

Transport and Communication

Sustainable economic development of Pakistan is dependent on a robust and low-cost transport and logistics sector. Enhanced export competitiveness is also contingent upon the efficient performance of the sector. The government is aware of the vital role the transport and logistics sector plays in national economic development and in improving the competitiveness in country's export. It is, therefore, committed to implement a comprehensive development initiative and modernizing the transport & logistics sector through a continuous process of reform supported by focused investments in all of its sub-sectors.

Road Linkage

National Highway Authority (NHA) is playing a vital role in improving the quality of Pakistan's road network, which entails in improving the quality and standard of life of the people apart from creating job opportunities. The present NHA network comprises of 47 national highways, motorways, expressways, and strategic roads. Current length of this network is 12,743 Km. NHA's existing portfolio consists of 38 on-going projects with an allocation of Rs.176,636.80 million in PSDP 2018-19 out of which 66,700.00 million is the Foreign Exchange Component (FEC) and Rs.109,936.80 million is the local component. There are also 08 new schemes in PSDP 2018-19 with total estimated cost of Rs. 8,561.00 million.

NHA and CPEC:

Through CPEC, NHA is connecting Khunjrab to Gwadar. Currently there are on-going CPEC projects worth Rs.700 billion related to NHA. Details are as under:

CPEC-Short, Medium and Long Term Projects:

- ▶ Short Term Projects (Eastern Alignment):

Table: 13.1 Eastern Alignment projects

Sr. No.	Project Name	Length (Km)	Status	Implementation Period
1	Khunjrab - Raikot including Atta Abad Lake	335	Completed	-
2	Raikot - Thakot (N-35)	270	Planning Stage	2018-23
3	Thakot - Havelian (E-35)	118	Under Construction	2016-20
4	Havelian - Burhan (E-35)	59	Completed	2013- 19
5	M1 - Gojra (M-1, M-2, M4)	402	Completed	-
6	Gojra - Khanewal (M-4}	127	Under Construction	2013-20
7	Khanewal-Multan (M-4 Ext)	57	Completed	-
8	Multan - Sukkur (M-5)	392	Under Construction	2013-20
9	Sukkur - Hyderabad (M-6)	296	Under Procurement	2018-23
10	Hyderabad - Karachi (M-9)	136	Substantially Completed	2013-19 (June 2019)
11	Sukkur - Shikarpur (N-65)	40	Completed	-
12	Shikarpur - Ratodero (N-55)	49	Under Construction	2018-23
13	Ratodero- QubaSaeed Khan (M-8)	59	Completed	-

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Table: 13.1 Eastern Alignment projects

Sr. No.	Project Name	Length (Km)	Status	Implementation Period
14	Quba Saeed Khan - Wangu Hills (M-8)	42	Completed	-
15	Wangu Hills-Khuzdar (M-8)	113	Completed	-
16	Khuzdar - Basima (N -30)	110	PC-I approved	2019-22
17	Baasima-Hoshab-Gwadar	400	Completed	-

Source: NHA

▶ Short to Medium Term Projects (Western Alignment):

Table: 13.2 Western Alignment projects

Sr. No.	Project Name	Length (Km)	Status	Indicative Plan Period
1	Hakla (Islamabad) - Yarik (DI Khan)	285	Under Construction	2013-20
2	Yarik - Zhob (N-50)	235	PC-I approved Detailed Design is in Process	20 18-23
3	Zhob - Quetta (N-50)	331	PC-I approved	20 18-23
4	Quetta - Khuzdar (N-25)	306	Detailed Design is in Progress	20 18-23
5	Surab-Hoshab (N-85)	449	Completed	
6	Hoshab- Gwadar (M-8)	193	Completed	-

Source: NHA

▶ Medium to Long Term Projects (Central Alignment):

Table: 13.3 Central Alignment projects

Sr. No.	Project Name	Length (Km)	Status	Indicative Plan Period
1	DI Khan - D.G. Khan	229	Feasibility Study Plan in 2025	2025-30
2	D.G. Khan - DeraAllahyar	303	Feasibility Study Plan in 2025	2025-30
3	Den Allahyar - Wangu Hills	94	Feasibility Study Plan in 2025	2025-30

Source: NHA

Motorways:

NHA has already constructed four segments of Pakistan Motorway Network i.e., Peshawar - Islamabad Motorway (M-1), Islamabad - Lahore Motorway (M-2), Lahore - Abdul Hakeem Motorway (M-3) and Pindi Bhattian - Gojra Section and Khanewal - Multan Sections of Motorway (M-4) on a virgin corridor bringing remote areas on mainline and boosting economic activities. NHA is now constructing the remaining section of M-4 from Gojra - Khanewal. Work on Karachi - Hyderabad Motorway (M-9) on BOT basis is also substantially completed. Details of NHA Motorway network is as under:

Table: 13.4 Motorway network

Sr. No.	Motorway	Length (Km)	Status
1	Peshawar- Islamabad, M-1	156	Completed
2	Islamabad - Lahore, M-2	357	Completed
3	Havelian - Mansehra	39	Under construction
4	Hazara Motorway (E-35)	59	Under construction
5	Hakla-D.I Khan	285	Completion: Jun, 2020
6	Sialkot - Lahore	91	Completion; Dec, 2019
7	Lahore - Abdul Hakeem, M-3	230	Completion: Mar, 2019
8	Pindi Bhattian - Faisalabad, M-4	57	Completed
9	Faisalabad - Gojra, M-4	58	Completed

Table: 13.4 Motorway network

Sr. No.	Motorway	Length (Km)	Status
10	Gojra- Shorkot, M-4	62	Completed
11	Shorkot - Khanewal, M-4	64	Completed
12	Khanewal - Multan, M-4	56	Completed
13	Sukkur - Multan (M-5)	392	Completion: Sep, 2019
14	Hyderabad - Sukkur, (M-6)	296	Procurement under process
15	Karachi-Hyderabad (M-9)	136	Completion: June 2019
		2362.3	

Source: National Highway Authority

The projects which are being financed by development partners are:

- ▶ Islamic Development Bank Assistance:
 - Multan - Khaneval Section (57 km) M-4 Extension (Completed)
- ▶ Japan JICA's Assistance:
 - Sehwan - Ratodero section (200 km) of N-55 (Completed)
 - RakhiGajj - Bewata section (34 km) of N-70 (Under Construction)
- ▶ Korean Exim Bank Assistance:
 - Improvement and Widening of Chakdara - Chitral Section (141 km) of N-45 (In procurement stage)
 - Malakand Tunnel (In procurement stage for design consultancy)
- ▶ USAID Grant:
 - Quetta - Chaman Section of N-25 (120 km) (Completed)
 - Peshawar - Torkham Section of N-5 (45 km) (PC-I is in process of approval)
- ▶ Chinese Financing:
 - Raikot - Thakot Section of KKH (276 km) (Planning Stage)
 - Multan - Sukkur (M-5) (392 km) (Under Construction)
- ▶ Asian Development Bank Assistance:
 - Flood Emergency Rehabilitation Project - Phase-I (343 km) (Under Construction)
 - Construction of Gojra - Khanewal Motorway, M-4 (126 km) (Under Construction)
 - Flood Emergency Rehabilitation Project -Phase-II (335 km) (Under Construction)
 - Burhan - Havelian Expressway (E-35) 59 km (Completed).
 - Balochistan Package:
 - Zhob - Mughalkot Section of N-50 (80 km) (Under Construction)
 - QillaSaifullah - WaigurnRud Section of N-70 (124 km) (Under Construction)
 - CAREC Corridor Development Investment Program (Tranche-I):
 - Construction of Additional Carriageway Petaro - Sehwan Section of N-55 (128 km) (Under Construction)
 - Rehabilitation of Peshawar - Dara Adam Khel of N-55 (36.1 km). (Under Construction).
 - Construction of Additional Carriageway Shikarpur - Ratodero of N-55 (44 km) (Under Construction).
 - CAREC Corridor Development Investment Program (Tranche-II):

- Construction of Additional Carriageway Shikarpur – Rajanpur Section of N-55 (222 km) (Planning Stage)
- CAREC Corridor Development Investment Program (Tranche-II):
 - Construction of Additional Carriageway Dera Ghazi Khan - Dera Ismail Khan Section of N-55 (315 km) (Planning Stage).
 - Rehabilitation of Existing Carriageway Petaro - Schwan Section of N-55 (128 km) (Planning Stage)

BOT /PPP projects

NHA through its dedicated efforts took a lead in the road infrastructure development through the private sector participation. NHA successfully attracted private sector investment and has awarded/ supported five projects of worth over Rs. 90 billion. The projects under Build-Operate-Transfer (BOT) and Public Private Partnership (PPP) are:

- ▶ Lahore-Islamabad Motorway (M-2)
Scope: Overlay & Modernization (357 Km)
Project Cost: Rs. 46,007 million August 2016
Status: Project successfully completed and operational since August 2016
- ▶ Habibabad Flyover on N-5
Scope: Construction of Flyover on N-5(1.5 km)
Project Cost: Rs. 831 million
Status: Project successfully completed and operational since April 2015
- ▶ Karachi-Hyderabad Motorway (M-9):
Scope: Conversion of Existing 4-lane Highway into 6-Lane Motorway (136 Km)
Status: 96 percent substantially completed and opened for traffic.
- ▶ Lahore-Sialkot Motorway Project (LSMP)
Scope: Construction of 4-Lane Motorway (91 km)
Project Cost: Rs 43,847 million
Status: 53 percent Successfully Completed (Completion August 2019)

Further, NHA has planned projects on PPP basis worth Rs. 210,000 million to be started in near future.

China Pakistan Economic Corridor (CPEC)

The “All-weather” friendship between Pakistan and China is based on shared principles and interests that form the foundation of cooperation in diverse fields. In the shape of CPEC, both governments have made a conscious effort to focus on expanding the economic dimension of the relationship and bring it up at par with the high level cooperation the two countries enjoy at the strategic and political level.

CPEC complements Pakistan’s economic growth and socio economic development. It forms a significant part of the Chinese concept of developing Silk Road Economic Belt and the 21st century Maritime Silk route. Through CPEC, Pakistan is harnessing its Geo Strategic location into a Geo-Economic advantage and the region will be integrated into an economic hub promising a great future for its populace.

