7 – 8 percent of Bangladesh's sea trade.

The national fleets have little container capacity and most vessels are tankers or bulk carriers.

59. The UNCTAD 44:40:20 formula for liner shipping is no longer mentioned, except in Bangladesh where it remains official, but not implemented, policy. However, some protection of national shipping remains. For coastal shipping in India, a shipper must give first refusal to the members of the Indian Shipowners Association, though their rate has to match that offered by the foreign line. Both India and Pakistan provide reservation protection for cargo imported by the public sector, though the system appears to be weakening somewhat. In Pakistan, the Government gave PNSC a ten year monopoly to import crude oil, despite PNSC owning only one tanker<sup>19</sup>.

60. Such protection is a very inefficient way of promoting national participation. Excluding foreign ships from cabotage may deter new container services, based on transshipment. Much greater success may be achieved by a more attractive tax regime. The shift to a tonnage tax may be responsible for the recent increase in the Indian fleet to 8 million gross tonnes with most of the major Indian ship-owners buying new ships or “quality” second hand vessels, despite high prices in the world market. Revival of the Pakistan national private fleet may be more of a problem, given the mistrust generated in the 1990s by the abrupt reversal in tax policies.

61. In the light of present conditions, it is difficult to see a continuing rationale for public ownership of shipping. The private sector, whether local or foreign, can provide cheap and efficient services. Governments could facilitate maritime services far more effectively by improving the enabling environment rather than by direct participation.

### 3.3 Highways and Truck Transport

62. Road transport is the primary transport mode in South Asia, as it is throughout the world. Truck transport dominates not just short distance movements but almost all market segments. Overall, road transport accounts for about 95 percent of total ton-kms in Pakistan, 70 percent in India and 60 percent in Bangladesh<sup>20</sup>. Land transport is much more costly than ocean transport and transport costs within South Asia normally account for a very significant proportion of the total trade-transport cost. The cost and quality of trucking services are heavily influenced by the quality of the highway network.

#### 3.3.1 South Asia's Highway Network

##### *Present Status*

63. India and Pakistan have extensive road networks, mostly paved, with high levels of motorized access. Bangladesh also has an extensive network but much less is paved and the level of all-weather access is substantially lower. The more mountainous countries (Afghanistan, Bhutan and Nepal) have less dense networks and much lower motorized access. The major problems are less the size and coverage of the networks, and more their quality and capacity in the face of rapidly growing traffic. India and Pakistan only began to invest in major inter-urban highways during the mid-1990s and progress has been slow. Even now, most of the network remains one lane (3.5 meter) or intermediate (5.5 meter) width with poor pavement condition, slow speeds and long travel times.

64. Pakistan expects to complete the multi-lane highway from Peshawar to Karachi in FY2008 and India's four laning of the Golden Quadrilateral (connecting Delhi, Kolkata, Chennai and Mumbai) is now approaching completion. There are still less than 10,000 km of multi-lane highways in South Asia, and many are existing roads widened to four lanes without substantially improved alignment or access

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<sup>19</sup> In 2005, PNSC rates were reportedly US\$10.3/tonne, well above single voyage charter rates, which were in the US\$ 5 – 6/tonne range. With high profits, PNSC has bought new tankers from retained earnings

<sup>20</sup> Inland water transport remains important for low value bulk cargo accounting for about 35 percent of ton-kms

control<sup>21</sup>. Bangladesh is addressing critical bottlenecks on its network, including four lane sections on the Dhaka – Chittagong route, but not yet moving to a high speed, high capacity network.

65. In terms of the total network, the achievements have been limited and the region is still far from having a modern, high speed inter-urban highway network. However, the improvements have already had a marked impact on some of the trade corridors. Average truck trip times between Delhi and Mumbai, for example, have fallen from 5/6 days to 2/3 days. Long truck transit times do not just reflect road conditions, however, they also reflect the type of truck, gross overloading and numerous check posts.

### *Priorities and Constraints*

66. India and Pakistan are now according high priority to road infrastructure and have developed plans for the major expansion of their primary highway networks.

- India's National Highway Development Plan includes 10,000 km of four lane, 6,500 km of six lane and 1,000 km of expressways, at a total cost of US\$50 billion, a very marked increase in highway investment.
- Pakistan plans a major investment program, totaling Rs. 216 billion (≈US\$ 3.6 billion) on the North-South corridor as part of the National Trade Corridor Improvement Program (NTCIP). The motorway network will be extended and additional capacity provided.
- Bangladesh envisages substantial investment, but perhaps not the radical transformation envisaged in India and Pakistan.
- The other countries face perhaps less severe capacity constraints on their main inter-urban networks, though Nepal is planning a “fast track” route to provide an improved link between Kathmandu and the Indian border.

While high priority is being given to highways in India and Pakistan, there are major constraints to overcome if the objectives are to be achieved:

67. *Finance:* To provide high capacity highways along their major trade corridors, investment will have to be increased substantially but public finances are already seriously constrained. The International Financial Institutions (IFIs) and bilateral donors (particularly Japan) will provide funding but the levels are likely to be small relative to the need, especially in India, and other sources of funding will be needed. GOI and, to a lesser extent GOP, see the private sector as the key but it is not clear whether private capital can be the solution. China strongly encouraged such funding in its massive highway expansion program but <10 percent of the funding came from private sources. India has a more developed capital market than China but, on the basis of international experience, it may be optimistic to expect that more than 15 – 20 percent of financing will be generated from the private sector. Generating the remaining funding is a critical issue.

68. *Construction Capacity:* India and Pakistan already face difficulties in constructing highways with existing investments. Their road construction industries have expanded and adopted more modern technology but their scale is small relative to the proposed programs. The increased demand should attract foreign firms but this has not happened to any significant extent. A number of country and sector specific factors may explain this lack of interest:

- *A perception of rather xenophobic business and taxation environments;* possibly a contributory factor but all the major port management companies now operate in the region
- *Security concerns:* again perhaps a contributory factor, but foreign contractors are willing to work in areas with significantly worse security conditions;

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<sup>21</sup> This may be compared with highway development in China, where 50,000km of multi-lane road were constructed, including 25,000km of expressway, in a ten year period.

- *Low contract prices and low profit expectations:* foreign contractors do not fully understand the business parameters of the construction sector in South Asia;
- *Dispersed activity:* road construction extends over many kms, significantly adding to the complexity of control and thus management risk;
- *Poor reputation of the sector:* road construction and related activities have the reputation of being infiltrated with local mafias and/or local political interests.
- *Dependence on government for payment:* governments have a poor reputation with regard to payments and dispute resolution is almost always very lengthy and thus expensive.

The expanded highway programs will have to be undertaken very largely by domestic contractors. Whether/how they will meet these demands efficiently and cost-effectively is a major question.

69. *Management Capacity:* Planning and management in the highway sector may be improving but remains weak and, unless strengthened, may be overwhelmed by the increased highway development. Procedures are cumbersome and delays lengthy. There is a reluctance to commit the resources necessary for planning and design, and poor quality designs are almost universal, leading to delays, redesigns and much higher outturn costs<sup>22</sup>. The profession faces too much work chasing too few well qualified and experienced engineers. The cost of professional services should rise and attract outside expertise but the prices remain the same and the quality declines.

70. *Overall Assessment:* Inadequate highways could severely restrict economic growth; a threat as serious as the shortage of power. Expanded highway programs have been announced but it is not certain that the severity of the constraints to their implementation is yet fully appreciated. Addressing the constraints of financing, management and construction of the highway programs should have the highest government priority.

### 3.3.2 *Trucking*

#### *Present Industry Structure*

71. The industry is dominated by very small operators, owning one or two trucks. This is not unusual, it is the case in most deregulated or unregulated markets<sup>23</sup>. Most trucking industries have a large number of small operators, a moderate number of medium-scale operators and a few large operators. In South Asia, there are few medium sized operators and very few large operators. In India, for example, less than 10 percent of enterprises have more than 15 trucks. In Pakistan, firms carrying bonded cargo must have a fleet of more than 25 vehicles; only about six companies are now active. Large firms, with more than 100 trucks, are extremely rare<sup>24</sup> but their number is growing.

72. In the very long distance trucking market, the larger companies play a more significant role. Most small operators confine their activities to relatively short-hauls, especially agricultural traffic and, when working longer routes, often act as sub-contractors to larger companies. The largest operational fleets in India may have >1000 trucks but up to 80 percent of these trucks will be hired-in from owner operators as their costs are lower.

73. In most parts of the world, long distance road freight is carried by multi-axle tractor/semi-trailers. These vehicles are expensive but their high capacity and intensive utilization keep the unit costs low. Until relatively recently, the trucking industries in South Asia were dominated by two axle rigid trucks. These remain predominant in Bangladesh; there are <1000 trucks capable of hauling 40ft containers. In India and Pakistan, three axle trucks have become much more common, and the multi-axle semi-

<sup>22</sup> Poor designs may benefit almost all parties, providing the opportunity for additional formal and informal payments. Only the taxpayer and the road user suffer.

<sup>23</sup> The average size of trucking enterprises in the EU is only 3.9 employees.

<sup>24</sup> Pakistan has only one very large enterprise, the public sector National Logistics Cell with >1300 trucks.

trailer is now entering the market in greater numbers. The shift to multi-axle vehicles is more advanced in Pakistan but increasing numbers are being sold in India, though they are still a small proportion of total vehicle sales, Table 21.

**Table 21 India: Sales of Commercial Freight Vehicles**

Truck Type	Capacity Tons	-----Sales-----		Growth 2005/2006
		2005	2006	
Two axle rigid	8 – 16	91,700	99,100	8%
Three axle rigid	25 – 26	68,900	111,700	62%
Multi-axle trailer	30 – 49	10,800	22,300	107%

The trend to larger vehicles will increase with the growth in higher value/higher volume commodities and the modernization of the highway network which will allow higher speeds and vehicle utilization.

Source: Indian Foundation of Transport and Research Training

### *Road Freight Services*

74. Trucking rates in India and Pakistan are among the lowest in the world, Table 22.

**Table 22 Road Freight Rates: 2002**

Country	US\$/tonne-km
Pakistan	1.5 – 2.1
India	1.9 – 2.7
Brazil	2.5 – 4.8
USA	2.5 – 5.0
Central Asian Republics	3.5 – 8.5
Australia	3.6
China	4.0 – 6.0
Bangladesh	5.5

For very long distance movements of bulk commodities, the rates can be even lower<sup>25</sup>. Rates are higher for containers but in Pakistan, for example, they were only about US\$2 ton-km. Rates in Bangladesh are higher because of the much shorter haul distances.

75. The low rates are the result of: (a) highly competitive markets; (b) low capital costs; (c) low crew costs; (d) relatively low fuel prices; (e) relatively high vehicle utilization with little empty running; (f) no effective regulation; and, most importantly, (f) massive overloading. The rates may be very low, but the overall economic and social costs are much higher (road damage, impact on other road users, and adverse road safety).

76. The very low freight rates are matched by low quality – long transit times, unpredictable delivery, no cargo insurance, etc. Trucks can carry the large overloads because they are specially modified and are driven very slowly, even on good roads. In general, users obtain the service that they want; low cost rather than high quality. The market is changing as the economies become more diversified. In India, large shippers are shifting away from transport agents and the spot market to longer term contracts with transport companies, incorporating performance standards and penalties. A similar pattern is happening in Pakistan: the normal terms for the delivery of a container from Lahore to the Karachi ports are 48 hours at a rate of US\$280/FEU, but a premium service is available with delivery in 28 hours (three drivers) at a rate of US\$417/FEU.

### *Raising the Performance of the Trucking Sector*

77. Trucking is a highly competitive service industry and it can be argued that it provides the level, type and quality of services that its customers demand. In general, the freight carried is low value and the retail/distribution industries do not require sophisticated trucking and logistics services. Where higher quality is demanded, arrangements are made to provide such services.

78. As the economies develop and move into higher value products, with higher volume/weight ratios, and more complex production and retail systems, the trucking sector will respond. Such responses may include different configurations of truck type and size as well as larger firms taking advantage of economies of scale in more complex distribution. Under this line of reasoning, little

<sup>25</sup> Rates for bagged cargo on very long distance hauls in Pakistan can be below US\$ 1/ton-km.

outside action is necessary as the industry will itself take the initiative as/when required by its customers. However, there are actions that can/should be taken to (i) improve efficiency and reduce distortions; (ii) reduce the level of external economic and social costs; and (iii) remove important barriers to change in the industry.

79. *Control of overloading*: The effective enforcement of appropriate axle and vehicle weight regulations would undoubtedly have profound impacts. There is little incentive for truck owners to re-equip with multi-axle vehicles, if 30 ton loads can be carried on three axle trucks which cost little to run but cause major economic and social damage. Lower payloads on existing vehicles would reduce road damage, increase speeds, improve braking efficiency and make trucks less unstable. Freight rates would increase, in the short-term, as an effective subsidy would have been withdrawn, but would be progressively reduced with larger vehicles, higher speeds and increased vehicle utilization. The control of overloading is the key to facilitating change and experience elsewhere suggests that truckers respond rapidly. Unfortunately, the effective implementation of axle-load and vehicle weight regulations has proved extremely difficult/impossible in most developing countries.

80. *Revising vehicle license fees*: User charges should reflect, at least, the road damage and other social costs caused; studies suggest that trucks are undercharged in South Asia. Fuel taxes are the main form of user charging but they are rather imprecise and are normally supplemented by license fees. These should be revised to reflect differential damage which would give a further incentive for truckers to move to trucks with more axles. Higher user charge revenue could help finance the highways.

81. *Removal of protection from truck manufacturers*: Domestic manufacturers are protected by high tariffs and local content requirements. Reducing these barriers would increase competition and give incentives to manufacturers to upgrade their technology. Modern articulated trucks are expensive and are often unaffordable for small truckers. Their ownership route for such trucks is often through secondhand vehicles and there is a world trade in such vehicles. This avenue to ownership is often not possible in South Asia as such imports are effectively banned.

82. *Improved highway infrastructure*: Modern, high capacity trucks have their greatest impact if they can operate on modern highways allowing rapid trip times and high vehicle utilization. Their potential is significantly diminished on congested roads catering to both motorized and non-motorized transport. Modern trucks operating on modern highways, without unnecessary checkpost delays, should reduce the Mumbai – Delhi transit time from the present 48 – 72 hours to 24 – 36 hours.

83. *Reduction in checkposts*: A reduction in checkposts and simplification of documentation would reduce delays and improve service reliability. If such checks are required, they should be single multi-agency posts with aligned and coordinated documentation. Unfortunately, agency interests militate against such simple solutions.

84. *Modern trucking terminals*: More cities are restricting the entry of heavy vehicles, imposing constraints to truck operations. Modern terminals outside the urban areas would provide waiting areas, facilities for the agents/brokers, and amenities for truck drivers and assistants, including health and education facilities in this age of HIV/AIDS.

