

Transport and Communications

Transport has an indispensable role in economic activity. Without physical access to resources and markets, economic growth and development would not be possible. An effective transport system is, therefore, a fundamental element in enabling sustainable economic development as it helps in promoting the use of natural resources, mobility of labor force and increasing agricultural and industrial production. Transport is also essential for providing access to supply chains and basic public services such as health and education. Removal of physical and non-physical barriers to effective transportation, therefore, has a direct impact on economic and social development of a country. Besides its role in economic development, modern and effective transport infrastructure and services, enabling smooth flow of goods and services within and across international borders, is key for strengthening regional economic cooperation and integration.

Pakistan is at a unique geo-strategic location, offering both opportunities and challenges. The opportunities can only be realized by exploring and developing the critical land, coastal and air routes that this location offers. Pakistan can serve as the most effective, economical and viable transit route to the land locked Central Asia and other neighboring countries. China Pakistan Economic Corridor (CPEC), with its roads and railways network, will integrate Pakistan with all regional countries and generate much needed economic activity. The Corridor will be a strategic game changer and would go a long way in strengthening our economy.

Modes of Transportation

Users of the transport network have a wider range of modes to choose from, however, most common and extensively used at present would be highlighted below:

Air Linkage

Performance of the Pakistan International Airlines Corporation (PIAC)

Indicators	Units	2017	2018	2019	2020
PIAC Fleet	No. of Planes	36	32	32	30
Route	Km	360,937	332,303	389,725	778,609
Available Seat	Million Km	19,108	18,081	18,372	8,902
Passenger Load Factor	Percent	73.20	77.3	81.3	74.5
Revenue Flown	000 Km	75,207	70,089	70,515	38,114
Revenue Hours Flown	Hours	122,081	110,050	110,640	58,519

Table 13.1: PIAC Performance

Indicators	Units	2017	2018	2019	2020
Revenue Passengers Carried	000 nos.	5,342	5,203	5,290	2,541
Revenue Passengers	Million Km	13,988	13,975	14,938	6,629
Revenue Load Factor	Percent	55.2	58.4	58.6	51.3
Operating Revenue **	Rs million	-	100,051	146,097	94,683
Operating Expenses **	Rs million	-	170,447	160,037	102,912

PIAC financial year is based on calendar year.

**Revenue & Cost is based on provisional/estimated & un-audited accounts

Source: Pakistan International Airlines

PIAC has taken following measures to revamp its operations during the current FY 2021:

- ▶ Due to COVID-19, the scheduled flight operations to most of the parts of the country and the globe remained suspended. PIAC revenues, approximately PKR 82.6 billion, stood short of the target. It, however, operated special flights to facilitate stranded Pakistanis abroad.
- ▶ Enhancement of ancillary revenues through bulkhead seats, pre-allocation of seats, advance excess baggage etc.
- ▶ Network optimization e.g. code share alliances to expand network
- ▶ Focus on enhancement of cargo and charter operations
- ▶ Focus on capacity rationalization for better utilization
- ▶ Improvement in customer services via punctuality and regularity of flights, aircraft cleanliness and food quality
- ▶ Better governance and focus on discipline:
 - Action against employees with disciplinary issues
 - Plugging in loop holes by better internal controls
- ▶ Improvement in air-crew flight rosters
- ▶ Enhancing brand perception
- ▶ Reconciling and rescheduling loans
- ▶ Strict discipline and accountability regime including a Time Management System
- ▶ Centralized medical center for all PIAC employees leading to cost savings
- ▶ Increasing Maximum Take Off weight limitation on A-320 aircraft, thereby increasing payload carrying capacity
- ▶ Restructuring through Voluntary Separation Scheme (VSS)
- ▶ Reducing salaries for 6 months with a resultant saving of Rs 770 million

Road Linkage

National Highway Authority (NHA)

NHA is committed to provide a safe, modern and efficient transportation system. Pakistan is bisected into two halves by the River Indus. The eastern segment is historically well developed. To bring the western segment at par with the eastern one, NHA is improving east-west connectivity through construction of numerous bridges across river Indus as well as across the Jhelum, Chenab, Ravi and Sutlej rivers. The

eastern and western parts will be further augmented with major projects like Karachi-Lahore Motorway, Multan-Sukkur Motorway and Hakla-D.I.Khan Motorway under the China Pak Economic Corridor.

Development Programme:

The present NHA network comprises of 39 national highways, motorways, expressways and strategic roads. The length of this network is 12,131 km. NHA's existing portfolio consists of 32 on-going projects with an allocation of Rs 88,954.855 million in PSDP 2020-21. Of this amount, Rs 10,750.00 million is FEC component and Rs 78,204.855 million is the local component. There are 24 new schemes in PSDP 2020-21 with a total estimated cost of Rs 520,077.996 million. In addition to these, one new scheme on BOT basis is also included in PSDP 2020-21 at an estimated cost of Rs 1,122.782 million.

China Pakistan Economic Corridor:

To ensure smooth and efficient movement of goods and passengers, Government of Pakistan plans to develop China Pak Economic Corridor (CPEC) connecting Khunjrab to Gwadar. Details of completed and ongoing CPEC projects are as under:

Table 13.2: Details of completed CPEC projects

Sr. #	Name of Project	Cost (Rs mn)	Length (Km)	Date of Completion
1	Construction of Burhan-Havelian (E-35)	34,165	57	Packages I and II: Dec 2017 Package-III: Nov 2019
2	Construction of KKH Phase-II, Havelian-Thakot	136,659	118	Feb 2020 (Inaugurated on 28 th Jul 2020)
3	Construction of Sukkur-Multan M-5	298,008	392	Aug 2019

Source: National Highway Authority

Table 13.3: Details of major ongoing CPEC projects

Sr. #	Name of Project	Cost (Rs mn)	Length (Km)	Date of Completion
1	Construction of Motorway from Burhan-Hakla on M-1 to Dera Ismail Khan	110,208.00 (PC-I Cost)	293	Jun 2021
2	Construction of 02 Lane Highway from Basima to Khuzdar	19,188.44	106	Oct 2021

Source: National Highway Authority

Table 13.4: Details of future CPEC projects

Sr. #	Name of Project	Cost (Rs million)	Length (Kms)
1	Dualization of Yarik - Sagu - Zhob including Zhob Bypass Western Route	76,486.23	210
2	Zhob to Kuchlak Road CPEC Western Corridor	63,081.00	305
3	Sukkur-Hyderabad Motorway (M-6)	165,679.20	306
4	Gilgit-Shandor-Chitral Road Project (alternate route to KKH under CPEC)	-	369
5	Construction of Hoshab- Awaran Section of M-8 (146 km)	25,835.89	146

Table 13.4: Details of future CPEC projects

Sr. #	Name of Project	Cost (Rs million)	Length (Kms)
6	Construction of Awaran – Naal Section of M-8 (168 Km)	32,504	168
7	KKH Thakot-Raikot Section (realignment)	-	250
8	Mangla – Mirpur – Muzaffarabad - Mansehra	310,578	200.45

Source: National Highway Authority

Support of Development Partners

i) Asian Development Bank Assistance:

- ▶ Construction of Gojra-Khanewal Motorway (M-4) (126 km)
- ▶ Post Flood National Highways and Rehabilitation Project
- ▶ Burhan-Havelian Expressway (E-35) (59 km)
- ▶ Zhob-Mughalkot Section of N-50 Qilla Saifullah-Waigum Road Section of N-70, 124 km
- ▶ CAREC Corridor Development Investment Programme (Tranche-I)
- ▶ Construction of additional carriageway Petaro-Sehwan Section of N-55 (128 km)
- ▶ Rehabilitation of Peshawar-Dara Adam Khel of N-55 (36 km)
- ▶ Construction of additional carriageway Shikarpur-Ratodero of N-55 (44 km)
- ▶ CAREC Corridor Development Investment Programme (Tranche-II)
- ▶ Construction of additional carriageway Shikarpur-Rajanpur Section of N-55 (222 km)
- ▶ CAREC Corridor Development Investment Programme (Tranche-III)
- ▶ Construction of 4-lane highway Rajanpur-D.G. Khan (121.50 km)
- ▶ Construction of additional carriageway Dera Ghazi Khan-Dera Ismail Khan Section of N-55 (208.19 km)

ii) Korean Exim Bank Assistance:

- ▶ Improvement and Widening of Chakdara-Chitral Section of N-45(141 km)
- ▶ Malakand Tunnel (Construction of 9.7 Km Malakand Tunnel Project is ongoing to provide a short route for the people of Malakand, Upper Dir, Lower Dir and Swat. Malakand Pass lies between Dargai-Batkhele)

iii) World Bank:

Khyber Pass Economic Corridor (KPEC) consists of two components as follows:

- ▶ Component-I (102.55 km): Peshawar-Torkham Motorway Project having a length of 47.55 km and link road connecting Motorway to Badabher (N-55) intersecting N-5 between Chamkani and Jhagra (approx. 55 km)
- ▶ Component-II: Economic development and uplift of areas adjacent to the Motorway

Build-Operate-Transfer (BOT) and Public-Private Partnership (PPP) Projects

Following projects are in pipeline under Public Private Partnership (PPP)/Built-Operate-Transfer (BOT) basis:

Table 13.5: Projects in pipeline under (PPP)/ (BOT) arrangement

Sr. No.	Name of Project	Length (km)
1	Hyderabad-Sukkur Motorway (M-2)	306
2	Dualization & Rehabilitation of Karachi-Quetta-Chaman Road (N-25)	790
3	Dualization & Rehabilitation of Balkasar-Mianwali Road	129
4	Dualization & Rehabilitation of Mianwali-Muzaffargarh Road	286
5	Construction of Shahdara Flyover	7
6	Construction of Lyari elevated Freight Corridor	20
7	Construction of Sialkot-Kharian Motorway	70
8	Construction of Kharian-Rawalpindi Motorway	115
9	Construction of Bara Kahu Flyover	3.6

