# **Transports and Logistics**

NADEEM UL HAQUE and SABA ANWAR

### KEY MESSAGES

- The estimated potential of Pakistan's logistics sector is USD 30.7 billion but it has not been realised as yet. Where is it today?
- Pakistan is nowhere in the global scenario according to the recent Logistics Performance Index prepared by the World Bank 2023.
- The modal shares are highly skewed towards roads accounting for more than 92 percent of passengers and 96 percent of freight. On average this should be 60 percent.
- The motorways and highways constitute less than 10 percent of the total road network but carry almost the entire freight traffic.
- The inadequacy and inefficiency of the public transport system in Islamabad bring more private vehicles on the roads.
- Heavy losses in the railway sector have necessitated an increase in grants from PKR 45 billion in 2022-23 to PKR 55 in 2023-24. Per-passenger grants amount to PKR 1,261 and PKR 5,556 per ton for freight in 2021-22.
- Pakistan Railways has so far failed to adopt the open access policy approved in 2011, which reflects bureaucratic hurdles and governance failures.
- PIDE survey reveals that freight forwarders do not use Pakistan Railways because
  of the non-availability of relevant information, but mainly because of the nonreliability of the services.
- Pakistan Post has 10,293 post offices in Pakistan, of which 87 percent are incurring losses, while TCS has a market share of 43 percent with less than 10 percent of branches than Pakistan Post.
- The labour unions in public sector organisations have played a major role in resisting reforms, ensuring inefficiencies and substantial losses to the exchequer.

#### 1. INTRODUCTION

The transport and logistics infrastructure plays a critical role in domestic commerce in facilitating buying and selling. In fact, transport infrastructure is the asset that increases the productivity of other players in the ecosystem like trucks (Baldwin & Dixon, 2008).

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The estimated potential of the logistics sector in Pakistan is USD 30.7 billion (World Bank, 2015), however, this has not been realised due to the sector suffering from several challenges. Pakistan was ranked 122 out of 160 countries in the Logistics Performance Index (LPI) 2018, while disappeared from the international scenario in the 2023 LPI. This calls for immediate attention to the sector that faces several challenges, which must be addressed if it is to compete in the global economy, especially in the region where other countries are performing much better.

Table 1

Logistics Performance Index of South Asian Countries

|            | LPI  |         |                | International | Logistics  | Tracking  |          |
|------------|------|---------|----------------|---------------|------------|-----------|----------|
| Country    | Rank | Customs | Infrastructure | Shipments     | Competence | & Tracing | Timeline |
| India      | 44   | 2.96    | 2.91           | 3.21          | 3.13       | 3.32      | 3.5      |
| Maldives   | 86   | 2.4     | 2.72           | 2.44          | 2.55       | 2.77      | 3.18     |
| Sri Lanka  | 94   | 2.58    | 2.49           | 2.51          | 2.42       | 2.79      | 2.79     |
| Bangladesh | 100  | 2.3     | 2.39           | 2.56          | 2.48       | 2.79      | 2.92     |
| Nepal      | 114  | 2.29    | 2.19           | 2.36          | 2.46       | 2.65      | 3.1      |
| Pakistan   | 122  | 2.12    | 2.2            | 2.63          | 2.59       | 2.27      | 2.66     |
| Bhutan     | 149  | 2.14    | 1.91           | 1.8           | 2.35       | 2.35      | 2.49     |

Source: Pakistan Export Strategy Logistics; Logistics Performance Index, World Bank (2018).

21.00% 15.60% 15.00% 14.00% 13.00% 8.50% 8.50% 8.60% 8.20% Malaysia India Thailand Pakistan Vietnam USA Singapore Japan Australia

Fig. 1. Logistics Contributions to GDP (Percent)

Source: Pakistan Export Strategy Logistics.

In Pakistan, the modal shares are highly skewed towards roads. Roads are the predominant source of transportation in Pakistan accounting for more than 92 percent of passengers and 96 percent of freight. This imbalance has increased the cost of transportation through congestion, pollution, and expenditure on the maintenance of roads. In contrast, although the share of rail in both freight and passenger traffic in India is declining (Figure 10.3), it is greater than in Pakistan.

The authors acknowledge the contribution of Babar Badat in screening the report.

95% 94%

6% 3% 0% 2%

Road Rail Air

Freight Traffic Passenger Traffic

Fig. 2. Transport Modal Shares in Pakistan: 2020 (Percent)

Source: Pakistan Economic Survey.

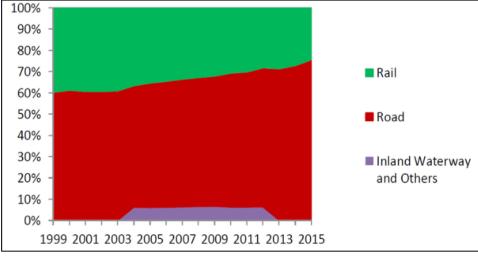


Fig. 3. Transport Modal Shares in India (Percent)

Source: Gu, et al. (2020).

The National Freight and Logistics Policy (2021) document has rightly pointed out that the logistics sector is fragmented and in need of modernisation. A lack of institutional framework has further impeded the growth of the logistics sector and a mixture of old and new laws govern what is supposed to be a sector operating in the modern world. The main obstacle lies in the absence of a unified Ministry/Department of Transport responsible for creating and executing a comprehensive National Transport Policy (Shaikh, 2019). Currently, the logistics sector is divided among multiple federal ministries, making it extremely difficult to establish coherent regulations for the sector's growth and integration.

- The Ministry of Commerce handles foreign and transit trade.
- Shipping services are overseen by the Ministry of Ports and Shipping.

- The Ministry of Defence is responsible for airports and aviation.
- The Ministries of Communications and Railways manage rail and road infrastructure as well as freight.
- Customs and cargo clearance affairs fall under the jurisdiction of the Ministries of Finance and Interior.

This fragmented structure prevents the effective implementation of existing important regulations like the Trucking Modernisation Plan and the National Transport Policy, which were approved in 2007. Consequently, Pakistan has not ratified or adopted international standards and conventions concerning the transportation of goods and products, intensifying the challenges faced by the sector. Furthermore, the sludge (Haque, et al. 2022) in the sector which includes burdensome documentation requirements and customs procedures, results in delays, escalates shipment costs, and reduces the ease of doing business in the country.