85. *Carrier registration*: There are presently no attempts to ensure that trucking enterprises meet and maintain standards of financial, managerial or safety competence though agents/brokers provide some implicit but informal guarantee. A voluntary registration scheme, for carriers meeting specified standards, need not introduce barriers to entry but could differentiate and gradually modernize the sector especially if accompanied by cargo insurance and/or the proper insurance of vehicles.

### 3.4 Rail Transport

86. Though rail has lost a very considerable part of the freight market, it remains important in India and has the potential, throughout South Asia, to play a much greater role in trade-transport, especially for the movement of containers. Investment will be required, but this will need to be accompanied by far reaching changes in management and the business approach. Some changes are already underway but more will be required if rail is to compete successfully and increase freight traffic and earnings.

#### 3.4.1 South Asian Railways

87. Pakistan Railways (PR) has more than double the route-km of Bangladesh Railways (BR); both are dwarfed by Indian Railways. However, the three railways share a number of features: they remain government departments; they have broad and meter gauges though PR is now almost entirely broad gauge and IR is progressively converting to broad gauge; a limited commercial network is expected to fund much larger non-commercial networks; and freight is expected to subsidise passengers.

88. There are also very major differences between the railways. IR is one of the world's largest networks and is reasonably productive; Bangladesh, on the other hand, is small and one of the least productive, Table 23.

	<b>Unit</b>	<b>Bangladesh</b>	<b>China</b>	<b>India</b>	<b>Pakistan</b>	<b>Thailand</b>
Route length	Kms	2,855	71,897	63,140	7,791	4,044
Traffic Units (T.U.)	Billion	4.9	2048	826	25.4	22.1
T.U./route-km	Million	1.9	28.5	12.9	3.3	6.1
T.U./wagon	Million	0.1	3.5	1.5	0.2	0.6
T.U./employee		138	1165	537	310	933
Passenger revenue ÷ freight revenue per traffic unit		0.26	1.40	0.38	0.40	0.70

IR is less than half as productive as Chinese Railways, and PR is a half/third as productive as Thai Railways, a network with similar traffic. The South Asian railways vary considerably with regard to their role and importance in the freight sector as well as to their performance and financial status. Passenger fares in South Asia remain very low, relative to freight rates.

#### *Bangladesh Railways*

89. BR's share of the freight market has declined to 7 percent. Freight operations are constrained by the age, type, condition and braking systems of the wagons which limit payloads and speeds; the average speed of BR freight trains is only 11/12 kph. However, container demand on the Chittagong – Dhaka link exceeds capacity and shippers have to wait 3 – 5 days for wagons. Such demand for a short haul (the road distance is about 220 kms) reflects the poor road conditions, the difficulty of moving uncleared containers by road, and faster/cheaper customs clearance at the Dhaka rail ICD. Capacity is constrained by the single track, the priority given to passenger trains, a lack of flat wagons and the limited space at the ICD.

90. If the operational performance of BR is poor, its financial position is worse. In FY2005, BR generated revenues of US\$64 million but had operating costs (excluding depreciation) of US\$99 million.

### *Indian Railways*

91. IR's freight tonnage has increased consistently, though its share of the freight market has fallen. In the 1990s, IR abandoned wagon-load cargo to concentrate on train-load traffic. Bulk commodities account for 95 percent of traffic but containers have grown rapidly, from 700,000 TEU (FY1997) to over 1.9 million TEU (FY2006). Container traffic is managed by Concor, a public sector majority owned company, which until recently had the monopoly for the market. Concor is a major player on the key trade route, Mumbai to Delhi, but faces problems in meeting the demand, with too few wagons and too few train paths. With increasing freight and passenger traffic, track capacity has become a serious constraint on IR's main commercial routes.

92. IR's finances deteriorated during the late 1990s/early 2000s, with operating ratios approaching 100 percent and inadequate provisions for renewals. The situation has improved; freight traffic has increased rapidly (reflecting the growth in the economy), operational performance has improved and IR's financial position has had a rapid turnaround, helped by a more commercial approach to pricing. To expand container traffic, IR has licensed an additional 14 operators on the same "hook and haul" arrangement as it operates with Concor.

### *Pakistan Railways*

93. PR failed to respond to a highly competitive trucking industry and its share of the freight market has fallen to about 4 percent. In effect, PR has become a medium sized passenger railway which also carries some freight. One of the basic limitations on the freight business, other than the lack of management and operational priority, has been the outdated, primarily four wheeler wagon fleet. Given the geographical distribution of population and economic activity, rail should play a significant role in the freight sector with long hauls, large traffic flows and relatively few major origins and destinations. The basic track infrastructure is capable of handling much higher freight flows with a 23 ton axle-load and maximum speed of 110 km/h. With some new high-speed flat wagons, PR operates a scheduled container service between Karachi and Lahore. Traffic increased from 8,000 TEU (FY2001) to 28,000 TEU (FY2005) but the potential is much higher; PR only carries 5 percent of the containers handled at the ports.

94. The railway performance deteriorated so much, in the 1990s, that government decided to privatize PR. Governments changed and privatization was dropped but there was a management and investment hiatus lasting several years. PR is not profitable; it cannot service its debts and is often unable to fund fully its operating costs and pension payments.

### *Afghanistan, Bhutan and Nepal*

95. These countries have no domestic rail networks but both Afghanistan and Nepal have cross-border rail links, connecting with rail networks in neighbouring countries. During the Soviet-era, rail through the Soviet Union became Afghanistan's main trade route trade with Europe. The route remains but has yet to regain its former importance. The rail link from IR to the Birgunj ICD has improved Nepal's international trade-transport system significantly, though traffic has not reached its forecast levels. A rail link has been proposed from Spin Boldak (Kandahar Province, Afghanistan) to the PR network at Chaman. The feasibility of linking Bhutan to IR is being studied but the traffic may be too limited to justify major investment.

### **3.4.2 Increasing Rail's Role in Trade-Transport**

96. The need to raise the profile of railways in the freight market has received attention throughout the region. Reform programs or new initiatives have been announced for all the railways, and major programs of investment proposed. Whether and to what extent the traditional and rather bureaucratic

management of the railways can respond and compete effectively remains a core issue. The success of some initiatives, as on IR, may provide the impetus necessary to make more far-reaching changes.

### *Bangladesh Railways*

97. Despite its limited turnover, BR has a seven year development plan of over US\$900 million, with US\$430 million funding agreed by ADB and assistance likely from JBIC and the World Bank. The plan includes doubling the track between Dhaka and Chittagong, improved signaling, additional rolling stock and the construction of a much larger rail ICD in Dhaka. The 2015 targets are to increase freight traffic by 115 percent and raise BR's share of the container market to 26 percent.

98. To address management and operational performance, a reform program has been agreed with the objective of turning BR into a market oriented business organization with improved governance, financial management, human resources and operational systems. BR will remain within the public sector though there may be some increase in the role of the private sector. Funding for the investment program is linked to the achievement of reform milestones:

- *Within 12 months:* reorganization to a lines of business (LOB) approach completed; five year business plan for each LOB; architecture for new accounting/financial management systems
- *Within 24 months:* asset register completed; outsourcing/divestiture plan for non-core activities; financial management and accounting statements; internal pricing structure for LOB; mechanism for targeted PSO payments; and
- *Within 48 months:* outsourcing/divestiture completed; new tariff structure; BR legally established as a business corporation; safety and technical regulatory body established.

99. The reform program has been carefully designed but its success is uncertain, given the vested interests and resistance to change. It seems similar, in concept, to the programs attempted in many railways during the late 1980s/early 1990s; these failed and governments moved to concessioning. Establishing freight as a line of business should move BR toward a more commercial approach but may not give the container business the focus that it deserves. BR might perhaps emulate IR and create a Concor-type enterprise to manage the container business. This might be a logical first step in the commercialization of BR's freight operations though the licensing of private operators to manage container operations, on a "hook and haul" would perhaps have greater long term attraction.

### *Indian Railways*

100. IR has the potential for major expansion in the freight sector especially now that IR has adopted a new business approach which emphasizes the participation of the private sector.

101. *New business model:* Private sector participation has been proposed in such areas as logistics centers, hotels, and locomotive and rolling stock manufacturing. Perhaps most important is the decision to introduce the private sector into the railway business. 15 companies have been licensed to run container trains and the new companies are reported to have placed orders for several thousand wagons. More recently, IR announced that it would license private operators to run air-conditioned commuter trains in Mumbai<sup>26</sup>. Opening up the railway sector, in this fashion, is a major departure from the traditional approach and could be applied to other market segments, particularly general cargo. To compete successfully with road transport, IR should leave the private sector to manage and retail the freight services, confining its role to its basic strengths of managing the network and hauling the trains.

102. *Massive investment:* Achieving the potential in the freight sector will require major investment in additional track capacity and operating assets and a very commercial approach to the market. In a

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<sup>26</sup> The private operator would provide the complete train, IR would only provide the driver. However, this decision appears to have been quickly reversed by IR.

recent presentation<sup>27</sup>, IR estimated that its total investment funding needs for the period 2007 – 2012 would be Rs. 3,500 billion, about US\$78 billion, a fourfold increase compared with recent levels. The scale and timeframe for the program appear optimistic (50 percent larger than the National Highway Development Programme) as is the expectation of US\$33 billion from the private sector through PPPs. However, a major increase on previous investment may be expected, especially with the improvement in IR's own finances. Clearly, IR needs to carefully prioritize its investment program and one of the highest priorities may be the construction of the dedicated freight corridor along the Delhi – Mumbai route.

103. *Dedicated freight corridors*: The main commercial routes already face serious capacity constraints and additional freight will create further congestion leading to declining service standards. To provide the track capacity required, IR proposes to construct dedicated freight corridors (DFC). Initially proposed for Delhi - Mumbai and Delhi – Kolkata, the proposals have been extended to over 11,000 km, though the economic and financial feasibility of this network has yet to be demonstrated.

104. The DFC concept is very attractive, providing a transformation in freight capacity and the opportunity for a new level of service quality. The DFC can be designed for the traffic; between Delhi and Mumbai the emphasis may be transit speed, on other corridors, it may be very heavy axle-loads. However, the costs are high, US\$28 billion and, unless the DFCs generate new rail traffic or can be constructed in an incremental manner, the financing costs could endanger IR's overall finances. There is also a problem of providing short-term additional capacity. It will take at least five years to construct the DFC and the experience of major highway construction in India suggests that they may take much longer. Investment in signaling, less direct routing, and prioritized construction will be necessary, but some constrained freight capacity may be inevitable unless IR reduces the level of passenger train provision.

105. *Restructuring IR*: Some saw the development of the DFC as the opportunity to restructure the rail sector but GOI decided to maintain essentially the status quo. However, the implications of the DFC may still lead to change. The DFC will likely result in a small network of very profitable freight routes, and a much larger network of largely passenger routes. Some form of “lines of business” approach to the management of such a structure would appear to be the logical outcome. The DFC need separate accounts but may also be most effectively managed and operated outside the framework of the present zonal railways. Such a change may then allow a more fundamental review of how the railways are managed with separate businesses being created, and possibly the provision of more explicit and targeted subsidies for loss-making lines and services.

### *Pakistan Railways*

106. There is the potential to increase PR's share of the long distance freight market, and the Prime Minister has made it plain that an efficient, volume freight business is fundamental to the development of both the National Trade Corridor and Pakistan Railways. To fulfill the potential will require a major change in PR's culture which presently gives total priority to the passenger service. Central to the change is increased management and commercial autonomy for the railways, in general, and for the freight business, in particular. To provide the level and quality of service required, the freight business needs to have separate management, scheduled track capacity, dedicated motive power and adequate wagon capacity.

107. A recent report on the Pakistan transport sector<sup>28</sup> set out an agenda for revitalizing the commercial role of PR. The agenda consists of a set of inter-related activities:

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<sup>27</sup> Indian Railways: On the Fast Track

<sup>28</sup> Transport Competitiveness in Pakistan, World Bank Report No. 36523-PK, July 18, 2006

- *Creation of a focused railway enterprise:* non-core activities (factories, schools, hospitals, etc) and non-operational land should be transferred and managed separately;
- *Financial restructuring:* commercial lines of business accounting; the provision of targeted PSO subsidies; transfer of past debts and pension liabilities;
- *Institutional reorganization:* effective separation of the freight and passenger businesses, possibly through the creation of separate subsidiaries;
- *Cost reduction program:* closure of non-commercial lines/services; reduced staffing on lightly used lines; streamlined staffing; and more outsourcing;
- *Re-establishment of rail freight credibility:* concentration of PR on its core strengths and wholesaling rail services to the private sector to manage and operate; and,
- *Opening access to the private sector:* the new IR business model adopted by IR also offers opportunities in Pakistan, especially in container services.

Work is already being undertaken on the corporatization of PR and the introduction of commercial cost accounting, but the creation of effective freight and passenger business units will require top-level commitment.

108. Restructuring PR is necessary but not sufficient for a substantially greater freight role. It has to be accompanied by high speed bogie wagons and additional motive power. Additional capacity on the single track sections of the NTC will be required with the most immediate need being modern signaling, communications and train control. PR's draft business plan foresees a total investment need of Rs.100 billion (US\$1.7 billion) over for the period to FY2011, spread across the key areas of the railways operations and assets.

### 3.5 Air Transport

109. Approximately 1.2 million tonnes of South Asia's international trade is moved by air. India accounts for about 60 percent of the traffic, Pakistan rather more than 20 percent and Bangladesh rather more than 10 percent, Table 24.

**Table 24 South Asia: Air Freight**  
(‘000 tonnes)

		1998	2000	2002	2004	2005	Growth
Bangladesh	Domestic	1	1	1	9	10	
	International	82	111	101	111	113	
	<b>Total</b>	<b>83</b>	<b>112</b>	<b>102</b>	<b>120</b>	<b>123</b>	<b>5.8%</b>
India	Domestic	109	133	147	188	229	
	International	488	532	561	693	823	
	<b>Total</b>	<b>597</b>	<b>665</b>	<b>708</b>	<b>881</b>	<b>1052</b>	<b>8.6%</b>
Nepal	Domestic	1	3	3	2	3	
	International	13	17	13	13	11	
	<b>Total</b>	<b>14</b>	<b>20</b>	<b>16</b>	<b>15</b>	<b>14</b>	<b>0</b>
Pakistan	Domestic	40	38	41	49	56	
	International	141	148	156	200	217	
	<b>Total</b>	<b>181</b>	<b>186</b>	<b>197</b>	<b>249</b>	<b>273</b>	<b>5.6%</b>
Total	Domestic	151	175	192	248	298	
	International	724	808	831	1017	1164	
	<b>Total</b>	<b>875</b>	<b>983</b>	<b>1023</b>	<b>1265</b>	<b>1462</b>	<b>8.3%</b>

Air cargo is a very small proportion of the international trade tonnage, 0.5-1.5 percent, but a rather higher proportion of its value (India's trade in precious stones and jewelry)<sup>29</sup>. Almost throughout the region, there is an export imbalance in air freight (Nepal is the exception). The imbalance used to be much greater, but the liberalization of the Indian economy has led to a rapid growth in import freight.