CPEC is the flagship and most actively implemented project of Belt & Road Initiative (BRI) where

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Pakistan and China have successfully launched 22 projects on the ground, costing more than US \$ 28.5 billion. Overall CPEC portfolio is as follow:

Table 13.5: CPEC portfolio

Projects	Status	Cost(US\$ M)
Energy (IPP financing mode)	Completed	4,979
Cross Border Optical Fiber Project (GCL)	Completed	37.4
DTMB (Grant)	Completed	4
Energy (IPP financing mode)	Under Implementation	18,258
Transport and Infrastructure (GCL) 3 projects	Under Implementation	5,830
Eastbay Expressway Gwadar (Interest free Loan)	Under Implementation	166
Gwadar City Master Plan and Airport (Grant)	Under Implementation	257
		29,531.4
Energy (IPP financing mode)	In Pipeline	11,523
Main-Line-1 (ML-1) (GCL)	In Pipeline	8,250
Gwadar Projects (Grant) 6 projects	In Pipeline	357
Grand Total		49,661.4

Source: Ministry of Planning, Development and Reform

The CPEC is considered as a long-term development project as it has the potential to serve as a corridor with multiple doors connecting China with Central Asia, Middle East, Africa and Europe. The government is expanding the scope of CPEC so that it becomes a “Gateway of Prosperity” for both countries and the region at large. CPEC is being expanded in the following areas: trade & market access, industrial development & global value chains, socio-economic development & poverty alleviation, agriculture modernization & marketing, Gwadar oil city & blue economy and regional connectivity & third country participation. Moreover, Chinese and Pakistani workforce, in a large number, is employed to ensure timely completion of the infrastructure projects and launch new projects like ML-1, Eastbay Expressway and Airport Project at Gwadar.

Fiber Optic Connectivity

Pakistan and China are executing Cross-border Fiber optic project (Khunjerab-Rawalpindi). Completion of the 820 Kms long cable has materialized in July 2018. The project will surely support IT sector development in northern parts of the country besides connecting the Transit Europe-Asia Terrestrial Cable Network with Pakistan. A Pilot Project of Digital Television DTMB (Digital Terrestrial Multiband Broadcast) has also been completed under CPEC.

Rail Linkage

Pakistan Railway is a single major mode of transport in public sector contributing to economic growth and providing national integration. Pakistan Railways comprises of total 470 locomotives (458 Diesel Engine and 12 Steam Engines) for 7,791 kilometers length of route.

During FY 2019 (July-February), gross earning grew by 10.3 percent and amounted to Rs 34,0661 million against Rs 30891.1 million during the same period last year. During the period July-February FY 2019, number of passengers carried increased to 39.9 million against 35.9 million during the same period last year, which posted a growth of 11.0 percent. Likewise passenger traffic Km (million), freight carried tones million, and Freight tons Km (million) grew by 11.9 percent, 2.9 percent and 7.8 percent, respectively.

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Table 13.6: Earning of Pakistan Railway

Fiscal Year	Earning (Rs in million)	% Change
2008-09	23,160	----
2009-10	21,886	-5.5
2010-11	18,740	-14.4
2011-12	15,444	-17.5
2012-13	18,070.55	17
2013-14	22,800.22	26.173
2014-15	31,924	40
2015-16	36,581.87	14.6
2016-17	40,064.95	9.5
2017-18	49,569.68	23.7
(July-Feb)		
2017-18	30,891.16	
2018-19	34,066.12	10.3

Source: Ministry of Railways

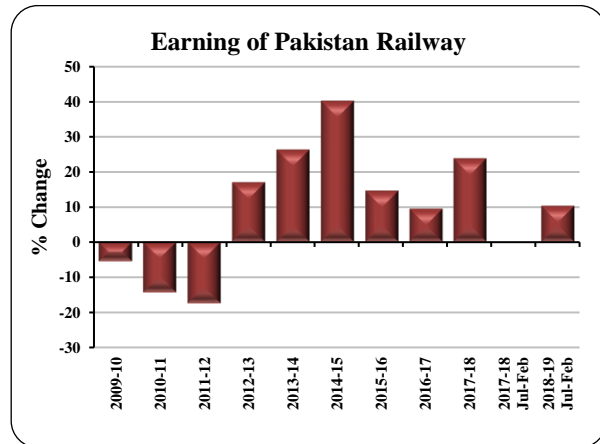
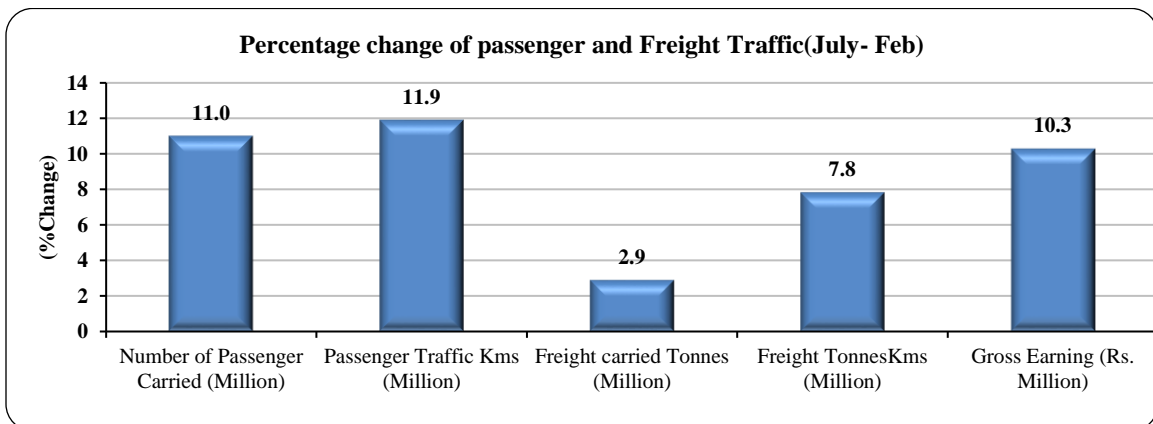
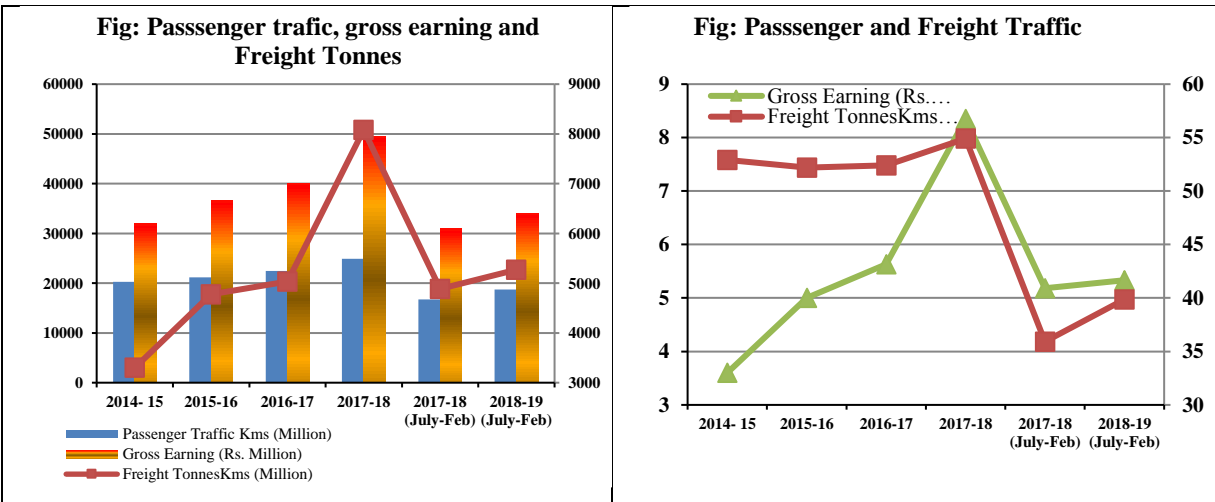


Table 13.7: Passenger and Freight Traffic

Subject	2015-16	2016-17	2017-18	(July-Feb)		%Change
				2017-18	2018-19	
Number of Passenger Carried (million)	52.2	52.4	54.9	35.9	39.9	11.0
Passenger Traffic Kms (million)	21201.0	22475.7	24903.8	16753.2	18745.8	11.9
Freight carried Tons (million)	5.0	5.6	8.4	5.2	5.3	2.9
Freight Tons Kms (million)	4773.5	5031.3	8080.0	4887.4	5269.6	7.8
Gross Earning (Rs. million)	36581.9	40065.0	49569.7	30891.2	34066.1	10.3

Source: Ministry of Railways



Air linkage

Pakistan International Airlines Corporation (PIAC) came into existence in 1955 as Public Sector organization. However, in April 2016 it was converted from a statutory organization to a company governed by Companies Act 1984, through Pakistan International Airlines Limited (PIAL conversion) Act 2016. At present PIA is passing through a dire financial state. However, the present government is very keen to make itself-reliant. Efforts are underway to improve the financial health of the corporation by reducing its losses through various means and modes. Stringent action is being taken against corruption and mismanagement.

PIA follows calendar year for financial and operational matters. The overall performance of PIA for 2018 is given below;

Table 13.8: PIA Performance

Indicators	Units	Year 2015	Year 2016	Year 2017	Year 2018
PIA Fleet	No. of planes	38	38	36	32
Route	Kms	367,251	382,057	360,937	332,303
Available Seat	millionKms	16,666	19,196	19,108	18,081
Passenger Load Factor	in percent	70.3	71.6	73.20	77.3
Revenue Flown	000 Kms	67,630	79,842	75,207	70,089
Revenue Hours Flown	Hours	111,455	131,838	122,081	110,050
Revenue Passengers Carried	000 nos.	4,393	5,487	5,342	5,203
Revenue Passengers	millionKms	11,711	13,751	13,988	13,975
Revenue Tonne	millionKms	1,191	1,375	1,469	1,472
Revenue Load Factor	in percent	48.9	49.2	55.2	58.4
Operating Revenue **	Rs. million	91.269	89,842	-	100,051
Operating Expenses **	Rs. million	121.222	125,961	-	170,447
Available Tonne	millionKms	2,435	2,798	2,659	2,521

* PIA financial year is based on calendar year i.e. January to December.

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

Source: Civil Aviation Authority

Despite financial constraints and tough and uneven competitive environment, PIACL gave a stable performance during 2018. To reduce losses, PIA had to take measures like route rationalization and suspended its loss making routes.

