Transport and Communications

Introduction

Modern transport & communication sector not only play an important role in boosting the economic activities in the country but also benefitted from globalization through linked routes. Pakistan can harvest this opportunity due to its geographic position in the region through modern communication network. Most emerging economies the of world are transforming their economies towards communication and IT knowledge.

Efficient transport and communication network is not only pre-requisite for economic development but play a key role in economic integration of the country. This sector has direct and indirect links with all important sectors of the economy, which influence directly social and economic prosperity of the people. An transport system contribute efficient to economic growth by lowering production cost through timely delivery of raw materials of agriculture sector to the market and making timely delivery to manufacturing sector thus enhancing economies of scale in the production process and creating economic opportunities through communication links among urban-rural population. It directly provides sufficient employment opportunities to the lower class of the society, whom otherwise cannot find job opportunities due to lack of education.

Although Pakistan has a vast network of highways, rail links, airline service and modern seaports but the present government seems determined to further expand the existing network by adding sections of highways, motorways and also planning to add a sizable length of modern rail links to the existing facilities. Pakistan Vision 2025, assign great emphasis to modernize transport infrastructure to ensure economy in transportation cost, safety in mobility, effective connectivity between rural areas and markets/urban centres, integrated network between economic hubs, as well high capacity transportation corridors connecting between major regional trading partners. High road density of any country is an indicator of the level of prosperity and development. Therefore, it has been projected to raise road density to the level of 0.45 km/sq. km by 2018 against the existing 0.33 km/sq. km density level which will increase the existing road network from around 263,942 km to 358,000 km.

13.1 Road Transport

The nature has bestowed the country with vast plains spread over from Karachi to Peshawar and Lahore, which in return pave the way for building most feasible and efficient infrastructure network including highways, expressways and rail links etc. Improved roads network is the top most priority of the present government because it's a critical element for good investment climate and is also a precondition for sustainable development.

The vast road network spread over the country provides easy access to the regions consists upon hilly/ mountain areas, far flung agriculture lands and natural/productive resources scattered all over the country. National highways provide easy and efficient means of transportation for moving goods from place to place and human being.

Total length of roads may be seen from Table 13.1 below:

Years	Category	Punjab	Sindh	Khyber Pakhtunkhwa	Balochistan	GB & AJK	TOTAL
2009-10	Total	105,085	81,618	42,765	29,727	1,565	260,760
	Low Type	32,179	24,993	13,095	9,103	480	79,850
	High Type	72,906	56,625	29,670	20,624	1,085	180,910
2010-11	Total	105,253	80,625	42,550	29,500	1,535	259,463
	Low Type	32,147	24,000	13,000	9,000	450	78,597
	High Type	73,106	56,625	29,550	20,500	1,085	180,866
2011-12	Total	106,455	80,960	42,975	29,625	1,580	261,595
	Low Type	32,590	24,335	13,140	9,125	465	79,655
	High Type	73,865	56,625	29,835	20,500	1,115	181,940
2012-13	Total	107,805	81,385	42,980	29,655	1,590	263,415
	Low Type	33,090	24,685	13,140	9,130	470	80,515
	High Type	74,715	56,700	29,840	20,525	1,120	182,900
2013-14	Total	107,973	81,493	43,035	29,692	1,592	263,755
	Low Type	32,729	24,415	12,996	9,030	465	79,635
	High Type	75,214	57,078	30,039	20,662	1,127	184,120
2014-15	Total	107,992	81,543	43,072	29,742	1,593	263,942
	Low Type	32,428	24,215	12,846	8,930	460	78,879
	High Type	75,564	57,328	30,226	20,812	1,133	185,063

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National Highway Authority

To construct and maintain quality road network, NHA absolve its duty in a highly professional resources manners. Having scarce its management has established a vast network of highways, expressways and motor ways spread over thousands of Kilometers, connecting all parts/regions of the country. Transport sector in general and road infrastructure in particular has profound and enduring effect on the economic growth of Pakistan. NHA is rendering vital contribution in improving the quality of road network to bring about qualitative improvement in standard of living.

Pakistan is geographically bisected into two halves by River Indus. Eastern segment is historically well developed. To bring the Western segment at par with the Eastern half, NHA is improving East- West connectivity through construction of numerous bridges across river Indus in addition to investing and paying extra attention to the development of West.