110. Most of the freight capacity is provided by regular freighter services and the belly capacity of scheduled passenger services but additional capacity is often chartered during peak periods. India and Pakistan have direct air freight services to major export destinations but some traffic is routed through hubs in the Gulf/Middle East which are the main routing for Bangladesh's air freight. The share of cargo carried by air freighters has gradually increased but, even in India, it is now not much more than 50 percent.

111. In both India and Pakistan, domestic air cargo is quite substantial, reflecting the size of the countries and inadequate land transport for rapid deliveries. India, in particular, has a well developed network of express delivery companies, including both local and large international operators.

### 3.5.1 Air Freight Commodity Structure

112. The cost of air transport is very much higher than by sea, though transit times are much shorter; door-to-door total transport costs are five – ten times higher. The impact on export costs is substantial, Table 25.

**Table 25 Logistics Costs: Fruit and Vegetables**  
(Indian Rs/kg)

<b>Commodity:</b>	<b>Vegetables</b>	<b>Vegetables</b>	<b>Grapes</b>
<b>Destination:</b>	<b>Dubai</b>	<b>Europe</b>	<b>Europe</b>
<b>Transport:</b>	<b>Air</b>	<b>Air</b>	<b>Sea</b>
Farm gate Price/kg	25.0	30.0	24.0
Inland transport	*	18.0	1.6
Packaging and testing	2.1	12.6	12.6
Port clearance	7.9	9.0	1.8
International transport	32.0	80.0	9.5
Delivered cost/kg	67.0	149.6	49.5
Logistics/CIF price	48%	72%	26%

\* Negligible, production very close to airport

shipped by sea) or when there have been delays and rapid shipment is required to meet contracted delivery dates, as with garments. Most textiles and garments are shipped by sea (in the case of Bangladesh, >90 percent) but air exports are significant and growing. Air shipment is rarely at the request of the buyer; it is normally the seller's decision to avoid late delivery.

With sea transport, the delivered cost of grapes is about double the farm gate price; when air transport has to be used, the delivered cost can be 250 – 450 percent higher than the farm gate price.

113. Given its high costs, the use of air transport is confined to commodities and/or destinations for which sea is not a viable alternative. This is usually when sea transport takes too long, as with many fresh fruits and vegetables (grapes, onions and potatoes

have long shelf lives and can be

### 3.5.2 Air Transport Market

114. South Asia relies primarily upon foreign carriers. Even in Pakistan, which attracts relatively few foreign carriers, the state owned airline carries less than 40 percent of international air cargo. In India, with the rapid growth in foreign carrier passenger services, as well as foreign freighter services, the international cargo carried by Indian carriers (overwhelmingly Air India) has fallen to about 14 percent. Biman, the Bangladesh national carrier, offers the lowest freight rates to the Middle East but most exporters are prepared to pay a premium to use other carriers.

<sup>29</sup> Globally, air freight is about one percent of total international trade tonnage, but 35 – 40 percent of the total value of international trade

115. Air cargo freight rates are set by the market and depend upon the country and the level of competition. The increasing number of carriers serving India and the growth in passenger flights has raised freight capacity and led to quite intense competition for freight traffic. In 2004/5, freight rates of US\$2.5/kg were being quoted for European destinations. There was a report, early 2006, that air cargo capacity had increased by about 25 percent and new carriers were quoting freight rates 10 – 15 percent below established operators. Airfreight rates to Europe were then Rs75/kg – Rs.95/kg. The rates were most competitive on the routes with the greatest additional capacity, i.e. the London and the Far East sectors. Rates fluctuate with demand: in May, 2006, a sudden drop in outbound cargo led to rates on New York sector falling, Rs.140/kg → Rs.100/kg (min. 500 kg), and Gulf carriers offering Rs.60/kg to any point in Europe.

116. Air transit times for air cargo to/from Nepal differ little from the other countries in the region; via hubs in the Middle East delivery times are 2 – 4 days to Europe and 4 – 6 days to the USA. Freight rates are, however, significantly higher: US\$3.5/kg to Europe and US\$5.5/kg to New York. Air freight rates for Bangladesh and Pakistan are much closer to those from India but, with less competition, they are 15 – 30 percent higher than from Mumbai.

### ***3.5.3 Increasing Air Transport's Contribution to Competitiveness***

117. The recent experience of India suggests the appropriate policy direction. Essentially, the more carriers, the greater the freight capacity, the more intense the competition, and the lower the freight rates. Increasing passenger services will significantly increase air freight capacity as well as service frequency and reliability. Moving toward a more open skies regime has substantially benefited India and it seems a reasonable policy for other countries in the region. Protection of a national airline does not seem a cost-effective means of promoting either passenger or freight markets. More problematic would be if, with an open skies policy, foreign carriers were reluctant to provide services.

118. The other actions that can be taken to increase air transport's contribution to trade-transport competitiveness are very similar to those in the maritime sector, i.e. ensuring a conducive enabling environment through efficient, low cost terminal facilities. Efficiency in terms of facilities and rapid turnaround of the aircraft, and efficiency in terms of rapid and reliable handling of the cargo. As with the sea ports, the introduction of the private sector to both provide and manage the freight terminal facilities seems the way forward, especially when there are specialized requirements as for the export of perishable commodities. South Asia has yet to develop the sophisticated supply chains and facilities necessary for the export of high quality/high value horticultural produce. The public sector should not try to provide such facilities but should facilitate their provision by the private sector. Kenya, for example, is now a major international supplier of both flowers and horticultural products; growth really took off when the government ceased its involvement in the air cargo sector and allowed the private sector to arrange its own transport and develop its own facilities in and around the airport.

## TRADE AND TRANSPORT FACILITATION IN SOUTH ASIA

### 4. INTER-REGIONAL TRADE: THE CUSTOMS SECTOR

#### 4.1 The Macro-Economic Background

119. The Customs authority, in almost all countries, performs a number of functions. Customs collects revenues, duties and other trade-linked taxes, ensuring that goods are classified appropriately, valuations are accurate and the correct levels of taxation are collected. Customs protects countries from prohibited or restricted goods, generally those with morality or security implications. Customs may implement trade restrictions designed to protect domestic industries/production. Lastly, Customs has a trade facilitation role; helping to ensure that trade is accomplished efficiently and cost-effectively. The relative importance of these functions varies from country to country and, within the same country, may well change over time.

120. Until the 1990s, Customs in South Asia was primarily focused on the revenue and trade protection functions. This reflected government priorities; trade taxes were a crucial part of government revenue and economic policies emphasized import substitution and domestic protection. Trade promotion, through streamlined procedures, played little role. In such an environment, complex, cumbersome and costly customs procedures could be sanctioned as long as they achieved the revenue and protective objectives.

121. Macro-economic policies have changed, the economies are more open, tariffs have been lowered, and the importance of Customs revenue in public finances has declined, Table 26.

**Table 26 South Asia: Trade Tariffs and Revenues**

	<b>Bangladesh</b>	<b>Bhutan</b>	<b>India</b>	<b>Pakistan</b>	<b>Nepal</b>
	<b>Average Applied Tariff Rates (%)</b>				
1990	94.0	n.a.	81.8	64.8	n.a.
1995	26.0	21.0	41.0	50.1	11.0
2000	21.2	15.4	32.7	23.6	14.2
2005	16.8	22.2	16.0	14.3	14.7
	<b>Taxes on International Trade as % of Government Revenues</b>				
1995	n.a.	n.a.	24	24	26
2003	25	n.a.	15	9	23

Source: World Bank

The tariffs reductions, since 1990, are very striking in the larger economies. There has also been increasing acceptance of foreign competition in many, though not all, sectors. Customs' revenues remain important but have declined relative to other sources. As the relative importance of the revenue and protection roles has diminished, so the facilitation of foreign trade has assumed greater importance. However, complex and cumbersome systems, with numerous different steps and signature clearances, provide an ideal environment for rent-seeking and there are often strong vested interests in maintaining them. Tension can exist between the public interest to simplify and streamline and the private interests of officials, and perhaps also customs brokers, to maintain complexity<sup>30</sup>.

<sup>30</sup> A diagnostic study by Transparency International at the port of Chittagong found that informal payments had to be made at 35 different steps in the import clearance process

## 4.2 Customs Reform In South Asia

122. Information technology has provided the means to streamline customs' procedures. The computerization of customs started, in some of the region, during the late 1980s but its impact has only become evident in the last few years. All the countries have introduced computer-based customs clearance systems: Afghanistan, Bangladesh and Nepal have adopted ASYCUDA, while Bhutan, India and Pakistan have developed domestic systems. These different approaches would complicate cross-border, computer-linked cooperation, if the desire for such cooperation existed.

123. There are two broad approaches to customs computerization: (a) re-engineer processes and procedures with computerization; or, (b) computerize existing systems. The adoption of ASYCUDA, necessarily requires some re-engineering, including the adoption of documentation based on the UN's Key Layout. Computerizing an existing system may convert a cumbersome manual system to a rather cumbersome computerized system. However, this can still reduce very substantially clearance times/costs as well as limiting the personal interaction between traders and customs officers which is the nexus for informal payments.

124. The proliferation of free trade and preferential trading agreements, together with frequent tariff exemptions/changes, complicates the customs function and the customs systems, irrespective of whether they are computerized or manual. Different duty rates, different rules of origin and rates of domestic value-added, negative lists, etc. add complexity and mean frequent changes in the systems to accommodate the evolving trade relations within the region.

125. In general, South Asia still performs relatively poorly with regard to the official (customs and other government agencies) regime in comparison with its chief competitors and OECD countries. However, the situation is improving and, in some important respects, South Asia seems to be catching up and even sometimes moving ahead of East Asia, Table 27.

**Table 27 Logistics Providers' Reports on Customs**  
(% of respondents)

	<b>EAP</b>	<b>SAR</b>	<b>OECD</b>
Imports cleared and delivered as scheduled	40	32	88
Exports cleared and delivered as scheduled	83	62	95
Customs clearance is a transparent process	21	33	79
Electronic submission of Customs declarations	33	50	77
Expedited clearance for highly compliant traders	41	57	58
Positive change during the last three years in:			
Customs clearance	40	60	68
Other border procedures	30	30	44
Regulatory regime	25	28	37
Governance/corruption	26	18	37
Overall business environment	44	64	53

In almost every dimension, the OECD countries score much higher than either East or South Asia. East Asia is perceived as having more predictable clearance than South Asia, a finding also of other surveys, but South Asia is ahead in the use of IT and green channels. South Asia has also made more progress in both customs clearance and the overall business environment, though with less positive change in respect of governance and corruption. However, more logistics providers (though still a minority) thought that its customs clearance procedures were transparent than in East Asia.

126. Some countries have moved further than others, as the Perceptions Survey illustrates, Table 28.

**Table 28 South Asia: Customs Clearance**

	<b>Customs Clearance</b>	<b>Cargo Inspection</b>	<b>No. of Border Agencies Import</b>	<b>Agencies Export</b>
India	2.4 days	25%	2.4	2.9
Pakistan	2.4 days	10%	2.9	3.2
Bangladesh	4.1 days	31%	2.3	2.0
Nepal	1.4 days	12%	4.3	5.3
Afghanistan	3.8 days	100%	3.3	2.3

Afghanistan performs poorly, which is unsurprising; Nepal has the fastest clearance and low inspection rates, despite the high number of agencies involved; India and Pakistan have rather similar scores, significantly better than those for Bangladesh.

127. South Asia is undertaking customs reform but the process reflects the priorities of the respective governments. Streamlining procedures has much higher priority at the main trade gateways than at the less important customs stations. This has implications for intra-regional trade (Section 6), which often takes place along less important corridors. Priority may be given to export procedures and temporary imports for the export sectors. Higher priority may be given to streamlining trade procedures than to the procedures for the rebate of duties and taxes.

### 4.3 Reforms Achieved

#### 4.3.1 Bangladesh

128. Reform has been proceeding since the late 1990s. First priority was given to exports and the temporary import of fiber and fabric for the garment industry

- Exports: clearance steps were reduced by 75 percent and clearance time reduced to one day
- Temporary imports: steps were reduced by two-thirds; signatures reduced to 8, clearance time reduced from more than a week to one - two days

Direct trader input has also helped simplify the process and limit contact between the trader and the customs officers. This has contributed to a significant reduction in facilitation payments which are reported to have fallen below the levels of speed money needed to motivate the dockworkers.

129. Pre-shipment inspection (PSI) for imports and some simplification of procedures have helped reverse a substantial increase in informal payments as well as reducing clearance times from ten to five days. Customs continues to inspect a significant sample of shipments and the threat of inspection is sufficient to maintain informal payments which are much higher for imports than exports. The reforms have been more successful at the Dhaka ICD than at Chittagong with faster clearance and lower informal payments. Customs clearance at the land borders seems largely unaffected by the reforms.

#### 4.3.2 India

130. The requirement for import/export licenses has been greatly reduced though they are still required in some circumstances. Customs computerization began in 1987 but the major change was the introduction of ICEGATE<sup>31</sup> for the electronic filing of customs declarations, in 2002. This reduced considerably the clearance steps for both imports (18 → 6) and exports (15 → 5). The system is now operating at all the major air and sea ports as well as nominally at the two most important land customs stations (Petrapole and Raxual). The report of the Inter-Ministerial Group on Customs Procedures reported that some 250,000 traders were using the system with 4.5 million declarations processed annually. Different versions of the system operate at the sea and airports and the proportion of electronic filing is much higher at the airports, about 70 percent of total shipments.

<sup>31</sup> Indian Customs and Central Excise Electronic Commerce/Electronic Data Gateway

131. ICEGATE is not yet a paperless declaration system; a hardcopy still has to be signed by the customs inspecting officer and trader/representative and the supporting documentation has to be provided at this time. ICEGATE has led to considerable benefits and clearance times have dropped significantly. Customs is no longer the main cause of long dwell times, Table 29.

**Table 29 India: Container Dwell Time June 2005**  
(Days)

	----- Sea Ports -----			Airport
	Mumbai	Nhava Sheva	Chennai	Delhi
Entry to submission of Bill of Entry	7.8	8.2	6.1	3.2
<i>Submission to duty assessment</i>	1.6	1.6	2.6	0.9
Assessment to registration	6.3	5.5	2.5	1.7
<i>Registration to "out of charge"</i>	0.2	0.1	0.9	0.3
Total dwell time	15.9	15.4	12.1	6.1
<i>Custom processing times</i>	1.8	1.7	3.5	1.2
<i>Customs' responsibility (%)</i>	11.3	11.0	28.9	19.2

At Nhava Sheva, which handles 60 percent of India's containers, the customs contribution to clearance is less than 2 days, only 11 percent of the total dwell time. Overall dwell times remain excessive, however, and customs clearance could be further reduced.