PIA is in the process of its Strategic Business Plan 2019-23 to improve its performance:

- i. Launching of profitable new routes like Silakot-Sharjha, Lahore-Muscat, Islamabad-Doha and Lahore-Bangkok-Kualalumpur. These routes are going very strong and economically viable
- ii. More new routes have been started which include; Sialkot-Paris-Barcelona, Peshawar-Sharjha, Peshawar-Al Ain and Multan-Sharjha
- iii. Increasing frequencies and capacity on profitable routes like Jeddah and Madinah coupled with closure of loss making routes like New York, Salalah (Oman), Kuwait, Mumbai
- iv. Stoppage of all officiating and extra allowances given on additional assignments to officials
- v. Ban on overtime allowances in all cadres along with monitoring of flights by senior officials
- vi. Increasing regularity and punctuality of flights by assigning target to be achieved 90

percent

- vii. Improvement in flight services, training of crew and regular monitoring
- viii. Introduction of executive economy class on European and Gulf sectors which are attracting more customers
- ix. Rationalization of fares according to market demand thus helping in increase of seat factor
- x. Delays of flights have been cut down significantly by better planning in engineering, flight operation and ground handling departments
- xi. Special emphasis on cargo business with monitoring of performance, rationalization of cargo fares and more effective liaison with all stakeholders

Future Plan:

- ▶ PIA is in process of acquiring new aircraft for its fleet. Presently, a tender has been floated for four narrow body aircrafts according to PPRA rules
- ▶ PIA has submitted its business plan to the federal government and now it is under consideration for approval of Federal Cabinet.

Maritime Linkage

Pakistan National Shipping Corporation (PNSC)

PNSC has achieved substantial growth in revenue of 35 percent (from Rs.1,272 million to Rs.1,717 million) in managed bulk carrier segment and growth of 28 percent (from Rs.3,001 million to Rs.3,833 million) in liquid cargo segment through its managed vessels. The present government encouraged the use of alternative energy, which is cost effective, and environment friendly as compared to furnace oil. Restrictions were imposed on import of furnace oil resulting in energy shift towards inexpensive Liquefied Natural Gas (LNG), which hampered the operational revenue of PNSC through foreign flag tankers chartering with a decline of 71 percent (from Rs.1,690 million to Rs.491 million). Likewise, there is a decline of 7 percent (from Rs.1,410 million to Rs.1,317 million) in slot charter segment, which is also primarily due to the reduction in the import of public sector cargoes. Cumulatively, PNSC achieved a turnover of Rs.7,478 million (including Rs.1,928 million from PNSC) as compared to Rs.7,522 million (including Rs. 3,249 million from PNSC) for the corresponding period last year. Fleet Direct operating expenses decreased to Rs. 5,500 million (including Rs.1,104 million from PNSC) from Rs.5,747 million (including Rs.1,738 million from PNSC), thereby resulting in gross profit of Rs.1,852 million as against Rs.1,656 million for the same period last year. Despite of some adverse factors, PNSC profitability has increased by 61 percent with profit after tax of Rs.1,402 million during this period against Rs.872 million in the same period last year ensuring the best utilization of resources. Earnings per share for the PNSC increased to Rs.10.62 against Rs.6.60 in previous corresponding period.

Two LR-1 tankers are added in PNSC's managed fleet namely "M.T. Bolan" and "M.T. Khairpur". These additions have increased the PNSC's managed fleet deadweight tonnage to 831,711 tons, which is largest in the history. The new inductions of oil tankers in managed fleet not only cater the demand of Motor Gasoline transportation but also impart modern technological advancements on board. These inductions will also curtail reliance on foreign-chartered vessels for oil transportation, to encounter the existing and foreseeable external challenges, and to gear up for current and future economic challenges.

1. Commercial and financial performance

The commercial and financial performance (un-audited) breakup covering nine months activities

from 1st July 2018 - 31st March 2019 of PNSC are given in the following tables:-

a) Commercial performance:

Table 13.9: Commercial performance

MONTH	Tanker	Chartering	SLOT Consolidated	
	Liquid Cargo (MT)	Dry Cargo (MT)	TEUs	BB/LCL
Total FY 2018-19	5,689,648	1,607,719	1722	26,165

b) Financial performance:

The current FY Jul 31st 2018 - Mar 31st 2019 (9 months) financials are as under:

Table 13.10: Financial performance

(Rupees in 000)

Financial Results	July 18 - March 19
Revenue	7,478,425
Expenses	(5,626,795)
Gross Profit	1,851,630
Other Income	1,052,091
Administrative, Other Expenses & Finance Cost	(1,338,544)
Profit before Tax	1,565,177

2. Future plans

PNSC has planned Fleet Development Program (FDP) into short, medium & long term. PNSC has recently acquired two (02) LR-1 product tankers, which will boost PNSC's cargo carrying capacity and would further contribute to increase in revenue generation of the Corporation. While, in medium term PNSC intends to expand its dry bulk and liquid fleet and also intended to get into transportation of LNG and LPG business. However, in long term the ultimate objective of corporation is to enhance and maintain deadweight carrying capacity of over 1.5 million tons by 2025.

3. Fleet strength:

PNSC's current fleet comprises of 11 vessels (4 Aframax tankers, 2 LR-1 product tankers and 5 bulk carriers) with a total deadweight (DWT) capacity of 831,711 metric tons and contributes significantly to Pakistan's imports and export volumes whereas on the other hand operate worldwide earning foreign exchange for the government exchequer.

Table 13.11: Fleet strength

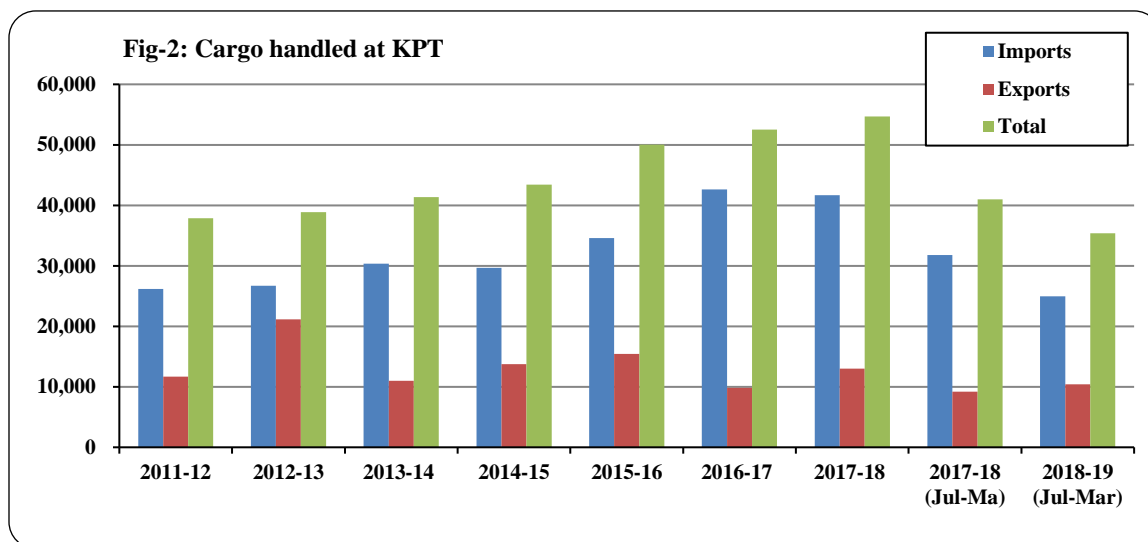
Vessel Name	Built	Deadweight MT	Length Overall M	Gross MT
M.TQUETTA	JAPAN 2003	107,215	240.80	58,119
M.TLAHORE	JAPAN 2003	107,018	246.80	58,157
M.TKARACHI	JAPAN 2003	107,081	216.80	58,127
M.T SHALAMAR	JAPAN 2006	105,315	228.00	55,894
M.TBOLAN	KOREA 2013	74,919	220.89	42,411
M.T KHAIRPUR	KOREA 2012	74,986	220.89	42,411
Bulk Carriers				
M.VCHITRAL	JAPAN 2003	46,710	185.73	26,395
M.V MALAKANO	JAPAN 2004	76,860	225.00	40,040
M.V HYOERABAD	JAPAN 2004	62,951	188.50	29,385
M.VSIBI	JAPAN 2009	28,442	169.37	17,018
M.VMULTAN	JAPAN 2002	60,244	180.80	27,086
	Total	831,711		455,043

Karachi Port Trust

The Karachi Port Trust operational performance during FY 2018-19 (July-March) stood at 35,361,000 tones. The export cargo handled 10,415,000 tons as compared to 9,206,000 tons last

year, showing a substantial increase of 13 percent, while volume of import cargo stood at 24,945,000 tons, as against the 31,379,000 tons handled last year, showing a decrease of 22 percent. The restricted import is due to government measures to discourage non essential imports. The details are as under;

Fiscal Year	Imports	Exports	Total	%Change		
				Imports	Exports	Total
2011-12	26,201	11,674	37,875			
2012-13	26,700	21,150	38,850	2	81	3
2013-14	30,343	11,007	41,350	14	-48	6
2014-15	29,672	13,750	43,422	-2	25	5
2015-16	34,594	15,451	50,045	17	12	15
2016-17	42,638	9,855	52,493	23	-36	5
2017-18	41,669	13,016	54,685	-2	32	4
2017-18 (Jul-Ma)	31,789	9,206	40,995			
2018-19 (Jul-Mar)	24,945	10,415	35,361	-22	13	-14



Port Qasim Authority

The Port Qasim Authority achieved good results in the first nine months of the year posted a total growth of 12.6 percent in total traffic. The port operational performance during FY 2018-19 (July-March) stood at 36.580 million tonnes, showing an increase of 12.6 percent over the corresponding period of last nine months of 2017-18.

The growth of 12.6 percent in total traffic during the financial year 2018-19 is attributed in Coal, LNG, Chemicals, Cement, Palm oil and Mogas. Out of 36.580 million tons of total traffic, dry bulk cargo/break bulk cargo was 13.696 million tons (37.4 percent) liquid cargo was 11.852 million tons (32.4 percent), and containerized cargo was 11.032 million tons (30.2 percent). Port handled 0.797 million TEUs of container traffic during this year, showing an increase of 7.8 percent over the same period of last year container handling of 0.739 million TEUs. In terms of imports and exports, imports accounted for 85.5 percent and exports 14.5 percent of total trade.