The present NHA network comprises of 39 national highways, motorways, expressway, and strategic roads. Current length of this network is 12,131 km. NHA existing portfolio consists of 72 development projects costing Rs. 1,342 billion. Government allocated Rs.111.56 billion for NHA's development projects in PSDP 2014-15. The amount included Rs.35.133 billion

foreign currency and Rs.76.430 billion in local currency components.

Ongoing Projects of NHA

Some significant ongoing projects are:

- 1. Faisalabad-Multan motorway (M-4)
- 2. Ouetta Chaman Section of N-25 (120 km)
- 3. Peshawar Torkham section of N-5 (45 km)
- 4. Burhan-Havelian Expressway (59km) E-35
- 5. Gwadar-Turbat-Hoshab section of M-8 (200 km)
- 6. Hoshab-Nag-Basima-Surb section (459 km)N-85
- 7. Lowari Tunnel and Access Roads
- 8. Sehwan-Ratodero ACW (N-55)
- 9. Sukkur-Jacobabad (N-65)
- 10. Re-alignment of KKH at Attaabad
- 11. Flood Emergency Rehab Project
- 12. Peshawar Northern Bypass (E-2)
- 13. Overlay and Modernization of M-2

Completed Projects of NHA

Some major completed projects include the following:

- 1. Peshawar Northern Bypass (Package-I)
- Faisalabad Gojra section of M-4 (58 km) 2.
- Qila Saifullah-Zhob (N-50) 3.
- 4. Khushal Garh bridge on N-80

- 5. Head Muhammadwala bridge over river Chenab
- 6. Railkot Khujerab section (335 km) KKH
- 7. 6 Interchanges on Inner Ring Road Multan
- 8. Multan-Muzaffargarh (N-70)
- 9. Larkana-Naudero-lakhi Road
- 10. Sarkand-Benazirabad Dual Carriageway
- 11. Hyderabad-Badin Road to Mir Wah Sanjar Chang
- 12. Ghazi,Chuch & Col. Sher Khan Interchanges M-1.

During last five years, NHA has constructed/ rehabilitated about 1275 km roads all over the country. Province-wise break up is as follows:

Sr. No.	Province	Kms
1	Punjab	70
2	Sindh	235
3	Khyber Pakhtunkhwa	124
4	Balochistan	846
	Total	1275

NHA has completed 3 major river bridges during last five years, 3 major bridges on river Indus and 1 river Ravi and 1 on river Chenab are ongoing. Five bridges over river Indus and two over river Ravi are also planned to be constructed.

NHA has already constructed three segments of Trans-Pakistan Motorway network viz M-1 (Peshawar-Islamabad), M-2 (Islamabad-Lahore) and M-3 (Pindi Bhattian-Faisalabad) on a virgin corridor bringing remote areas on mainline and boosting economic activities. NHA is now constructing M-4 (Faisalabad-Khanewal-Multan). NHA has planned to embark on various programmes for construction of new roads/bridges and improvement/ rehabilitation of the existing infrastructure. NHA has also launched some of its projects through Public Private Partnership PPP/ BOT modes and is seeking local as well as foreign firms for investment.

To maintain smooth and safe movement of goods and passengers in healthy environment, a vast network of roads has been established by NHA. Now the government has planned to develop approximately 2,395 km long China-Pak Economic Corridor (CPEC) connecting Gwadar to Kashghar (China) and has also planned Karachi-Lahore Motorway (KLM) 6lane controlled access. KLM is part of the CPEC Phase-I. Work has already been initiated on Burhan–Havelian Expressway and basic work for KLM to serve initially the Economic Corridor to ensure optimal utilization of existing network. Its strategic objectives also include opening hinder-land areas and will bring more population into the stream of benefits, which in turn will change the social complexion of people living around this corridor.

Major Upcoming Development Projects

- Construction of Karachi-Lahore Motorway (1147 kms) (To be constructed on BOT/EPC (Credit Financing/GOP funding basis)
- Improvement/Up-gradation of Thakot -Havelian section of KKH (120 Km) (through credit financing)
- Construction of Lahore Eastern Bypass (13.5 km)
- Construction of Lower Topa-Kohala 4-lane Expressway (48 Km)
- Construction of highway from Muzaffarabad to Taobult in Neelum Valley
- Construction of tunnel in Leepah valley
- Up-gradation of Jhaglot-Skardu Road, S-1 (163 Km)
- Qilla Saifullah-Loralai-Waigum Rud section of N-70 (124 Km)
- Zhob- Mughalkot section of N-50 (78 Km)
- Approach Road to New Islamabad International Airport (31.5 Km)
- M-9 Conversion from 4-lane to 6-lane) Financial Close stage (136 km)(BOT).
- N-5/M-2 junction to Wah Underpass (20 km)- Concession finalization in process (20 km)(BOT)
- Rehabilitation of Multan D.G. Khan section including Dualization of Muzaffargarh – D.G. Khan (80 km).
- Conversion of existing 4-lane -3 and Faisalabad –Gojra section of M-4 to 6-lane facility(BOT).