132. A Risk Management System (RMS) began to be rolled out in December, 2005, starting at the Mumbai air cargo complex. Green channel facilities have existed for several years for accredited traders but still required a review of documents and random inspection. When the RMS is fully operational, it is anticipated that 60 – 70 percent of shipments will use the green channel. The RMS should also reduce significantly the burden/time of declaration queries. Customs is, however, not the only inspection required. At Mumbai airport, about 30 percent of shipments move through the green channel but security requires that all markings are checked and this takes as long as the normal customs inspection.

### 4.3.3 Pakistan

133. Customs computerization began in 1995 with the Pakistan Revenue Automation Ltd (PRAL) contract. A single document, based on the UN key layout, the Goods Document (GD) has replaced 10 different forms though it has to be accompanied by supporting documentation. A green channel was established for accredited traders (subject to random inspection of about 10 percent) but it handles only about 20 percent of imports. Customs has been relying largely on 100 percent physical examination.

134. PRAL is a rather cumbersome system with the clearance agent submitting both an electronic and hard copy. These are reviewed by PRAL personnel prior to submission to Customs. The customs clearance times were reduced, however, and a survey in 2005 showed that 50 percent of import shipments were cleared within 2½ days, and 75 percent within 8 days. Unsurprisingly, the fastest clearances are of shipments to/from well organized companies, which have accurate information and little likelihood of misrepresenting the goods or their value. Under-declaration of cargo value, often by 50 percent, is commonplace among small importers.

135. While PRAL was an advance, it has a number of limitations which restricts its potential to becoming a fully integrated clearance system. Pakistan Customs introduced a new system, in 2006, to extend the automation of declaration processing and provide coordination between the shipper, Customs and the banks involved. The Pakistan Customs Computerization System (PaCCS) was piloted at the KICT. Procedures were modified to make them consistent with the Revised Kyoto Convention, emphasizing sampling and risk management, and the reforms promote universal self-assessment with

payment at the time of filing. The strategy should reduce the customs-related steps for exports, 53 → 5, and the number of parties involved 19 → 3. The pilot phase of PaCCS was successful:

- The electronic advance lodging of the manifest almost eliminated pre-customs delays
- The personal interface between Customs and importers was significantly reduced
- The feasibility of DTI was demonstrated, reducing the need for clearing agents
- The feasibility of moving to a paperless environment was demonstrated
- Container dwell times were reduced from 7.7 days (2004) to 4 days
- Customs clearance time was reduced from an average of 4.2 days to less than 5 hours

PaCCS was then extended to the other port container terminals as well as to the Lahore dry port.

#### **4.3.4 Afghanistan, Bhutan and Nepal**

136. *Afghanistan*: The country has had to create a functioning customs policy, administration and infrastructure; promising results have already been achieved:

- Customs stations (56) have been improved or rehabilitated;
- Communication systems between the main border posts and Kabul have been established;
- Customs revenues have increased from US\$50-60 million to US\$224 million
- ASYCUDA is being installed:
  - The transit module is operating on the main routes with Iran, Pakistan and Uzbekistan;
  - A Single Administrative Document has been prepared and is ready to issue;
  - Full declaration processing was initiated as a pilot at the Kabul ICD (early 2007), reducing truck release time from 3 days → 1 day and increasing revenue by 70 percent;
  - 90 licensed brokers and 135 traders have been trained on the Transit Module;
  - A selectivity module is being developed for risk management;
- A Customs Law has been enacted and subsidiary legislation/procedures are being drafted.

Truck release times at the Kabul ICD have been reduced from 18 hours (2003) to less than 8 hours (2006) and customs time reduced from 7 hours to 4½ hours. Customs time, for commercial trucks, at the border stations of Torkham and Hairatan now averages less than 40 minutes. But, there is still a long way to go and some of the basic customs/border issues have still to be resolved.

137. *Bhutan*: The Government has been modernizing and streamlining its overall administrative processes, including customs. The Government is actively considering accession to the Revised Kyoto Convention and is introducing its basic requirements. A computerized customs system has been developed and introduced; the Bhutan Automated Customs System (BACS) was taken over by the Customs Department, from the developer, in November 2004. BACS is now fully functional at 25 customs stations and is also used by the Department of Trade to issue import/export licenses. BACS consists of nine modules which are said to cater for all requirements of customs administrative procedures. The clearing and forwarding agents have been trained in the use of the system but there does not seem the facility, at the present time, for DTI and customs declarations have still to be produced in hard copy.

138. *Nepal*: There are 22 customs stations for bilateral trade with India, and 15 can be used for third country traffic. About half of all trade (including 70 percent of third country trade) is cleared at Birgunj and almost 90 percent of formal trade is handled at just four customs stations. Over the last few years, Nepal has made a start on streamlining trade procedures and modernizing customs processes: quantitative restrictions and import/export licensing have been eliminated; bonded warehouses and

duty drawback schemes established<sup>32</sup>; “Transaction Value” has been adopted; a Single Administrative Document has been introduced; a cumbersome foreign exchange control document has been eliminated; CIF/C&F terms have been deregulated; and traders are now allowed to import FOB.

139. ASYCUDA was introduced in conjunction with the establishment of ICDs at Birgunj, Biratnagar, and Bharairahawa. It also operates at the Kathmandu international airport, Mechi, Krsihnanagar, Tatopani (Tibet border) and Gaur. With the planned extension to Sirsiya and Nepalgunj, essentially all formal trade will be processed through the system. Revenue control and customs/foreign trade statistics have been improved but ASYCUDA’s impact on trade facilitation has been very limited as only the basic accounting modules were introduced. The selectivity (risk management), brokers and direct traders input modules were left to a later phase.

140. The customs system remains very document intensive with 15 documents for imports and 11 documents for exports. There are still three separate forms for Business Tax, Income Tax and VAT registration for import and export. It is reported that a risk management framework is in place, but it is not operating and 100 percent physical inspection is still the norm though sample checking is said to be increasing (this is rather at variance with results in Table 22). The legal provisions and practices of post clearance audits are very much at the initial phase. Hard copies of the customs declaration, along with the computer entry, are still necessary. A basic problem is the lack of communications; the border stations are not connected with the head office, in Kathandu, so the valuation database cannot be disseminated.

#### 4.4 Further Reform Needs

141. Customs reform has been underway in South Asia for a number of years but some countries, like India and Pakistan, have progressed much further than others. They are approaching the standards of the Revised Kyoto Convention with a very largely paperless system and little personal interaction between the trader/customs agent and the customs officer. In some other countries, effective computerization and the streamlining of systems still require the introduction of major changes. In Nepal, for example, the old manual systems continue alongside the computer system and the procedures appear largely unchanged. Bangladesh has made effective changes in some areas, but much less change is evident in others, for example, streamlining import processes.

##### 4.4.1 India and Pakistan

142. Both countries have introduced the basic elements of modern customs clearance, leading to very largely paperless clearance, and have demonstrated that these systems can work in the South Asian environment. It now appears not to be issues of principle but of practicalities to extend the systems both geographically and functionally:

###### *India:*

- *Extension of ICEGATE coverage:* the system is working at the major gateways but it has to be rolled out to the less important stations and provision made for reliable power and communication systems. Computerized systems have yet to incorporate cargo transiting through India.
- *Completion of conversion to electronic filing:* the roll-out of electronic signatures will finally remove the need for hard copies and will further reduce the personal interface between the trader and customs. Implementation of electronic signature is expected shortly. The electronic

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<sup>32</sup> Recovering duty drawback rebates is reported to be highly cumbersome with long delays.

payment of duties and taxes has been introduced but needs to be further extended, in terms of hours and banking networks.

- *Risk management systems*: RMS has been introduced and its implementation, along with effective post-clearance checks/audits, needs to be complete. The system could be further streamlined by, for example, allowing green channel direct delivery of containers. This would remove the need to move containers to off-dock yards for clearance. It could reduce dwell time, by as much as two days, and free up space in the stacking yards.

#### *Pakistan:*

- *National Coverage*: reports suggest that PaCCS became overloaded when only handling the clearance of containers. The scalability of PaCCS has to be demonstrated as, to cover all trade, it needs to process 5 - 6,000 declarations/day rather than the 600/day at the container terminals.
- *Enhanced functionality*: the pilot system had limited functionality, covering only FCL containers. The system has to be extended to cover all cargo, the different processes for land and air freight, as well as encompassing the other major areas of customs activities
  - Customs controls: post-clearance checks and audit
  - Trade facilitation objectives: transit guarantees, electronic payments, etc
  - Ancillary functions: exemptions, licensing, management of quotas.

PaCCS has demonstrated that a fully computerized system can work and it results in major benefits, it may now be a question of determining and implementing the appropriate system.

- *Risk management*: there needs to be a systematic process for collecting the data and developing the risk profiles, on the basis of shipper, consignee, cargo, country of origin, etc
- *Post-clearance procedures*: the legislation and guidelines for post-clearance audits are being drafted, these should be supplemented by ex-post valuation and documentation reviews.

Pakistan has recently advertised<sup>33</sup> for Expressions of Interest to develop and operate, through PPP, a fully automated nationwide, commercial community single window system. This would encompass all stakeholders in international trade including importers/exporters, regulatory authorities, duty/tax collection authorities; logistics service providers, air/sea/land transporters, terminal operators and financial institutions. Its successful development and implementation would be a truly major advance.

#### **4.4.2 Bangladesh and Nepal**

143. In both countries, the full capabilities of ASYCUDA, for streamlining customs clearance and procedures, have yet to be exploited; only parts of the system are used and, in other areas, manual systems continue. In Bangladesh, the emphasis has been concentrated on improving clearance for exports and temporary imports; in Nepal, the emphasis has been on revenue collection and statistics.

#### *Bangladesh:*

- Computerization needs to be completed
  - System extended to Mongla and the main land customs stations
  - Modern communication network developed to connect border stations to customs HQ
  - Import clearance needs to be brought fully within ASYCUDA; the recent major reduction reported in the overall time required for import consignments (57 → 32 days) and in the number of import documents (16 → 9) suggests that improvements have been introduced.

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<sup>33</sup> The Economist, February 24, 2007

- Risk management: RMS and effective green channels for approved traders need to be established, together with ex-post audit and validation procedures
- Container clearance: procedures need to be introduced to allow the movement of uncleared import containers to off-dock container yards and road-based ICDs
- Extension of bond facilities: facilities should be introduced to allow entrepreneurs to import and sell ex-store, paying duty only when the goods are sold

*Nepal:*

- In many respects, the introduction of customs computerization is at a rudimentary stage. An ADB project has been designed to extend the scope of ASYCUDA and introduce more of its modules, replacing the present manual systems.
- The broker module is scheduled to be implemented by placing terminals in the broker's office space within the customs stations; there is no immediate plan for DTI which is key to reducing personal contact between trader and customs official.
- The ADB project is expected to remedy the communications deficiency with the installation of a WAN system connecting the 10 main customs border posts with Kathmandu.

#### **4.4.3 Afghanistan**

144. Afghanistan is at a very different stage of customs development to the other countries. Progress has been made in re-establishing a functioning customs system, including the remittance of customs revenues from the collecting stations to the central government in Kabul. Similarly, progress has been made on introducing ASYCUDA and establishing communications between the border stations and Kabul.

145. Despite these positive developments, there is still a long way to go and key issues have still to be resolved, for example:

- There has been little progress in clarifying the roles and responsibilities of the various government agencies (Customs, Commerce, Transport, and Interior) at the borders and agreement between these agencies on the management of customs and transit facilities.
- There has been slow progress on the issue of customs enforcement, who and how customs regulations and customs duties should be enforced.

These issues are very basic to the proper functioning of the border and customs and need to be resolved as the foundation of an efficient and effective customs system.

#### **4.4.4 Monitoring Results**

146. The impacts of customs reform should be monitored to provide accountability and ensure that the expected benefits materialize. There is a danger that the benefits of eliminating/streamlining some procedures may be offset by the introduction of others. One of the most powerful features of the computer based systems is their ability to monitor performance. Customs should be able to produce monthly reports on the average clearance times for all the gateways and border crossings at which the systems are installed. The systems should capture the time from lodging the declaration to release of cargo, and this information can be combined with other data on the total dwell time of cargo to monitor that the proportion accounted for by Customs does not increase.

147. Management need to establish performance targets. These should reflect what is achievable through on-going reforms and should be periodically updated. Typical targets might include, for example:

- 90% of the cargo documents processed electronically
- The green channel used by a majority of the cargo
- 5% sampling rate for the Green Channel
- 90% of shipments complete customs clearance in less than
  - four hours for green channel
  - 48/12 hours for ocean borne imports/exports
  - 6/4 hours for airborne imports/exports
- Imports requiring testing to be released under bond and tests completed in 72 hours

These monitoring systems can also help develop professionalism within the customs administration by providing information on the performance of individual customs officers in terms of their activity and results.

#### **4.4.5 Extending the Streamlining of Trade Documentation**

148. Considerable efforts have been made to streamline customs clearance and customs documentation but customs is, by no means, the only organization involved in the foreign trade transaction. In addition to customs, there are banks, insurance companies, transporters, c/f agents, port authorities, terminal operators as well as government institutions other than customs. South Asian countries are only now liberalizing their economies from decades of state direction, regulation and often control. Ministries of Commerce, or similar, often believe that they have a role in regulating foreign trade, the Central Banks or Ministries of finance may have procedures to try and ensure that foreign exchange earnings are repatriated, Chambers of Commerce may play a role issuing certificates of origin, etc, etc.

149. Even when the direction of economic policy is changed, there may be a remaining legacy of bureaucracy and documentation. It seems one of the universal rules of bureaucracy that eliminating procedures or even simplifying or aligning them with other documentation has to be resisted; it is a question of function, power and employment. The more pervasive the degree of past state intervention, the greater the bureaucratic legacy; and the level of state intervention in the economies of South Asia was very pervasive. Consequently, even though customs procedures are streamlined, trade may still remain extremely bureaucratic, cumbersome and costly (in time and management effort, if not in direct monetary terms).

150. India, for example, has moved a very considerable way along the path of customs reform, but the overall process of exporting still remains cumbersome numerous documents, multiple copies and excessive numbers of signatures, Table 30.

<b>Export Mode</b>	<b>Documents</b>	<b>Copies</b>	<b>Signatures</b>
Land	17	67	330
Sea	14	74	296
Air	7	42	168

Source: AITD

The documentation process is further complicated by each export modality requiring slightly different sets of documents and there are six main export modalities: Under Bond; Duty Entitlement Pass Book (DEPB); Duty Drawback (DRB); Duty Free Replenishment Certificate (DFRC); Duty Exemption Scheme

(DES); and Duty Rebate Procedure (DRP). There are also “general trading” arrangements for cross-border trade with Nepal, with the required documentation varying according to whether the trade value is greater or less than Rs.25,000.