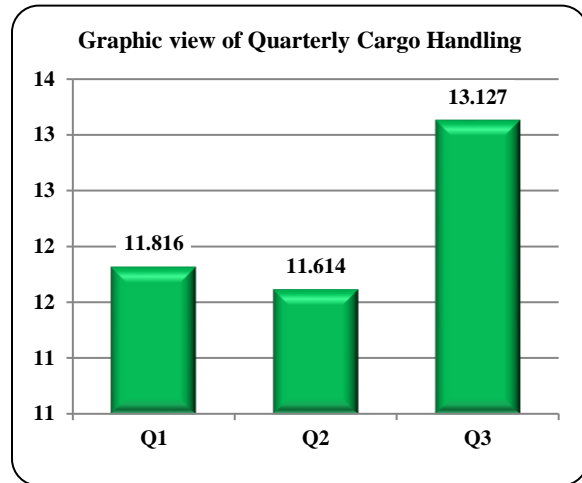
Imports

The volume of import cargo during July-March 2018-19 stood at 31.293 million tons, as against the 27.342 million tons handled during corresponding period last year, showing an increase of 14.4 percent

Exports

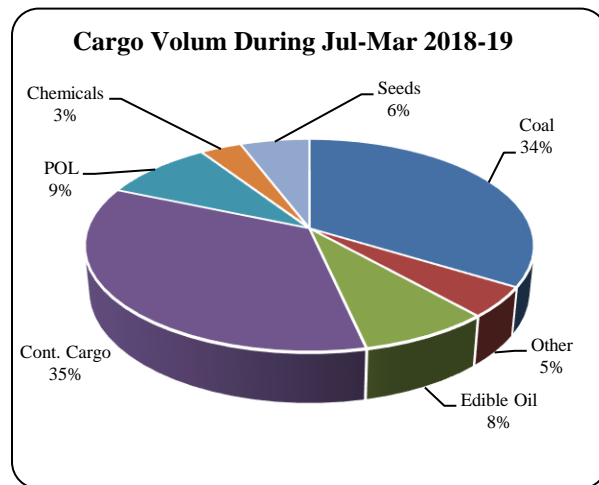
The export cargo handled 5.287 million tons during first nine months of financial year 2018-19, as compared to 5.127 million tons handled during corresponding period 2017-18, showing a substantial increase of 3.7 percent, export cargo comprised 4.229 million tons (80 percent) containerized traffic, 0.995 million tons (20 percent) non-containerized cargo.

View of graphic shows that the third quarter of fiscal year is the highest quarter of financial year 2018-19, reaching over 13.127 million tons, while average cargo handling remained at the port at 12.193 million tons per quarter during July-March.



Cargo Composition

Cargo composition graph shows that containerized cargo throughput is largest cargo which represented over 30 percent of total cargo, the second largest imported cargo was the coal represented 29 percent of total throughput, and third largest imported cargo was the LNC which represented 74 percent of total cargo throughput.

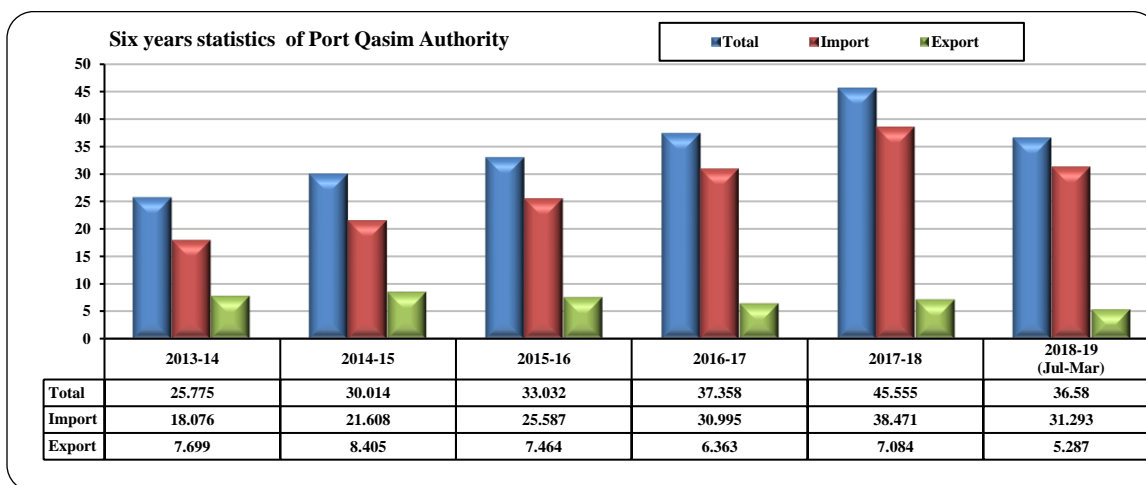


Ship Callings

Ship-Callings registered a slight growth of 1.15 percent during the under review period, where a total of 1,139 ships have been visited at Port, which is comprises 371 Container ships and 768 Non-Container ships.

Five Years Port Statistics

Period	Total	Imports	Exports
2013-14	25.775	18.076	7.699
2014-15	30.014	21.608	8.405
2015-16	33.0321	25.587	7.464
2016-17	37.358	30.995	6.363
2017-18	45.555	38.471	7.084
2018-19 Jul-Mar	36.580	31.293	5.287



Gwadar Port

Gwadar Port is the Port on the southwestern Arabian Sea Coastline in Balochistan, province of Pakistan. It is the second greatest monument of Pak-China friendship after Karakoram Highway linking Pakistan and China. Gwadar Port is about 630 km away from Karachi and 120 km from the Iranian border. It is located at the mouth of the Persian Gulf, outside the Strait of Hormuz, near the key shipping routes in and out of the Persian Gulf.

Port Operators

The government has signed a concession agreement with Singapore Port Authority International (PSAI) in 2007. But there was no considerable progress till 2013.

In May 2013, the port's Concessional Rights were transferred to the new operator, viz China Overseas Ports Holding Company Limited (COPHCL). Since the concessions were handed-over to COPHCL, it has been working on improving port facilities, surrounding environment and port businesses. The port operator had invested more than \$ 40 million for port facilities up-gradation. This is now fully operational and receiving commercial vessels on regular basis since March 2018.

Gwadar Port Free Zone

- ▶ The construction of Free Zone Phase-I has been completed with all infrastructures, including power, water, road, telecommunication, waste treatment, drainage systems are now in operation. More than 30 enterprises, involving the fields of banks, insurance, financial leasing, hotels, warehouses, fishery products processing, edible oil processing, pipe, furniture manufacturing, electric vehicle assembly, trade and logistics, have already been registered in Free Zone.
 - ▶ Following 03 companies have completed the construction;
 - M/S China Communication Construction Company (Business Center)
 - M/S Linyi Trade City (Exhibition Center) and
 - M/S Yulin Company (Steel Tube Industry)
- 02 companies have started the construction, namely as M/S Delight Food Industries (Extraction of edible oil) and M/S HK Sons (copper recycling & processing). However, despite the completion of their units these companies will not be able to start the operations in the absence of Free Zone rules and policy.

They are unable to import raw materials due to non-availability of Free Zone incentives for businesses to be established in Gwadar Free Zone.

- Work on the main Free Zone on 2,220 acres of land will be started soon for which China Port Holding Company (COPHC) has completed the master planning and feasibility work.

Commercial Activities

Gwadar Port has handled last year around 7.156 Metric Ton cargo from 53 ships. The Chinese Operator is working on increasing the number of ship calls at the port. Two ship-liners (COSCO & Sino-Trans) are calling regularly at the port. From 7th March, 2018 weekly container service has been started by COSCO.

Table 13.14: Summary of trade/Cargo Data from March 2018 to February 2019

Total Cargo	7,156 Metric Ton
Total Import	375.482 Metric Ton
Total Export	3401.105 Metric Ton

Communication

Information and Communication Technology Sector

The telecommunication market in Pakistan is open and deregulated, offering level playing field to operators. The sector was de-regulated 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 an 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. Revision of Policies for Device Identification, Registration and Blocking System (DIRBS) 2018-19:

With the aim to curtail the counterfeit mobile phone market, deter mobile phones theft and to protect consumer interest in line with the duly approved Telecom Policy 2015 issued by Ministry of Information Technology & Telecommunication, PTA developed/established a “Device Identification Registration & Blocking System (DIRBS)” in collaboration with all Cellular Mobile Operators. DIRBS acts as a central system and database for all network operators to share and synchronize information about black listed mobile devices to deny operations to such unauthorized devices on any network. The system besides above mentioned benefits also enables a unique opportunity to eliminate smuggling of new and used mobile phones as only white listed devices i.e. those with valid IMEIs formally cleared by the PTA/Customs, will be allowed to operate on the networks, henceforth.

ii. Determination of underserved areas for the launch of Next Generation Broadband in under-served areas of Pakistan.

The Universal Services Fund Company (USF Co.) launched projects to provide telecommunication coverage to approximately 12,000 unserved Mauzas with a population of around 15 million, across all provinces of Pakistan. In these areas, provision of telecom services was not commercially viable for Telecom Operators and without intervention from USF Co., the general population would have remained deprived of telecom connectivity.

The new flagship program of USF Co. is the Next Generation Broadband for Sustainable Development (NG-BSD). This program provides enhanced Broadband data rates (512kbps) to Unserved and Underserved population of the country facing limited or no data coverage.

The Federal Cabinet approved the declaration of the following areas as Underserved for inclusion in USF's Program, aimed at the provision of Next Generation Broadband to a population of 30,435,725 in 11,915 Under-Served Mauzas of Pakistan: Pishin, Nasirabad, Mastung, Turbat, Sukkur, Dadu, Mirpurkhas, Larkana, Chitral, DG Khan, Bahawalpur, Bahawalnagar and Rahimyar Khan.

iii. Spectrum Plan

A comprehensive draft Spectrum Plan and Strategy is prepared by the close collaboration of stakeholder including MoITT, FAB, PTA and spectrum veterans. The draft has been improved during the year 2018 and approval process for same is being initiated during the current fiscal year.

iv. Cyber Governance

The formulation of Cyber Governance Policy is in process and all stakeholders are being taken on board.

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

Through the Universal Service Fund, this Ministry is committed to minimize the Information and communication gap between rural and urban communities. To connect the unconnected in the unserved and underserved areas of the country, projects are being designed under different categories each bridging the gap of necessary services and associated systems.

i. Broadband for Sustainable Development (BSD) Program

A flagship program to establish telecommunication infrastructure that provides coverage of Voice and Broadband Internet Services to unservedmauzas across the country. More than 7,000 unservedmauzas across the country have been provided with coverage through USF. In current Fiscal Year, 925 mauzas have been served by USF under previously running projects. Whereas, Rs. 3 billion have been disbursed upon completion of different project milestones.

Furthermore, USF has launched a new project to provide services in 401 unservedmauzas of North Waziristan Agency, FR Bannu and FR LakkiMarwat. Necessary codal formalities are being completed for signing of contract worth Rs.135 million.

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

The program offers enhanced broadband services along with voice services and has recently been ratified by Cabinet. The target areas are unserved and underserved mauzas.

Approximately 30 million un/underserved population in 46 districts will benefit from this program in next 4 years.

