Geneva-MSMEs Connection

Country Update Note: "Mapping of Land and Maritime Transport: Key Figures, Structure and the Current National Regulations"

Overview

It is a well-established fact that an efficient transport system plays a pivotal role in enhancing economic growth, reducing poverty and attaining Millennium Development Goals (MDGs). Globally, investments in transport sector have significantly enhanced trade volume and human development through increased mobility. As far as Pakistan is concerned, the transport system generally comprises of roads, railway, aviation, ports and shipping services. In other words, the land transport incorporates roads and railway whereas the maritime transport encompasses ports and shipping services.

The Country Update Note examines the current structure and national regulations in place concerning the land and maritime transport sector of Pakistan. It informs on the key figures and status of regulations regarding road, rail and maritime transport modes and analyzes the challenges facing the sectors respectively. The note uses a mix methodology. The analysis is based on desktop research, supplemented with interviews with relevant government officials such as transport experts from Planning Commission and National Highway Authority.

Land Transport

Road

As mentioned above, land transport in Pakistan is broadly divided into roads and railway. Roads account for 92 percent of passenger travel and 95 percent of freight traffic in Pakistan[1]. Specifically, the national highways and motorways play a crucial role in the land transportation system. Currently, there are 39 national highways, expressways, motorways and strategic roads that carry 80 percent of the commercial traffic. The total length of this network measures 12,131 km.[2] Table 1 depicts the revenue generated by the roads precisely national highways and motorways in terms of toll taxes. Over the years, the revenues have generally increased owing to higher toll tax rates rather than improvements in collection efficiency[3]. Road transport also contributes to state revenues in various other ways such as taxes and duties on production and import of vehicles, fees on ownership and operation of vehicles and duties on petroleum products. On average, the road-related revenues amount to approximately Rs. 32.5 billion each year. In terms of employment generation, transport sector contributes 6 percent in total employment.

[1] Economic Survey, ADB and Planning Commission statistics.
[2] Amin (2017).
[3] Amin (2018).

Table 1: Revenue Generated by Land Transport

(Rs. billion)		
Year	**Roads**	**Railway**
2015-16	15.62	36.58
2016-17	19.34	40.06
2017-18	25.00	23.50

Note: The revenue generated by roads (highways & motorways) is in terms of toll taxes.
Source: National Highway Authority and Pakistan Economic Survey (2017-18).

Road transportation absorbs a large number of semi-skilled and skilled labor force, unfortunately precise and reliable employment estimates are not available. As far as the nature of stakeholders is concerned, road transport is characterized by 79 percent small entrepreneur owner-operators with one to five vehicles, 20 percent individual or joint owners of more than ten vehicles and only 1 percent large companies with more than hundred vehicles[4]. During 2017-18, exports of road transport service witnessed a fall of 9.44 percent. Table 2 shows the export of road transport services cumulatively (passengers, freight and other category) and as evident these have increased over the period under review. The sudden increase between 2015-16 and 2016-17 in export of road transport services has occurred owing to the China-Pakistan Economic Corridor (CPEC). Current investments on road infrastructure under CPEC amount to approximately $6,100 million and these have significantly contributed in boosting the exports of road transport services[5].

Table 2: Export of Land Transport Services

(US $ million)		
Year	**Road Transport**	**Rail Transport**
2015-16	6.27	0.04
2016-17	42.01	0.01
2017-18	51.55	0.11

Source: State Bank of Pakistan.

Railway

Railway is entirely a state-owned enterprise that accounts for a meagre 2 percent of total freight business and 5 percent of the total travelling passenger market. Most of its passenger and freight traffic is concentrated in few large urban centers, which limits the business potential lurking in peri-urban and non-urban destinations. Table 1 shows the revenue generated by the railway sector and as evident, it shows a mixed trend over the period under review. In terms of employment generation, railway provides employment to 62, 932 individuals as of 2015-16[6]. Table 2 depicts the export of rail transport services cumulatively (passenger, freight and other category) and as evident the exports of rail transport remains meagre. Under CPEC, $8.2 billion was initially to be

[4] Londoño-Kent (2009).
[5] Ali (2018).
[6] Pakistan Bureau of Statistics (2016).

invested in upgrading Pakistan Railways however, recently the amount has been slashed to $6.2 billion[7].