151. It is impossible to believe that all the forms, copies and signatures are necessary, especially with computers and the internet. It is unlikely that any of the institutions will unilaterally reduce their requirements; such changes have to be initiated from outside the institutions. Simplification and streamlining can be achieved by:

- Reviewing the purpose of each requirement and deciding which are really necessary to achieve the objectives of public policy  
↓
- Eliminating those that have no longer a real purpose  
↓
- Reviewing whether there is duplication among the remaining documents  
↓
- Removing the duplications by combining documents and/or shifting responsibilities to single agencies  
↓
- Reviewing the information required on the residual documents, determining the overlaps and duplication  
↓
- Preparing aligned documentation in which information has only to be entered once  
↓
- Computerizing the documentation in a manner that they can be received by all the agencies

152. In some countries, an even more fundamental review of trade policy/incentives may be desirable; India might, for example, examine whether it needs so many export modalities. It is really an issue of whether there is an appreciation, at a high level of government, that the present system is an unnecessary burden and should be simplified to reduce trade costs and increase national competitiveness.

#### ***4.4.6 Raising Trade Standards***

153. A streamlined customs and trade documentation system is very desirable but the control and revenue aspects of customs activities cannot be ignored. The introduction and implementation of streamlined systems may be limited if the trading community habitually misrepresent information. In some parts of the region, at least among the smaller importers of consumer goods, the practice of under-declaring cargo value, often by 50 percent, is very frequent. They do not subsequently question the revaluation by customs and pay the assessed duty without protest. Presently, there is often little penalty for such activity and importers are very rarely prosecuted. Consequently, the incentives are all for misrepresentation with significant benefits if it succeeds and little/no penalty if it fails. There is little sanction because the formal legal system is too slow, unwieldy and costly.

154. In other countries, simplified administrative processes have been introduced for addressing such issues as repeated under-valuation, submission of improper documentation, etc. Imposing penalties on the clearing agent as well as the importer would encourage the agents to insist that their clients provide accurate information. Essentially, some level of deterrence needs to be introduced to modify the present imbalance between rewards and penalties for misrepresentation. An effective system of incentives and sanctions needs to accompany the streamlined customs systems.

## TRADE AND TRANSPORT FACILITATION IN SOUTH ASIA

### 5. INTER-REGIONAL TRADE: THE LOGISTICS INDUSTRY

#### 5.1 Background

155. Logistics in South Asia and thus the logistics industry has been rather simple, reflecting: the straightforward nature of the trade arrangements (C&F for imports and FOB for exports); the preponderance of primary products in exports; and the fragmented nature of the domestic distribution sector. With the opening of the economies, the expansion in export-oriented manufacturing and the growing complexity of the domestic economies, the logistics needs are beginning to change, and the structure of the logistics industry is changing to meet these needs.

156. There are still very large numbers of small companies offering single services, like the customs agents, transport agents and warehouse providers, but there are increasing numbers of larger companies who are integrating these basic services into more comprehensive packages (the 3PL operators) as well as a few very large companies who are beginning to offer much wider ranges of logistics support for complete supply chains (the 4PL operators). While all the smaller and most medium-sized companies are domestic enterprises, several large international logistics companies are operating in the region and more are entering, attracted by the rapid growth in the economies and the opportunities offered by the changing economic structure.

#### 5.2 Customs Brokers

157. Customs clearance agents, brokers, Customs House Agents (CHA) are the traditional intermediaries between the trader and the customs authority. The industry normally consists of large numbers of individuals and small companies which contract with other companies for services like warehousing and transport. In addition to understanding the customs formalities, the customs agent understood “the system” when, who and how much to pay to facilitate clearance. This could be complex with payments being made at numerous different points in the process. With the introduction of computerized clearance, Direct Trader Input, and the reduction in personal contact with Customs, this may now be changing. Customs agents are still ubiquitous, and much of freight forwarding sector has developed from this source.

158. It is difficult to estimate the size of the sector, given the overlap with freight forwarders. A report in 2003<sup>34</sup>, estimated  $\approx$ 4,500 customs agents in Bangladesh, handling 4 – 5 million transactions/year (1,000 clearances/agent/year), and 5 – 600 agents in Nepal, handling 200,000 clearances/year (about 350 clearances/agent/year). There are many more brokers than freight forwarders, a report on Bangladesh freight forwarding<sup>35</sup> mentioned 650 freight forwarders, and the Nepal Trade Promotion Center lists only 49 forwarding agents. In Pakistan, there are 450 members of the Freight Forwarders Association, but 275 customs brokers work at the Islamabad ICD and 670 at the Lahore ICD. There may be too many brokers in Pakistan as, on average, there are only 20 declarations/day at Islamabad and 400 declarations/day at Lahore.

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<sup>34</sup> Customs Administration: Impediments to Trade and Investment, R. Filmer, FIAS

<sup>35</sup> South Asian Logistics, August 2006

159. The size of the sector is related to demand. Bhutan has, for example, only 21 licensed C&F agents, while there are over 200 members of the Calcutta Customs House Agents Association, 550 licensed agents in Chennai, and the Mumbai Customs House Agents Association has over a thousand members. It is an industry with few barriers to entry and there are very many small businesses as well as some medium and larger firms which undertake clearance as part of a wider range of activities<sup>36</sup>. This mirrors the trading sector and the small clearing agent is likely to serve mainly the small trader.

160. Competition is generally high and margins have been reduced. In India, the fees were fixed previously by Customs<sup>37</sup>, but they are now market based. As customs agents move into other links of the logistics chain, so larger companies are obtaining clearance licenses to be able to offer complete integrated services. The requirements for customs agents are becoming more technical, needing access to, and knowledge of the new computer systems; while, at the same time, DTI reduces the need for traders to use customs agents. A common worry, especially among the smaller enterprises is the impact of the new computer clearance systems. When ICEGATE was introduced one CHA Association noted, “*The jobs of CHAs and Customs clearing clerks are at stake*”.

### 5.3 Freight Forwarding and Logistics Providers

#### 5.3.1 The Structure of the Sector

161. The size and precise structure of the freight forwarding sector varies in detail between the countries but follows the same broad general pattern, which can be illustrated by the industry in Pakistan<sup>38</sup>, Table 31.

**Table 31 Pakistan: Freight Forwarding/Logistics Industry**

Classification	Function	No.	Market Share		Working Capital	Level of Competition	Barriers to entry
			TEU	Revenue			
Primary service	Brokers	253	18%	7%	US\$ 8,000	High	None
Middle order	3PL	153	36%	32%	US\$ 50,000	High	Moderate
Total solution	4PL	50	47%	61%	US\$350,000	Moderate	High

*Primary service providers:* call themselves freight forwarders but are effectively brokers. They offer competitive rates to SME for LCL cargo, negotiate with consolidators seeking consignments to complete container loads, and arrange customs clearance and documentation. They may both compete and collaborate with transport agents/brokers. Many/most were formerly customs brokers.

*Middle order firms (3PL):* provide the same core services as the primary service providers but also act as nominated agents for overseas buyers. Many have expanded their services to include the provision of transport services and, in some cases, storage for imports and exports.

*Total solutions providers (4PL):* offer a full range of logistics services with access to global shipping and freight forwarding networks. Many are the local offices, subsidiaries or representatives of international freight forwarders. Others are joint ventures or have established links with international forwarders. A similar structure is found in Bangladesh. 20 of 650 freight forwarding enterprises are joint ventures with foreign companies, and 12 are wholly owned subsidiaries of international companies.

<sup>36</sup> H. Jamnadas and Co., Mumbai, advertises a clearing department with 60 professional staff.

<sup>37</sup> The Chennai Customs webpage still lists fees, including Rs.50 for the first page of a Bill of Entry and Rs.40 thereafter. The fact that the webpage does not include the 2004 revisions to the CHA legislation suggests that it has not been updated for some time.

<sup>38</sup> Pakistan’s International Freight Forwarding Sector, International Asset Management Company Ltd., January 2005.

162. There are numerous freight forwarders in India, most are individuals serving a few clients with their primary role being to arrange ocean shipment for smaller shipments, competing with the shipping agents and NVOCCs (Non-Vessel Operating Common Carriers). Most forwarders were formerly CHAs who have expanded their activities. In the past, the larger domestic companies and international freight forwarders were reluctant to become involved in customs brokerage. This has now changed (under revised regulations, a freight forwarder must be a registered company with staff licensed to enter customs' controlled areas) and they, and the larger transport companies, are entering the business. This, together with the customs reform, is reported to have helped bring some market order to the sector.

163. The Indian economy is of a different magnitude to its neighbors and industries are developing which require more complex logistics; for example, the rapidly expanding automotive sector. The size, growth and increasing complexity of the economy has become a magnet for an increasing number of foreign logistics operators. The trade press has frequent reports of logistics companies entering the market, buying up or into Indian logistics companies, or arranging other forms of association. In 2005/6 the following reports, among others, were noted:

DHL, one of the main global players, acquires a majority holding in Blue Dart; ECU Line (a Belgian company) signed an MOU to establish two ICDs in Madya Pradesh; the Hong Kong based Collyer Logistics opens offices in Delhi, Mumbai, Chennai and Kolkata; UPS franchises Jet as its main Indian franchisee; the Broekman Group (Netherlands) acquires the Mumbai based company Courcan Cargo with offices in 11 cities; TNT announces plans to invest €100 million in expanding its distribution network to 144 centers by the end of 2006; Seaways Shipping establishes 50:50 joint venture with Rhenus (Germany) and the JV then announces a strategic tie-up with Azkar Logistics (Spain); Freight Links International (Sri Lanka) launches a 100% subsidiary in India<sup>39</sup>.

164. There also large domestic logistics companies. Concor, a container train operator with a national ICD network, is beginning to enter other areas of the transport/logistics chain, for example, the third container terminal at Nhava Sheva (with Maersk), and participation in trucking and air cargo. A number of companies offer express delivery on a national basis, for example:

- DTDC Ltd: India's largest express service, 10 million deliveries/month, a franchise system with 3,700 business partners, and a strategic alliance with TNT for international deliveries
- Gati Ltd: connects 594 of the 602 districts, 10 express distribution centers, 200 storage locations and 2,000 trucks
- Safexpress: 522 destinations served from 37 super-hubs, >3,000 trucks, has strategic alliances with Panalpina and Miebach Consulting

Other domestic companies are providing national coverage for contract logistics, for example:

- AFL: 45 warehouses in 29 states, plans to increase storage to 2 million ft<sup>2</sup> by the end of 2007 to provide contract logistics throughout India, has an alliance with DHL.
- Jeena and Company: 15 warehouses and warehousing/quality control inspection centers in Delhi, Chennai, Mumbai and Tiripur
- Transport Corporation of India: national coverage, loads almost 3,000 trucks daily, 3 million ft<sup>2</sup> of storage, XPS an express delivery subsidiary, and a joint venture (Transystem) with Mitsui to handle the domestic logistics for Toyota Kirloskar Motors

165. Consolidation is taking place in the industry, through acquisition and joint venture, to widen supply chain management solutions. Indian logistics companies are moving overseas, as in other sectors. Gati, for example, opened an international base in Singapore in 2003 and has added offices in China, Hong Kong, Mauritius, Sri Lanka and Thailand. Indian companies are also beginning to buy into overseas companies and All Cargo Movers acquired 34 percent of Antwerp based, ECU Hold NV to gain greater access to its international distribution network.

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<sup>39</sup> All reported in Hindu Business Lines during 2005 – 6. Other large international logistics companies like Bax Global and NYK Logistics are also active.

166. TVS Logistics, with 24 locations in India, has moved from organizing distribution for the TVS group to become a specialist logistics company for the Indian automotive sector, with clients such as Ashok Leyland, Ford, Telco, and Mahindra and Mahindra. TVS has expanded abroad with joint ventures in Thailand, Spain and the UK, and has partnered with the European logistics company, Wincanton<sup>40</sup>, to provide “a seamless supply chain from India right through to the production sites of the large automotive manufacturers and OEM suppliers”.

167. The absolute size of the large 3PL and 4PL sector is still small, reflecting the relatively small demand for sophisticated integrated logistics solutions. However, demand for such services is growing rapidly and so are the 3PL and 4PL firms. Few companies now use outside logistics providers, in comparison with developed countries, and there is thus considerable scope for growth in the sector.

### **5.3.2 The Role of the Logistics Providers**

168. The South Asian logistics sector is at a formative stage but it is developing quickly. Presently, most supply chains involve simple point-to-point movements, for example:

- Factory to wholesaler’s warehouse, trader’s godown, or nominated forwarder (for export)
- Port of entry to manufacturer’s storage, trader’s godown or wholesaler’s warehouse (for import)
- Domestic supplier to factory godown
- Manufacturer to distributor’s godown and then through to retail outlets

Such movements do not require complex logistics. Even in the retail sector, where complex supply chains often develop, simple logistics predominate. Outside the major cities, shops are small and dispersed and are served by chains of distributors and wholesalers. Goods are low value and the emphasis is on minimum delivered cost. Inventories may be kept at low levels but the lack of real time sales information and just-in-time delivery means periodic empty spaces on the shelves of retailers. In this environment, third party logistics providers are unable to offer the economies of scope or scale.

169. There is some need for more complex/integrated supply solutions, clearly correlated with the size/range of economic activities. Such need may simply not exist in Bhutan, be virtually nil in Nepal, and rather limited in Bangladesh and Pakistan. The most opportunities are in India but they are still a small fraction of sector’s total activities. However, as the economies grow and diversify, incomes rise and the middle class expands, the need and the opportunities will increase.

170. In Pakistan and Bangladesh, the industry continues to handle the domestic logistics for imports but its growth has come from providing services to exporters, especially the garment/textile industry. However, the role is almost always confined to providing domestic supply chain services:

- *Exports*: They are nominated by either the exporter or the buyer’s agent to arrange delivery of the FOB shipments. They have a larger role when arranging C&F shipments for textile manufacturers but the larger manufacturers usually have their own shipping departments.
- *Imports*: the local forwarders occasionally arrange FOB shipment from foreign ports but, in most cases, they are nominated to arrange the inland movement of C&F shipments.

In Pakistan, almost all LCL and about 20 percent of the FCL shipments are handled by freight forwarders. The services are simple, with a direct movement between the factory and port or via an ICD. The consolidation business has been slow to evolve; forwarders are not allowed to move containers from the port except to nearby CFS or the ICDs and only with the permission of Customs. The provision of more extensive supply chain activities is rare and generally confined to international companies. Exel Logistics handles the parts exchange for Dell Computer and Universal Freight

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<sup>40</sup> Centered in Germany with 50 operational facilities in Europe, 27,000 employees and an annual turnover of €2.5 billion.

provides some consolidation for foreign buyers. Other services such as quality assurance, inventory management and “pick and pack” remain very limited. The recent Logistics Study of Pakistan found significant improvements in the cost/quality of external logistics since 1996 and identified in-firm logistics activities as where the greatest cost savings/quality enhancements could now be made.