5 Lots to be auctioned this year have been designed targeting 4,000 mauzas in 12 districts namely Dadu, Jamshoro, Thatta, Matiari, Hyderabad, Tando Allahyar, Tando Muhammad Khan, Badin, Sujawal, Bahawalpur, Rahimyar Khan and Bahawalnagar.

iii. Next Generation BSD Program for National Highways and Motorways

It is a new program which is evolved from BSD program and has been launched in current financial year. The program targets unserved areas along the national highways and motorways across the country. It is estimated that around 7,700 kms of routes are un-served. A salient feature of this program 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 this facility in Pakistan.

In current fiscal year, USF has successfully launched a project to provide coverage along the unserved segments, spanning 669 kms, on National Highway 10 and national highway 25 (partially).

iv. Optic Fiber Cable Program(OFC)

USF Optic Fiber Cable program is concentrating on connecting the unserved Tehsil Headquarters (THQs) and major town enroute 6,951 kms of OFC has been laid and 84 THQs and Towns have been provided with the connectivity.

In current fiscal year, 59 THQs and major towns will be connected under OFC Khyber Pakhtunkhwa and OFC FATA Packages by laying more than 1,200 kms of Optic Fiber Cable.

v. Broadband Program

The program was initiated in 2007 whereby urban areas of 2nd and 3rd tier cities were provided with the broadband infrastructure. Additionally, broadband centers were to be established in educational institution, called Educational Broadband Centers (EBCs) and in public places, called Community Broadband Centers (CBCs). These centers provide shared access points to the intended sections of society.

By March 31, 2019 USF has covered 479 cities and towns and established a customer base of more than 780,000 subscribers. Additionally, more than 1300 EBC and 360 CBCs have been established.

In current financial year around 700 subscribers have been established along with 19 EBCs and 4 CBCs.

2. Information Technology Sector

Government’s incentives for IT industry include:

- ▶ Zero income tax on IT exports till June 2025
- ▶ 100 percent equity ownership allowed to foreign investors
- ▶ 100 percent repatriation of capital and dividends allowed
- ▶ Three-year tax holiday for PSEB registered IT startups Tax holiday for venture capital funds till 2024.

IT Exports and Remittances

There has been a consistent growth in IT &ITeS-BPO remittances over the last 5 years, with 151 percent growth in IT &ITeS-BPO remittances at a compound annual growth rate (CAGR) of 20 percent, the highest growth rate in comparison with all other industries and the highest in the region. Pakistan’s IT &ITeS-BPO exports are estimated to have crossed US \$ 3.3 billion a year at present. In addition, export remittances earned by MSMEs and freelancers are estimated to be \$500 million, whereas annual domestic revenue exceeds \$1 billion.

Pakistan’s IT sector has a promising future, brimming with talent, and with potential to become the largest export industry of the country. Already, IT industry is among the top 5 net exporters of the country with the highest net exports in the services industries.

Pakistan is the 3rd most financially attractive location in the world for offshore services, according to A.T. Kearney's Global Services Location Index. More than 300 international companies including Global enterprises like Bentley (R), Ciklum (R), IBM (R), Mentor Graphics (R), S&P Global (R), Symantec (R), Teradata (R), and VMware (R) have established global consulting services centers, research & development facilities, and BPO support services centers in Pakistan.

Foreign Direct Investment (FDI) inflow in the ICT Sector (IT & Telecom)

The reported FDI inflow in the ICT sector (IT & Telecom) for the period July 2018- January 2019 is USD 114.4 million.

A. Policy Interventions

1. Digital Pakistan Policy 2018

Taking into account the increasingly transformed role of information technology across all sectors of socio-economic development coupled with accelerated digitization Digital Pakistan Policy 2018 has been approved by the federal government to rapidly transform the IT and other sectors of economy for an enhanced economic growth.

This policy will serve as the foundation for the construction of a holistic digital ecosystem with advanced concepts and components for the rapid delivery of next generation digital services, applications and content. It will also provide opportunities for local entrepreneurs and firms to acquire core competencies, experience and credibility and become better positioned to compete at the international level. The implementation of Digital Pakistan Policy 2018 is in process.

2. Establishment of پاکستان internet registry

The Internet Assigned Numbers Authority (IANA) has approved the establishment of پاکستان Internet registry for Pakistan. NTC being the پاکستان registry operator has completed and tested all the operational procedures for setting-up of said registry. Moreover, the case for the re-delegation of National Internet Registry (.pk) is in process.

3. E-Commerce

MoIT in-consultation with relevant stakeholders has formulated the e-commerce regulatory framework for the proliferation of e-commerce eco-system to safeguard the users and merchants' trust and will resolve longstanding barrier to growth of Pakistani e-commerce. Now, this Ministry is providing technical assistance to Ministry of Commerce for consolidation of all working groups' including working group on e-commerce regulatory framework's feedback into a National E-commerce Policy document.

4. E-Governance

MoIT through NITB, is in process of rolling-out the e-Office suite in the federal government to ensure efficiency, accuracy, effectiveness, good governance, transparency and accountability in decision making and delivery of efficient and cost effective public services to citizens of Pakistan. In this regard, the access of e-office suite software has been provided to more than twenty four (24) Ministries/Divisions and twenty four (24) attached departments, whereby, more than 8000 staff has been trained on the said e-governance system. E-Office services are being provisioned to these departments through federal government's secure and dedicated optical fiber network. Currently, the MoITT, in consultation with relevant stakeholders, is in the process of rolling-out the e-office suite in the provinces through a Public Private Partnership model in collaboration with local IT industry. The projects in this regard are as follows:

- ▶ **Centralized Procurement Plan for Federal Government:** A special procurement committee has been constituted, a Special Procurement Committee for centralized procurement of the ICT infrastructure to ensure e-Readiness of Federal Government Program. The committee shall be responsible for procurement of items subject to quantity and quality. NITB will assess the need of each Division objectively and the allocation of funds for the same shall be taken up with Finance Division.
- ▶ **Replication of e-office suite:** Under this project, the currently under progress e-office system is to be replicated to remaining ministries and attached departments. NITB is in process of completing this project in the year 2018-19.

C. Infrastructure Development for IT Facilitation

Establishment of Information Technology Parks

The Software Technology Parks (STPs) are a major factor in facilitating the IT companies and play a major role in the development of the IT industry. STPs house IT companies and professionals and act as software factories generating software and IT exports for the country every year.

A new state of the art IT Park in Islamabad is being established under financing from Korea Eximbank through the Economic Development Cooperation Fund (EDCF), spreading over an area of 14.9 acres of land. The construction of IT Park will be undertaken in two phases. Cost estimate for first phase is US\$ 88.25 million for which loan agreement has been signed. It is expected that design and construction of IT Park will be completed by 2022. In addition to the above, the Ministry is in process of planning for undertaking the feasibility study to establish such state of the art technology parks in Karachi.

3. National Initiatives for ICTs (It & Telecom)

A. Innovation and Entrepreneurship in ICTs

National Incubation Centers

The government has a vision of accelerated digitization and transformation of Pakistan into a knowledge based economy to spur economic growth through innovation and entrepreneurship. Keeping in mind the critical role played by startups in economic growth, job creation, financial inclusion, reducing the income divide, and building a knowledge economy ignite under the auspices of MoIT, launched a program to build a network of National Incubation Centers (NIC). IGNITE has successfully established 5 NIC in federal capital and all provincial capitals of the country.

Today five NICs (Islamabad, Lahore, Peshawar, Karachi & Quetta) house 179 promising startups, which have been provided mentorship and networking by leading entrepreneurs, corporate chieftains, top professionals, investors and global entrepreneurial organizations through numerous events and meet-ups. Other facilities included free office space, high speed broadband internet, makers lab, usability labs, fintech lab, design thinking lab etc. These centers also offer curriculum that teaches pitching and learning by doing. Legal assistance, coaches, vertical mentors, financial experts and trainers are also available to nurture Incubates.

B. Peoples Development Programs

i. Digital Skills Training Program for Freelancing

The digital skills training program was inaugurated in August 2018, to train one (1) million people across the country over a period of 2 years. The digi skills Program is aimed at equipping our youth, freelancers, students, professionals, etc. with knowledge, skills, tools & techniques necessary to seize the opportunities available internationally in online jobs market places and

also locally to earn a decent living. The program aims at not only developing key specialized skills, but also imparting knowledge about various freelancing and other employment and entrepreneurial opportunities available internationally and locally. Due to limited employment opportunities, it is essential for upcoming workforce to have necessary knowledge and abilities to grab such opportunities. This is envisaged to be achieved through a national level program, which will train target audiences in freelancing and other specialized skills.

ii. ICT for Girls

Universal Service Fund's "ICTs for Girls" program is aimed at spurring the socio-economic uplift of girls through digital learning. As part of this program, 120 state of the art digital labs have been established throughout Pakistan at the women empowerment centers and 24 other educational institutions at a cost of PKR 260 million. 150 master trainers have been trained with the help of Microsoft, Facebook and UN-Women. Through this program around 15,000 girls will be trained annually

The second wave of this program, at a cost of Rs 810 million, has also been launched to train over 110,000 girls per year at 226 girls' schools of Islamabad being run by federal directorate of education. USF is also funding the hiring of 202 teachers for these computer labs. Under these projects, 6,372 computer terminals have been set up throughout the country. Through this mega project, the ultimate objective is to increase the employability potential of this disadvantageous section of society.

iii. Capacity Building of IT Industry

PSEB has assisted quality certification of 03 IT companies at ISO 27001:2015 and 02 at ISO20001. Whereas, certification of 06 IT companies is in progress on ISO 27001/20001. Moreover, PSEB has also assisted one IT company on CMMI Level-5

iv. ICT for Special Persons

USF has recently launched a special project to establish 6 state of art specialized Information Communication Technology (ICT) facilities at the national library and select institutions located in Islamabad Capital Territory. All these labs have been equipped with modern ICT equipment and relevant assistive technologies catering to the specific disability/disorder.

v. Digital Platforms for Underserved

With advancement of technologies, proliferation of digital platforms and enabling apps, user behavior is shifting from voice and data centric services to app-centric services. Realizing this shift, USF is in process of establishing platforms for the un/underserved communities of Pakistan.