Source: National Highway Authority

Achievements/Performance of NHA during the year 2020-21

- i. Construction of Burhan-Havelian Expressway (E-35) 29.1 km (revised)
- ii. Construction of Faisalabad-Khanewal Motorway (M-4) 184 km
- iii. Construction of roads network for Islamabad International Airport, main link, Thalian link & periphery road (26 km)
- iv. Karachi-Hyderabad M-9 (134.5 km)
- v. Construction of KKH Phase-II Havelian-Thakot (118.057 km) (CPEC)

Maritime Linkage**Pakistan National Shipping Corporation (PNSC)**

PNSC Group has made significant progress in bulk and liquid cargo segments. Despite the pandemic, the Group has managed to achieve a profit of Rs 1,235 million as against Rs 1,411 million in the corresponding period last year. The turnover stands at Rs 9,633 million compared to Rs 9,621 million for the previous year's corresponding period. Revenue of the tanker segment, including foreign charters, grew by 7.12 percent from Rs 6,195 million to Rs 6,635 million. Slot chartering revenue increased by 19.64 percent from Rs 704 million to Rs 842 million. The increase in revenues reflects the growth in operational activity of the Group. The net profitability was, however, adversely affected due to decline in AFRA by 26 percent, reduction in gross margins of slot business by 11 percent and adverse movement of USD versus PKR which resulted in exchange losses of Rs 87 million in the period under review as against exchange gains of Rs 54 million in nine months period ended March 31, 2020.

At present, PNSC fleet comprises of 11 vessels of various types/sizes (05 Bulk carriers, 04 Aframax tankers and 02 LR-1 Clean Product tankers) with a total deadweight capacity (cargo carrying capacity) of 831,711 metric tons, the highest ever carrying capacity since inception of PNSC.

Commercial and Financial Performance:

PNSC's commercial and financial performance (un-audited) covering nine months activities from 1st July 2020 to 31st March 2021 is given in tables 13.6 and 13.7:

Table 13.6: PNSC Commercial Performance

FY2020 (July-March)	Tanker	Chartering	SLOT Consolidated	
	Liquid Cargo (MT)	Dry Cargo (MT)	TEUs	Slot BB/LCL
	5,460,630	1,372,713	1,329	5,476
FY2021 (July-March)	7,333,100	1,239,685	1,363	5,958

Source: Pakistan National Shipping Corporation (PNSC)

Table 13.7: PNSC Financial Performance

(Rs '000)

S. No.	Financial Performance	July-March FY2020	July-March FY2021
1	Revenue	9,621,477	9,632,731
2	Expenses	6,454,630	7,388,157
3	Gross Profit/(Loss)	3,166,847	2,244,574
4	Administrative, Impairment & Other Expenses	2,331,640	1,108,806
5	Other Income	694,810	654,062
6	Profit before Taxation	1,530,017	1,362,715

Source: Pakistan National Shipping Corporation (PNSC)

Karachi Port Trust

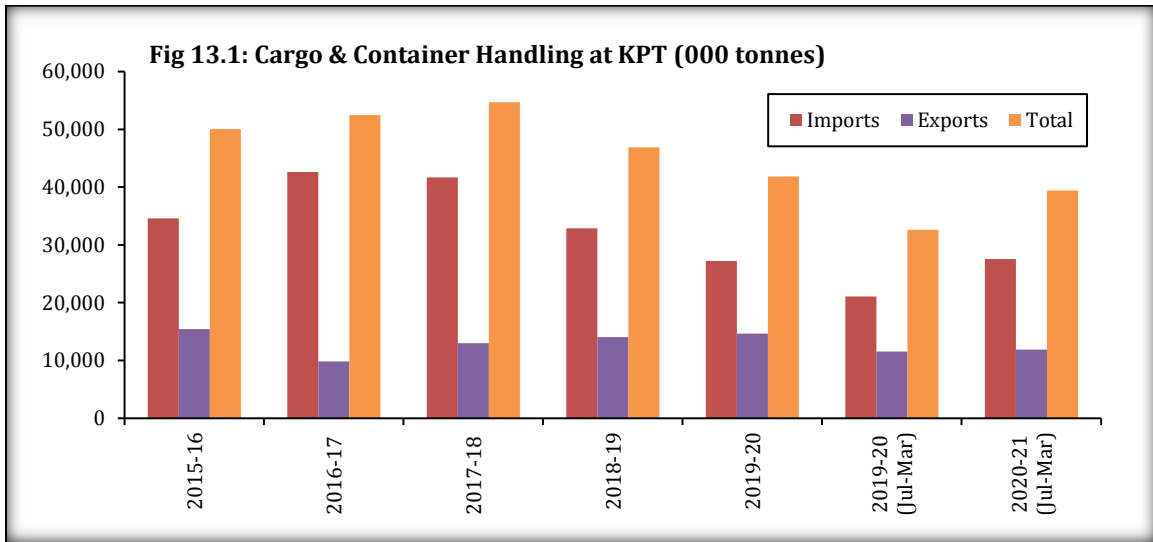
Karachi Port Trust managed a total cargo and container volume of 39.424.155 million tonnes during July-March FY2021 (Table 13.8). It experienced 21 percent increase in total cargo and container handling over the previous year. While export cargo and container volume grew by 3 percent in FY2021, imports increased by 31 percent over the same period last year.

Table 13.8: Cargo & Container Handling at Karachi Port

(000 tonnes)

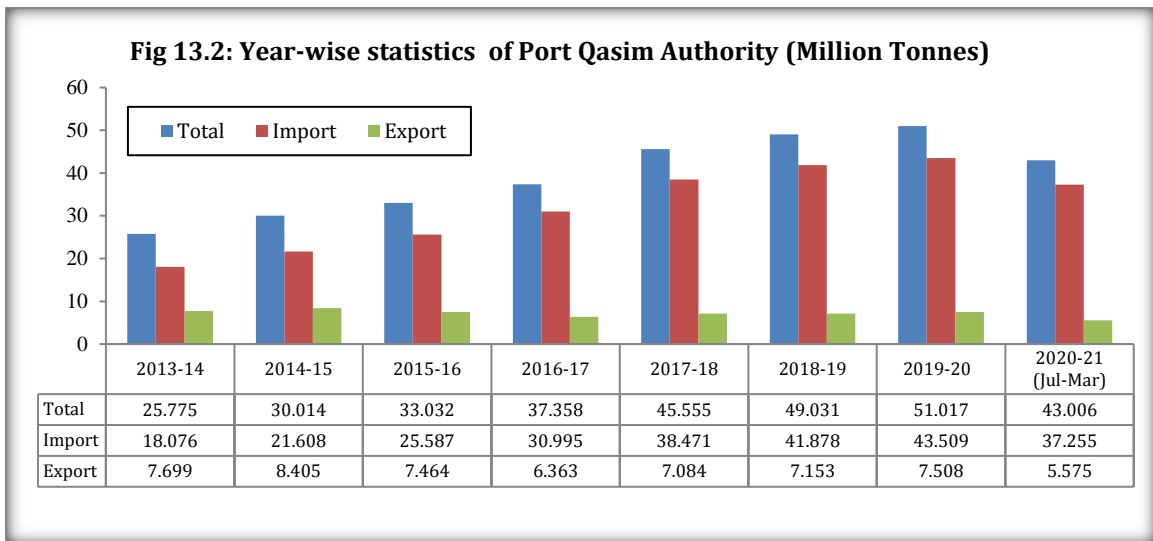
Fiscal Year	Imports	Exports	Total	%Change		
				Imports	Exports	Total
2015-16	34,594	15,451	50,045	-	-	-
2016-17	42,638	9,855	52,493	23	-36	5
2017-18	41,669	13,016	54,685	-2	32	4
2018-19	32,863	14,031	46,893	-21	8	-14
2019-20	27,206	14,634	41,840	-17	4	-11
(July-March)						
2019-20	21,076	11,527	32,603	-16	11	-8
2020-21	27,546	11,878	39,424	31	3	21

Source: Karachi Port Trust



Port Qasim Authority

Port Qasim handled a total cargo volume of 43.006 million tonnes during the first nine months of FY2021. Out of this, 37.255 million tonnes were imported while 5.575 million tonnes was exported.



Gwadar Port

Gwadar Port is located on the shores of the Arabian Sea in Balochistan. It is about 630 km away from Karachi and 120 km from the Iranian border. It is strategically located at the mouth of the Persian Gulf, just adjacent to the Strait of Hormuz, the key shipping route in and out of the Persian Gulf.

Gwadar Port is in the process of becoming the Gateway Port for Pakistan as well as for the region. It is the first Deep Sea Port of the country, complementing and supplementing the other two vibrant ports i.e Karachi Port and Port Qasim. Its development is critical to stimulate the economic growth of Balochistan in particular and Pakistan in general as

it will provide an outlet for land-locked Central Asian Republics (CARs), Western China and Afghanistan.

Port Operations and Renovation:

In May 2013, the port's Concessional Rights were transferred to a new operator, China Overseas Ports Holding Company Limited (COPHCL), which has been working on improving port facilities and businesses and the surrounding environment. It has invested over \$ 40 million for upgrading the port facilities which is now fully operational and receiving commercial vessels on regular basis. The WeBOC (Web based One Customs) system is operational since 2019 and is playing a significant role in early and efficient clearing of cargo.

For operationalization of the Gwadar Port, Gwadar Port Authority (GPA) has started developing the first Free Zone of Pakistan (spread over 9.5 sq. km area) in collaboration with COPHCL. Work on Phase-I (Southern Free Zone) is near completion. The project, completed in record time, will help to increase the port's throughput.