171. In India, freight forwarders cannot assume the role of cargo owner when clearing imports; this would require that they have an import license and be listed on the shipping documents. The forwarder can act as the customs broker but the consignee/shipper must participate in the cargo clearance. The freight forwarder cannot, therefore, arrange door-to-door shipments of LCL and only FCL shipments when the cargo is cleared at the consignee’s premises. International door-to-door shipments are also limited by the requirement that forwarders be licensed as Multimodal Transport Operators<sup>41</sup> (MTO) in order to issue a house bill-of-lading. To qualify for a license the freight forwarder must have a CFS, Customs House license, and warehouse and ship agency. Most MTOs are also NVOCCs and also act as LCL consolidators.

172. Some freight forwarders provide consolidation, usually at CFSs located near the major ports, but the LCL trade is small and declining: in FY04, LCL imports were only 1.5 percent of FCL imports and 0.6 percent of exports. Most CFS activity is stuffing/stripping of FCL containers. Off-Dock Container Yards, with attached CFSs, have proliferated. Initially, they were operated by the Central Warehousing Corporation (CWC), Concor, and stevedoring companies but increasingly the shipping lines, such as APM, and the large terminal operators have become active.

173. About 60 percent of the  $\approx$  200 ICDs/CFSs are relatively small road-based standalone facilities. Most are located near the gateway ports, especially Mumbai and Chennai, and are customs bonded. Facilities are mostly simple, sheds with or without loading docks. Equipment is usually limited to forklifts for handling loose cargo and reachstackers for handling containers. The services are generally limited to receipt and dispatch, storage and consolidation.

174. For domestic cargo, most warehousing is provided by individually owned godowns; the owner often contracts out the management. They are usually smaller than those for international traffic and provide little more than covered storage. The operator rents space to producers, wholesalers and distributors to store goods prior to sale and to transporters for the transfer of goods between line-haul and local collection/distribution. Truck restrictions are leading to the development of truck terminals, with multiple storage facilities, around their periphery of the major cities.

175. Warehousing/storage is still relatively little developed: few national or even regional networks; few distribution centers; few cross-docking operations; and little modern inventory management or other value added services. The public sector manages two national networks, Concor and CWC. Neither network offers integrated logistics activities. A few, privately operated national networks are beginning to develop, covering the range of activities from pure warehousing to retail distribution, AFL, for example. Excel leases approximately 50 facilities around the country as part of their forwarding and consolidation services. Hindustan Levers has a network of warehouses which are mostly operated by their distributors. The express package/delivery services have established national networks but these are used for transit rather than storage.

176. Some of the limitations may be attributable to the tax system: to avoid the general sales tax and delay state taxes, it was necessary to have warehouses in each state and transfer goods between production and warehouse as an internal company transfer, without expectation of immediate sale. This resulted in large numbers of small, third party warehouses and excess inventories. Cross docking was not possible as it would imply that a sale had already been arranged. The introduction of VAT should allow rationalization into consolidated networks with modern inventory management. The initial

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<sup>41</sup> A license issued by the Department of Shipping

leaders are likely to be the large producers of household and food products (e.g. P&G, and Hindustan Lever<sup>42</sup>) and the 3PLs with major domestic operations, such as Exel.

177. The multinational logistics companies have different strategies for operating in India. Some only act as the nominated forwarder for foreign companies. Others have become more involved in domestic logistics. Schenkers provides outbound logistics for European buyers but subcontracts for local transport and customs agent services. Bax Global, on the other hand, has expanded to provide forwarding and NVOCC services to serve medium sized exporters, and operates distribution centers for pharmaceuticals, agriculture and automotive products. Its warehousing and trucking services are subcontracted but it acts as a CHA. NYK Logistics operates in the same fashion as Bax Global.

178. Most international 3PLs compete for the international links of the supply chain but limit their activities, within India, to providing forwarding and warehousing services for foreign clients. They are allowed 100 percent ownership of local subsidiaries but few have invested in domestic logistics companies<sup>43</sup>. Few have established extensive domestic warehousing networks or provide substantive value-added services to customers. Exel (now part of DHL) is an exception; it is involved in the complete inbound supply chain from container yard to factory floor. It operates  $\approx 170,000\text{m}^2$  of warehousing, mostly racked storage. For domestic companies, it provides factory warehousing for inputs/products as well as retail distribution warehousing. It operates warehousing for foreign companies that have multiple suppliers and assemble products for regional distribution.

179. Some large domestic companies, such as Reliance and Tata, have established their own 3PLs to provide services within the group. Domestic 3PLs are expanding in size/activity. The Transport Corporation of India has now a joint venture with Mitsui to handle all Toyota's Indian logistics<sup>44</sup>.

## 5.4 Upgrading the Logistics Sector

### 5.4.1 Customs Agents

180. Customs agents are licensed and have usually to pass an examination. In India, the requirements have been progressively raised: educational qualifications were introduced in 1997 and raised in 2004<sup>45</sup>, the CHA requirements include:

- Educational qualification
  - CA, MBA or LLB, or
  - Graduate with diploma in customs clearance from a recognized institute, or
  - Graduate with at least three years experience in CHA work, or
  - Retired Group A Customs officer with, at least, 10 years at Group A level
- Assets of not less than Rs.200,000
- Working knowledge of computers and computer systems
- Indian citizenship<sup>46</sup>

<sup>42</sup> Hindustan Lever is planning to reduce its warehousing from 44 facilities to 28 and then to 15.

<sup>43</sup> There are exceptions, Snowman was established by Japanese investors and runs a fleet of 90 reefer trucks from 16 cold stores, covering procurement → storage → retail distribution. In 2006, the domestic logistics company, Gateway, acquired a 50.1 percent stake in the company.

<sup>44</sup> "Responsibility starts once imported parts come to the domestic port. And from there we bring them to the plant. All the OEM parts from 70 odd suppliers from across the country. We transport the cars and the spare parts to the dealers" Interview Mr. V. Agarwal, 18 April, 2005

<sup>45</sup> Clearing House Agents who already had licenses were "grandfathered" under the new regulations.

<sup>46</sup> The citizenship requirement is common, e.g. in Bhutan, only citizens can be licensed as c/f agents.

The main issue is not the initial qualifications but ensuring that agents keep their professional knowledge and skills up-to-date in an environment of rapidly changing Customs legislation, processes and procedures. There are few sanctions against the customs agents for poor performance. In Pakistan, for example, the clearing license can be removed for unsatisfactory behavior but this is little enforced despite the common misrepresentation of goods and valuations by importers and their agents.

181. Ensuring professional standards is difficult. In Bhutan, the Customs Department can issue a circular requiring that each clearing agent send two staff to attend training (January 2005). It is much more of a problem when there are several thousand customs agents. The Pakistan Freight Forwarding Association is trying to remedy the deficiencies by organizing basic courses to raise professional standards but the courses are limited and not all customs agents are members of the Association.

182. The market may help remedy poor performance, especially if combined with more rigorous enforcement of sanctions on unprofessional behavior. The extension of computerized clearance will require CHA to become computer literate, if the manual systems are phased out. It may also be desirable to raise progressively entrance standards, as in India; inevitably there will be resistance.

#### ***5.4.2 Freight Forwarding and Logistics***

183. The logistics industry is intrinsically very flexible and will respond rapidly to market demands. The major constraint to the development of logistics within South Asia may be the lack of knowledge/appreciation of its benefits, in terms of the cost savings and increased service standards that modern logistics can generate, not only in terms of transport and distribution but also in terms of inventory management and control. Once, however, some companies adopt modern logistics management, other companies will be forced to adopt similar systems in order to compete.

184. There is little that governments can do to accelerate the introduction of modern logistics beyond establishing the environment. It is important that governments facilitate the development of the sector by minimizing regulation and allowing the participation of the international logistics companies who will bring the technology and management practices that have proved successful in other countries and are needed in the rapidly growing “new” sectors in South Asia. The experience of Toyota’s logistics in India is instructive. Toyota established the service criteria (delivery times, reliability, closed trucks, etc) and then brought together foreign and domestic logistics providers to develop and deliver the service required. The domestic provider not only has additional business but also acquires the knowledge which can be applied to its other businesses.

“Toyota teaches us. We have used that opportunity to send people outside the country and we have been able to get the benefits of that expertise. Then we start using some of the best practices with other companies as well” Interview Mr. V. Agarwal, 18 April, 2005

185. Similar developments might be expected from the modern retailing sector. Several companies have announced major investment in modern supermarkets and one (Bharti), at least, has announced a tie-up with a foreign company (Wal-Mart) to provide the logistics. The requirements of supermarkets and the expertise of companies like Wal-Mart could well have major spillover effects into other areas, for example, the supply chains for the export of high value horticultural produce.

186. Both India and Pakistan have adopted an open policy to the participation of the international operators, Bangladesh has been more restrictive with financial requirements that are likely to deter international participation. Once companies appreciate the benefits of modern logistics, there will be a rapid growth in the domestic logistics sector and, if experience in other sectors is a guide, it will then expand internationally.

## TRADE AND TRANSPORT FACILITATION IN SOUTH ASIA

### 6. INTRA-REGIONAL TRADE

#### 6.1 Background

187. Significant improvements to trade-transport facilitation have been made but they largely benefited inter-regional trade. Productivity at the gateway ports has risen and streamlined procedures introduced; investment in transport infrastructure is increasing but the priorities are the main corridors, such as the Golden Quadrilateral in India or the National Trade Corridor in Pakistan. The emphasis given to facilities and facilitation serving inter-regional trade reflects the economic importance of such trade. The economic importance of intra-regional trade is large for the smaller economies, but small for the larger economies, especially for India.

188. In some cases, such as between Afghanistan and Pakistan, intra-regional trade uses the main corridor and elsewhere some intra-regional and transit trade will benefit from the improvements in the port sector. However, much of the region's intra-regional and transit trade do not use these corridors. Some investment has been made, for example, the upgrading of the N34, SH1 and SH10 highways under the West Bengal Corridor Development Project which will raise the road standards for Bangladesh - India trade. The Nepal ICDs may help facilitate Nepal's trade with India as well as its transit trade. Nepal may also benefit from India's East-West Highway. But, in general, intra-regional trade receives much lower priority as well as lower levels of service.

189. Intra-regional and transit trade often uses unimproved highways and truck speeds are very slow. Prior to the ongoing investment, trucks took 6 – 10 hours to make the trip from Kolkata to Petrapole, the main border crossing with Bangladesh, a distance of 100 kms. Truck transit between Nepal and Kolkata takes four days, for a distance of under 700 kms. Excessive loads are part of the explanation, but they are compounded by poor pavement condition and inadequate capacity. Nepal has to use the roads in Uttar Pradesh and Bihar to reach the main corridor routes, and truck speeds in these states may be less than 20 kph, especially in Bihar.

190. Progress has been made in computerizing customs and streamlining procedures. These advances have been mainly confined to the gateways for inter-regional trade. In India, the systems have been rolled out to two of the most important land customs stations but they may not be applied to all trade (e.g. ICEGATE at Raxaul, the main border station with Nepal, only handles Indian exports) or may not always function because of inadequate communications or power (such as at Petrapole). Most intra-regional trade and all transit traffic continue to be handled by manual systems which require considerable personal interface between the trader and customs. Risk management and green channels have expedited clearance at major gateways but are not available at the land border crossings.

191. Land based trade requires consecutive clearance through two sets of officials. Governments can decide that their customs will clear cargo 24/7 at ports/airports but customs' hours at land border are the lowest denominator of two administrations. Land border crossings are not open at night, and some customs authorities do not work a seven day week. The time window for processing customs clearance and other formalities, at a land border crossing, may be reduced to a few hours/day, and not even on every day. Land borders face not only the issue of customs control but also border security. Security concerns are important along most borders in South Asia, reflecting the legacy of fraught political and security relations. Even along the traditionally open India-Nepal border, security is becoming an issue. However, even where such concerns are high and security is tight, informal trade still seems to flourish.

## 6.2 Constraints to Intra-Regional Trade

### 6.2.1 *Restrictions on Trade*

192. Some countries have regulations which reduce, complicate or shift formal trade into informal channels:

- *Bangladesh*: Certain commodities, such as yarn and textile, are not allowed to be imported across the land border with India and have to be shipped through Chittagong. The measure is designed to protect local producers as it increases the import time and cost, especially when containers had to be routed via a hub port. Direct container shipping services have started and these may reduce the time and cost penalties but the land route would offer the quickest and lowest cost routing for much of this traffic. The trade barrier remains, though it may have been somewhat lowered.
- *Pakistan*: The positive list approach to trade with India results in a significant level of misreported trade. Indian exports, which are not on the list, are routed to Dubai where they are relabeled and then shipped to Pakistan under a different certificate of origin. For a forty foot container, the total cost may be US\$ 4,300 (compared with direct shipping cost of US\$1,100/FEU). Sometimes, the bill of lading may be switched once the goods are loaded and they are then shipped directly to Pakistan. Such 'switch' bills of lading are said to be obtainable at a relatively modest cost (total cost US\$1,300/FEU). The misreported trade enters Pakistan as legal trade. There are also Indian exports which are routed via Dubai, Iran and Afghanistan and eventually cross into Pakistan by camel or donkey. This routing is designed to avoid high import related taxes. Importers are prepared to pay high transport costs (US\$ 6,300/FEU) and Afghan customs duties (US\$1,800/FEU) to evade Pakistan's taxation. While considerable, the flow of informal trade from India is reported to have fallen recently, with a corresponding rise in informal trade from China.
- *India*: The 1996 Indo-Nepal Trade Treaty gave duty-free access to goods manufactured in Nepal and removed the value addition norms of the previous treaty. Nepalese exports grew rapidly but India claimed that some were effectively re-exports from third countries. The revised treaty, signed in 2002, re-imposed eligibility criteria and established quotas for four products; exports beyond the quota are subject to MFN customs duties. The Federation of Nepalese Chambers of Commerce and Industry will not issue certificates of origin for exports under MFN status, apparently fearing that such trade would endanger the duty-free access of other products.

### 6.2.2 *The Limitations of Cross-Border Rail Transport*

193. Rail transport often provides much easier and faster border crossing than road transport. This may be due, in part, to the lower unit value of rail cargo, and the low import taxes normally attached to such commodities. It may also be partly due to public ownership of the railways; cargo can be considered as under government control. These advantages are most manifest with respect to transit traffic, for which bonds and other restrictions are often not required if the goods are moved by rail. Given the inadequacies of much of the region's road network, rail should have great potential for intra-regional trade, especially over longer distances. Unfortunately, the realization of this potential is limited by the deficiencies in the asset base of BR and PR, and the freight priorities of IR.