# 2. ROAD TRANSPORT

Pakistan's transport and logistics are dominated by road transport. The fuel consumption is the highest in the case of road transport. In the case of freight transport, fuel consumption is three times as much as compared with railways and 7.2 times as compared to waterways. The cost of road transport including forward and backward linkages of road transport amounts to PKR 5.6 million and PKR 6.7 million in the case of protests, such as *dharnas*. Moreover, for metro service, a subsidy of PKR 4 per passenger will be paid by the government in 2023-24. The transport network in Pakistan is concentrated as 57 percent of the total road network lies in Punjab.

### 2.1. National Overview

The transport sector contributes around 10.7 percent to the GDP of Pakistan and employs more than 5.8 percent of the labour force (see Figure 10.4 and Figure 10.5).

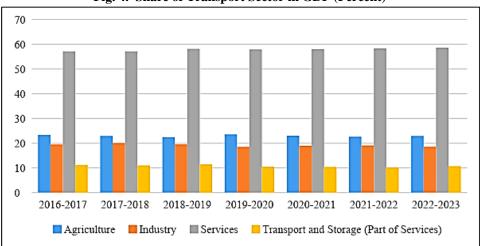


Fig. 4. Share of Transport Sector in GDP (Percent)

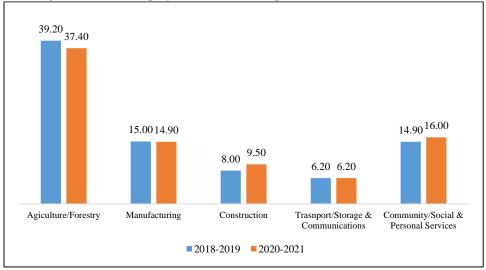


Fig. 5. Share of Employment in the Transport & Other Sectors (Percent)

Source: Pakistan Economic Survey.

"Road transport is particularly suited to the conditions and requirements of Pakistan ... the motor vehicle is more adaptable than the railways to varying degrees of traffic intensity and permits a greater degree of speed and efficiency in haulage over short distances... there is a close relationship between the volume of transport and the level of economic activity because each depends upon the other."

The Government of Pakistan, Planning Commission, 1960).

In Pakistan, despite having a wide railway network at the time of independence, there has always been a fixation on building roads at the expense of other modes of transport and logistics. In the Second Five-Year Plan (1960-65), the allocation of financial resources prioritised roads over railways, and the larger cities witnessed an immense expansion of road networks and road-based public transport systems.

Table 2

Comparison of Road Transport Indicators: 1947 & 2021

| Indicator                           | 1947   | 2021       |
|-------------------------------------|--------|------------|
| Registered Vehicles (Number)        | 30,577 | 30,968,000 |
| Registered Trucks/Trailers (Number) | 800    | 300,000+   |
| Total Roads (km)                    | 50,367 | 500,000    |
| Motorways (km)                      | 0      | 2500+      |
| National Highways (km)              | 0      | 12,000     |
| Road Density                        | 0.06   | 0.58       |

Source: NRTC Digital Map.

The emphasis of the policymakers remained on the hardware of the country, especially on roads. The road density now stands at 0.58. The road investment policy did not originate from any industrial development policy, but the heavy investment in roads left no money for the public transport system (Imran and Low, 2007). The same Plan encouraged the private sector to participate in road-based public transport, which resulted in private wagons being run on assigned routes.

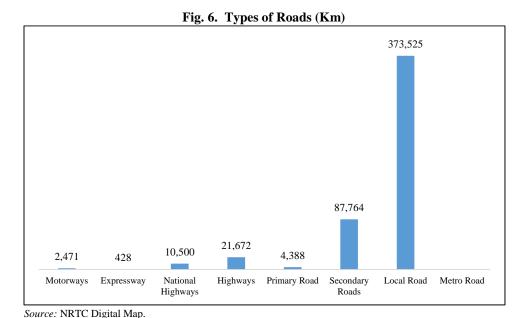


Fig. 7. Provincial Distribution of Roads (Km)

281,196

92,167

45,724

45,963

10,656

6,419
6,287

AJK Balochistan GB ICT KPK Punjab Sindh

As a result, the number of vehicles on the road in the country has also been increasing as can be seen from the figures below.

34,300 35,499

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Fig. 8. Total Vehicles on Roads (Thousands)

Source: Pakistan Economic Survey.

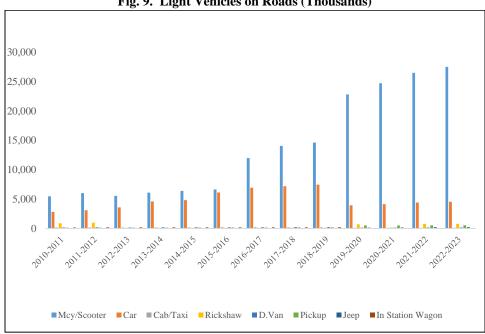


Fig. 9. Light Vehicles on Roads (Thousands)

#### MAJOR ISSUES IN THE TRANSPORT SECTOR OF PAKISTAN

- A largely obsolete truck fleet:
  - o Causes problems with road safety (drivers are poorly trained).
  - o Poor fuel efficiency (transport consumes 35 percent of all energy in Pakistan).
  - o Promotes overloading which damages roads.
  - Does not meet certification requirements under TIR and cannot be used to transport goods across borders.
- Physical and non-physical bottlenecks:
  - o Port access in Karachi and Port Qasim is an issue.
  - Rail is virtually non-existent.
  - o Laws governing the transport sector need updating and harmonisation.
  - Carriage of Goods by Road Act (COGRA), was prepared in 2003 but never approved.
- Trucking Policy of 2008 identified the need for change in the sector but was partially adopted Legal environment in which the sector operates needs to be updated to permit operations in line with standard practices globally.
- Development of the CPEC corridor, Accession to TIR will increase competitive pressure on Pakistan's freight and logistic sectors.

Source: NTRC.

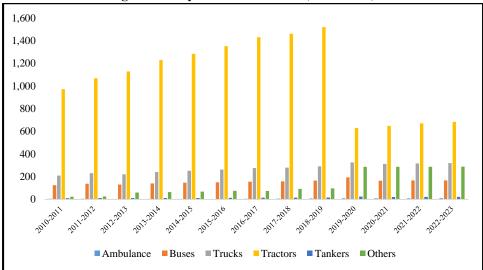


Fig. 10. Heavy Vehicles on Roads (Thousands)

Source: Pakistan Economic Survey.