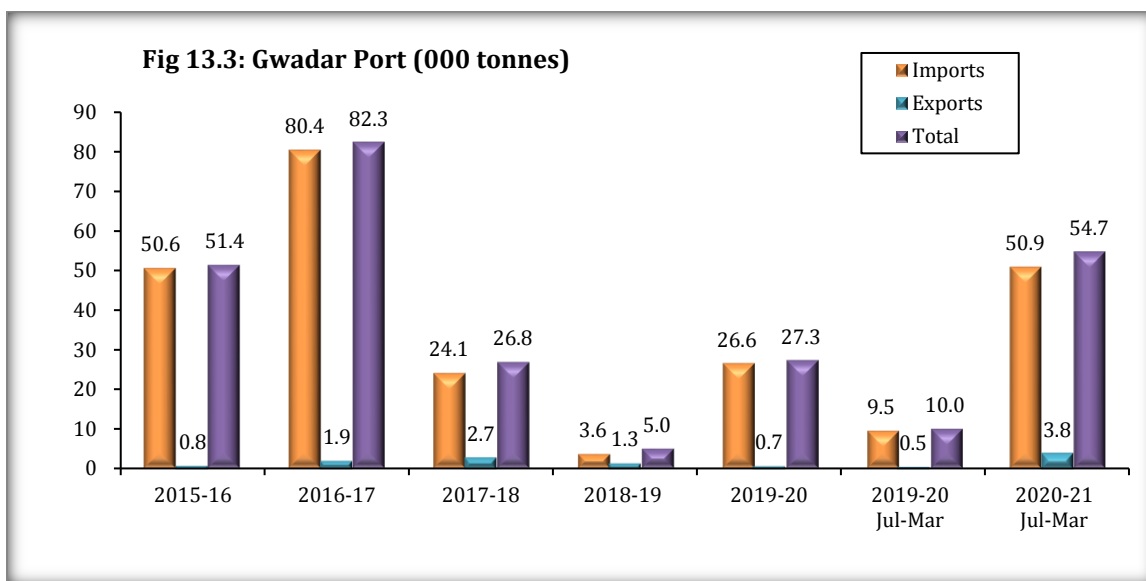
The Federal Government has provided tax incentives for the Gwadar Port Free Zone. Gwadar Expos were successfully held in the Free Zone in 2018 and 2019 and similar activity is in plans every year.

Gwadar Port Free Zone

- ▶ The construction of Free Zone Phase-I has been completed with all infrastructures, including power, water, road, telecommunication, waste treatment and drainage systems in operation now. More than 30 enterprises, in the areas of financial services, hotels, warehouses, fishery products processing, edible oil processing, pipe industry, furniture manufacturing, electric vehicles assembly, trade and logistics, have already been registered in the Free Zone.
- ▶ Following companies have completed construction and one has started operations:
 - China Communication Construction Company (Business Center)
 - Linyi Trade City (Exhibition Center)
 - Yulin Company (Steel Tube Industry)
 - HK Sun (Copper and Metal Recycling Factory)
- ▶ Work on the main Free Zone on 2,281 acres of land will start soon for which COPHCL has completed the master plan and feasibility work.

Port Operations

The Chinese Operator is working on increasing the number of ships calling at the port. Two ship-liners (COSCO & Sino-Trans) are calling regularly at the port since March 2018. Weekly container service has also been started by COSCO. The details of cargo handled so far, is reflected in the following figure:



China Pakistan Economic Corridor (CPEC), Gwadar Port and City

In 2013-14, Pakistan and China agreed to a long-term bilateral trade and economic corridor programme, i.e. CPEC. The GPA has been part of the planning and appraisal processes of CPEC. For the early harvest/prioritized phase, following projects, which are now at different stages of implementation, were agreed between the two sides:

- a. Construction of East-Bay Expressway
- b. Pak-China Technical & Vocational Institute

Construction of East Bay Expressway

The 19 km 6 lane Eastbay Expressway, a flagship project of CPEC, will connect Gwadar Port and its Free Zone with M-8 and Makran Coastal Highway. 14.7 km of the road is onshore while 4.3 km will be offshore. It will be a limited access high speed road meant for the use of heavy traffic fulfilling the cargo needs of the port. With 85 percent of the work already complete, the Expressway is expected to be fully operational by FY2022

Pak-China Technical & Vocational Institute

The project aims to improve the technical skills of the local population to fulfil the needs of Port Operations, Gwadar Port Free Zone, Export Processing Zone and other industrial and allied activities like tourism, hotel industry, hospitality management etc. Implementation agreement of the project was signed on 29th March, 2019 during Gwadar Expo 2019 with the Prime Minister of Pakistan witnessing the signing ceremony. The detailed design was reviewed and approved in June 2019 and construction started in December 2019. Rapid work is ongoing with physical progress at 84 percent and completion is expected by December 2021.

Development & Construction of Port Allied Structures - (GPA Business Complex)

Construction of commercial structures on 69 acres of land have been completed for port related businesses like Bank Branches, Stevedores, Agency Offices, Cargo Storage Sheds,

Marine Repair Workshop etc. to facilitate investors as well as for revenue generation. Outsourcing of the above area is in process and some of the facilities have already been rented out.

On-Going PSDP Projects

Following projects are in progress under the Federal PSDP and are expected to be completed in different dates:

Sr. No.	Name of project	Total Project Cost
1	Feasibility Study Construction of Breakwaters	191.200
2	Acquisition of Mobile Cranes & Fork Lifters for Gwadar Port	99.728
3	Equipment for Safety of Navigation	11.970
4	Supply, Installation and Commissioning of Floating Jetty at Gwadar Port	40.350
5	Acquisition of Marine Services Vessel for Gwadar Port	319.300
6	Feasibility Study of Capital Dredging of Berthing areas & channel for Additional Terminals	148.000
7	Up gradation of Berthing Facilities for Boats at Gwadar Mini port	134.775

Source: Gwadar Port Authority

Railways Linkage

Pakistan Railways (PR) is a major mode of transport in the public sector, contributing to the country’s economic growth and providing national integration. Pakistan Railways comprises of a total of 466 locomotives (461 Diesel Engine and 05 Steam Engines) for the 7,791 km route length. During the first eight months of FY2021, gross earnings have been recorded at Rs 30,966.11 million.

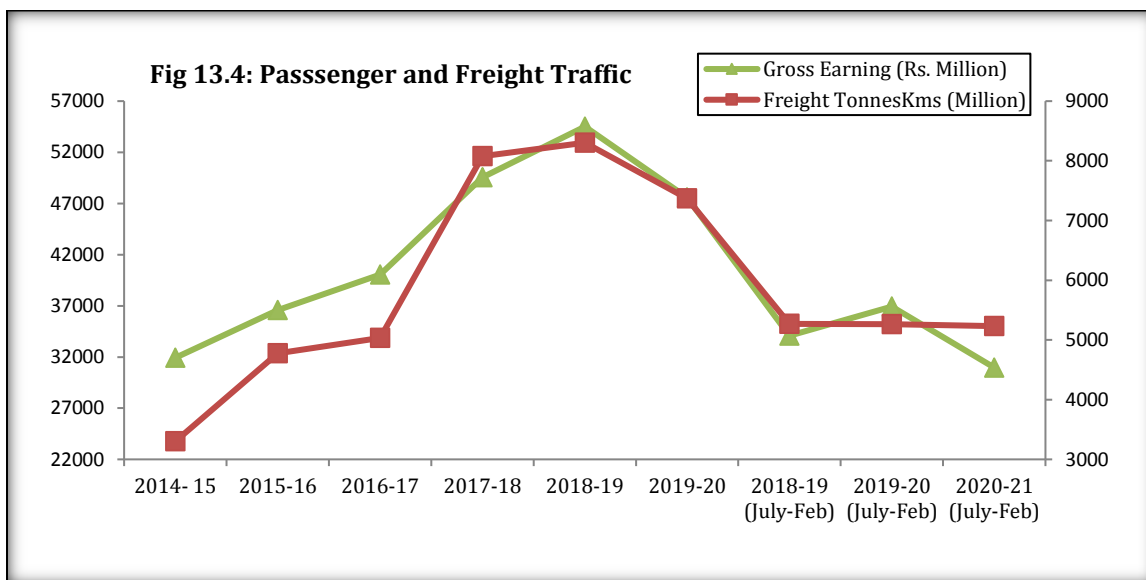


Table 13.10: Earning of Pakistan Railway

Fiscal Year	Earning (Rs in million)	% Change
2009-10	21,886.00	-
2010-11	18,740.00	-14.4
2011-12	15,444.00	-17.6
2012-13	18,070.55	17.0
2013-14	22,800.22	26.2
2014-15	31,924.00	40.0
2015-16	36,581.87	14.6
2016-17	40,065.00	9.5
2017-18	49,569.68	23.7
2018-19	54,507.90	10.0
2019-20	47,584.00	-12.7
(July-February)		
2019-20	36,916.85	-8.4
2020-21	30,966.11	-16.1