#### *Afghanistan – Pakistan*

194. There is no rail link from Pakistan into Afghanistan though there are plans to extend the Quetta-Chaman line across the border. The Afghan Transit Trade Agreement (ATTA) required that commercial trade transit by rail but this has been somewhat relaxed and the National Logistics Cell is now authorized to carry commercial cargo by road and to sub-contract it to other truckers. Pakistan

exports to Afghanistan, which originate in the Karachi area, should find rail an attractive alternative, given the very long haul, but PR's low capacity and poor service means that almost all bilateral trade is carried by truck.

#### *Bangladesh – India*

195. A considerable flow of very low value cargo, like building aggregates, is railed from India to Bangladesh. The traffic can only be carried in IR wagons as BR wagons do not meet the technical standards (brake systems and wagon running speeds) required by IR. BR locomotives haul the wagons inside Bangladesh but as IR trains are longer and heavier, the trains have to be reconfigured at the border.

196. Intra-regional rail traffic cannot directly reach the main markets in Bangladesh. IR wagons cannot cross the Jamuna Bridge, despite the availability of a broad gauge track, as the bridge does not have the capacity to handle fully laden IR wagons. One study reported that container wagons would meet the weight restrictions but containers are presently not allowed to cross the land border. In any case, the broad gauge does not extend to Dhaka and Chittagong. Rail cargo has to be transhipped to trucks, barges or BR wagons for final delivery, significantly reducing the rail advantage.

#### *Bhutan – India*

197. Bhutan is not connected to the IR network although there are lines relatively close to the border. Bhutan's level of merchandise trade is limited and its trade with countries other than India even smaller (possibly 6 – 8 TEU/day). IR is only interested in train-load traffic and such demand from Bhutan would be very limited and the economics of extending rail across the border poor. However, there are reports that feasibility studies are underway to assess the potential for direct links.

#### *India – Nepal*

198. Raxual, the main crossing into Nepal is connected by broad gauge and the line was extended across the border to a rail-based ICD at Birgunj; the spur and ICD opened in 2004. The ICD was constructed for transit traffic and Concor operates about three unit container trains/week from Kolkata, a market share of about 55 percent. The traffic is only about half the forecast level and the ICD is under-utilized and its revenue seriously below the concessionaire's expectations. Transit exports continue to use road transport as Concor does not provide a scheduled service. This does not give the reliability that exporters need to meet shipping dates and delivery deadlines.

199. To increase utilization, it was agreed to open the ICD to both non-containerized traffic and bilateral trade. Raxual is reported to receive about 13 train loads for Nepal each month, but little has yet been attracted to the ICD. Partly, this may be the result of GOI's refusal to allow open wagons to cross the border (on the grounds of security), so traffic is restricted to flats, covered wagons and tanker wagons. Truck operators in Kolkata have also resisted the transfer of edible oils to rail.

#### *India – Pakistan*

200. Both IR and PR are essentially broad gauge railways<sup>47</sup> with the same permissible axle-loads and maximum speeds; there should be little infrastructural constraint to large freight flows. There are two rail links but the link through Sindh carries only a passenger service, the Thar Express. The freight link is Wagah - Attari. PR locomotives haul trains within Pakistan and IR locomotives within India. Wagons are interchanged on a balance system; the balances have to be cleared every 10 days. This interchange system can give rise to wagon shortages and traders have to wait until wagon balances are re-established. Railways, elsewhere, operate more flexible interchange arrangements which minimize

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<sup>47</sup> IR has an extensive network of meter gauge lines but these carry very little freight traffic.

shortages and delays. It is assumed that the wagon balance approach is designed to minimize the costs to each railway, in the event that the border closes and wagons are stranded on the foreign network.

201. While the infrastructure standards are similar, there are major differences in the type/quality of the wagon fleets. PR has few modern bogie wagons and they are concentrated exclusively on the Karachi to Lahore mainline. PR's wagons for trade with India are largely confined, therefore, to the four-wheeler stock. These types of wagon have been almost entirely scrapped by IR and IR would not want to operate long distance freight trains with such stock. Cargo is thus reloaded to modern wagons or transhipped to road. There are few reports of major customs clearance or other formality problems with the rail movement, though cargo is inspected.

202. Wagon availability was not a major issue when trade volumes were low but, with the recent increases in trade, capacity has become a constraint, leading to long delays (especially for non-perishable goods), informal payments for wagon allocation, and the diversion of trade to the sea route via Mumbai. The cost differences between the routes are very large, Table 32.

**Table 32 India – Pakistan: Transport Costs**  
(Costs for 40ft container)

Route	Mode	US\$	Route	Mode	US\$
Delhi - Mumbai	Rail	920	Delhi - Attari	Rail	650
Mumbai - Karachi	Sea	850	Attari - Lahore	Rail	140
Karachi port		230	Unloading		50
Karachi - Lahore	Road	415			
Total cost		2415	Total Cost		840

Source: Taneja and study estimates

Trade between the two Punjab may travel 3,000+ kms rather than a land route of less than 300 kms. Indian exporters recently complained about the lack of wagons to move substantial quantities of sugar.

203. Even if PR had many more modern wagons, it is not clear whether trade with India would receive high priority. The main production/consumption centres in Pakistan's Punjab are close to the border crossing. Consequently, the haul distance and revenue generated for PR would be small; IR with a much longer haul would receive most of the revenue. It is thus in PR's financial interests to concentrate its operating assets on the long haul route between Punjab and Karachi, rather than on the short haul to the Indian border, even though rail would result in large savings for the Pakistan producer/consumer.

### 6.2.3 Constraints to Cross-Border Truck Transport

204. Truck transport dominates intra-regional trade throughout continental South Asia, India – Pakistan is the exception. With few exceptions, trucks are not allowed to cross the borders to pick up or deliver cargo. Rather, the goods have to be transhipped from the truck of one country to the truck of the other country at either at the border itself or at a transshipment center close to the border. The exceptions to the prohibition on cross- border truck movement are:

- *Afghanistan – Pakistan*: Some Pakistani trucks are allowed to cross on the Torkham route and deliver cargo direct to Kabul. On the southern, Spin Boldak route, all cargo has to be off-loaded and reloaded in no-man's land between the border posts.
- *India – Nepal*: Indian trucks are allowed into Nepal for 72 hours. This enables trucks to drive to Kathmandu, unload and return to the border. Nepalese trucks cross into India but generally only to the nearest railhead<sup>48</sup>; partly because return trips would take longer than 72 hours, but more because of the problems truckers encounter from State officials and agencies. Nepalese closed body trucks and container tractor-trailers move on designated routes to/from the ports of

<sup>48</sup> Bhutanese trucks can travel in India as far as the commercial center of Silghuri.

Haldia and Kolkata with transit traffic. Nepalese trucks to Bangladesh move through India by escorted convoy; they are not allowed to operate within Bangladesh.

205. On other routes, goods are transhipped from one truck to another, or may be put into temporary storage at the border. When TV showed the opening of the India - Pakistan border to road-based trade, it showed laborers carrying sacks of onions across the border; the goods could cross but not the trucks. Cargo had to be unloaded about 800 metres from the zero line and carried by porters to the border. Such economic interchange is not the basis for mega-trade flows though it created work for 1,300 Indian porters and several hundred Pakistanis. In October, 2007, the India-Pakistan border was opened to truck transport, allowing trucks to cross the border and then tranship cargo from one truck to another but not to transport cargo to its final destination. However, Pakistan only allows five items to be imported by road and only cement to be exported by this route.

206. Even where road transport trade is more established and more substantial, such as the Petrapole – Benapole crossing, the unnecessary costs are large:

- Additional infrastructure, in terms of parking areas, loading platforms, warehousing;
- Delays to trucks, in terms of waiting to cross the border, waiting to unload, etc;
- Delays to cargo, waiting at the border, waiting to be unloaded and then waiting to be re-loaded;
- Additional operating costs, in running the facility as well as in the loading and unloading;
- Damage and loss, from the multiple handling as well as additional packaging costs to try and minimize such damage.

207. Petrapole – Benapole is a logistics sector horror story; there are normally 1,000 – 1,500 trucks waiting to cross into Bangladesh; a truck takes about six days to deliver cargo from Kolkata to Benapole, for a total distance of 100 km; and, the cargo may then be delayed for a further four days or more before loading on a Bangladesh truck<sup>49</sup>. The delivery charge is about US\$22/ton; transport accounts for only 30 percent of the cost, the rests are associated with the border crossing. Other border crossings impose large costs; often the unloading and loading takes place in the open without any facilities. This may reduce warehousing but very probably increases damage.

208. The lack of through trucking is possibly the greatest transport impediment to intra-regional trade. It is an issue that other regions have faced and overcome<sup>50</sup>.

#### **6.2.4 The Landport Philosophy**

209. Sea and airports are necessary misfortunes, they provide the interface between ocean or air transport and land transport. Nothing can be done other than minimize the cost, time and disruption. Land frontiers are very different; the same modes of transport normally operate on both sides of the border. While a political interface exists, there is no necessary need for a transport interface. If one exists, it is a political creation.

210. Unfortunately, there is a growing trend in South Asia to treat land borders as the equivalent of sea coasts and create the land equivalent of sea ports. Bangladesh has moved down this path with the establishment of a Landport Authority. This is seeking public private partnerships to develop extensive facilities at the frontiers: cargo handling, storage, and ancillary infrastructure and services. India has recently announced that it was going to establish a similar authority with a plan to construct 13

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<sup>49</sup> This may be compared with the Pakistan – Afghanistan crossing, via Torkham, where truck drivers report that it takes 3 – 5 hours to complete Pakistan exit formalities and surveys indicate less than one hour (on average) to clear Afghan entry procedures. However, in a limited survey at the border, trucks were found to wait on the Pakistan side of the border for 1 – 2 days.

<sup>50</sup> Cross-border movement of trucks is almost universal in Africa, Europe and Central Asia but there are still some important borders where it is not allowed: even under NAFTA, Mexican trucks were not allowed into the US; China presently does not allow foreign trucks to travel beyond designated border towns/cities.

Integrated Check Posts (ICP) along its borders at a cost of Rs. 853 crore (US\$190 million). These ICPs would house all the regulatory agencies like immigration, customs, and border security together with support facilities like parking, warehousing, banking and hotels in a single complex.

211. More efficient border facilities are very welcome, especially if they include reliable power supply and telecommunications. The need for border crossing formalities, covering people, vehicles and cargo, will remain for the foreseeable future and modern efficient facilities will help to reduce the time and cost. The danger is that the investment in cargo handling and storage facilities will create major impediments to the future streamlining of freight movement across the borders. They will create vested interests in maintaining existing processes and procedures and the revenues that result.

212. Customs and other border control officials already have the incentive to maintain slow and cumbersome procedures as they provide rent-seeking opportunities for “speeding” up the system. A Transparency International survey at Benapole identified 30 separate points in the cargo clearance process where informal payments had to be made, with payments going to both customs and landport officials. Private investors in transshipment and storage facilities, and their laborers, will have no interest in the uninterrupted movement of cargo and vehicles through borders, very much the contrary.

213. Once built, there is the danger that landports will become permanent fixtures. But, the present freight arrangements/facilities at many of the crossings are so poor that improved handling and storage facilities could undoubtedly provide significant benefits. Certainly, organized truck-to-truck transfers are much more efficient than portage across borders. But, such short term benefits could well, unfortunately, result in continuing long term costs. It becomes an issue of whether there is any reasonable prospect of introducing the types of cargo and vehicle arrangement that exist elsewhere in the world which remove the need for cargo transshipment.

### 6.3 Streamlining Intra-Regional Trade

214. South Asia has the lowest level of intra-regional trade of any region, even lower than Sub-Saharan Africa. There are economic factors which help explain this very low trade, such as India’s economic size and the similar production/export patterns, but the importance of the difficulties attached to trade within the region and its time and cost should not be under-estimated. For many enterprises, inter-regional trade may well be easier than trading within the region.

215. While each of the important intra-regional trading links has particular characteristics and issues (see Annex 4), there are some broad common features which need to be addressed, if intra-regional trade is to grow toward the levels achieved in other regions. The key actions should be:

- Allowing cross-border movement of road transport
- Improving the capacity of regional rail links
- Upgrading the standards of customs/trade facilitation to those at the gateway ports
- Allowing container movements and customs clearance away from the border

Successful implementation of these would provide the trade-transport facilitation basis for substantially increased trade. The extent to which trade then develops would depend upon changes in the trade regimes (Pakistan), or attitudes toward trade (Bangladesh).

#### 6.3.1 *Cross-Border Trucking*

216. With limited exceptions, trucks cannot cross borders in South Asia. But, it cannot be an intractable problem; most neighboring countries, in other parts of the world, have developed procedures and safeguards to allow cross-border truck movements and the direct delivery of freight,

while ensuring that foreign vehicles do not provide domestic transport services. There are various potential ways that such a desirable outcome might be achieved:

- *Limited time entry for cargo delivery:* This is the existing practice between India and Nepal; extending the approach to the rest of South Asia, even with a 72 hour limit, would encompass major potential trade links, such as between Northern India and Pakistan's Punjab Province. It would be better, however, to adjust the time allowed, within the neighboring country, to reflect the transport reality. It might, for example, take 96 or 118 hours for trucks to cross the border, reach Dhaka, unload, and then return to the border and back into India.
- *Route licensing for foreign trucks:* A broader solution would be the provision of specific route licenses for foreign truckers without the time restriction. This would solve the problem of the lack of effective reciprocity that may exist with the fixed time approach, i.e. major cargo destinations in only one of the trading countries being reached within the allowable time, as is possibly the case between India – Nepal.

An important issue in providing limited time entry for trucks, in the case of highly imbalanced trade flows, is that the trucking industry of the exporting country may very probably dominate the business. Customers in the importing country would benefit from reduced costs and faster delivery, but the truckers would raise objections, and trucking lobbies/cartels can be very strong, especially in some of the border areas. It may well be necessary that truckers in both countries perceive potential financial gain. Route licenses could be issued, or auctioned, on a quota basis to ensure an equal or equitable distribution of opportunities for the trucking industries of both countries.