Lately, Pakistan Railways has decided to partner with private sector in a launch of a new cargo train service between Karachi and Lahore which is likely to enhance the supply chain management in cross-border trade and reduce the freight time and cost. The reduced transport time would assist in easing traffic on roads, reducing road maintenance cost, controlling pollution and minimizing cargo congestion at seaports. The service is being initiated with the assistance of surplus wagons and engines that would help in reducing the losses of Pakistan Railways as well.[8]

Maritime Transport

Ports and Shipping

As far as maritime transport is concerned, there are currently 3 ports in Pakistan, of which two are fully operational (Karachi and Port Qasim) and the third Gwadar port is partially operational. Karachi Port handles approximately 60% of all Pakistan's seaborne traffic, with 39 million tons of cargo in 2016-17, including nearly 2 million TEU (Twenty-foot equivalent unit) container traffic. Port Qasim handled 27 million tons of cargo, including approximately 1.2 million TEU in 2016-17[9]. Only about a percent of the total cargo was handled at Gwadar port[10]. Gwadar port is considered the flagship project of CPEC, it is expected to yearly handle 13 million-tons of cargo[11] within a span of next 5-years. As for the stakeholders involved in the maritime transport, Pakistan National Shipping Corporation (PNSC) is a state-owned corporation, which is the sole operator of large cargo ships having a monopoly position in freight trade thus the maritime transport sector is largely state-owned[12]. Table 3 depicts the revenue generated by the maritime transport precisely, the Pakistan National Shipping Corporation, and as evident, it has slightly increased over the period under review. Under CPEC, the investment on development of Gwadar port amounts to $248 million[13].

Table 3: Revenue Generated by Maritime Transport

(Rs. billion)	
Year	**Ports and Shipping**
2015-16	12.54
2016-17	12.47
2017-18	13.46

Source: Pakistan Economic Survey (2017-18).

[7] CPEC investment in Pak Railways (2018).
[8] Siddiqui (2018).
[9] 'Transport and communication', Economic Survey 2017-18.
[10] Imports only. See Statistical Appendix to Economic Survey 2017-18, CH 13, Table 13.1 D.
[11] 'China turning Pakistani port into a regional giant'.
[12] Aslam (2001).
[13] Gwadar Port: One of many ventures of China (2018).

Table 4 shows the export of sea transport services cumulatively (passengers, freight and other category) and as evident it depicts a mixed trend over the period under review. Around 95 percent of Pakistan's trade is seaborne however only 16 percent is handled by national carrier. Comparison of Table 2 and 4 reveals exports of road and sea transport services to be relatively greater than that of rail transport.

Table 4: Export of Maritime Transport Services

(US $ million)	
Year	**Sea Transport**
2015-16	30.39
2016-17	40.18
2017-18	26.15

Source: State Bank of Pakistan.

Challenges facing Land and Maritime Transport

Land and maritime transport sectors of Pakistan are plagued with numerous challenges that limits its potential with respect to trade in services. For instance, the existence of multiple regulators (Provincial Transport Departments, Provincial Excise and Taxation Departments and Provincial Home Departments) in case of road transport sector increases the cost of compliance with the regulatory authorities. In addition, the nature of the market is fragmented in a sense that it is saturated with a mix of informal operators (worker-come-operators) and individual or joint ownership of small fleets of intercity passenger and freight services. Moreover, the undue protection to state-owned enterprises such as the National Logistics Cell (NLC) fuels discriminatory behavior and undermines the competition in the road transport sector. Furthermore, issues in road freight such as overloading, road damages, environmental hazards and fuel inefficiencies are some other factors responsible for the sector's incompetency.