### 2.2. Road Transport in Twin Cities

# 2.2.1. Length and Type of Roads

Islamabad and Rawalpindi together constitute a 278 km<sup>3</sup> area for 1.8 million residents. (RDA, 2021; NTRC, 2006). The twin cities are viewed as one urban agglomeration. Islamabad is a medium-density planned city, while Rawalpindi is a high-

density mix use city. The daily twin city commuters account for almost 70,000 (RDA, 2012). The motorways and highways constitute less than 10 percent of the total road network but carry almost the entire freight traffic (NLP, 2020). The tables below contain information about the motorways, expressways, highways, primary roads, secondary roads, local roads, and metro roads that are situated in twin cities.

Table 3

Road Class and Length: Islamabad (Km)

| Road Class     | Road                         | Length |
|----------------|------------------------------|--------|
| Motorway       | Islamabad Motorway           | 11     |
| Highways       | Islamabad Highways           | 192    |
| Primary Road   | Primary Road in Islamabad    | 208    |
| Secondary Road | Secondary Roads in Islamabad | 503    |
| Local Road     | Local Roads in Islamabad     | 5,641  |
| Metro Road     | Metro Roads Islamabad        | 17     |
| Expressway     | Islamabad Expressway         | 56     |

Source: NESPAK (2015).

Table 4

Road Classes and Length: Rawalpindi (Km)

| Road Class         | Length |
|--------------------|--------|
| Motorway           | 74     |
| G.T. Road          | 145    |
| Primary Road       | 315    |
| Secondary Road     | 544    |
| Tertiary/Collector | 906    |
| Street/Local       | 1,063  |

Source: NESPAK (2015).

# 2.2.2. Vehicles on Roads (Public & Private)

Around 1.3 million vehicles were registered in Islamabad by April 2022. With an estimated population of 2.6 million, this amounts to around one vehicle per two residents, indicating a huge volume of traffic. This quantum of vehicles far exceeds the capacity of the secondary and tertiary roads in the planned city. Perhaps the most alarming indicator is the average vehicle registration per month, which is reported to be around 2-3 thousand. This indicates the inefficiency of the public transport to cater to the needs of the commuters in the twin cities. With fewer buses, the public transport fleet mainly comprises 18-seater wagons and 12-seater vans. These vehicles are not at all adequate for the use of the elderly, females, and people with disabilities (Adeel, 2016).

https://www.thenews.com.pk/print/946937-record-number-of-vehicles-causing-traffic-issues-in-islamabad

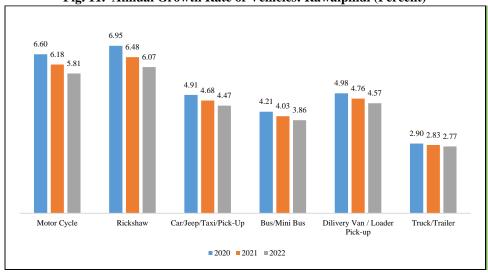


Fig. 11. Annual Growth Rate of Vehicles: Rawalpindi (Percent)

Table 5

Traffic Volume in Twin Cities

| Location         | Direction                       | Total Traffic | Total PCU |
|------------------|---------------------------------|---------------|-----------|
| Khiaban-e-Iqbal  | Faisal Ave. to 7th Ave.         | 13,029        | 11,939    |
|                  | 7th Ave. to Faisal Ave.         | 12,109        | 10,935    |
| Jinnah Ave       | Jinnah Park to Secretariat      | 33,075        | 30,141    |
|                  | Secretariat to Jinnah Park      | 37,322        | 32,736    |
| 7th Ave          | Khayaban-E-Jinnah to Kashmir HW | 19,400        | 17,750    |
|                  | Kashmir HW to Khayaban-E-Jinnah | 17,914        | 16,456    |
| Faisal Ave       | Faisal Masjid to Zero Point     | 50,605        | 48,160    |
|                  | Zero Point to Faisal Masjid     | 72,758        | 66,507    |
| 9th Ave          | I-9 to IJP                      | 31,368        | 28,173    |
|                  | IJP to I-9                      | 37,412        | 32,380    |
| Service Road E   | Margalla Rd to Jinnah Ave       | 22,474        | 20,840    |
|                  | Jinnah Ave to Margalla Rd       | 18,239        | 16,955    |
| Islamabad        | Rawat To Faizabad               | 59,982        | 61,470    |
| Highway          | Faizabad to Rawat               | 48,043        | 52,117    |
| IJP Near 9th Ave | Pirwadhai to Faizabad           | 25,152        | 32,104    |
|                  | Faizabad to Pirwadhai           | 23,323        | 28,804    |
| Murree Rd Near   | Chandani Chowk to Faizabad      | 46,666        | 42,101    |
| Faizabad         | Faizabad to Chandani Chowk      | 40,289        | 37,009    |
| Stadium Road     | IJP to Stadium                  | 29,921        | 23,680    |
|                  | Stadium to IJP                  | 20,152        | 15,194    |
| Saidpur Road     | Saidpur Rd to IJP               | 11,881        | 7,864     |
|                  | IJP to Saidpur Rd               | 11,233        | 8,008     |
| Rawal Road       | Chandani Chowk to Airport       | 14,262        | 11,901    |
|                  | Airport to Chandani Chowk       | 20,126        | 14,278    |
| GT Road          | Rawalpindi to Peshawar          | 44,075        | 56,096    |
| Peshawar Side    | Peshawar to Rawalpindi          | 39,907        | 48,400    |
| G.T. Road        | Rawat to Kacheri                | 40,207        | 37,825    |
| Lahore Side      | Kacheri to Rawat                | 40,016        | 38,446    |

Source: MTSSRI Traffic Survey.

### 2.2.3. Public Routes

The public transport network for Rawalpindi and Islamabad was planned in early 1980. Out of the 89 planned public routes, 52 routes remained inoperative owing to low commuters (Adeel, et al. 2014). The absence of public transport led to paratransit services in the twin cities. In 2015, ride-hailing services started operating in Pakistan as a substitute for unreliable and inaccessible public transport. The latest addition has been the 24 km long Pakistan Metro Bus Service operationalised in 2015. The route carries 68 buses and 24 stops.