Source: Ministry of Railways

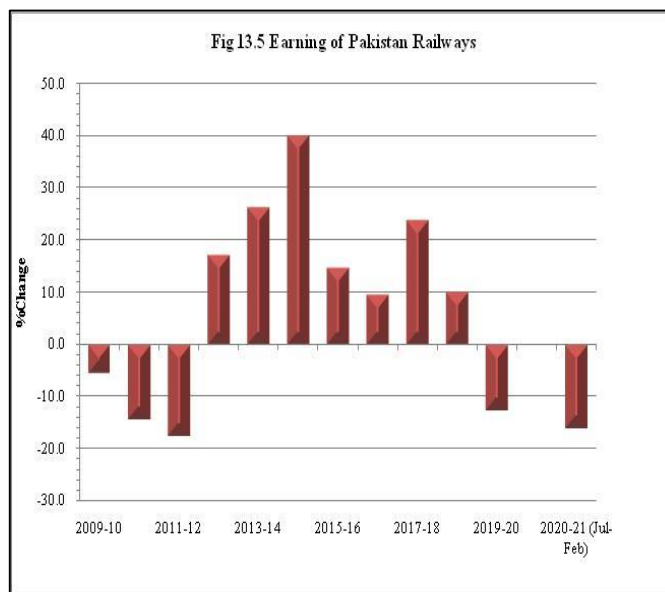
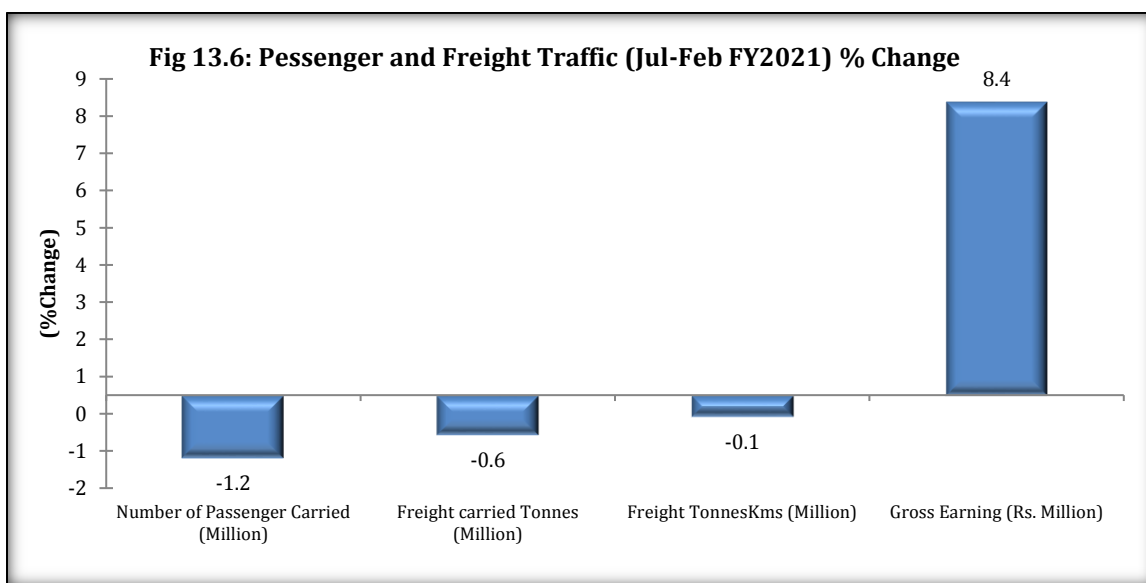


Table 13.11: Passenger and Freight Traffic

Subject	(July-February)			%Change
	2018-19	2019-20	2020-21	
Number of Passenger Carried (million)	39.90	39.40	18.11	-54.0
Freight carried Tonnes (million)	5.33	5.30	5.25	-0.9
Freight Tonnes Kms (million)	5,269.60	5,266.05	5,229.41	-0.7
Gross Earning (Rs million)	34,066.10	36,916.85	30,966.11	-16.1

Source: Ministry of Railways



Communication

Information and Communication Technology Sector

The dynamically evolving Information and Communication Technologies (ICTs) hold critical importance for fueling the country’s economy by acting as a catalyst of change

and enablement across all other sectors. The Telecommunication market in Pakistan is open and deregulated, offering level playing field to operators. The sector was deregulated in 2003 after the promulgation of the De-Regulation policy. Resultantly, two new cellular mobile licenses were awarded to M/s Telenor and M/s Warid through open auction. Later on, China Mobile acquired Paktel and started providing mobile cellular services. In addition, multiple Long Distance & International (LDI) and Local Loop licenses were granted to local and international companies. Frequency spectrum was also auctioned to different companies for Wireless Local loop (WLL) operations.

1. Telecom Sector

A. Policy Interventions

i. Measures for introduction of 5G in Pakistan

In line with the Policy Directive of the Ministry of Information Technology & Telecom and as per directions of the Prime Minister, a 5G roadmap with timelines has been developed in consultation with stakeholders. Additionally, an international consultant has also been hired through the World Bank for preparation of a comprehensive report on 5G readiness in the country.

ii. National Cyber Security Policy (NCSP):

Cyber Security is one of the highest priority areas of the government. Extensive efforts were undertaken to draft Pakistan's first National Cyber Security Policy. The policy aims to develop secure and resilient cyber systems and networks for national cyber security and to protect private, public and critical infrastructure. It will be uploaded on the Ministry of Information Technology & Telecom's website for consultations after requisite approvals have been accorded.

iii. National Cloud Policy Draft

Cloud computing offers a wide variety of potential benefits including reduced costs, improved responsiveness to citizens' needs, increased transparency and enhanced public service delivery. The policy will, therefore, play an important role in the achievement of the targets set in the Digital Pakistan policy. It constitutes a tool in support of the efforts to promote mass adoption of emerging digital technologies and innovative applications to enable cross-sector socio-economic development and transformation of economic activities, governance models, social interaction and achievement of sustainable development goals.

The first draft of National Cloud Policy, prepared in consultation with all relevant stakeholders, is currently being deliberated upon by the Ministry of Information Technology and Telecom. It will be put up for public consultation after the internal deliberation process is complete. Through this policy, the Ministry of Information Technology and Telecom aims to contribute to the government's goal to promote e-Governance through IT enablement at all levels.

iv. Right of Way

Right of Way (RoW) is one of the major impediments towards the growth of the Telecommunication sector of Pakistan. Clause 27-A of the Pakistan Telecommunication (Re-organization) Act, 1996 (Amendment) 2006, as well as Section 7.1 of the Telecommunications Policy 2015 mandate the procurement of RoW as an inherent right of telecom licensees to build networks. Accordingly, the government is considering a policy directive drafted by Ministry of Information Technology & Telecom that has already been deliberated by all stakeholders.

v. Local Manufacturing of SIMs/Smart Cards

Evidence suggests that approximately 07 million SIM cards and 10,000 banking cards are being imported every month as the current import regime incentivizes such imports. A multi-stakeholder 'Committee on Local Manufacturing of SIMs/Smart Cards', constituted by the Prime Minister, is deliberating on the matter to save foreign exchange.

vi. National Broadband Policy 2021

The Telecommunications Policy 2015 was subject to review after 05 years of its launch i.e. January 2021. With the support of the World Bank a comprehensive review of the Policy has been completed and a draft National Broadband Policy 2021 has been formulated keeping in view the global trends and emerging technologies. Once approved, the Policy will be uploaded on Ministry of Information Technology & Telecom's website for consultation.

B. Infrastructure Development in Unserved and Underserved Areas of the Country

Through the Universal Service Fund (USF), Ministry of Information Technology & Telecom is committed to minimize the Information and Communication gap between rural and urban communities. Several projects are being designed to connect the unconnected in the unserved and underserved areas of the country.

i. Broadband for Sustainable Development (BSD) Programme:

It is a flagship programme to establish telecommunication infrastructure that provides coverage of Voice and Broadband Internet Services to unserved mauzas across the country. USF has launched various projects to provide telecommunication coverage to approximately 12,000 unserved mauzas with a population of around 15 million across all provinces of Pakistan. More than 8,364 unserved mauzas across the country have already been provided with coverage through USF. In the current Fiscal Year, 203 mauzas have been served by USF under previously running projects, whereas, Rs 46.97 million have been disbursed upon completion of different project milestones.

ii. Next Generation – Broadband for Sustainable Development (BSD) Programme:

BSD programme has now been transformed into NG-BSD programme which targets provision of enhanced Broadband Services (at minimum rate of 512 kbps) along with Voice Services to the unserved and underserved mauzas. Projects are gradually being launched in 108 districts approved by the Federal Government.

Approximately 36 million un/underserved population in these districts will benefit from the programme. Till April 2021, 21 projects have been contracted targeting 8,545 un/underserved mauzas in 41 districts having an approximate population of 18 million.

In FY2021, contracts for 8 projects, worth approx. Rs 3.4 billion, have been awarded to provide NG-BSD services in the districts of Bolan, Gwadar, Ghotki, Khairpur, Sukkur, Jaffarabad, Ziarat, Malir, Karachi West, Mastung, Lower Dir, Upper Dir and Chitral. 2,292 un/underserved mauzas and 3.6 million population is being targeted. So far, 505 mauzas have been served in the current FY.

iii. Next Generation BSD Programme for National Highways and Motorways (NH&MW):

The programme targets unserved road segments of the National Highways and Motorways across the country. It is estimated that around 7,700 kms of routes are unserved. A salient feature of this programme is National Roaming that facilitates commuters to get seamless coverage irrespective of their originally subscribed networks. These will be first of their kind projects to offer such facility in Pakistan. In FY2021, USF has completed provision of NG-BSD services along 132 kms of un/underserved road segments and Rs 1.087 billion has been disbursed for NG-BSD Projects including NH&MW.

iv. Optic Fiber Cable (OFC) Programme

USF Optic Fiber Cable programme is concentrating on connecting the un-served Tehsil Headquarters (THQs) and major towns' re-route. Till April, 2021, 8,184 km of OFC has been laid and 146 THQs/Towns have been provided with the connectivity. In current Fiscal Year, 238 kms of fibre has been laid connecting 11 THQs/towns whereas Rs 140 million has been disbursed. USF is working to deepen the Optic Fiber Footprint to un-served small towns/union councils. Two projects worth Rs 3.07 billion have been signed during FY2021, targeting 140 un-served towns/union councils in districts Ghotki, Kashmor, Sukkur and Khairpur.