On the same lines, Pakistan Railways is a sole service provider of rail transport with declining efficiency. The sector suffers from a shortage of locomotives owing to non-procurement of spare parts. There are also obstacles to inter-country rail transport such as the passenger and freight movement between India and Pakistan has been halted on several occasions owing to political, national security and custom-clearance issues. Further, the absence of clear legal and policy framework has prevented private sector investments in the sector. Although there are no apparent restrictions on the private provision of services in the rail transport, the notion has not been pursued actively nor has attracted due attention.

As far as the maritime transport is concerned, again undue protection to national flag carrier i.e. Pakistan National Shipping Corporation (PNSC) has undermined the competition and scope for private domestic carriers and foreign carriers. This is evident from the fact that only the national operator (PNSC) has cabotage rights in the maritime transport sector meaning, it is not permissible for domestic carriers to transport passengers and freight for foreign companies and vice versa. Moreover, the ship registration has a high level of protection whereby citizenship is required for registration of a vessel. The port management and operations are complex and biased as certain port services such as pilotage and tugging are reserved for public sector only. In addition, the ports have high entry charges and longer dwelling times. Also, the coastal freight rates are not entirely fixed by the government but rather determined by the market forces. Also no charges or conditions of access to port facilities are applied to discriminate between vessels of varying flags. However, some ports do provide incentives in the form of cargo reservation privileges or subsidies to PNSC. This would need to be changed if Pakistan adheres to the GATS commitments in the sector. Lastly, there are certain policy constraints which limits the involvement of private flag carriers in maritime transport. For instance, financing facilities are hardly available and equity returns on foreign investment remain unattractive. To make matters worse, import duties on ships remain high thus discouraging local and foreign private investment[14].

Views of Public Stakeholders

The analysis of interviews with relevant public stakeholders revealed some further regulation constraints, challenges and scope of evolution in the land and maritime transport sector. The responses are summarized below while the details are contained in the appendix (see Annexure).

- Current regulations are ineffective in promoting the land and maritime transport sector as corruption acts as a major barrier in successful implementation of regulations. For instance, local transport authorities issue fitness certificate to transport vehicles on receipt of payment in personal bank account. Similarly, driving licenses are awarded based on nepotism and bribery.
- There is lack of connectivity between industries and transport infrastructure. Nevertheless, projects such as E-35, PKM etc. are underway to enhance connectivity.
- Rail sector has great potential for increasing its share in freight transport as it has an edge over other modes (road and sea) in terms of being cheaper and hustle free.
- Pakistan is still in the process of improving its systems and laws in line with international conventions such as Carnet ITP. However, lack of political will and incompetency of institutions act as a major hurdle in its successful execution.

Regulatory Framework of Land and Maritime Transport

The National Transport Policy (2018) has recently been approved which aims to enhance the mass transit, urban transport, trucking, rail, air and maritime transport in order to meet the challenges of rising population.[15] Salient features of the national policy include:

- Enhancement of non-motorized and public transport so as to prioritize passenger transport by road.

[14] Rizvi (2002).
[15] Work on the National Transport Policy (2018) has been initiated in collaboration with Asian Development Bank and Department for International Development.

- Shifting of freight transport from road to rail and pipeline through better integration of agriculture and industry to rail stations, pipelines and dry ports.
- Accession to and implementation of relevant international agreements and conventions pertaining to road transport.
- Adoption of the UN endorsed Safe System Approach for road safety through improvements in leadership and management of road safety.
- Addressing root-causes of vehicle overloading.
- Encouraging private sector participation in the operation and maintenance of railways.
- Facilitating freight movement from road to rail through focusing on the provision of long-haul transport particularly trailer, container and bulk commodities so as to minimize the share of road freight.
- Provision of intermodal terminals for passengers surrounding urban areas to increase connectivity.
- Establishment of a port-city council planning forum to support port developments. Ports will be operated under a landlord port model.
- Public sector to provide supportive port and navigation infrastructure as well as regulatory oversight while private sector terminal operators will provide specialist terminal facilities and service delivery.
- Promotion of coastal port harbor facilities including passenger and freight shipping service concessions.
- Establishment of an independent regulator as National Maritime Authority.
- Enhancement of maritime security for all maritime zones and implementation through maritime security agency.