Metrobus Service - Rawalpindi–Islamabad

The rapidly growing population of the twin cities i.e. Rawalpindi – Islamabad needs modern and safe public transport service to provide relief/benefit to all segments of the society. In the near future it is estimated that total population of the twin cities will increase to 7.0 million from the current level of 4.5 million inhabitants. Traffic volumes of over 210,000 vehicles ply on three major corridors connecting the twin cities carrying around 525,000 passengers. It is estimated that public transport demand of around 153,000 passengers is required to cater on daily basis between the two cities.

The entire length 8.6 km of Metro Bus corridor in Rawalpindi area is elevated structure whereas about 14 km in Islamabad shall be at-grade but made signal-free by constructing grade separations at various intersections. Ten stations in Rawalpindi part and fourteen in the Islamabad part are provided along the corridor. Functional elements at the stations include ticketing booths, concourse level passenger transfer, escalators, platform screen doors turnstiles for automatic fare collection and all other amenities for passenger convenience.

13.2 Pakistan Railways

It's a fact that worldwide rail traffic has played an important role in social uplift and economic prosperity of nations. Similarly, Pakistan Railways has a definite edge over road transport for long haul and mass scale traffic movement both for passenger and freight in addition to providing a safe, economical and environment friendly mode of transport. An effective railway system of the country facilitates commerce and trade, reduces transportation costs, and promotes rural development and national integration. The network of Pakistan Railways comprises of 7,791 route kilometers, 452 Locomotives, 1,732 passengers coaches and 15,948 freight wagons.

Pakistan Railways is enduring the worst crisis since its formation mainly due to locomotive shortages.

Passenger and freight services substantially declined during the previous years. This is evident from the Table: 13.2 below that gross earning of Pakistan Railways has declined during the previous years due to over aged infrastructure and rolling stock, increase in fuel prices (high speed diesel), escalation of dollar exchange rate and a subsidized railway fare led to an increase in expenditure for sustained train operations. With the capping of over draft by Government of Pakistan in 2007, the finances required for increased maintenance cost could not be borne by the Railways. Finally, the sharp increase in the salary and pension led to diversion of all the revenue earnings to this obligatory payment at the cost of operational maintenance requirements. and Finance Division has committed to bear the expense of salary and pension thereon along with its impact of increase in future till the crisis is over. Government of Pakistan has allocated 39.566 billion in PSPD for the financial year 2014-15 for the development interventions in Pakistan Railways.

Table 13.2: Earning of Pakistan Railway				
Fiscal Year	Earning	% Change		
	(Rs in million)	_		
2007-08	19,973			
2008-09	23,160	16.0		
2009-10	21,886	-5.5		
2010-11	18,740	-14.4		
2011-12	15,444	-17.5		
2012-13	18,071	17.0		
2013-14	22,800	26.2		
2014-15	23,234			
(July-March)				
Source: Pakistan	Railway			
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S.#	Subject	2011-12	2012-13	2013-14	2014-15 (July-March)
1	Number of Passenger Carried (Million)	41.100	41.957	47.690	38.68
2	Passenger Traffic Kms (Million)	16,093	17,388	19,778.560	14,485.94
3	Freight carried Tonnes (Million)	1.323	1.016	1.610	2.49
4	Freight Tonnes Kms (Million)	402	419	1,090.332	2,259.33
5	Gross Earning (Rs. Million)	15,444	18,070	22,800.217	23,233.93

New Initiatives

Ministry of Railways is taking following new initiatives to improve performance of Pakistan Railways and achieve tangible results:

i. In line with the government's vision 2025, for infrastructure development during the next ten years, Pakistan Railways is to undertake necessary steps to increase its share in the overall transport sector of Pakistan from 4 percent to 20 percent. Ministry of Railways is in the process of preparing Railway Strategic Plan (RSP) to operationalize the targets set in the vision which would provide a long term frame work for railway sector development in Pakistan.