2. Information Technology Sector

Present Government's incentives for IT industry include:

- ▶ Zero income tax on IT exports till June 2025
- ▶ Three-year tax holiday for Pakistan Software Export Board registered IT startups
- ▶ 100 percent equity ownership allowed to foreign investors
- ▶ 100 percent repatriation of capital and dividends allowed
- ▶ Tax holiday for venture capital funds till 2024
- ▶ Accelerated depreciation of 30 percent on computer equipment
- ▶ Foreign currency account permitted for receipt of export remittances

IT Exports & Remittances

There has been a consistent growth in IT & IT-enabled Services (ITeS) remittances over the last 5 years, with a compound annual growth rate (CAGR) of 18.85 percent, the highest growth rate in comparison with all other industries and the highest in the region. Micro enterprises, independent consultants and freelancers have contributed an estimated US\$500 million in IT & ITeS exports. The annual domestic revenue exceeds US\$1 billion.

IT export remittances, including telecommunication, computer and information services have surged to US\$1.298 billion at a growth rate of 41.39 percent during July-February FY2021, in comparison to US\$918 million during the corresponding period of FY2019. ITeS export remittances comprising of computer services and call center services have surged to US\$1.113 billion at a growth 41.65 percent during July-February FY2021 in comparison to US\$785.686 million during July-February FY2020. The number of Pakistan Software Export Board (PSEB) registered IT & ITeS companies as of 30th March, 2021 is 3,013 compared to 2,484 as of March, 2020 showing a growth of 21 percent.

Pakistan's IT sector has a promising future, brimming with talent and the potential to become the largest export industry of the country. IT industry is already among the top 5 net exporters of the country with the highest net exports in the services industries. Pakistan is the 5th most financially attractive location in the world for offshore services, according to A.T. Kearney's Global Services Location Index. Pakistan is also ranked as the 4th most popular country for freelancing as per Global Gig Economy Index 2019.

Infrastructure Development for IT Facilitation

i. Establishment of Information Technology Parks

The Software Technology Parks (STPs) are a major factor in facilitating IT companies and have a vital role in ensuring long term growth of the IT industry. STPs house IT companies and professionals act as software factories generating software and IT exports for the country.

A new state of the art IT Park is being established in Islamabad with financing from the Korean Exim Bank through the Economic Development Cooperation Fund (EDCF). It would have a covered area of more than 66,000 square meter and shall be a G+9 structure with two basements for parking. The park would provide office space to almost 120 ICT companies along with all latest ICT infrastructure facilities. Total land available is 14.9 acres. Cost estimates are US \$ 88.747 million and the project is expected to be completed in 2023.

In addition to the above, Ministry of IT & Telecom through PSEB, has signed an agreement worth US\$186 million with the Korean Exim Bank for development of IT Park on 06 acres of land at Jinnah International Airport, Karachi. Main features of this project include a modern building having covered area of 106,000 square meters of providing office space, data center, incubation facility for startups and other facilities to IT industry.

ii. Establishment of Disaster Recovery Site for National Data Center (NDC) at Lahore:

National Telecom Corporation being the sole ICT service provider for the Government is responsible to take care of the ICT needs of the Federal as well as Provincial Governments. NTC had established a state of the art Tier-III & ISO 27001 Certified National Data Center, at its Headquarters in Islamabad, to cater for growing ICT needs.

As Government of Pakistan gears up for Digital Transformation of Pakistan under the Prime Minister's Digital Pakistan vision, the need for secure, seamless and uninterrupted ICT services becomes of paramount importance. The National level E-Government platform running on National Data Center (NDC) at NTC is compliant with international standards. To further improve the availability and reliability, NTC has established a geographically distant Disaster Recovery Site at Lahore to overcome untoward scenarios in the face of natural calamities or emergencies. The Disaster Recovery Site, established with a cost of around Rs 600 million, adheres to international standards and best practices.

3. Legislative Measures for ICTS

The Ministry of Information Technology & Telecom has re-initiated the process of formulating the country's first Personal Data Protection Act. Views and feedback received from stakeholders were taken into consideration and the revised draft was uploaded on the Ministry's website. It is being followed up for finalization.

Peoples Development Programmes

i. Digital Skills Training Programmes for Freelancing

The Programme aims to increase:

- ▶ Number of individuals working as freelancers in the country
- ▶ Number of hours worked per freelancer
- ▶ Earnings per hour or per project for freelancers
- ▶ Household incomes
- ▶ Financial inclusion
- ▶ IT exports
- ▶ Number of experts in specialized skills

The number of trainings that Digi Skills Training Programme has conducted are over 1.5 million till April 2021. The trainees comprise 76 percent males and 24 percent females. The number of overseas Pakistanis trained in the Programme is around 15,000.

ii. Capacity Building of IT Industry

Pakistan Software Export Board (PSEB) has assisted quality certification of 04 IT companies at ISO 27001, 03 at ISO 20000-1 and 02 on CMMI Level-2. The certification of 12 IT companies is in progress on ISO 27001/20000-1/CMMI/L2/L3/L5.

iii. Capacity Building of IT Professionals

PSEB aims to create a highly skilled resource pool within the Pakistan IT industry and train 10,000 IT industry professional and graduates to match the advanced specialized international technologies i.e., Big Data/Cloud Computing, Scrum, SQA, Mean/Full stack development, Python, Cyber Security, CCNA, Oracle, PMP, Prince2 and CMMI. It has trained more than 1,000 IT graduate and professionals on these technologies.

Solicitation and Funding Activities

Technology startups are considered to be the epicenter of innovation and are fueling the growth of economies worldwide by creating new jobs, contributing to GDP and raising the standard of living. Some of the success models around the world are South Korea and Singapore. The Government of Pakistan has also realized the importance of supporting an innovation and entrepreneurship culture in the country and has taken major strides in the past few years. This includes supporting cutting-edge R&D and product development through supporting startups and joint industry-academia collaborations.

Ignite-National Technology Fund, under the Ministry of IT & Telecom, has been focusing on 4th Industrial Wave Technologies over the past three years. Under the unsolicited stream, applications are accepted throughout the year from aspiring applicants both from academia and industry (especially startups) thus creating the right balance between research and product development.

iv. National Grassroots ICT Research Initiative (NGIRI)

The Programme is aimed at promoting R&D and innovation at grassroot level by providing financial support to selected final year projects (FYP) of undergraduate students enrolled in ICT related disciplines of the public & private sector institutions. The Programme rolled out in FY2012, has approved 4,494 FYP for funding. Disbursements of Rs 172.08 million have been made against 3,032 approved FYP. Programme highlights from FY2012 to FY2020 are summarized in table below:

Programme Year	Participating Institutes	FYP Submitted	FYP Approved	FYP Funded	Disbursements (Rs million)
2011-12	68	785	272	272	15.27
2012-13	78	1,017	418	418	31.78
2013-14	72	1,247	430	430	25.13
2014-15	75	1,324	436	436	29.59
2015-16	76	1,166	512	360	18.14
2017-18	89	1,623	569	439	21.45
2018-19	136	2,124	815	677	30.72
2019-20	156	2,832	1,042	-	-
Total		12,118	4,494	3,032	172.08

NGIRI 2021 was launched on 14th December 2020 and last date to submit FYP was 1st February 2021

Source: Ministry of Information Technology & Telecom

Pakistan Telecommunication Authority

Pakistan Telecommunication Authority (PTA), as regulator of the telecom sector of Pakistan, strives to establish a competitive, fair, progressive, consumer oriented and

business friendly regulatory environment in the country. International connectivity, bandwidth capacity, fiber footprint and network redundancies are being improved to meet the ever-increasing demand for data services in the country. While providing modern telecom services, effective governance of internet is ensured to safeguard the interests of the people through active engagement with international platforms, forums and organizations. Encouraging fair competition, keeping pace with rapid modernization of telecom systems, contributing to informed policymaking and creating synergies by working in partnership mode are just a few areas marked by PTA with substantive improvements. Following is detail of telecom developments in Pakistan.

	2016-17	2017-18	2018-19	2019-20	Jul 20-Feb 21
FDI (inflow)	116.4	288.5	235.5	763.3	101.1
Telecom Investment	971.7	792.6	642.0	855.4	363.9
Total	1,088.1	1,081.1	877.5	1618.7	465.0

Source: State Bank of Pakistan

Telecom Sector Analysis

Telecom sector has emerged as one of the vibrant sector of Pakistan's economy. Increasing revenues, growing investment and enhanced contributions to national exchequer are hallmarks of the sector for many years now.

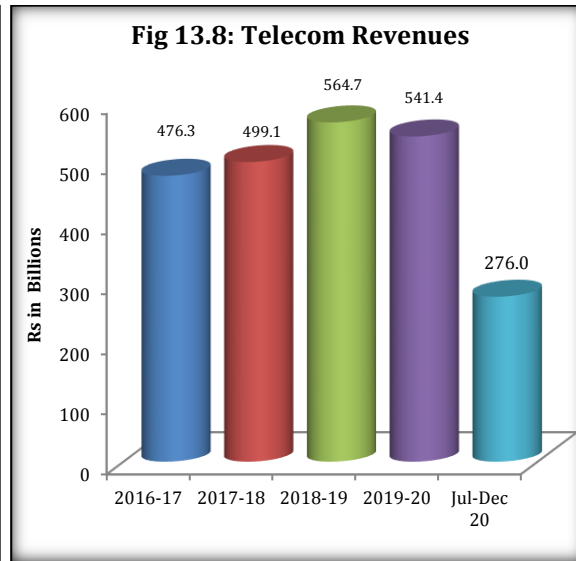
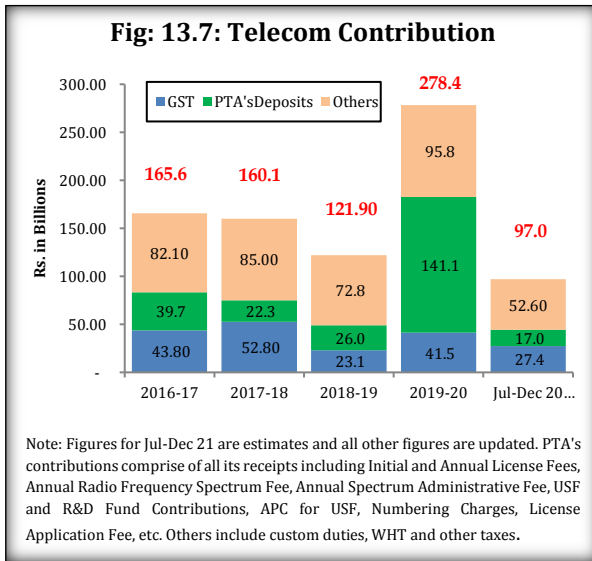
During July 2012 to February 2021, telecom sector has attracted over US\$ 3.9 billion of FDI. Foreign Direct Investment in telecom during July-February FY2021 was US\$ 101.1 million. Telecom operators have invested an amount of US\$ 363.9 million during July-December FY2021. The main driver behind this investment is the cellular mobile sector which has invested US \$253.5 million during the period. The overall investment in the telecom sector during the 1st 8 months of FY2021 crossed US\$ 465.0 million.