As shown in Table 3, the route between Faisal Mosque and the zero point has the highest traffic volume. However, 25 coasters and 80 wagons have been issued licenses to carry the traffic count of 72 thousand commuters.

Table 6
Functional Routes and Transport Vehicles: Islamabad

| No. | Route No. | Route Area                      | Vehicles (Numbers) |
|-----|-----------|---------------------------------|--------------------|
| 1   | 101       | Pirwadhai to Faisal Masjid      | 25 Coasters        |
| 2   | 104       | Tarnol to Pak Secretariat       | 24 Coasters        |
| 3   | 104-A     | Tarnol to Pak Secretariat       | 9 Coasters         |
| 4   | 105       | G-15 to Pak Secretariat         | 50 Wagons          |
| 5   | 105-A     | G-15 to Pak Secretariat         | 47Wagons           |
| 6   | 110       | Khataar to Pirwadhai More       | 151 Wagons         |
| 7   | 111       | Rawat to F-8 Markaz             | 60 Wagons          |
| 8   | 113-A     | Pirwadhai to Secretariat        | 05 Coasters        |
| 9   | 115       | Pirwadhai to G-11/1             | 48 Pickup van      |
| 10  | 115-A     | Peshawar to G-14                | 35 Pickup van      |
| 11  | 120       | Hajj Complex to Bari Imam       | 210 Wagons         |
| 12  | 121       | Hajj Complex to Faisal Masjid   | 24 Wagons          |
| 13  | 121-A     | Pirwadhai Morr to Faisal Mosque | 47 Wagons          |
| 14  | 122       | Chirah to Pak Secretariat       | 70 Wagons          |
| 15  | 122-A     | Khanna to Pak. Secretariat      | 42 Wagons          |
| 16  | 124       | Arri Syedan to Faisal Masjid    | 80 Wagons          |
| 17  | 127       | Chattar to F-8 Markaz           | 35 Wagons          |
| 18  | 127-A     | Bhera Pull to G-11              | 27 Wagons          |
| 19  | 128       | Gulshan-e-Jinnah to Pir Sohawa  | 210 Wagons         |
| 20  | 131       | Faizabad to Kurry Sher          | 60 Coasters        |
| 21  | 133       | Pirwadhai to Chonpra            | 64 Coasters        |
| 22  | 136       | PWD Colony to Pak Secretariat   | 40 Wagons          |
| 23  | 138       | Alipur to G-15 Markaz           | 55 Wagons          |

Source: Regional Transport Authority (RTI) RWP & ISB.

| Table 7  |
|--|
| Functional Routes and Transport Vehicles: Rawalpindi |

| No. | Route No. | Alignment of Route   | Wagons (Numbers) |
|-----|-----------|--|------------------|
| 1   | 1-C       | 1-C: Liaqat Colony CDA Stand Islamabad                               | 381              |
| 2   | 1         | Route No.1: Humrahi Ada Sowa to Islamabad Secretariat                | 551              |
| 3   | 3         | Liaqat Road to Foreign Office  | 115              |
| 4   | 5         | Route No.5: RMA Building Tomogah to village Koth Kala, Aara Machine. | 70               |
| 5   | 6         | Railway Station to Pak Secretariat                                   | 42               |
| 6   | 7         | Route No. 7: Hajj Complex to SOS Village Sawan                       | 529              |
| 7   | 21        | Route No.21: Pak Secretariat to SOS Village Sawan                    |                  |
| 8   | 24        | Route No. 24: Adiala to Pak Secretariat Islamabad                    | 143              |
| 9   | 29        | Route No. 29: Liaqat Road near Baldia Complex to Rawat               | 129              |
| 10  | 35        | Route No.35: Railway Station to Wah Factory                          | 174              |

Source: Regional Transport Authority (RTI) Rawalpindi & Islamabad.

Table 8

ICT & Rawalpindi: Intercity Routes and Vehicles

| No. | Route No. | Alignment of Route                         | Vehicles (Numbers) |
|-----|-----------|--|--------------------|
| 1   | 1         | Haider Road Rawalpindi to Pak Secretariat  | 72 Wagons          |
| 2   | 1-C       | Chungi No. 22 to Karachi Company           | 60 Wagons          |
| 3   | 3         | Liaquat Road Rawalpindi to Noor Pur Shahan | 42 Wagons          |
| 4   | 6         | Railway Station to Pak Secretariat         | 42 Wagons          |
| 5   | 21        | High Court to Pak Secretariat              | 67 Wagons          |
| 6   | 23        | Gharibabad Rawalpindi to Pak Secretariat   | 37 Wagons          |
| 7   | 24        | Lalkurti Rawalpindi to Pak Secretariat     | 65 Wagons          |

Source: Regional Transport Authority (RTI) RWP & ISB.

# 3. RAIL TRANSPORT

In Pakistan, rail transport is a neglected sector. Figures show that the losses incurred by Pakistan Railways during the five years—from 2015 to 2020 – amounted to a prodigious PKR 144 billion. Despite these losses, the grant to the sector has increased from PKR 45 billion in 2022-23 to PKR 55 billion as per budget 2023-24. The grant per passenger was PKR 1,261 and PKR 5,556 for freight per ton in 2021-22.

# 3.1. National Overview

Until the 1960s, rail transport was expanding and there was considerable focus on developing the rail infrastructure in the country. Several policies and plans were initiated to this effect. After the Second Five-Year Plan, investment in rail infrastructure declined in favour of road infrastructure, which had an overall negative impact on the rail network as well as Pakistan Railways (PR). At present, Pakistan Railways is the sole entity responsible for freight and passenger traffic through the rail network and has 650 stations, 461 locomotives, and a route length of 7,791 km. Freight and passenger revenues have been declining, which has had an impact on the gross earnings of the entity and its share in transport.

Nationwide Pakistan Railways owns 167,690 acres of land. The 145 000 acres of land is used for operational purposes. The remaining 33 000 acres is the "Right of Way" entitled to PR (Anwar, 2022). Since the land is not put to any productive use, land encroachments is becoming a regular phenomenon in PR.

In 2022, PR reclaimed 267 acres of land in Punjab, 133 acres of land in Khyber Pakhtunkhwa, from Sindh PR claimed 106 acres of land, and 23 acres of land in Baluchistan. From the total surface area, the commercial land was of 91 acres, 309 acres were residential, and 104 acres were agricultural.