S No	Train	Route
1	Business Express Train	Lahore-Khanewal-
		Lodhran-Karachi
2	Shalimar Express Train	Lahore-Faisalabad-
		Multan-Karachi
3	Night coach train	Lahore-Faisalabad-
		Multan-Karachi

- ii. Revival of Railways Board is being actively pursued as part of overall reform agenda.
- iii. Tariff is being regularly rationalized based on the market dynamics mainly to improve occupancy and increase revenue of Pakistan railways.
- iv. Improve availability of locomotives through special repair of existing locomotives and procurement of new locomotives.
- v. HSD Oil reserve remained low (sufficient for two days), which has been substantially enhanced to 12 days to streamline the train operation.
- vi. To improve pension disbursement, automation system for pension payment has been introduced as a pilot project in Lahore and will be expanded to the entire railway system.
- vii. Encouraging public-private partnership. Under the Public Private Partnership (PPP), Pakistan railways has started following trains between Lahore and Karachi from 3rd February 2012 to cater the needs of business community and general public.
- viii. Pakistan Railway has also involved private

sector in the management and operation of terminal facilities including dryports. Prem Nagar dryport Lahore is the first successful model of joint venture between Pakistan railways and two private parties.

- ix. Real Estate Development & Marketing Company (REDMCO) has been established and registered with Security and Exchange Commission of Pakistan (SECP) with the aim to exploit the potential of railway land.
- x. A comprehensive policy for disposal of surplus scrap has been introduced with the aim to improve financial position of railways through an open, fair and transparent process.
- xi. Investment planning through a system approach rather than functioning in isolation is being pursued. Under this approach, investment in all the components of railways system including infrastructure development, rolling stock availability, business development and governance is being made. The strategy is expected to bring significant improvement in near future. Rationalization of projects by giving priority to implementable projects having visible impact on the performance of Pakistan Railways.
- xii. Economic Corridor development and regional connectivity are important initiatives, which are expected to play vital role in national economic growth. Up gradation of Mainline-1 (ML1) and construction of dry port and cargo handling facility have been included, as Early Harvest Projects (EHP) under China-Pakistan Economic Corridor (CPEC) and preparatory work on these projects has been initiated on fast track basis.
- xiii. Frame work agreement between the National Railway Administration, Government of the Peoples Republic of China and the Ministry of Railways, Government of the Islamic Republic of Pakistan on joint feasibility study for upgradation of ML-I and Establishment of Havelian Dry Port of Pakistan Railways has been made on 20.04.2015.
- xiv. The project titled "Infrastructure for e-Office at Ministry of Railways" is also being initiated.

xv. A new air-conditioned train with free meals, beddings, Wi-Fi, newspapers has been started from Islamabad to Karachi and back, called Green Line Train.

Achievements during the fiscal year 2014-15

Track

During 2014-15, 90 km of track was rehabilitated on the Pakistan Railway network besides doubling of 5 km track.

Rolling Stock

The project for procurement and assembling of 202 passenger coaches has been completed. Total 56 passenger coaches have been added and assembling material for 146 coaches have been received. Out of which 111 passenger coaches have been assembled till April 2015.

Locomotives

At present 175 locomotives are non-operational and are waiting for major repairs. Following initiatives are under way for rehabilitation of held up locomotives.

i. Rehabilitation of twenty seven held up locomotives (HGMU-30) of 3000 HP is being arranged through PSDP at a cost of Rs. 6284.0 million for which an agreement has been signed with M/S Electromotive Division USA. Out of 27 Locomotives, Ten (10) locomotives have been turned out for service.

- ii. Special Repairs of 150 locomotives, to improve their reliability and performance, is also being carried out through PSDP at a cost of Rs.5005.031 million. So far 38 Locomotives rolled out during 2013-14 and 39 Locomotives have been turned out up to April, 2015.
- iii. Procurement of 58 locomotives has been approved by ECNEC and contract awarded to M/s Ziyang, China in November, 2012. So far all 58 locomotives have been arrived in Pakistan.
- iv. Tender for the Procurement of 55 Locomotives (4000-4500 HP) out of 75 locomotives is at advance stage and will be decided in near future.
- v. Pilot project for manufacture of 5 Nos. 3000 HP DE Locomotives at Locomotive Factory, Risalpur: The contract agreement for manufacture of 05 Nos. 3000 HP DE Locomotives at Locomotive Factory, Risalpur has been signed with M/s CSR Ziyang, China and LC established. So far, 5 Locomotives have been turned out and the project will be completed up to June, 2015.