Telecom Sector Contribution

Telecom sector is a significant source of revenue generation for the national exchequer. The telecom sector's contribution (including PTA deposits) to the national exchequer registered 129 percent growth in FY2021. During July-December FY2021, telecom sector contributed estimated Rs 97.7 billion to the national exchequer in terms of taxes, regulatory fees, initial and annual license fees, activation tax and other charges (see Fig-13.7).

Telecom Revenues

The International Telecommunication Union reported decline of 5-10 percent in telecom sector revenue across countries owing to the COVID-19. Pakistan was no exception in FY2021, as telecom sector revenue declined to Rs 541.4 billion, which was 4.1 percent less as compared to last year. Revenues from telecom sector in two quarters 2021 reached an estimated Rs 276.0 billion (see Fig-13.8).

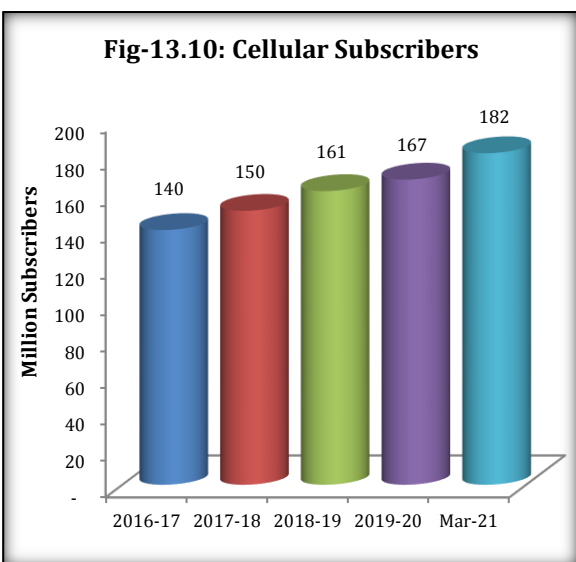
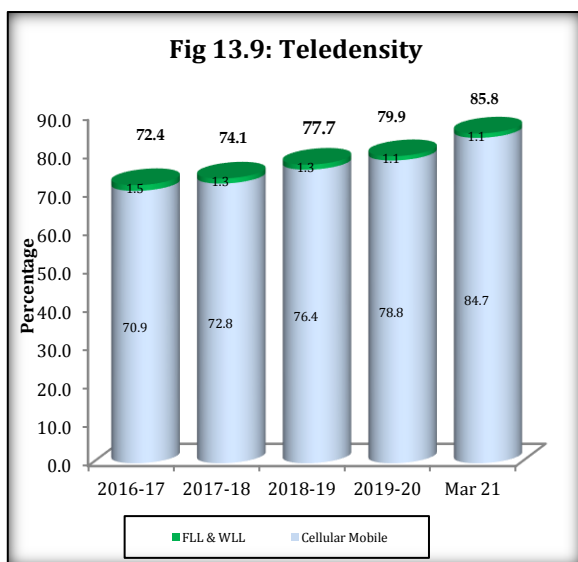


Teledensity

At the end of March 2021, total teledensity in the country reached 85.8 percent, registering a growth of 7.3 percent during July-March FY2021 (see Fig13.9). Cellular mobile segment was the main contributor towards overall growth in teledensity.

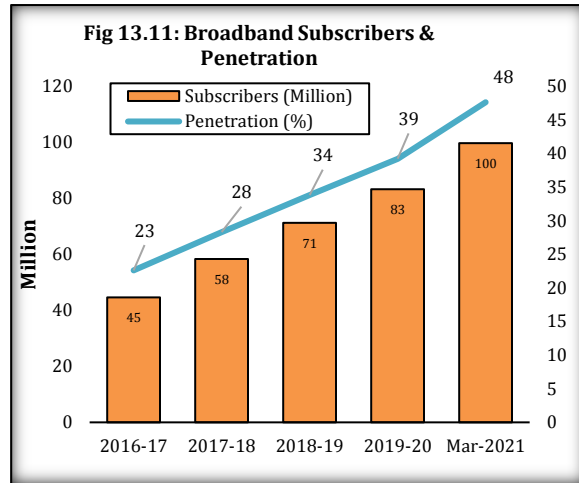
Cellular Subscribers

The cellular mobile sector in Pakistan demonstrated impressive growth in terms of nationwide expansion of networks and provision of broadband services. According to the PSLM Survey 2020, 98 percent urban households in the country have mobile phone and about 45 percent individuals own them. Cellular mobile subscribers (number of active SIMs) in Pakistan reached 182 million at the end of March 2021 compared to 167.3 million at the end of June 2020, showing a growth of 8.6 percent in nine months (see Fig13.10). Growth in this segment is a healthy sign for the operators as more subscribers mean more revenue generating opportunities.



Broadband Subscribers and Penetration

Where lockdowns during the COVID-19 pandemic slackened economic activity, vibrant telecommunication systems played a pivotal role in ensuring availability of essential services to the community. The pandemic enabled actualization of the true potential of broadband services, transforming the way people lived and worked from home. All daily activities related to education, health and virtually every other sector of the economy were digitized, creating a huge nation wide demand for telecom services. Rising to the occasion, PTA supported by other telecom operators ensured connectivity and network resilience; Mobile and Fixed Broadband subscriber base showed strong growth during July-March 2021. At end March 2021, broadband subscribers touched 100 million. The total broadband penetration (both fixed and mobile) in Pakistan stood at 47.6 percent in March 2021 registering an increase of about 19.7 percent as compared to the FY2020 (see Fig13.11).

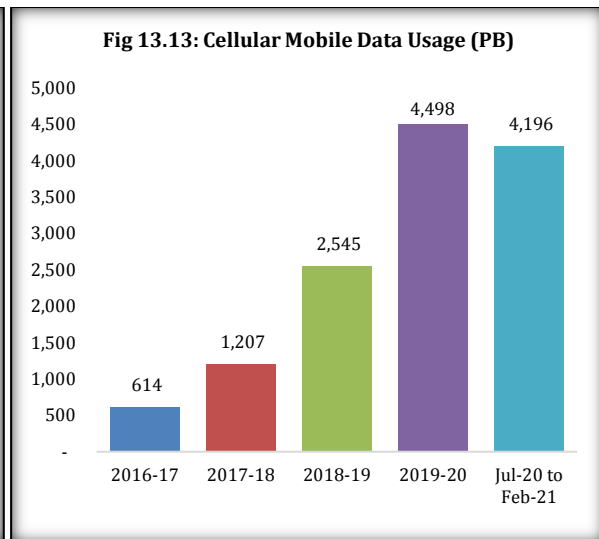
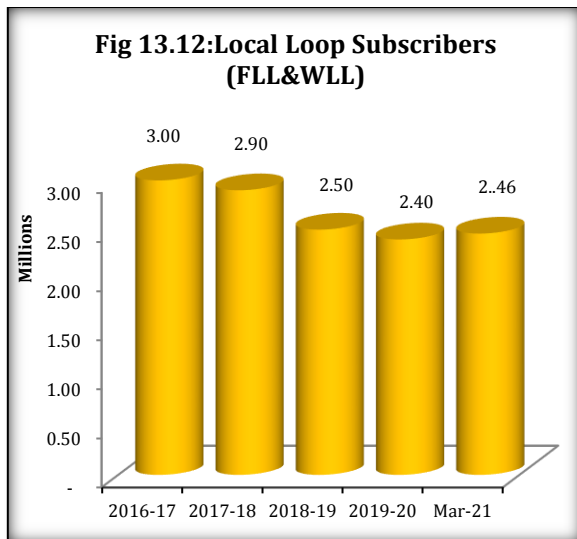


Local Loop Subscribers

The subscriber base of local loop (FLL&WLL) segment reached 2.46 million at end March 2021 as compared to 2.40 million in June 2020. The net addition of 0.06 million subscribers translates to a 2.5 percent growth (see Fig13.12).

Mobile Data Usage

Data usage by CMOs during July 2020 to February 2021 reached 4,196 Petabytes which is indicating a huge increase in eight months. During last FY2020 data usage remained 4,498 Petabytes (see Fig13.13).



Financial Year	Telephones (FLL&WLL)	Broadband Connections (Mobile& Fixed)	Mobile Phones
2014-15	3,931,296	16,885,518	114,658,434
2015-16	3,295,169	40,147,991	133,241,465
2016-17	2,986,310	44,586,733	139,758,116
2017-18	2,884,889	58,339,814	150,238,653
2018-19	2,574,937	71,026,087	161,021,628
2019-20	2,417,195	83,205,589	167,268,871
Mar-21	2,464,317	99,628,182	181,740,406

Note: FLL and WLL Subscribers are till December 2020

Source: Pakistan Telecommunication Authority

Spectrum Auction and Renewals

PTA has initiated the process for Spectrum Auction of 1800 MHz and 2100 MHz in Pakistan including AJK & GB. Cellular Mobile licenses are being renewed in AJK & GB for enhanced next generation mobile services. An advisory committee has been constituted for the release of spectrum for Next Generation Mobile Services across the country.