There are a total of seven stations in Narowal, Okara, Hasan Abdal. which are not being used. This dead capital (Haque, 2018, Anwar, 2022) can be used to tap commercial resources of the railway stations by building hotels, hostels and markets on unused stations to strengthen its finances.

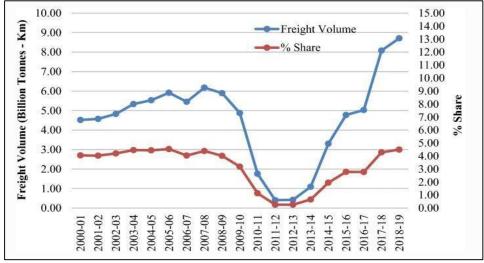


Fig. 12. Freight Volume and Share

Source: Railway Yearbook 2018-19.

The stiff competition from road transport and the inability of the PR to adopt a customer-centric business plan because of the complex bureaucratic structure has led to an inefficient, underfinanced, and overstaffed public agency. The ability of the PR to revert to the open access policy approved in 2011 and other governance reforms reflects the sheer failure of the governance and raises questions as to why and how PR has successfully managed to retain a forty-year-old governance model.

# 3.2. Circular Railways

One of the initiatives of the PR included circular railways which was included in the Second Five-Year Plan (1960-65). The Karachi Circular Railway was planned as the first rail-based public transport project to serve the entire city and its periphery. The 44 km long project was successful for the first 15 years (1964-79) though it was partially built. As the investment in infrastructure declined, fuel prices rose, the losses crept in and the KCR was eventually suspended in 1999. The KCR was revived in 2020 on the orders of the supreme

court, with an expected ridership of half a million passengers per day. The actual ridership is critically low, thus, making it an inefficient and costly mass transit project. Similarly, another circular train as a mass transit project was proposed for Lahore in 1973 which never materialised.

Similar projects were initiated in Islamabad and Rawalpindi as well. In 1996, rail-based mass transit was initiated in Rawalpindi and Islamabad. The objective was to use the existing railway infrastructure and reduce congestion and pollution. The service started with six trains but was reduced to four within three months. The inefficiencies in the form of the absence of timetables, facilities at the stations, feeder buses, and relatively higher fares led to the shutdown of the services. Currently, the BRT with no feeder routes serves as the mass transit project.

### 3.3. International Freight Forwarders Survey on Railways

PIDE conducted a survey of freight forwarders in five major cities of Pakistan. The survey revealed that they neither use railways nor are aware of the online railway freight charges, schedules, or the booking system. The prime reason put forward for not using railways is the non-reliability of the services.

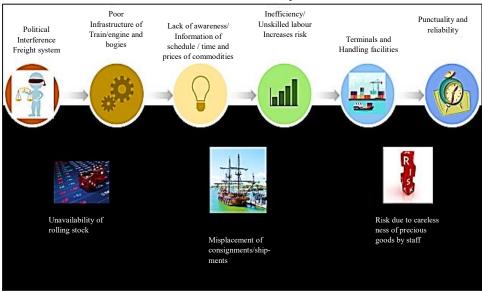


Fig. 13. PIDE Survey of Freight Forwarders: Why They Do Not Use Pakistan Railways?

# Recommendations

Based on the findings of the PIDE survey, the following suggestions are put forth:

- There is a need for the reliability of facilities and modern train infrastructure.
- A tracking system by booking number must be introduced because Pakistan Railways do not provide such a service, which indicates the primitiveness of the railway system in Pakistan.

- There is a need for training of the handling staff to avoid any damage.
- Trains should specialise in large shipments to attract higher volumes.
- As the PIDE survey revealed that the schedule of trains is neither easily accessible nor reliable, therefore, the timetable should be improved.
- The introduction of a shuttle service to both pick up the cargo and deliver it would attract more freight. I.e. manage the last mile once again a management issue

#### 4. AIR TRANSPORT

Once one of the best airlines in the region, Pakistan International Airlines (PIA) is in dire straits. It has been incurring heavy losses for long now. As a result, PIA received PKR 15 billion as a loan from the government in 2023. The grant given to PIA per passenger is PKR 3,503 and PKR 14 for freight per ton per km. On average, there are 500 employees handling one plane in PIA.

Pakistan has a total of 46 airports for conducting commercial operations. Out of these airports, 42, including 10 internationals, are owned and operated by the Pakistan Civil Aviation Authority (CAA). At present, out of these 42 airports, 13 are being used for both international and domestic operations, whereas 11 are only for domestic operations, and the remaining 22 are either scaled down or closed for operations due to various reasons.

Air transport is another avenue where Pakistan faces challenges, especially when it comes to its airports. Pakistan has consistently failed to perform well against its regional competitors in terms of airport usage and the volume of passengers and freight catered to by the airports (Batool, et al. 2018). There are several reasons for this including inefficient management and regulation of airports, security threats, operating inefficiency, financial issues, and technical problems. Airports face infrastructure constraints and all airports are far from meeting world-class standards. Technologies at airports have also not been updated regularly, leading to reduced operational ability of airports. Another reason which is responsible for the current status of PIA is the labour union. Like other government, organisations, this problem has been persistent in the PIA over more than a decade now. The labour unions had become very powerful and influential (Selase, 2018). Unlike other regional competitors, Pakistan has been unable to show extraordinary vision and planning to develop attractive aviation infrastructure along with support industries of international standards (Deen & Arshad, 2007).

The public sector passenger and freight transport services are provided by Pakistan International Airlines (PIA), which has a total fleet of 35 aeroplanes. The performance of PIA can be seen in the Table below.