Box-2: China- Pakistan Economic Corridor (CPEC) Long Term Planning

China-Pakistan Economic Corridor (CPEC) marked a new phase in the development of the relationship by putting economic cooperation and connectivity squarely at the centre of the bilateral agenda. The aim of the MoU already signed during the recent visit of Chinese President is to cooperate in the planning and development of China-Pak Economic Corridor to facilitate and intensify economic activity along the corridor.

The CPEC is being conceived as a lynchpin of the plans by the two countries to deepen their economic cooperation. Early implementation of the CPEC would be transformational for Pakistan's economy and dovetail perfectly with China's strategy of developing its inland and western regions. China's interest in the project is also strategically driven by President Xi Jinping's visionary concept of integrating regions and countries across the globe under the Silk Road Economic Belt and the 21st Century Maritime Silk Road Initiative. It envisages deepening policy coordination amongst countries and regions, extending and improving infrastructure connectivity in all its forms-road, air, rail, telecommunications, energy etc. across regions, fostering trade and investment flows, and, last but not the least, enhancing people to people connectivity. CPEC fits naturally into this vision of a 'Road and Belt' with Gwadar and Karachi serving as its southern nodes and an outlet to the Arabian Sea and the Persian Gulf.

Thus, China-Pakistan Economic Corridor will provide an integrating platform for over three billion people in Central West and South Asia, the Middle East and Africa Regions. The increase in trade, investment and financial flows would bring peace and prosperity to the region through enhancement in the competitiveness of the economies of the countries, contribute to reducing regional disparities and social inequality, and improve life expectancy and quality of life in every country and in the regions.

For institutional arrangement and development of the CPEC, National Development and Reform Commission, China (NDRC) has constituted subsidiary Working Groups of the Joint Cooperation Committee (JCC-the Ministerial level apex body under MoU) on Planning, Transport Infrastructure, Energy and Gwadar for which they have nominated their respective lead agencies for this work. Accordingly, Working Groups in these areas have been constituted on Pakistani side as well.

In August, 2014, during 3rd meeting of JCC meeting 21 projects in the energy sector valuing US\$ 33.793 billion, 4 projects in the transport infrastructure sector valuing US\$ 9.784 billion and 8 projects for Gwadar valuing US\$ 0.793 billion were identified as early harvest prioritized projects.

An outline of the long term planning has been finalized containing on the basis of planning from the perspective of China and Pakistan, development goals, identifies key areas and major projects including spatial structure and functional zones, construction of an integrated transport system, IT connectivity, energy cooperation, industries and parks, agriculture development and poverty alleviation, cooperation in livelihood areas and people to people communications and financial cooperation.

Source: Ministry of Planning, Development & Reforms

13.3 Pakistan International Air Lines

The year 2014, can be termed as a year in which Pakistan International Airlines (PIA) embarked upon its mission of "Revival of PIA". The management vigorously pursued modernizing and replacement of fleet, in order to bridge the capacity constraints faced by the Corporation, fuel efficient aircraft on wet and dry lease basis were acquired during the year, fleet modernization and capacity induction is the corner stone of the turnaround strategy. During the year, nine aged aircraft have been retired from operation due to their operational inefficiencies resultantly average age of the fleet has decreased to 14 years as compared to 17 years during prior period.

With the financing facility of EXIM Bank of USA, General Electric (GE) signed an agreement with PIA to overhaul and carry out maintenance of the engines of PIA Boeing Air Craft. The support financing amounted to US\$ 55.0 million together with the Islamic Corporation for the Insurance of the Investment and Export Credit. Through this credit facility, GE will provide its services for provision of advanced, fuel efficient engines, over haul services and financing to lease air craft.