Introduction of 5G

PTA has unveiled 5G roadmap incorporating the testing of 5G technology and allied services during the FY2021. Under the policy directives of the Government for introduction and trials of future wireless networks in Pakistan, stakeholders consultation exercise was undertaken to draft a framework on the matter. Furthermore, PTA permitted tests and trials of 5G services under limited environment and on non-commercial basis. Successful trials have been conducted by CMPak, Jazz, Telenor, Ufone and PTCL. During the trials, operators conducted demo test cases including, remote surgery for the first time in Pakistan, Cloud gaming and overview of other 5G technology applications. These were among the first trials of 5G services in any South Asian country, with a recorded download speed of more than 1 Gigabits per second (Gbps). Pakistan was thus recognized as a pioneer of 5G trials in the region. PTA foresees 5G technology operating in a highly heterogeneous environment and providing ubiquitous connectivity for a wide range of devices, new applications and use cases.

Device Identification, Registration and Blocking System (DIRBS)

International organizations such as the International Telecommunications Union (ITU), GSM Association (GSMA), Mobile Manufacturers Forum (MMF), Intellectual Property Owners Organization (IPO), the Organization for Economic Cooperation and Development (OECD), the World Customs Organization (WCO) and other entities have been working to confront the menace of the grey market for mobile devices and its negative impact on the mobile ecosystem. Pakistan has the distinction of implementing the world's first open-source, full-fledged Device Identification, Registration and Blocking System (DIRBS). This system has the ability to identify all the IMEIs latched on Pakistan's mobile network and categorize them on the basis of their compliant status. Implementation of DIRBS has resulted in removing illegal devices from the local market.

During January-March FY2021, the legal import of mobile devices increased to 48 million. This is an exponential jump and perhaps the most visible change due to DIRBS as both businesses and individual consumers showed confidence in the system and avoided the use of illegal mobile devices.

The taxes/duties collected from individual consumers, which prior to DIRBS was an untapped area for revenue collection, stands at Rs 13.93 billion during the period Jan 2019 to Mar 2021. On the commercial import side, the revenue of Rs 22 billion during 2018-19 increased to 83 billion for the period from Jan 2019 to Nov 2020. This is a significant increase despite economic slowdown caused by the pandemic.

Impacts of DIRBS on Economy

- a) PTA has blocked 175 thousand devices IMEI reported as stolen through DIRBS
- b) System has also identified and blocked 26.03 million fake/replica mobile devices since 2019 identified as programmed with non-GSMA formation
- c) The system has been successfully able to identify cloned/duplicated IMEI, whereby 657,645 IMEI were cloned against 4.24 million MSISDN

The launch of DIRBS has also had a significant impact on development of mobile device eco system as companies now have a level playing field. As per figures extracted from DIRBS, it is observed that there is substantial growth in 4G devices that are connected to local mobile networks and the pattern also shows a decline in use of 2G, 3G devices with consumer appetite shifting towards 4G functionality devices. This pattern listed below compliments GoP vision of digital Pakistan.

- 4G devices have seen a growth from 16 percent (Jan 2018) to 41 percent (Feb 2021)
- 3G devices have seen drop from 19 percent (Jan 2018) to 8 percent (Feb 2021)
- 2G devices have seen drop from 64 percent (Jan 2018) to 51 percent (Feb 2021)

Mobile Manufacturing

Due to the introduction of DIRBS, legal imports have increased significantly and local manufacturing has also picked up. The government decided to introduce a comprehensive mobile manufacturing policy to encourage and attract mobile manufacturing players to come to Pakistan and establish their plants. The mobile manufacturing policy was approved by Federal Cabinet in June, 2020 and in light of this policy, PTA has published Mobile Device Manufacturing (MDM) Regulations on 28th January, 2021. Till date 7 companies have obtained 10 Year Mobile Device Manufacturing Authorization and will manufacture mobile devices including 4G smart phones within Pakistan.

Renewal of integrated and Commercial Licenses

Integrated licenses were granted to Pakistan Telecommunication Company Limited (PTCL), National Telecommunication Company (NTC) and Special Communication Organization (SCO) under Sections 39, 40 and 41(3) of the Pakistan Telecommunication (Re-organization) Act, 1996 for a period of 25 years effective January 1, 1996. These licenses were to expire on December 31, 2020. PTA has initiated the renewal process in

consultation with all relevant stakeholders. In a bid to fulfil commercial and practical communication needs, PTA granted commercial licenses to Sui Southern Gas Company Limited (SSGCL) and Pakistan Railways for establishment and operationalization of their own telecommunication systems and services. The process for renewal of these licenses has also been initiated with the consensus of stakeholders and in consonance with the Telecom Policy. During the period under review, 62 licenses for telecom and 48 licenses for radio-based services were issued.

PTA Gets ISO 9001:2015 Certification for Consumer Protection Division

PTA has received ISO 9001:2015 quality management system certification for its Consumer Protection Division (CPD) after a detailed audit conducted by accredited certification body, the British Assessment Bureau.

This certification demonstrates PTA’s commitment to deliver the highest quality solutions to end users in Pakistan through state of the art Complaint Management System (CMS) run by its Consumer Protection Division. PTA is also determined to analyze and address issues of telecom services for continuous improvement, user satisfaction and engagement. ISO 9001:2015 is an internationally recognized standard of consistency and competency using robust quality management systems designed to encourage continuous improvement and enhance customer satisfaction.

Consumer Support Centre

In February 2020, PTA launched a Consumer Support Center (CSC) for registration of complaints related to telecom services. Managed by an efficient and qualified team, this state-of-the-art facility remains functional seven days a week (from 9 am to 9 pm). Customers can lodge their complaints through a dedicated toll-free number (0800-55055). The CSC, inter alia, handles complaints related to cellular mobile telephony, Internet Service Providers (ISPs), fixed and wireless telephony, DIRBS, web content reporting (blasphemy, pornography, etc.), Universal Account Number (UAN), toll-free, Unique Identification Number (UIN) and allocation of short/ Class Value Added Services (CVAS) registration. On average during February 2020 to March 2021 CSC received 38,700 calls per month. The facility is testimony to PTA’s commitment to provide innovative international quality services to address consumer needs.

Raids on Illegal Gateways

Determined to tackle the hazards of illegal grey trafficking, PTA, with support from the Federal Investigation Agency (FIA), carried out 50 successful raids against illegal Voice Over IP (VoIP) setups across Pakistan during 2019 and January 2020 to March 2021. As many as 145 illegal gateways were confiscated during these raids. These raids led to the arrest of 33 persons against whom legal proceedings are underway. Table presents a summary of the raids conducted, gateways confiscated and arrests made.

	2019	Jan 2020 to Mar 2021
Raids Conducted	28	22
Gateways Confiscated	102	43
Arrests	23	10

Source: Pakistan Telecommunication Authority

4th Generation Regulator

PTA's ranking as 4th Generation Regulator (G4) places Pakistan among the top five regulators in the Asia-Pacific region. Out of 38 economies in the region, only 8 percent states have managed to attain this distinctive status. Moreover, the country's journey towards collaborative regulations is well acknowledged. In order to achieve the G5 regulator status from ITU, PTA is continuously striving to protect consumer interests and enhance public-private collaboration for digital transformation and socio-economic uplift.

Table 13.15: Top Five Asia-Pacific Regulators (2019)

	Score	GEN
Singapore	130.5	G5
Japan	109.5	G5
Australia	94.5	G4
Pakistan	88.0	G4
Malaysia	87.0	G4

Source: Pakistan Telecommunication Authority

Pakistan Electronic Media Regulatory Authority

Pakistan Electronic Media Regulatory Authority (PEMRA), established under PEMRA Ordinance 2002, as amended by the PEMRA (Amendment) Act 2007, facilitates and regulates private electronic media in Pakistan and strives to improve the standards of information and entertainment in the country. It also works to broaden the choice available to the people of Pakistan in terms of news, current affairs, religious knowledge, art and culture as well as science and technology. The Authority is responsible for facilitating and regulating the establishment and operation of all types of broadcast media and distribution services in Pakistan established for the purpose of international, national, provincial, district and local area community based or special target audiences.

PEMRA is primarily mandated for licensing and regulating the establishment and operation of all broadcast media (satellite TV & FM radio) and distribution services (Cable TV, DTH, IPTV, Mobile TV, MMDS etc.) in Pakistan. Its mandate further includes:

- i. Improve the standards of information, education and entertainment.
- ii. Enlarge the choice available to the people of Pakistan in the media for news, current affairs, religious knowledge, art, culture, science, technology, economic development, social sector concerns, music, sports, drama and other subjects of public and national interest.
- iii. Facilitate the devolution of responsibility and power to the grass roots level by improving the access of the people to mass media at the local and community level.
- iv. Ensure accountability, transparency and good governance by optimization of the free flow of information.

PEMRA is now in its 19th year and during these years, the country has witnessed unprecedented growth in the number of TV channels and FM Radio stations as well as distribution networks i.e. Cable TV, IPTV, DTH and MMDS in the private sector.