Table 9

Pakistan International Airlines Corporation Performance

|                                   |         | -       |         |         |         |
|-----------------------------------|---------|---------|---------|---------|---------|
| Indicators                        | 2018    | 2019    | 2020    | 2021    | 2022    |
| PIAC Fleet (No. of Planes)        | 32      | 32      | 30      | 30      | 35      |
| Route (Km)                        | 332,303 | 389,725 | 778,609 | 374,054 | 341,821 |
| Passenger Load Factor (%)         | 77.3    | 81.3    | 74.5    | 66.9    | 80.3    |
| Revenue Flown (000 Km)            | 70,089  | 70,515  | 38,114  | 34,544  | 53,811  |
| Revenue Passengers Carried (000s) | 5,203   | 5,290   | 2,541   | 2,657   | 4,281   |
| Revenue Passengers (Million Km)   | 13,975  | 14,938  | 6,629   | 5,138   | 10,497  |
| Operating Revenue                 | 100,051 | 146,097 | 94,683  | 86,185  | 172,038 |
| Operating Expenses                | 170,447 | 160,037 | 102,912 | 101,212 | 183,345 |

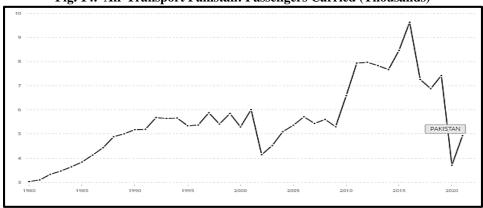


Fig. 14. Air Transport Pakistan: Passengers Carried (Thousands)

Source: World Bank.



Fig. 15. Air Freight Transport Pakistan: Million Ton Per Km

Source: World Bank.

Airport connectivity for users is also poor, especially for international airports. Unlike in other countries, airports in Pakistan have not been built keeping in mind the ideal requirement of being centrally located and accessible to travellers through various modes of public transport. Commercialisation of non-aeronautical areas is also insufficient and is an area that is less focused on (e.g. real estate, car parking, food & beverages, retail stores, etc.).

The landside facilities, passengers and cargo terminals, ground access facilities, and general amenities are inadequate. The arrangements of airline check-in facilities are not scientific; therefore, passengers have to remain in long queues and wait for long hours. Facilities, such as waiting areas and restaurants are very limited and also, and retail shops are just a few, and prices charged by retailers are several times higher than the actual prices (Batool, et al. 2018).

### 5. POSTAL SERVICES

### 5.1. National Overview

Pakistan Post has around 10,293 post offices and employee base of 40,000, and 87 percent of the branches are incurring losses. On the other hand, Tranzum Courier Service (TCS), which has 900 branches has 43 percent of the market share.

In the public sector, Pakistan Post is providing delivery services to about 20 million households and businesses as community service without any cost considerations. The consumers lost confidence in Pakistan post as it failed to align its services with modern technology. The private companies which were more responsive to technology and customers easily captured the market share in 90s. In addition to its traditional role, the Pakistan Post also performs agency functions on behalf of Federal and Provincial governments, which inter-alias include Savings Bank, Postal Life Insurance, Collection of Taxes, Collection of Electricity, Water, Sui Gas, and Telephone bills. Despite its substantial significance, the postal services was attached with ministry of communications that never prioritised Pakistan Post (Mansoor, et al. 2011).

The need to reform and the new vision "To provide every household in Pakistan with the ability to communicate and conduct business with each other and the world efficiently and economically" faced severe resistance from the National Organisation of Postal Employees (NOPE) in 2000. The NOPE was then banned and the reforms were implemented with the formation of an autonomous and high powered board by Postal Services Management Board Ordinance, 2002. The powers were delegated to the chief postmasters, the removal from service ordinance was practiced, there was effective communication about the reforms across the country, human resource development was prioritised, Western Union and DHL opened counters in GPOs and the organisation became self sufficient. (Mansoor, et al. 2011)

Pakistan Post has made great strides in terms of aligning itself with international standards. In the 2021 Universal Post Union rankings, Pakistan ranked 62 out of 168 countries, having improved its ranking from 92 in 2018 (2021). Since then, Pakistan has improved its ranking to 55 in 2022. This ranking was awarded building on the Integrated Index for Postal Development (2IPD) which currently ranks 168 countries across four dimensions: reliability, reach, relevance, and resilience (2021).

However, there is still considerable room for improvement in terms of digitisation and removing logistic bottlenecks. Pakistan Post has around 10,293 post offices in Pakistan, with 67 percent of these being in rural areas, which make up 87 percent of the branches incurring losses (Bukhari, 2019; 2023). Figure 5.16 shows the number of post offices over the years.

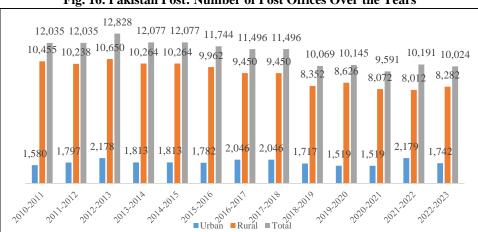


Fig. 16. Pakistan Post: Number of Post Offices Over the Years

In comparison, TCS, which is Pakistan Post's largest private-sector competitor operates with only 900 retail outlets across the country and has more than 43 percent of the market share (Bukhari, 2019; Jat & Jajja, 2020). TCS moves up to 130 million documents and parcels and 140,000 metric tons of freight annually (Jat & Jajja, 2020).

The major difference between both entities is in infrastructure and use of technology with Pakistan Post lagging in terms of technology use (Bukhari, 2019). However, since Pakistan Post is a service-providing entity, it cannot close down its rural offices since compared to the private sector, it performs much broader functions, which range from a savings bank, postal life insurance, collecting utility bills, receiving international remittances, selling savings certificates, and working on behalf of the Ministry of Finance and the federal and provincial governments (Bukhari, 2019).



# 5.2. Postal Services in Twin Cities

There are 28 post offices in Islamabad and 20 in Rawalpindi.

Table 10
Pakistan Post Offices in Twin Cities

| Islamabad                    | Rawalpindi                     |
|------------------------------|--------------------------------|
| Aiwan-e-Saddar Islamabad     | Attock Oil Company Post Office |
| Allama Iqbal Open University | Bahria Town                    |
| B-Block Pak Sectt            | Chak Jalal Din                 |
| DHA Phase-II                 | Chaklala Air Field             |
| E-9 (Air Hq)                 | Dhamial Camp                   |
| F-7 Markaz                   | Fazaia Colony                  |
| F-8 Markaz                   | GHQ                            |
| Federal Board                | High Court Post Office         |
| G-10 Markaz                  | Judicial Town                  |
| G-5 Foreign Office           | Kohinoor Colony                |
| G-8 Markaz                   | Kutchery                       |
| G-9 Markaz                   | Maira Post Office              |

# Table 10—(Continued)

| 10010 10 (00111111001)              |                           |
|-------------------------------------|---------------------------|
| I-10 Markaz                         | Momin Pura                |
| Islamabad I-8/4                     | Murre Brewery Post Office |
| Islamabad Post Office               | Pir Wadhai                |
| Jagiot                              | Raja Town                 |
| Kirpa                               | Rawalpindi Post Office    |
| Kuri                                | Satellite Town            |
| Lohi Bher                           | Urdu Bazar                |
| Malpur                              | Westridge                 |
| Mara Jaffar                         |                           |
| Model Town Humak                    |                           |
| National Health Laboratories        |                           |
| Nirole Post Office                  |                           |
| Noorpur Post Office                 |                           |
| Prime Minister Sectt                |                           |
| Quaid-e-Azam University Post Office |                           |
| Rawal Town Post Office              |                           |
|                                     |                           |

Source: PIDE State of Commerce Survey.