C. Funding Technical Innovative Products (ICT)

Technology startups are considered to be the epicenter of innovation and are fueling the growth of economies worldwide by creating new jobs, contributing to the GDP and raising the standard of living. Some of the success models around the world are South Korea and Singapore etc. 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 one year. This includes, but not limited to, the following areas:

- ▶ 3D/4D Printing
- ▶ Augmented Reality / Virtual Reality
- ▶ Big Data, Artificial Intelligence
- ▶ Blockchain
- ▶ Cloud
- ▶ Neurotech
- ▶ Robotics
- ▶ Shared economy
- ▶ The Internet of Things
- ▶ Wearables, Implantables

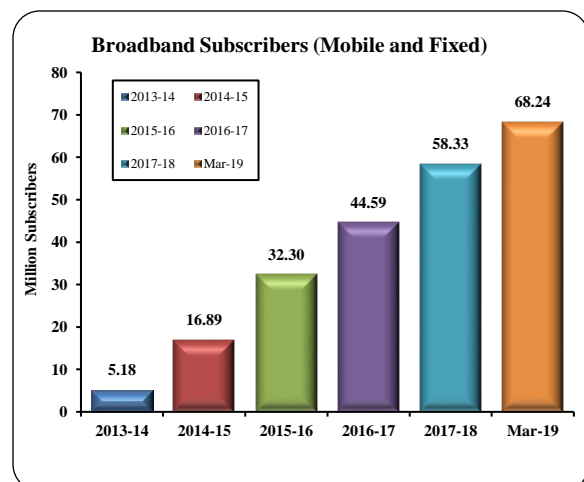
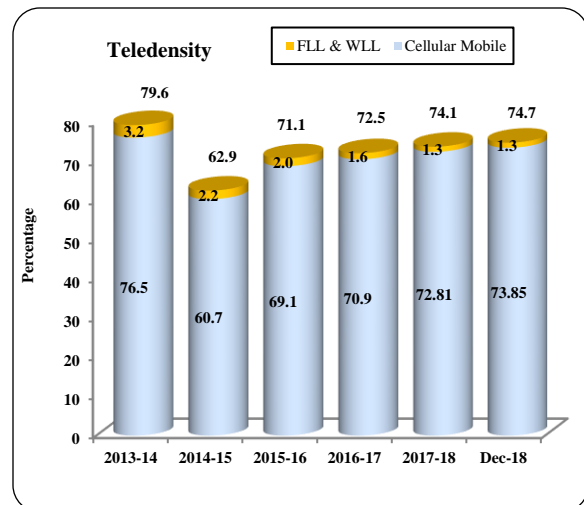
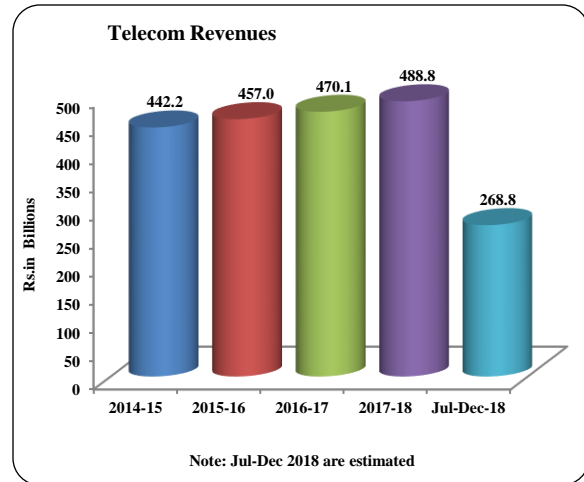
Telecom Sector

A brief account of progress achieved in the telecom sector in 2018-19 is reflected below with details of regulatory measure being taken by regulator during the year.

Telecom Sector Analysis

Telecom sector is playing pivotal role in Pakistan’s economy where it is contributing directly and indirectly in employment generation, financial inclusion, attracting investment, providing innovation opportunities besides contribution of huge resources to national kitty in terms of taxes, duties and other levies. Telecom sector has emerged among the major foreign investment attracting sectors in the country. During the last 5 years, sector has attracted over US\$ 2.6 billion FDI whereas a total of about US\$ 4.5 billion have been invested by telecom players in Pakistan. In terms of overall investment in the telecom sector, the momentum that was started in FY 2012-13 for the up-gradation of telecom networks for 3G and 4G services has continued. Telecom operators have invested a significant amount of US\$ 200.1 million during July-Dec 2018 to March. The main driver behind this investment is the cellular mobile sector, which has invested US \$158.3 million during the first two quarters of FY 2018-19.

The commercial launch of 3G and 4G LTE services has opened new opportunities for revenue generation for the mobile operators. With a relatively difficult year, 2018 for Pakistan’s economy, telecom sector stands tall in the overall economy and showed improvement in revenues

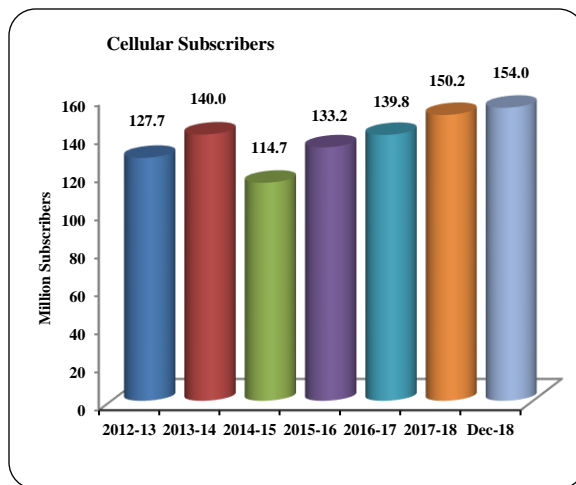


during FY2018 whereby total telecom revenues stood at Rs. 488.8 billion during the year 2017-18. Revenues from telecom sector reached an estimated Rs. 268.8 billion during the first two quarters of FY 2018-19.

The progressive approach followed by PTA for providing ICT access to the citizens of Pakistan through international fibre optic cables, backhaul networks and wireless solution including 3G, 4G, LTE have resulted in more than 89 percent of the total population access to cellular mobile services of which 73 percent have access to 3G services and 69 percent have access to 4G services. Total teledensity reached 77.2 percent at the end of March, 2019 compared to 74.1 percent at the end of last fiscal year 2017-18. The prime driver of teledensity rise is the growth in cellular mobile subscribers.

Cellular Subscribers

By the end of March 2019, the total number of mobile subscriptions in Pakistan reached at 159 million with the net addition of 8.8 million subscribers during the July, 2018 to March 2019. Biometric re-verification of SIMs in 2014-15 had an adverse impact on the cellular subscriber base.

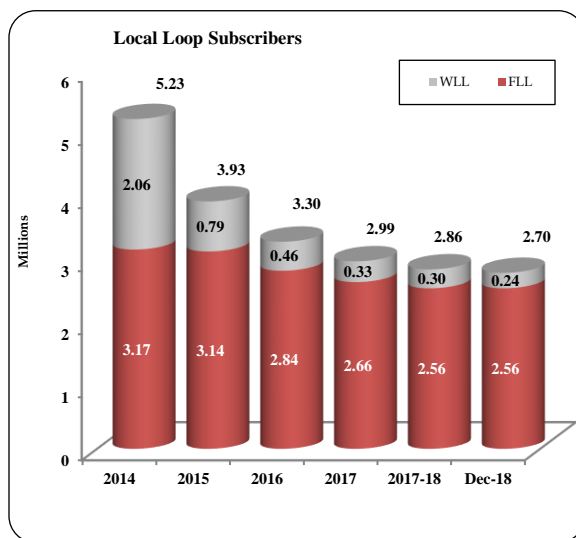


Broadband Subscribers

Mobile and Fixed Broadband subscriber base showed strong growth during July, 2018 to March, 2019. At the end of March 2019, broadband subscribers stood at 68.24 million as compared to 58.33 million at the end of last fiscal year 2017-18. The number of net subscriber additions during first nine months of 2018-19 stood at 10 million.

Local Loop Subscribers

The subscriber base of local loop segment has reached 2.70 million at the end of December 2018 as compared to 2.76 million as of June, 2018. FLL subscriber base has been steady as 2.56 million subscribers as of June and Dec, 2018) as reported by the operators. The closure of PTCL’s WLL connections and the mobile substitution effect has resulted into gradual decline of the local loop subscriptions.



7th Highest Tax Paying Government Organization in Pakistan

PTA, has been ranked 7th largest tax paying organization among its peers in 2018 on its income to the Federal Board of Revenue. In addition, Telecom Regulator has generated over Rs. 209 billion during June 2013 to March 2019 through its levies, fee and other charges. The details of PTA contribution to government exchequer are given in Table.

Transport and Communication

Table 13.15: PTA Contributions (Rs. Billion)

Period	Federal Consolidated Fund (FCF)	Taxes Deposited with FBR	Total
2013-14	104.6	7.981	111.98
2014-15	7.0	7.284	14.28
2015-16	34.1	10.2	44.30
2016-17	33.3	11.429	44.73
2017-18	14.9	14.595	29.50
2018-19 (Jul –Mar)	15.1	1.84	16.94

PTA Elected as Chairman South Asian Telecom Regulators’ Council (SATRC)

Pakistan held successful 19th meeting of SATRC, in December 2018 in Islamabad. Representatives from 9 countries of Asia Pacific Region, namely Afghanistan, Bangladesh, Bhutan, Iran, India, Maldives, Nepal, Sri Lanka as well as from United Kingdom, Indonesia, Malaysia and Thailand attended the meeting. During the meeting election for new chairman of SATRC was held and all member states unanimously elected chairman PTA as Chairman SATRC for next term. PTA has also been nominated as Chairman of Policy Regulations and Services (PRS) working group of STARC. The working group will be concentrating in the areas of regulatory approaches to enhance QoS of mobile operators, digital financial services and harmonizing ICT indicators in SATRC.

Local Manufacturing & Assembly of Mobile Handsets

In order to encourage development of local manufacturing of mobile handsets, PTA took an initiative by introducing a regime enabling PTA type approval holder companies to setup plants in Pakistan for manufacturing/assembly of mobile handsets. This initiative was first strategic step towards encouraging local manufacturing of mobile handsets in Pakistan. After introduction of this regime, over 16 companies have obtained permissions for local assembly of mobile handsets and have installed assembling plants that are fully operational. On average, a total of 3.3 million handsets are being assembled each month in Pakistan. This step of PTA has created over 3,200 jobs in the market and enabled young professionals to have skill development in this specialized field.

Reducing Retail Tariff for Mobile Services

Mobile Termination Rates (MTR) plays a critical role in driving the retail tariffs especially for off-net calls. In view of the changing market structure of the cellular mobile segment and considering that the last change in MTR was made in 2010, a review of the existing MTR @ Rs. 0.90/min was required in Pakistan. Based on the comments, hearing and meetings, the authority has reduced the MTR for all types of calls i.e. local, long distance and international incoming calls) terminated on mobile networks from other mobile networks or fixed networks from Rs. 0.90 to Rs. 0.80 from 1st January 2019 which will be further reduced to Rs. 0.70 by 2020. Subsequently, the MTR will be reviewed in coming years in line with international best practices.