The private electronic media has come a long way since 2002 when Pakistan was only dominated by the state-run Pakistan Television and Pakistan Broadcasting Corporation. Now with almost 112 Pakistani electronic media channels and more than 43 channels with Landing Rights Permission in Pakistan, the role of PEMRA has never been more important. This boom is owed to the government's unequivocal commitment to a free

media and the proactive role played by PEMRA in facilitating the growth of the electronic media. The growth of TV channels, Cable TV and launch of FM Radio stations has indeed contributed remarkably in raising the standards of public awareness and literacy, locally and portraying progressive image of Pakistan globally. A glance at the following facts and figures on licensing of media amply substantiates growth which has taken place in electronic media in private sector in the last nineteen years.

Financial Contributions

Besides collecting advance tax from licensees at the time of issuance of licenses and their renewal, PEMRA has deposited significant amounts in the Federal Consolidated Fund (FCF). Year wise detail as under:

Financial Year	Surplus	Fine & Penalty	Total
2012-13	8,337.636	2,986.800	11,324.436
2013-14	205.537	1,894.750	2,100.287
2014-15	20,077.535	22,746.500	42,824.035
2015-16	481.304	6,588.000	7,069.304
2016-17	5,287.295	25,983.500	31,270.795
2017-18	390.912	11,161.999	11,552.911
2018-19	936,885.338	6,471.000	943,356.338
2019-20	236.919	4,571.000	4,807.919
2020-21 (upto April-2021)	-	4,711.000	4,711.000
Total:	971,902.476	87,114.549	1,059,017.025

Source: Pakistan Electronic Media Regulatory Authority (PEMRA)

Economic Contribution

The growth of media industry in Pakistan has multiplied rapidly during the last decade and now this sector is contributing considerably in building broadcasting apparatus in the major cities and generating a large number of job opportunities for the youth. Over the period, cumulative investment of approximately US\$ 4 to 5 billion has been estimated in electronic media industry of Pakistan. The sector is providing employment to more than 300,000 people in the field of journalism, management and technical services. However, with the growing landscape of media industry, a significant jump in employment opportunities is expected in the coming 3 to 5 years. Moreover, new licences would inject investment of approximately US\$ 2 to 3 billion in various projects.

Pakistan Television Corporation Limited

Two main projects are underway by Pakistan Television Corporation i.e. modernization of camera & production equipment and DTMB-A. The first project, financed by Government of Pakistan under PSDP, has an allocation of Rs 133 million. The second project DTMB-A has been launched with the assistance from China to improve the signal quality of terrestrial network in less developed areas of Pakistan.

Pakistan Broadcasting Corporation

Pakistan Broadcasting Corporation (PBC) is another important and effective electronic media platform to provide information, education and entertainment to the masses.

PBC's achievements during FY2021 are as under:

1. Special Programmes on Corona pandemic to reach out to the most vulnerable:

Special programmes were broadcasted to cover corona-virus pandemic and governments' efforts to bring the pandemic under control. Programmes were broadcast in 21 regional languages besides Urdu from PBC network, situated in Punjab, Sindh, Balochistan, Khyber Pakhtunkhwa, Azad Kashmir and Gilgit Baltistan.

2. Radio School:

In light of the Prime Minister's vision, Radio Pakistan started Radio School to impart education to children especially in far flung areas through distance learning during COVID-19 pandemic. Educational programmes are being broadcast from various medium wave and FM networks of Radio Pakistan from 10:00 am to 12:00 pm with rebroadcast from 2:00 pm to 4:00 pm seven days a week.

3. Wide Spread Publicity and Coverage of Government's Initiatives:

Extensive coverage was given by all PBC Stations and Channels to government's initiative and its socio-economic benefits were also highlighted on regular basis.

4. Special Kashmir Transmission:

PBC started special exclusive transmission for the Indian Illegally Occupied Jammu & Kashmir after imposition of curfew and communication blockade by the Indian Oppressing forces in the aftermath of changing the status of Kashmir in August, 2019. Radio Pakistan is the only source of information and communication for the people of the Occupied Valley.

5. Sports Coverage:

PBC aired Live Running Commentary and Live updates on all important national and international Cricket Series like PSL, International Tours etc. to entertain the masses. Special programmes and sports updates were also regularly aired regarding other sports events.

6. Kamyab Jawan Programme:

PBC started a weekly programme to highlight the government initiatives to create opportunities for youth to empower them in the process of decision making and encourage their representation in all spheres of life.

7. Locust Control Programmes by Radio Pakistan:

PBC broadcast special programmes regarding Locust control from Quetta, Karachi, Larkana, Hyderabad, Mianwali, D.I Khan and Bahawalpur stations. Discussion

programmes were broadcast emphasizing the methods to save fields from Locust attacks. Government initiatives regarding Locust control were also highlighted.

8. Tourism:

PBC has been broadcasting a special programme titled “Rabta” to highlight the Steps taken by the government for the promotion of tourism in the country. PBC also produced documentaries on Historical sites across the country.

9. Countering Extremism & 5th General Hybrid War of the Enemy:

All PBC Stations/Channels highlighted and supported the sacrifices of Pakistan Army and other Law Enforcement Agencies with full spirit as a national cause for maintaining peace in the country and countering the 5th General Hybrid War of the Enemy through the mainstream and all social media platforms.

Pakistan Post Office

Pakistan Post Office is one of the oldest government departments in the subcontinent. It began functioning as the Department of Post & Telegraph in 1947. In 1962, it started working as an independent attached department of Ministry of Communications. Pakistan Post is the largest postal operator in the country providing timely services at affordable cost.

Pakistan Post’s Recent Initiatives

Pakistan Post has recently taken important initiatives to provide efficient postal services to the people of Pakistan. The details are as follows:

i) Same Day Delivery Service

The same Day Delivery Services aims to facilitate the delivery within a city. Consignment is delivered the same day if booked before noon. The service is available in 29 cities at present with plans for extension to other cities in the near future.

ii) Electronic Money Order

The “Electronic Money Order” (EMO) service is one of the most promising services which provides electronic transfer of money. Initially the EMO was offered for window payment at the General Post Offices (GPOs) throughout the country which was known as Post-to-Post. Now Pakistan Post is offering EMO services which is Post-to-doorstep.

iii) Pakistan Post Mobile Application

Pakistan post has launched its own mobile application offering postal services tariffs, post codes, post office locator, complaint registration, track and trace and pick up facilities.

iv) Express Mail Service (Plus)

Pakistan Post has launched **Express Mail Service (EMS) (Plus)**, a specialized service for export sector. It aims to ensure delivery of parcel and packets worldwide in shortest possible time. Rates are competitive with real time track and trace facility.

v) Pakistan Post E-Commerce Initiative

Pakistan Post launched its e-commerce initiative in February 2019 on pakpostshop.gov.pk. Registrations were sought in the following categories:

- a. Delivery Partner
- b. Sale through Postal Counter
- c. Collect and return services
- d. Co-branding Partner

1625 registration forms from private vendors for COD business have been received till 31st March 2021.

vi) Partnership with NADRA

Pakistan Post and NADRA signed an agreement for “Renewal/ Modification of CNIC through Post Offices”. This initiative has facilitated customers in remote areas.

vii) Improvement of Pakistan Post Complaint Management System (CMS)

Pakistan Post has a Complaint Management System (CMS) connecting all controlling and field offices across the country.

viii) Pakistan Post’s Facebook Page

Pakistan Post is maintaining a Facebook page to receive feedback and suggestions for improvement in postal operations from general public <https://www.facebook/pakistan.postoffice>

ix) Computerized Pension Payment System

Pakistan Post Office Department is paying pensions to military and PTCL pensioners in a hassle free environment.

x) Western Union (WU) Money Transfer Service

Pakistan Post, under an Agency Agreement with Western Union, provides international remittance services under the Western Union Money Transfer Service through 2,094 post offices in the country.

xi) International Postal Services

Pakistan Post has mail links across the globe. The exchange of mail is carried out under rules and regulations of the Universal Postal Union. Direct mail links exists with 72 countries while the rest of the countries are catered through transit facilities of intermediary countries.

xii) PPOD-NBP International Remittance Service

Pakistan Post, in collaboration with the National Bank of Pakistan (NBP), provides payment of/disburses foreign remittances under NBP’s remittance service, through 500 designated post offices across the country.

Philately:

The following Commemorative Postage Stamps have been issued during the July 2020 to March 2021 period:

Issuance of Commemorative Postage Stamp	Date	Value
Issuance of Commemorative Postage Stamp on World Population Day, 2020.	11-07-2020	Rs 20/-
Issuance of Special Postage Stamp on one year of Indian Occupied Jammu & Kashmir Siege.	05-08-2020	Rs 58/-
Issuance of Commemorative Postage Stamp of Silver Jubilee Shoukat Khanum Hospital	06-08-2020	Rs 20/-
Issuance of Commemorative Postage stamp in the Honour of Mughal Abdul Haq Jahanzeb former Wali of Swat State	14-09-2020	Rs 20/-
Issuance of Commemorative Postage Stamp To Celebrate The 75 th Anniversary of the United Nations	24-10-2020	Rs 20/-
Issuance of Special Postage Stamp on Pink Ribbon -Breast Cancer Awareness.	11-11-2020	Rs 20/-
Issuance of Special Postage Stamp on "NEW POLITICAL MAP OF PAKISTAN - 2020	25-12-2020	Rs 20/-

Source: Pakistan Post Office

Number of Post Offices as in March 2021

Summary of Rural & Urban Post Offices is as under:

Urban	Rural	Total
1514	8589	10,103

Source: Pakistan Post Office

Conclusion

A well developed and functioning transport and communication network is critical to the country's economy. It is for this very reason that the Government is fully focused towards establishing a state of the art fully modernized network of linkages which can propel Pakistan as a regional gateway. Inward and outward connections will give impetus to the private sector to realize its true potential, attract investments from abroad, boost our exports, create jobs and opportunities for sustained and inclusive growth. Going forward, the addition of new highways and motorways, promising developments at the Gwadar Port, updation of the rail network and adoption of IT services are all measures which will have a significant impact of the country's growth prospects.