There are 8 TCS Locations in Islamabad and 15 in Rawalpindi.

Table 11

TCS Branches in Twin Cities

| Islamabad              | Rawalpindi                    |
|------------------------|-------------------------------|
| Aabpara Express Center | Rawalpindi Lalkurti           |
| Bara Kahu              | Adiala Road Express Center    |
| F-6 Markaz             | Bahria Town Express Center    |
| F-7 Markaz             | Blue Plaza Express Center     |
| F-8 Markaz             | Chaklala Express Center       |
| Royal Express Center   | Chandni Chowk Express Center  |
| Umar Plaza             | Gulzar-e-Quaid Express Center |
| Zero Point Branch      | Khanna Express Center         |
|                        | Liaqat Bagh Express Center    |
|                        | Morgah Express Center         |
|                        | Peshawar Road Express Center  |
|                        | Raja Bazar Express Center     |
|                        | Saidpur Road                  |
|                        | GPO Branch                    |

Source: PIDE State of Commerce Survey.

# 6. DRY PORTS

The dry ports were established by both the public and the private sector in Pakistan. There are six dry ports constructed and managed by Pakistan Railways, one by National Logistics Cell. The remaining are managed by the private sector under the trust. These dry ports are regulated by the respective provincial board of revenues. The growth and potential of

Pakistan's dry ports are constrained by several obstacles and limitations, much like those faced by many other countries, and have been graded as "little potential" by UNESCAP in 2013. These difficulties, however, also present chances for growth and development. Pakistan's dry ports are dealing with the following difficulties, constraints, and opportunities.

#### 6.1. Infrastructure Cess

The Punjab Revenue Authority has placed a 0.9 percent **cess on total value of the shipment purchase order** on imported goods entering Punjab through many ports, airports, and customs stations. According to the Punjab Infrastructure Cess Act of 2015, this levy raises exporters' overall cost of doing business.

### Transaction Costs: Shipping Lines-related Issues

- Container Detention charges: High container detention charges due to delays in returning empty containers can increase costs for importers/exporters. Improved coordination and communication between shipping lines and port operators can help address this issue.
- Security: Ensuring container security is crucial to prevent theft and damage during transit.
   Implementing advanced container tracking and security systems can enhance security measures.
- D.O. Charges: The imposition of Delivery Order (D.O.) charges can add to the overall cost
  of import/export operations. Evaluating and rationalising these charges can improve costeffectiveness.

# 6.2. Dry Ports in Pakistan

At present, there are six dry ports which are being operated by Pakistan Railways:

- Lahore Dry Port
- Karachi Dry Port
- Quetta Dry Port
- Peshawar Dry Port
- Multan Dry Port
- Rawalpindi Dry Port (AIG).

An additional six dry ports are also being operated by the private sector:

- Sialkot Dry Port
- Faisalabad Dry Port
- Pak-China Sust Dry Port
- NLC Dry Port Thokar Niaz Beg Lahore
- NLC Dry Port Quetta
- QICT Dry Port at Prem Nagar Railway Station (AIG).

# 7. INLAND WATER TRANSPORT

Pakistan inherited an extensively developed riverine and canal network at independence, which stretches from Sindh to Khyber Pakhtunkhwa (Tehsin & Nasir, 2019)

This system encompasses around 30,000 kilometres, comprising both horizontal and vertical stretches, and serves as a vital physical integration mechanism for the country's riparian regions. The extensive river and canal networks in Pakistan possess significant untapped potential for the advancement of inland waterway transportation by leveraging the Indus River System. In Pakistan, the utilisation of waterways for purposes such as irrigation, hydropower generation, and flood protection takes precedence over inland waterways transport, and these alternative uses hold greater significance and dominance (Zaidi, et al. 2022).

#### 7.1. Institutional Framework

The absence of a comprehensive institutional, legal, and regulatory framework has hindered the progress of the inland water transport (IWT) sector, despite its numerous advantages. When considering the institutional arrangements for developing IWT in Pakistan, there are crucial factors to be taken into consideration.

Presently, due to the 18th Amendment, provincial assemblies hold legislative authority over shipping and navigation within inland waterways (Zaidi, et al. 2022). However, as the Indus River traverses three provinces—Khyber Pakhtunkhwa, Punjab, and Sindh—it necessitates legislation by each province, which could complicate coordination among the authorities. Consequently, it would be more appropriate to establish a Federal-level "Inland Waterways Authority" that can assume responsibility for overseeing and coordinating IWT operations.

There are provisions within the Constitution that can address the challenge of inland waterways being devolved to provinces. Firstly, under Part V (Relations between Federation and Provinces), Chapter 1 (Distribution of Legislative Powers), Article 141 grants Parliament the power to enact laws with extra-territorial operation. Secondly, Article 144 empowers the Parliament to legislate for one or more provinces with their consent. Thirdly, the Parliament can directly address this matter by utilising entry No. 27 of the Federal Legislative List, which pertains to the "Commerce Clause" of the Constitution, allowing it to legislate and establish the necessary institutional structure for the Federal-level Inland Waterways Authority. Notably, there are existing precedents for such institutional bodies, including the National Electric Power Regulatory Authority (NEPRA) and the Indus River System Authority (IRSA).