- *Dual country vehicle registration:* Vehicles would be registered in both countries, obtaining the relevant licenses, paying the applicable taxes and having the necessary insurances. To an extent, this already happens in the case of Afghanistan and Pakistan. To protect national interests and sensibilities, a first step might be to have the number of trucks with such dual registration limited by quota allocated between the truckers of the different countries.
- *Joint venture trucking companies:* This would be a more restrictive form of the dual vehicle registration. It would reduce the flexibility and possibly the capacity of the system, but it could be a major improvement upon the present transshipment of cargo. In effect, the formal requirement of a domestic only trucking system would be preserved. Unfortunately, the drawback of the approach is the possibility that governments would see an opportunity for the creation of public sector trucking enterprises to operate such services, and public sector trucking enterprises have an almost universal record of poor service and financial failure.
- *Trailer interchange:* Security concerns might be raised about foreign trucks driving in the country (though it is quite acceptable elsewhere in the world). This could be addressed by the dual registration of semi-trailers. The semi-trailer would be delivered to the border by one tractor unit and then hauled by a tractor unit of the other country. Similar arrangements often take place at sea crossings to avoid shipping the tractor unit. Such a system would require contracts and trust between trucking enterprises which may presently not exist. It is also a solution more applicable to the organized, formal sector which forms a small part of the South Asian trucking industry. But, as the region's logistics become more sophisticated, the potential should increase.
- *Containerization/swap bodies:* An alternative to the trailer interchange or through movement of trucks would be containers or some form of swap body which can be shifted quickly and cheaply from one vehicle to another. It is not a solution to the problem but would help reduce the costs of the present arrangements. More generally, containerization has many advantages in trade logistics and their use on intra-regional routes would help avoid several of the unnecessary costs imposed by the present system. Containers from India are already used in

bilateral trade with Nepal and specific customs procedures have been developed. It would require the investment in a pool of regional containers and modest container yards and equipment at the main border crossings.

- *TIR or similar*: The possible solutions, outlined above, have not mentioned the TIR system which is now such a feature of cross-border transport in Europe and Central Asia. TIR or a similar, regionally based system would be very desirable but they address more a customs rather than transport issue. TIR would allow cargo clearance away from the border, providing a guarantee for customs duties if goods are diverted to the domestic economy prior to clearance. Certainly, some such system would be needed, if the full benefits of cross-border trucking are to be achieved. Much of the benefit would be lost if the trucks have to be off-loaded, even partially, for customs inspection at the border. Similarly, containers would be little improvement if they had to be stripped at the border for customs examination.

217. Cross-border trucking raises the issue of appropriate/acceptable vehicle standards. In theory, Afghan trucks can operate into and through Iran but, in practice, they do not meet the vehicle standards required and enforced in Iran. Such standards might seem of little consequence in region where there is such little enforcement of any vehicle or trucking regulation. However, unless vehicle standards are established and trucks certified, vehicle safety/standards can always be used as a barrier to cross-border movement (as is the case between Mexico and the US).

218. The real issue for liberalizing truck movements across borders is whether governments view trucking and trade as areas in which both countries can simultaneously benefit. If trucks in East Africa can cross three borders to make a single delivery, using the same basic documentation, the development of mechanisms to allow trucks to cross single borders in South Asia should not be an insuperable problem. The trucking industries should be brought into the decision making process in order to build their support. It is perhaps inevitable that substantial change will create both winners and losers in the sector and the losers may possibly protest any change. Given the importance of streamlining cargo delivery, government should face down such opposition.

### **6.3.2 Regional Rail Links and Services**

219. Rail has the advantages of lower costs, easier border formalities and often, in South Asia, faster transit times. Some intra-regional trade moves by rail but the flows are limited by critical capacity and infrastructure constraints.

#### *Bangladesh, India and Pakistan*

220. The potential benefits for intra-regional trade from direct rail transport are very considerable:

- To move a 40 ft container from Delhi to Lahore, via JNPT and Karachi, presently costs in the region of US\$2,400: direct rail would cost less than US\$1,000.
- To move a 20 ft container from Ludhiana to Dhaka via JNPT costs about US\$2,200 and takes 30 – 40 days: direct rail would cost about US\$1,400 and take 9 – 10 days.

The issue is how to realize the potential. Both BR and PR require modern wagon fleets; their present four-wheeler fleets are incompatible with the modern rail operations. BR has also to address infrastructure constraints. In view of the fact that the Jamuna Bridge can probably already accommodate container trains, the initial priorities for intra-regional linkages may be: (a) agreement on the cross-border movement of containers; and (b) completion of the broad gauge connection to Dhaka.

221. The physical infrastructure and operating assets must be accompanied by efficient and cost-effective interchange agreements which allow the wagons of one country to move on the network of the neighboring railway. Such agreements need to provide both flexibility and compensation for wagon use; they need to offset the financial disincentives with respect to cross border movement, i.e. that the

revenue is shared by two railways. The present wagon balance system, between IR and PR, is too restrictive but no railway wants to see their wagons accumulate within the system of a neighboring railway. A wagon rental system is necessary, perhaps at an escalating price, depending upon the length of wagon detention. It is also possible that some form of payment guarantee system is needed to build confidence in the initial stages of such interchange systems. But, no system will survive when either wagons are detained for extended periods or payments are delayed. Cross-border wagon tracking systems will also be desirable both commercially, so that shippers know where their consignments have reached, and operationally so the railways know where their wagons are.

222. The first priority should be to raise the level of capacity and efficiency of cross-border rail freight movement. The second priority would be to improve rail's competitive position. Initially, each railway would levy their own freight bills and shippers are faced with two freight bills for short/medium distances; the total shipper costs would be higher than for one long distance movement, given the taper on rail freight charges. In the longer term, a more commercial and competitive approach would be a through freight bill, with the revenue shared between the railways. Joint marketing and pricing, however, it may be beyond the present levels of cooperation.

223. There is, however, the need to resolve commercial/operational aspects of joint rail operations; for example:

- Whether the services would be operated as fixed separate trains from each railway or in a wagon pool arrangement, which would add flexibility.
- How to market the potential of rail for less than train loads on which Indian railways now concentrates its activities.
- Whether there should be an intermediary between the shipper and the railway to market and consolidate individual shipments into train loads for the railways to haul.

Unfortunately, the railways may not see intra-regional trade as a priority in their freight business. IR faces a growing domestic market which it finds hard to satisfy and may view cross-border traffic as a difficult and complicated market, not worth the management time. PR has a major potential long distance freight market along the National Trade Corridor, while cross-border freight involves short hauls. Domestic freight may thus be more much profitable<sup>51</sup>. BR has substantial unmet container demand on the Dhaka – Chittagong route which may have higher priority than traffic with India.

224. One possible approach, to overcome the potential lack of rail priority for intra-regional trade, might be some form of cross-border concessionaire, to market and manage the traffic, operating on hook and haul contracts with the neighboring railways. This would be an international version of the arrangement that was introduced on IR for the container market. Cross-border rail concessions have been introduced elsewhere but they cover both infrastructure and operations. Cross-border rail companies would be a radical departure for South Asia and would certainly not be viewed as risk-free. However, the benefits for intra-regional trade and shippers could be very considerable.

### *Afghanistan, Bhutan and Nepal*

225. Afghanistan and Nepal do not have domestic rail networks but they do have cross-border rail links. These links allow trains to be originated and terminated within domestic territory and this can provide some important benefits:

- Allows the country to develop the level of infrastructure appropriate to the traffic, possibly as the basis for logistics hubs ((storage, processing, repackaging etc). To an extent, this is

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<sup>51</sup> Intra-regional trade to/from Karachi would involve much longer hauls for PR but would face competition from sea transport.

happening at the Birgunj ICD. Such investment and activities could occur at railheads on the other side of the border but rarely does<sup>52</sup>.

- Allows cross-border movement by rail which often is less cumbersome and time consuming than movements by road.
- Allows, conceptually at least, the country to own and operated its own rail wagon fleet. This could be important, if wagon supply would otherwise be constrained.

Such links should make rail more attractive, especially if cargo transshipment between trucks is required at the border. The quality of service provided by the neighboring railway is crucial in determining whether rail is a commercial alternative.

226. IR provides efficient train load freight services but its potential for intra-regional trade may be diminished if there are restrictions on the type of wagon that can cross the borders; any such restrictions should be removed as quickly as possible. PR's freight capacity and service level is very much lower and the benefits of the proposed rail link into Afghanistan may be limited until the proposed restructuring of PR. When the enhancement of the freight business delivers results, Afghanistan could benefit as the hauls from Karachi to the Afghan border should make rail very competitive, especially if Pakistan begins to enforce truck axle-load and vehicle weight regulations.

227. Both Afghanistan and Nepal have levels of trade which may justify rail freight services. Bhutan, with much lower trade flows, is in a more difficult position. Low traffic would mean infrequent rail services and shipment delays, leaving truck transport with important service advantages.

### **6.3.3 Upgrading Customs and Trade Facilitation**

228. The basic priorities to enhance intra-regional trade facilitation are:

- *Afghanistan, Bangladesh and Nepal*: to complete the customs reforms that has been partially implemented. This will benefit inter-regional and intra-regional trade.
- *India and Pakistan*: to extend the reforms which have been or are being implemented at the major trade gateways to the land border crossings, replacing the manual systems for trade processing and customs clearance by computerized systems.
- *Transit traffic*: It would be extremely beneficial for the poorer countries of the region, if customs reform could be extended to transit traffic. Some improvements have been introduced for the rail transit of containers, Kolkata – Nepal, but it remains a completely manual system and the procedures for other transit traffic remain extremely cumbersome and time consuming.

The roll-out of computer systems to the land borders may require investment in more reliable power and data transmission and communication networks. The nature of the intra-regional trade may be rather different to inter-regional trade through the major gateways, possibly with smaller traders and smaller consignment sizes. This may necessitate a modified approach to risk assessment and perhaps also a higher level of examination. As customs reforms and streamlining proceed at the main trade gateways, so they should be applied to the intra-regional, land based trade flows. Reducing the complexity of the procedures and minimizing the personal interaction between the officials and traders would also help to reduce the corruption which is said to be prevalent at the border crossings.

229. Streamlining customs procedures and reducing the costs of formal trade should shift some informal trade to documented channels, as would the normalization of trade relations, most particularly between India and Pakistan. However, they are unlikely to eliminate informal trade where there is a conducive environment and large profits to be made by avoiding formal trade routes and import duties/taxes. Reducing the profits from informal trade by shifting the burden of government revenue

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<sup>52</sup> The World Food Programme does have storage facilities for bulk cargo in Peshawar from where it supplies Afghanistan.

away from import-related sources may be the ultimate solution but improved customs enforcement would assist by increasing the costs of informal trade. Such enforcement has to address the issue of border officials benefiting from such informal trade.

230. Greater cross-border cooperation and coordination between the customs authorities needs to be encouraged at both the national and border level. This is not to suggest one stop customs facilities or similar joint border processing of trade, although these are being tried elsewhere and may give significant benefits. They seem unlikely, any time soon in South Asia, given the very limited levels of cooperation that presently exist. Rather, closer working relations and the sharing of intelligence and data would facilitate the work of Customs and other authorities on both sides of the land borders. Even basic telecommunication links between customs offices at the borders would be a step forward. History and political/economic differences result in intra-regional relationships with particular characteristics, but customs authorities elsewhere manage good working relationships, despite governmental differences.

#### ***6.3.4 Container Movement and Inland Customs Clearance***

231. Modern logistics for non-bulk international trade is founded on: (a) the use of containers; and, (b) the clearance of cargo at or near the importers' premises, rather than at the initial point of entry. Containerized inter-regional trade is commonplace throughout the region, although shipping lines may require deposits and insurance for containers going to Nepal and require even more special arrangements for containers going to Afghanistan. All the countries have procedures to allow customs clearance at an inland destination, away from the entry seaport, although inland transport by truck usually requires a customs bond. But, the use of containers for land-based intra-regional trade is very limited (some trade between India and Nepal) and cargo has to be cleared at the border rather than at the destination (Afghanistan is the exception).

232. The issue of cross-border container movement has to be resolved. It may be difficult at some borders as there may be security as well as customs concerns. However, if substantially larger flows of intra-regional trade are to develop and trade is to move up the value chain, some means of allowing cross-border container movement has to be devised. Stripping containers, at the borders, for customs examination cannot be the answer, some other solution is necessary. The issue of security and container traffic has had to be addressed at the ports, in the light of the increased concern over international terrorism, and ports have had to conform to ISPS standards. Similar security measures can be devised for land crossings even if this means the concentration of container movement to perhaps only one or two border crossings and the use of scanners to check containers for illicit or non-declared cargo.

233. There is also the need to introduce customs procedures which will allow customs clearance away from the border. Such systems already operate from most gateway ports, similar systems need to be introduced at the land customs stations, and especially if/when through movement of trucks and containers is allowed. Afghanistan has already moved in this direction and the other countries, which have adopted ASYCUDA, could also introduce the transit module. At the main Afghanistan border crossing with Pakistan (Torkham), 73 percent of trucks clear the Afghan Border Control Zone within one hour and 91 percent within 90 minutes. Such a system would allow countries to avoid the unnecessary investment, operating costs and delays associated with land port facilities and cargo clearance at the border. Customs bonding systems are in place for the movement of cargo from seaports to inland destinations and the same systems should be possible from land border to inland destination though a regional or an international duty guarantee/bond system, like TIR, would be preferable as often duty insurance is required in both the exporting and importing countries.

### 6.3.5 Regional Trade Corridors

234. The corridor approach to trade and transport facilitation may potentially be more effective than addressing problems and issues separately. The corridor approach can provide the focus to bring together all the stakeholders, both public and private, and achieve synergies from coordinated change. The corridor approach is applicable for the major trade-transport corridors, and Pakistan has already started with the NTCIP; India could make the proposed DFC the focus for a similar coordinated approach for the Delhi-Mumbai Corridor.

235. The approach is equally applicable to the regional trade corridors; indeed, it may provide even greater benefits for such corridors. Rather than discussing the general issues of trade between neighboring countries, which may result in vague generalities and little practical action, it may be more productive to focus upon resolving the particular problems along specific trade-transport routes between countries. Particular arrangements/solutions for these corridors may be easier to identify and implement than agreeing arrangements which cover all links, both major and minor. The corridor approach would allow the major cross-border issues to be addressed. In South Asia, these are crucial to streamline intra-regional trade:

- *Highway improvements may reduce transit time by hours, and cost many US\$ millions;*
- *Process changes at borders may reduce transit times by days, and cost very little.*

236. Establishing the corridor approach within one country is not easy; establishing the approach with two countries is even more difficult. But, other countries have demonstrated that it is possible, if there is the underlying belief that trade brings benefits and that efficient trade-transport generates greater trade. The Northern Corridor Transport Agreement, in East Africa, harmonizes the customs procedures and transport regulation of five countries and finances a secretariat to monitor performance and identify further improvements. The Trans-Kalahari Corridor has linked South Africa, Botswana and Namibia and the approach has substantially improved trade and transport performance through South Eastern Europe.

237. Establishing corridor based approaches to improving the trade-transport arrangements for intra-regional trade may offer a promising alternative to the present unilateral and departmental management of trade-transport. Certainly, there are key issues which require a common and coordinated approach if real advances are to be achieved; for example, the issue of customs procedures, through movement of trucks, and inland clearance of cargo almost demand an integrated approach. Developing corridor arrangements will certainly be a challenge in the South Asian environment, but the rewards could be very considerable and little else seems likely to provide the transformation in intra-regional trade-transport that is necessary.