Encouraging Financial Inclusion

NFIS council’s approved Assan Mobile Account (AMA) scheme that requires establishment of a unified Unstructured Supplementary Services Data (USSD) platform through a Third Party Service Provider (TPSP). PTA has issued 2 licenses of TPSP that will be instrumental for interoperability and launch of AMA scheme aimed to bring huge unbanked population in banking channels. PTA held a series of meetings with industry and SBP for the integration of CMOs and TPSP. Currently, MoUs have been signed between TPSP licensee and all CMOs, and TPSP has completed Proof of

Concept (POC) activities with PMCL (Jazz), Telenor and Ufone. End-to-end testing has been completed. A successful live demo of AMA system was presented to Finance Minister on 17th October 2018. PTA expects that AMA scheme will be operational shortly in collaboration with State Bank of Pakistan.

In the mobile banking market, mobile wallet accounts and agents are playing instrumental role. The biometrically verified SIMs have facilitated the growth of m-wallet accounts during last few years and significant growth has been seen i.e. m-wallet accounts in Pakistan were only 20 million in 2016 which have grown to 39 million in 2018..

Quality of Service Surveys

PTA continuously strives to ensure that the consumers of telecom services get the best quality telecom services. PTA already issued QoS Regulations, therefore in order to monitor the compliance status, during the Jul-Dec 2018, PTA has conducted Quality of Service (QoS) survey jointly with Cellular Mobile Operators (CMOs) using NEMO automated QoS tools. During the period, a total of fifteen (15) cities of Pakistan (Bahrain, Madyan, Kalam, Naran, NathiaGali, MalamJabba, Peshawar, Quetta, Ziarat, Lodhran, Multan, Mirpurkhas and Badin) have been surveyed. The performance of data services of CMOs has been checked by measuring user data throughput and signal strength Key Performance Indicators(KPIs). The quality of data and voice exchange on the cellular mobile networks has been measured for all the CMOs under several indicators. It can be observed that all operators are meeting the standard for Signal Strength (RSCP) of 3G, network accessibility, service accessibility, call completion ratio, inter system handover of circuit switched voice, sms success rate and end-to-end SMS delivery time. Results of the survey are available for general public on PTA website.

Standardization of BVS Devices to Ensure Security Features of SIM Issuance Process

Pakistan Telecom Authority introduced Biometric Verification System (BVS) for mobile users back in the year 2014 and currently all users have been properly verified. However, PTA received a few complaints regarding misuse of the BVS devices. Analysis revealed that some BVS devices, being used for issuance of SIMs are substandard and lack security features. PTA took an initiative to conduct an on-ground check of BVS devices in the market for which, services of a 3rd Party vendor were sought. After thorough study, hardware and software specifications, Live Fingerprint Detection (LFD) functionality and device communication & physical security parameters were checked during the exercise. On the basis of activity observations/recommendations, the SOP for SIM sale and verification has been revised by PTA and the same is currently being finalized in consultation with stakeholders.

Public Wifi

PTA has recently laid down the regulations on "Data Retention of Internet extended to WiFi-Hotspots" aimed to expand wifi access on public places. These regulations are for the access providers and class licensing registration licensees with the mandate to register, maintain and retain information of person(s) using data services through Wi-Fi Hotspot at public places. The owners of public Wi-Fi Hotspot are required under these regulations to maintain a log of information of the users for 'minimum six months'. We expect that service provider will be able to provide wifi services all across the country on public places that would be helpful for consumer to remain connected all the time.

Re-designed Complaint Management System

PTA has launched a new official mobile responsive consumer complaint management system in November 2018. The aim of the re-designed system is to provide ease and facilitation to the general public for lodging of online complaints through user-friendly interface. The system will resolve complaints within the stipulated turn-around time and consumers will also be able to check the online status of submitted complaints through centralized automated application. Consumers can lodge their complaints by providing necessary required information. The web system is also mobile responsive and user can easily access it through their mobile devices.

Fund raising for Diamer Bhasha and Mohmand Dam

Honorable Supreme Court of Pakistan took initiative to raise funds for construction of Diamer Bhasha and Mohmand Dam and vide its order dated 11th July 2018 directed to setup a Toll Free number and short code for fund raising through donations. Accordingly, PTA issued instructions to operators and extensive coordination among operators and Honorable Supreme Court of Pakistan was made for smooth functioning of the system. Under the arrangement, people can send SMS to 8000 to donate Rs. 10/- for Dams construction under which CMOs have collected so far an amount of Rs. 146.4 million through donations. Further PTA issued instructions to NTC, PTCL and all other operators to make SBP's UAN 021-111-727-273 as Toll Free. It happened first time that a UAN was made Toll Free with necessary technical and billing adjustments at the end of each FLL, CMO and WLL in Pakistan.

Table 13.16: FLL and WLL Subscribers

Financial Year	Telephones (FLL & WLL)	Broadband Connections (Mobile & Fixed)	Mobile Phones
2013-14	5,231,731	3,795,923	139,974,754
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
Mar-19	2,798,606	68,244,373	159,024,257

Note: FLL and WLL Subscribers as of December 2018

Pakistan Electronic Media Regulatory Authority

Pakistan Electronic Media Regulatory Authority (PEMRA) is now in its 17th years 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 and MMDS in the private sector in the South Asian region.

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 88 Pakistani electronic media channels and more than 37 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 seventeen years:

Licensing Status:

Satellite TV Licences Issued:		88
i. News & Current Affairs:		26
ii. Entertainment:		37
iii. Regional Languages;		18
iv. Specialized Subject :		04
v. Health:		01
vi. Sports:		01
vii. Agriculture:		01
FM Radio Licences Issued:		240
i. Commercial:		182
ii. Non Commercial:		58
Cable TV Licences Issued:		4,007
Landing Rights Permissions Issued:		37
Mobile TV (Video & Audio Content Provision)		
Service Licensing:		5
Internet Protocol TV (IPTV) Licences Issued:		5

Licensing During July 2018– March 2019

Category	Number of licenses
i. Landing Rights Permission to TV Channels	06
ii. FM Radio Licenses	14
iii. Cable TV Licenses	609
a). New Licenses	193
b). Renew	416
iv). Internet Protocol TV (IPT) Distribution Service Licenses	02
v). Mobile TV (Video & Audio Content Provision) Service Licensing	01

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, year wise detail is as under:

Table 13.19: Financial Contributions of PEMRA

Financial Year	Fines & Penalties (in Rupees)	Surplus (in Rupees)	Total (in Rupees)
2012-2013	2,986,800	8,337,636	11,324,436
2013-2014	1,894,750	205,537	2,100,287
2014-2015	22,746,500	20,077,535	42,824,035
2015-2016	6,588,000	481,304	7,069,304
2016-2017	25,983,500	5,287,295	31,270,795
2017-2018	11,161,999	390,912	11,552,911
2018-2019 upto Feb-2019	3,187,000	-	3,187,000
Total	74,548,549	34,780,219	109,328,768

Economic Contribution

Media landscape of the country has grown manifold over the last few years. This sector is contributing significantly in building broadcasting apparatus in the major cities of Pakistan and generating sizeable jobs opportunities for the youth, aspirant to pursue carrier in electronic media. Over the period cumulative investment of approximately U.S. dollar 3.5 billion has been estimated in electronic media industry of Pakistan.

The sector is providing employment to more than 200,000 people in the field of journalism, management and technical. New licensing of Direct-to-Home (DTH), satellite TV channels, FM radios, teleport services would contribute in accommodating youth in different fields. In this regard, 3 licences for launching DTH in Pakistan have been approved by the authority. One of the company i.e. M/s. Shahzad Sky Pvt. Ltd. will start its operations by end of this year. Moreover, new licences

would inject investment of approximately US \$2 billion in various projects. PEMRA being the regulator for electronic media is exploring news regimes for licensing such rating services, OTT (Over the Top), Teleporting etc. which would generate more job opportunities for the people in Pakistan.

Pakistan Television Corporation Limited

At present PTV is operating 7 multiple channels like PTV Home, PTV News, PTV Sports, PTV Global, PTV National, PTV Bolan and PTV World. Pakistan Television covers 100 percent area of population on terrestrial network.

Modernization of Camera and Production Equipment of PTV

The old electronic equipment of one studio each at PTV Centre Karachi, Lahore, Islamabad, Peshawar and Quetta has been planned to be replaced with state of the art and technically updated equipment. A package of Rs 555.590 million has already been accorded by the government through PSDP program.

No of registered TV sets holders as on 31st March, 2019 are: - 19,138,693

Pakistan Broadcasting Corporation

Pakistan Broadcasting Corporation is one of the most important and effective electronic media organization for the projection of governmental policies and aspirations of the people of Pakistan at home and abroad. It aims to provide information, education and entertainment to the masses through radio news and programs of high standard. It also counters adverse foreign propoganda and negative perceptions. Radio is playing significant role in promoting islamic ideology and national unity with the principles of democracy, freedom, equality, tolerance and social justice. It promotes national and local languages, culture and value. It also helps in discouraging sectarianism, provincialism and terrorism.

An amount of Rs. 4,552,847,980/-budget was allocated to PBC to meet the employee's related as well as operational expenditure for the year 2018-19 including Rs. 402,557,980/- as supplementary grant for pending liabilities of Pay/Pension/House Hiring/Operating Expenses.

1. Revival of Radio Pakistan

PBC emphasized revival of broadcast catering to the needs and aspirations of the masses. Some of the measures for revival of PBC include:

- i. The construction of new building of broadcasting house at Dera Ismail Khan has been completed by Pak. PWD and functioning from 08.11.2018
- ii. Establishment of a new vibrant and popular music channel "Dhanak"
- iii. Re-broadcast of classic and famous radio dramas of the past
- iv. Broadcast of special programs to pay tribute to legendary personalities
- v. Radio Talent Hunt Shows for introduction of new, young and talented voices
- vi. Music concerts to promote new singers and artists across the country

2. Special Audience Programs

PBC is addressing all segments of society and special audiences as well i.e. women, youth, children, labourer etc. to increase the scale of awareness about women & children health, education, security, social & legal rights, women empowerment issues etc. are also disseminated.

3. Audience Participated Programs

Audience participated music/children/youth/farmers/women programs are being arranged and broadcast in financial year 2018-19.

4. Introducing New Radio Formats

New Radio formats like radio shows, youth shows, road shows, morning/ evening/ night chitchat shows with phone-in, SMS/ phone request show, popular music & light musical programs have been launched from FM-93, FM-94 and FM-101.