#### 8. MARITIME TRANSPORT

Pakistan has a 1,050 km long coastline along which 8 seaports are operating. Among these, more than 95 percent of maritime trade is carried out by the ports of Karachi, Qasim, and Gwadar (Alam, 2020). Pakistan has tremendous maritime transport and trade potential due to its central location in the Arabian Sea, with pathways to the Middle East and Africa and a potential source of access route to the Central Asian region. However, this potential remains underutilised, due to the presence of competing countries. According to World Bank's Liner Shipping Connectivity Index, Pakistan is ranked 34, with the highest value for the index being 100.

| Table 12                          |
|-----------------------------------|
| Liner Shipping Connectivity Index |

| Country              | 2018 | 2019 | 2020 | 2021 |
|----------------------|------|------|------|------|
| Bangladesh           | 13.2 | 12.2 | 13.8 | 14.7 |
| India                | 55.5 | 54.3 | 57.2 | 58.9 |
| Iran                 | 18.4 | 18.1 | 31.2 | 31.1 |
| Oman                 | 55.5 | 52.6 | 60.7 | 59.3 |
| Pakistan             | 34.0 | 33.9 | 40.8 | 34.1 |
| Qatar                | 34.7 | 34.0 | 36.9 | 37.7 |
| Sri Lanka            | 63.6 | 62.2 | 72.0 | 70.7 |
| United Arab Emirates | 71.7 | 72.1 | 76.5 | 73.9 |

Source: World Bank Liner Shipping Connectivity Index.

Maritime transport and related affairs fall under the domain of the Ministry of Maritime Affairs. No single National Shipping Policy exists at the moment. However, the Pakistan National Shipping Corporation Regulations 1984, Pakistan Merchant Marine Policy 2001, and the Merchant Marine Policy of 2019 collectively govern maritime transport and trade in the country (Urooj, 2020).

The existing seaports are:

- Karachi Port
- Gwadar Port
- Port Muhammad Bin Qasim
- Muhammad Ali Jinnah Naval Base
- Keti Bandar Port
- Port of Ormara
- Port of Pasni
- Port of Jiwani

Four public sector agencies operate and regulate maritime freight in the country, which includes

- National Shipping Corporation (PNSC)
- Karachi Port Trust (KPT)
- Port Qasim Authority (PQA)
- Gwadar Port Authority (GPA)

KPT, PQA, and GPA are non-budgeted entities. Figures 7.1 to 7.4 show the performance of PSNC and the cargo handled by the three port authorities.

Table 13
Commercial Performance of PNSC: 2022-23 (July-March)

| Tanker       | Chartering     | SLOT ( | SLOT Consolidated |  |
|--------------|----------------|--------|-------------------|--|
| Liquid Cargo | Dry Cargo (MT) | TEUs   | Slot BB/LCL       |  |
| 7,250,105,91 | 1,215,162.39   | 856    | 61.141            |  |

At present, PNSC only has 12 vessels due to which despite being Pakistan's largest and sole flag carrier, Pakistan National Shipping Corporation (PNSC) moves only 11 percent of cargo (Gul & Alam, 2021). Pakistan lacks containerships and ordinary cargo ships making its fleet smaller than regional rivals, for instance, 3,004 out of 70,094 registered ships are American (Gul & Alam, 2021). Pakistan's dependence on foreign oil necessitates the procurement of oil tankers and bulk carriers by the relevant government.

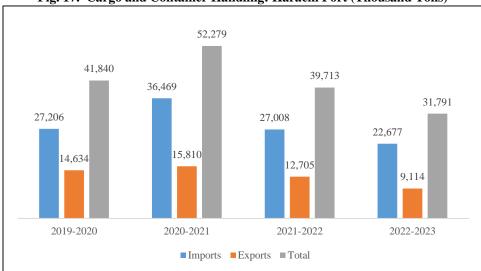


Fig. 17. Cargo and Container Handling: Karachi Port (Thousand Tons)

Source: Pakistan Economic Survey.

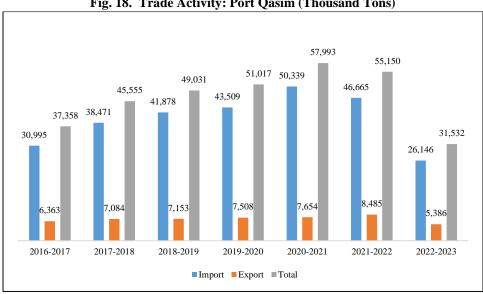


Fig. 18. Trade Activity: Port Qasim (Thousand Tons)

Source: Economic Survey of Pakistan.

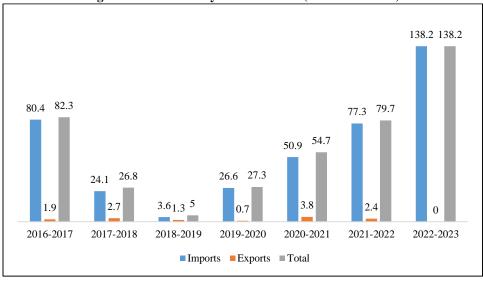


Fig. 19. Trade Activity: Gwadar Port (Thousand Tons)

Source: Economic Survey of Pakistan.

# 9. CONCLUSION

- Different regions within the domestic market lack full integration. Given the state of logistics sector, the transportation of goods not only takes more time but also incurs higher costs. This leads to significant price disparities for goods in both domestic and international markets. The inefficiency in connectivity increases the risk associated with joint ventures involving businesses from different geographical areas. Consequently, this not only hampers the growth of domestic commerce but also stifles innovation, as individuals are compelled to adhere to traditional business practices.
- To enhance the effectiveness of multimodal transportation, there is a necessity to modernise the legal and regulatory framework to safeguard and align the interests of various stakeholders. The restructuring of the regulatory framework and the protection of stakeholders' interests must conform to global standards, industry practices, and international conventions to meet the expectations of trading partners. Given the potential for expanding cross-border trade with Pakistan's neighbouring countries and within regional organisations like the Economic Cooperation Organisation (ECO), Central Asia Regional Economic Cooperation (CAREC), and the South Asian Association for Regional Cooperation (SAARC), it becomes imperative for Pakistan to update its legal statutes and reinforce the mechanisms for enforcement
- The absence of Pakistan in the Global Logistics Index 2023 indicates that the highlighted issues, put forward by each player in the logistics sector, need to be addressed immediately. Once the initial regulatory issues are resolved, we can move on to the policy's proposals, which include creating contemporary logistics parks, building multimodal transport hubs, and enhancing logistics information systems.

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