Regulatory Bodies and Sectoral Regulations

As far as road transportation is concerned, Ministry of Communications is broadly responsible for overseeing the road network at federal level through its various organizations such as National Highway and Motorway Police, National Highway Authority and National Transport Research Centre (NTRC). National Highway and Motorway Police is solely responsible for implementation of rules and regulations, National Highway Authority for infrastructure, and NTRC for research and policy guidelines. While at the provincial level, the taxation and excise departments, provincial transport authorities and provincial home departments regulate the road transport services.[16] The National Highway Safety Ordinance 2000 has been formulated to ensure driving safety on highways. It covers licensing, construction, vehicle registration, equipment and maintenance of vehicles, traffic control, penalties and offences. However, there are several deficiencies in the ordinance in terms of its implementation and awareness. Recently, the Ministry of Communications came forward with a Pakistan National Road Safety Strategy (PNRSS) 2018-30 that aims to provide better facilities to commuters and cut the number of traffic accidents by

[16] Noor (n.d.).

improving safety standards of roads and vehicles as well as the driver licensing standards, enforcing the use of helmets and seat belts, running awareness campaigns and providing speedy access to medical assistance at times of emergency[17].

Railway on the other hand, is administered by the Ministry of Railways. It oversees the planning, administration and establishment of passenger locomotive services and regulates the railway companies, industries and associated organization. The primary legislation in place concerning the railway sector is the Railways Act 1890. The act calls for co-existence of private and government-owned railways subject only to limitations pertaining to land acquisition powers of the government.[18] It also lays down general rules regarding carriage of passengers and property, limitation of employment of railway servants, construction and maintenance, penalties and offences.[19]

As for the maritime transport, Ministry of Maritime Affairs is the primary authority that regulates the ports and shipping industry of Pakistan. It provides policy guidelines to enhance growth and development in shipping while maintaining safety standards. The Merchant Marine Policy 2001 covers the maritime transport sector with rules and regulations in accordance with International Conventions. Some of the salient features of the Merchant Marine Policy 2001 include expansion and up-gradation of marine fleet to increase present share of cargo from 5 percent to 40 percent, increasing national ship building capacity to meet 20 percent of the total ship construction requirements and expansion of ship repairing facilities[20].

Conclusion and Recommendations

The land (road and rail) and maritime transport sectors are closely connected with domestic agricultural and industrial production as well as with the import and export of goods and services. Despite the significance, greater attention is paid on the development and upgrading of land and maritime infrastructure instead of transport services. Pakistan suffers trade deficit in rail and maritime transport services of US$ 6.23 million and US$ 2.46 billion respectively as of FY18[21]. The analysis reveals exports of rail transport services to be relatively less than road and maritime transport services. The potential of rail transport has not been exploited and the sector continues to underperform owing to structural and governance issues. On the same lines, road and sea transport is plagued with several challenges. In order to overcome those challenges, various measures can be undertaken which can also enhance the exports of road, rail and maritime transport services, precisely:

[17] Imaddudin (2018).
[18] Ibid.
[19] Ministry of Railways (1997).
[20] Aslam (2002).
[21] Economic Data. State Bank of Pakistan.