5. Pakistan Day and Independence Day Celebration Programs:

PBC broadcast special programs in Urdu and all regional languages, special programs in connection with Pakistan Day and Independence Day 23rd March and 14th August from all stations and channels. These programs included talks, features, documentaries, national songs, and interviews of workers of Pakistan Movement, extracts from speeches of Quaid-e-Azam, dramas, special azadi shows, extensive lectures, seminars and mushaira.

6. Saut-ul-Quran Channel/Network

Recitation from the Holy Quraan and translation is aired from the Saut-ul-Quran Channel 19 hours daily to meet religious aspirations and love for Islam by the masses.

7. Special Programs with Rabi-ul-Awwal – 1440 Hijri (2018)

Special programs of around 205 hours were aired from 1st to 12th Rabi-ul-Awwal-1440 Hijri, which included special annual naat competition, provincial naat competitions in regional languages, live broadcast of National Seerat Conference, messages of the President, Prime Minister, Federal Ministers I&B and Religious Affairs and Interfaith Harmony, Naats, Features, Naatia Mushairas, Mahafil-e-Millad, Seminars etc.

Pakistan Post Office

Pakistan Post Office playing a vital role in the economic and social development of Pakistan through postal services broadly categorized as domestic and international postal services, financial services, savings bank, postal life insurance and agency functions such as collection of utility bills, payment of military pension, collection of provincial taxes, disbursement of funds under the Benazir Income Support Program (BISP) on behalf of federal and provincial government departments.

Pakistan Post's Recent Initiatives

Pakistan Post has recently taken important initiatives to provide the most efficient postal services to the people of Pakistan. The detail is under:

Same Day Delivery Service

The same day delivery services aims to facilitate the delivery of packets, documents within the city. Consignment is delivered the same day if booked before noon. The service was launched in November 2018 in 26 cities and would be extended to other cities in future.

Electronic Money Order (EMO)(Home Delivery)

EMO (Home Delivery) was launched in November 2018. An amount up to Rs. 50,000/- is delivered at the doorstep. The service is available through 83 General Post Offices (GPOs)EMO allows women and elderly to receive money at doorsteps without visiting post offices

EMS (Plus)

Pakistan Post has launched a specialized service for export sector. It aims to ensure delivery of parcel and packets worldwide in 72 hours. EMS Plus is modeled to compete with local and international courier companies. Rates are competitive with real time track and trace facility. The service will bring down business cost for small and medium exporters

Pakistan Post E-Shop

This initiative was launched in February 2019 to capitalize the fast growing E-commerce sector. Pakistan Post created its own web portal to register partners through launching of Pakistan Post Online E-Shop which offers partnership for delivery, collection and return services, counter booking and co-branding in selling products. Pakistan Post has registered 580 partners to date and more than 21000 packets have been booked and delivered.

Partnership with NADRA

Pakistan Post and NADRA have signed an agreement for “Renewal / Modification of CNIC through Post Offices” on 20th June, 2017. Pilot project was launched in 10 POs & extended to 100 Pos. It will be extended to other 1000 postal locations. An amount of rupees one million is earned as revenue. This initiative has facilitated people in remote areas.

Expansion of Franchise Post Offices with NADRA

Pakistan Post has partnered with NADRA to offer postal and financial services through 15000 NADRA outlets. This will add to 12,000 postal locations, further expanding postal footprints in the country. This will allow Pakistan Post to use NADRA I.T solutions and e-Sahulat platform to deliver its remittance services digitally

International Remittances

Pakistan Post is partnering with National Bank to join Pakistan Remittance Initiative (PRI) for the delivery of international remittances through post offices. Under PRI, the overseas workers will send their remittances free of services charges. Pakistan Post will make payments through its postal counters. Service will be initially launched in 256 post offices, which will gradually be expanded to more than 3,000 locations

Improvement of Pakistan Post Complaint Management System (CMS)

Pakistan Post already has a Complaint Management System (CMS) connecting all controlling and field offices across the country. Pakistan Post has also modified the process of following the overflow of Pakistan Citizen Portal (PCP). The responsibility has been decentralized that has enhanced efficiency.

Counter Automation System

Over one hundred GPOs, including renovated post offices / sub offices throughout Pakistan, have already been provided with counter computerization facility for the better service quality to the customers through a LAN based system.

Centralized Software Solution For Financial Services

Pakistan Post is disbursing pension to more than 1.33 million pensioners of Defense Force during the year 2018-19 through its wide network of Post Offices.

Pakistan Post introduced Complaints Management System (CMS) for handling complaints of Military Pensioners through mobile/Email on priority basis.

Computerized Pension Payment System

Over 1.4 million pensioners have been drawing pension from Pakistan Post through computerization of military pension payment system, which is available at all GPOs. The pensioners are receiving the pension in a hassle free environment. Pakistan Post is also disbursing pension to over 40,000 PTCL pensioners every month. In an effort to streamline payment of pension to PTCL pensioners, Pakistan Post has developed a separate system for PTCL pension disbursement. The same has been rolled out over to 83 GPOs.

Achievements of Postal Saving Bank

Pakistan Post is doing Savings Bank Business as an agent of the Ministry of Finance on commission under Savings Bank Act 1873. Finance Division is paying commission on Savings Bank work @ 0.5 percent Savings Certificates are issued under Post Office National Savings Certificates Act 1917 and National Savings Certificate Ordinance 1944. More than three thousand post offices are providing the following Savings Bank services to the people of Pakistan:

- ▶ Savings Bank Ordinary Accounts.
- ▶ Special Savings Accounts.
- ▶ Defence Savings Certificates.
- ▶ Special Savings Certificates.
- ▶ Regular Income Certificates.

- a) The progress of Savings Bank during the period from 01-07-2018 to 31-12-2018 is as under:-

i	Total Number of Accounts on 31-12-2018	2,151,017
ii	Total closing balance on 31-12-2018	186,479.061 million
iii	Total commission on 31-12-2018	141.044 million

- b) Field offices of Pakistan Post are playing a vital role in mobilization of financial resources through savings bank schemes. Savings Bank data has also been shifted from manual ledger to Centralized Software Solution (CSS), which has added value to the business.

Computerized PTCL Pension Payment System

- i. The Pakistan Telecommunications Employees Trust (PTET) in a joint effort with Pakistan Post has developed Computerized PTCL Pension Disbursement System. This system facilitates the GPOs for the particulars and amount of payment of each & every pensioner.
- ii. This system eliminates the manual filing of pension payment form (No. Code-15) voucher and now the same is auto generated by the system.
- iii. The System automatically updates the record of PTET, once the payment of pension is disbursed to the PTCL pensioner.
- iv. Disbursement software of PTCL pension has been deployed at GPOs.

Western Union Money Remittance Business

During the first six months (July to December) of the last fiscal year 2017-18 and current fiscal year 2018-19 Pakistan Post Office Department has received the foreign remittance as noted below:

Table 13.21: Western Union Money Remittance Business

S. No.	Period	US\$ received in State Bank of Pakistan	Equivalent Amount received in Pak Rupees from SBP (Rs. In millions)
1	July-2017 to December 2017	34,666,740	3,670.298
2	July-2018 to December-2018	33,066,904	4,256.478

Benazir Income Support Program (BISP)

A complete web-enable tracking and monitoring system for disbursement of funds for Benazir Income Support Program (BISP) has been evolved that includes continuous processing, monitoring and reconciliation of the specialized money orders scheme.

The same is implemented at all 83 automated GPOs throughout Pakistan. Over, 49.447 million money orders have been issued up to 31st December, 2018 and an amount of around Rs. 139.214 billion has been disbursed.

During the first six months (July-2018 to December-2018) of the current Financial Year 2018-2019 total 174,431 BISP Money Orders along with required funds for Rs. 837.089 million were received from BISP authorities, out of which 93 percent Money Orders amounting to Rs.331.095 million have been paid within prescribed period of time.

International postal services

Pakistan Post has mail links with all countries of the world except Israel. Exchange of mail is carried out under rules and regulations of the Universal Postal Union. Direct mail links exists with 72 countries and rest of the mail is exchanged by utilizing the transit facilities of intermediary countries.

Achievements in International Postal Services

Pakistan Post received more volume of mail than it dispatches for delivery. Thus, it always remains net-creditor. Pakistan Post received an amount of Rs.26.138 million during the period from July 2018 to January 2019 on account of Terminal Dues for imbalance of international mails received from and dispatched to other countries.

First Micro Finance Banking (FMFB)

Pakistan Post has earned Rs. 4.418 million during the period from July to March 2019 through commission on disbursement/recovery of First Micro Finance Bank (FMFB) loan services/space provided to the FMFB operations. Detail break up is as under:

July 2018 – March 2019

FMFB Loan Disbursement	=	280.100 million
FMFB Loan Recovered	=	386.173 million

PPO Commission on Disbursement

Recoveries and Rent Charges	=	4.418 million
Total Revenue Earned	=	4.418 million

Postal Life Insurance (PLI)

The updates about Postal Life Insurance for the period from July, 2018 to December, 2018 is appended below:-

Pakistan Economic Survey 2018-19

Fresh Policies:

No of Fresh Policies Issued	=	7,391
Fresh Premium Income	=	217.460 million
Sum Assured	=	2,990.874 million

Enforced Policies:

No of Policies	=	441,605
Premium Income	=	2,547.433 million
Sum Assured	=	78,312.680 million

Philately:

The following Commemorative Postage Stamps have been issued for the period from July-2018 to December-2018.

Table 13.22: Commemorative Postage Stamps

1	70 Years of Excellence State Bank of Pakistan	01-07-2018	Rs. 8/-
2	Kashmir Martyr's Day (Atrocities in IOK)	13-07-2018	Rs. 8/-
3	100 Years of Mama Parsi Girls Secondary School Karachi	24-07-2018	Rs.8/-
4	Jamsheed Marker Ex-Ambassador	24-11-2018	Rs. 8/-
5	10 th International Defence Exhibition and Seminar IDEAS-2018	27-11-2018	Rs. 8/-
6	International Anti Corruption Day arranging Message "United against Corruption for prosperous Pakistan"	09-12-2014	Rs.10/-
7	Silver Jubilee Celebration GhulamIshaq Khan Institute of Engineering Sciences and Technology (1993-2018)	24-12-2018	Rs. 8/-
8	50 Years of Crescent Model Higher Secondary School, Lahore (1968-2018)	26-12-2018	Rs.8/-

Number of Post Office as on 2018-19

The requisite summary of Rural & Urban Post Offices is as under:-

Table 13.23: No. of Post Offices

Urban	Rural	Total
2046	8450	10496