- Cross-border trade in land and maritime transport services can be enhanced through reducing transit time, expanding national freight and passenger transportation fleet, improving the cost and time effectiveness of cargo handling, providing incentives such as reduced duty on transport vehicles, easy access to finance and simplifying regulations and procedures.
- Unhealthy competition in the land and maritime sector needs to be minimized by tapering down the patronage offered to state-owned enterprises such as NLC and PNSC.
- In order to improve commercial presence in the sectors, pro-private sector investment policies and incentives need to be provided. For instance, tax rebates should be given to those generating income from export of transport services.
- Training institutions need to be improved specifically the public sector training institutes such as the driver training institute of NLC, to make them centers of excellence whereby knowledge and trained/skilled workers can easily be exported across the globe.
- Regional and bilateral service agreements can be utilized to include export of labor such as cab drivers, conductors, train operators, mariners etc. up to an extent where it does not adversely affect the local transport sector.
- Pakistan must consider privatization arrangements for state-owned operators in the land and maritime transport so as to improve sectoral efficiency. This should provide space for investments to flow towards the most economically viable mix of solutions and benefit short term growth and support long term market stability.
- Capacity building programs should be introduced in order to enhance the capacity of service providers, government trade promotion organizations and business support organizations involved in land and maritime transport sector.

References

Ali, K. (2018). 'China-Pakistan Economic Corridor: Transport & Logistics Sector Growth Potential in Pakistan'. Karandaaz. Date accessed: December 6, 2018. Retrieved: https://karandaaz.com.pk/blog/china-pakistan-economic-corridor-transport-logistics-sector-growth-potential-pakistan/

Amin, T. (2017). NHA to generate Rs. 24.8 billion in revenue in 2017-18. *Business Recorder*. Date accessed: December 5, 2018. Retrieved: https://fp.brecorder.com/2017/10/20171003223003/

Amin, T. (2018). NHA increases toll rates up to 10 percent. *Business Recorder*. Date accessed: December 5, 2018. Retrieved: https://fp.brecorder.com/2018/08/20180803396074/

Aslam, S.M. (2001). Shipping. *Pakistan and Gulf Economist*. Date accessed: December 18, 2018. Retrieved: http://www.pakistaneconomist.com/issue2001/issue30/cover.htm

Aslam, S.M. (2002). Investment in Shipping Industry. *Pakistan Economist.* Date accessed: December 18, 2018. Retrieved: http://www.pakistaneconomist.com/issue2002/issue53/i&e1.htm

Government of Pakistan. (1997). The Railways Act 1890. Ministry of Railways. Date accessed: December18,2018.Retrieved:http://www.ahmedandqazi.com/actsandregulations/transportationLaws/railwaysAct1890.pdf

Hisam, Z. (2006). Road Transport Workers in Pakistan. Pakistan Institute of Labour Education and Research. Date accessed: December 6, 2018. Retrieved: http://piler.org.pk/wp-content/uploads/2017/02/Road-Transport-Workers-in-Pakistan.pdf

Imaddudin. (2018). Murad Saeed launches National Road Safety Strategy 2018-2030. *Business Recorder*. Date accessed: December 18, 2018. Retrieved: https://www.brecorder.com/2018/11/15/452883/murad-saeed-launches-national-road-safety-strategy-2018-2030/

Jabri, P. (2017). Maritime trade, pivotal in revolutionizing Pakistan's economy. *Business Recorder.* Date accessed: December 10, 2018. Retrieved: https://www.brecorder.com/2017/12/28/389579/maritime-trade-pivotal-in-revolutionizing-pakistans-economy/

Londoño-Kent, P. (2009). Freight transport for development toolkit: Road freight. *World Bank, Washington DC*.

Noor, M. A. (n.d.). The Challenges of Enhancing Pakistan's Export Potential in Transport Services. Trade Related Technical Assistance (TRTA II) Programme. Policy Research Study.

Pakistan Bureau of Statistics (2016). Pakistan Statistical Year Book. Date accessed: December 10, 2018.Retrieved:http://www.pbs.gov.pk/sites/default/files//PAKISTAN%20STATISTICAL%20YEAR%20BOOK%2C%202016.pdf

Rizvi, S.A. (2002). New Measures in the Shipping Policy. *Pakistan and Gulf Economist*. Date accessed: December 14, 2018. Retrieved: http://www.pakistaneconomist.com/issue2002/issue16/i&e4.htm

Siddiqui, S. (2018). Karachi-Lahore route: Railways, private sector to launch new cargo train. *The Express Tribune*. Date accessed: December 25, 2018. Retrieved: https://tribune.com.pk/story/1872746/2-karachi-lahore-route-railways-private-sector-launch-new-cargo-train/

State Bank of Pakistan (2018). Economic Data. Trade in Services. Date accessed: December 10, 2018. Retrieved: http://www.sbp.org.pk/ecodata/dt.pdf

World Bank (2000). *Perspective of Civil Society on the Transport Sector in Pakistan.* Summary Report. Vol.I.

(2018). Pakistan earns over $3.630 billion from export of transport services. *The Nation.* Date accessed: December 10, 2018. Retrieved: https://nation.com.pk/06-Aug-2018/pakistan-earns-over-3-630-billion-from-export-of-transport-services

(2018). CPEC investment in Pak Railways. *Pakistan Observer*. Date accessed: December 10, 2018. Retrieved: https://pakobserver.net/cpec-investment-in-pak-railways/

(2018). Gwadar Port: One of many ventures of China. *China-Pakistan Economic Corridor*. Date accessed: December 10, 2018. Retrieved: http://www.cpecinfo.com/news/gwadar-port-one-of-many-ventures-of-china/NTM0MQ=

Annexure: Views of Public Stakeholders

Note: The focal persons from following organizations chose to remain anonymous.

Questions/Organizations	**Transport & Communication Section (Planning and Development Commission)**	**National Highway Authority**
1) In the near future, do you see freight transport shifting gradually from predominantly road freight towards rail/sea transport? If yes, why?	Yes, due to increased financing/budgetary allocations for improving infrastructure and operations of railways and maritime, it is expected that rail and sea freight share would increase to 10-12% of the road share in coming 2-3 years.	Yes, freight transport will probably shift from road to rail and sea network. Under the new governance, railway and sea network is expected to make momentous progress in the time to come. It has an edge over other modes of transport in terms of being comparatively cheaper and hustle free.
2) Are the present regulations effective in addressing inefficiencies or issues of the land and maritime transport sector?	Regulation/sops/rules/laws are there. However, there is always a room for betterment and review after every 3-5 years to accommodate the requirement and new international laws and technologies. However, major issue lies in the implementation side, which needs focus and improvement.	Not too much effective as corruption is major hurdle in implementation of regulations. Local transport authorities' issues fitness certificate to transport vehicles on receipt of payment in personal bank account. Driving licenses are awarded based on nepotism and bribery. Fair and centralized system is a need of today with proper counterchecks.
3) Has Pakistan updated its procedures/systems in line with signed conventions, like Carnet ITP? If not, where lies the fault?	Pakistan is in the process of improving its systems and laws with international laws as they are entering into CPEC and other framework agreements with neighboring countries including Afghanistan and CARs.	The answer is a big no. Reasons behind non-conforming with international standards are lack of political will and incompetency of relevant institutions.

4) Is it true that large-scale government projects, like power plants and Motorways are the primary source of spurring freight traffic? How much effect do private sector projects have on spurring freight transport?	Railways in the long haul is economic and efficient in terms of delivery time and involves very low risk. In any case whether we built motorways, the freight forwarders will prefer railways in future.	Yes. It is actually the case. Large-scale government projects have a number of auxiliary benefits that includes spurring freight traffic.
5) Any initiatives at federal, provincial government level to incentivize replacing aged transport with newer versions?	Yes, in KPK (Peshawar) and Karachi a number of mass transit lines on Hybrid technology and train (light rail transit) schemes are under consideration in design phase.	Government has not set any priority to introduce practical reforms in old aged transport versions.
6) Are industrial sectors in Pakistan properly connected to road and other transport networks?	Yes, but the infrastructure needs improvement and major rehabilitation.	Industrial sector of Pakistan is not properly connected to transport network at optimum level. Discrepancies exist in our value chain network that needs to be properly addressed on priority.