Impact of measures taken by the management posted a positive impact on passenger revenues and combined effect of increase in seat factor 72 percent and yield resulted in almost 8.8 percent increase in passenger revenue. Measures taken by the management included among others initiatives fleet modernization. route rationalization and steps toward cost cutting. Operations on loss making routes were discontinued and frequencies were increased on profitable routes. Revenues from charter business flourished with an increase of almost 50 percent. Despite an over increasing financial cost PIA was able to register a significant decline in its overall annual losses by more than Rs. 12.0 billion or by 38 percent compared with 2013. Total annual losses declined to Rs. 32.0 billion in 2014, as compared to Rs. 44.3 billion last year. The overall performance of PIA is given in the Table13.4 below:

Indicators	Units	Year 2013	Year 2014
Passenger Revenue	Rs. billion	78.4	90.39
PIA Fleet	No. of planes	34	34
Route	Kms	411,936	389,445
Available Seat	million Kms	17,412	16,536
Passenger Load Factor	in percent	70	72
Revenue Flown	000 Kms	63,144	61,389
Revenue Hours Flown	Hours	106,476	101,556
Revenue P Passengers Carried	000 nos.	4,449	4,202
Revenue Passengers	million Kms	12,237	11,903
Revenue Tonne	million Kms	1,351	1,241
Revenue Load Factor	in percent	55	52
Operating Revenue	Rs. million	95,771	99,519
Operating Expenses	Rs. million	126,164	118,084
Available Tonne	million Kms	2,471	2,396

13.4 Ports and Shipping

Pakistan National Shipping Corporation

At present, Pakistan National Shipping Corporation (PNSC) fleet comprises of 09 vessels of various type / size (05 Bulk carriers & 04 Aframax tankers) with a total deadweight capacity (cargo carrying capacity) of 681,806 metric tons i.e. highest ever carrying capacity.

Crude oil in time availability play important role in running the transport sector business and furnace oil have much more importance to keep the power plants in running position. PNSC has been providing transportation services for crude/furnace oil requirements to the country. Almost all of the total imports of crude oil are undertaken by PNSC except 1% which is handled by other sources. The Corporation is now actively working upon a plan to increase its tanker fleet size, particularly to carry processed fuel like fuel oil, high speed diesel oil, jet fuels, naphtha and gasoline.

To meet safe and reliable transportation requirement of Pakistan's strategic liquid cargo, PNSC presently is in process for acquisition of one second hand Aframax crude oil tanker to cater for most of the requirement of PSO under obligation of long term contract of affreightment. This tanker will be in addition to PNSC's existing tanker fleet of four Aframax tankers.

Despite a depressed shipping scenario worldwide, PNSC has not only been able to maintain but also improved its profitability. The Commercial and Financial performance (un-audited) breakup covering nine months activities from 1st July 2014-31st March 2015 of PNSC are given in Tables 13.5 and 13.6 below:-

Table 13.5:	Cargo Lifted	(million tonnes)	
Years / Cargo Lifted	Liquid Cargo	Dry Cargo	Total (Dry + Liquid)
2011-12	7.7	2.6	10.3
2012-13	10.7	2.7	13.4
2013-14	11.3	2.0	13.3
2014-15 (July-Mar)	10.8	1.1	11.9
Source: Paki	stan National	Shipping Corp	poration

Table 13.6: Financial Performance (Rs. in billion)			
Years	Revenues	Expenditures	Gross Profit
2011-12	8.9	6.8	2.1
2012-13	12.3	8.9	3.3
2013-14	15.7	14.0	1.7
2014-15 (July-Mar)	12.2	11.0	1.2
Source: Paki	stan National	Shipping Corp	poration

Karachi Port Trust

The Progress of business at Karachi Port Trust (KPT) is continuously progressing due to increased international trade with regional and international countries. During July-March 2014-15, KPT handled 32.133 million tons of import and export as compared to 30.676 million tons during comparable period of last year.

KPT consists of two wharves; the East and West Wharf. East wharf has 17 multipurpose berths and West wharf has 13 berths. Each of the wharves has two dedicated container terminal and oil piers to handle liquid cargo. KPT operation comprised upon 11.5 kilometers long approach channel, a depth of 12 meters and a turning basin of 600 meters. KPT provides safe navigation for vessels up to 75000 metric tons deadweight (DWT).

Total number of containership, bulk cargo ship, general cargo ships and oil tankers were 1278 in the last nine months of 2014-15 as compare to 1236 in the same period last year. Total volume of import exports is given in Table 13.7 below which presents a growth of 8.7 percent in its volume of business.

Table 13.7: Cargo Handled at Karachi Port Trust			
			(000 tonnes)
Period	Exports	Imports	Total
2007-08	11,676	25,517	37,193
2008-09	13,365	25,367	38,732
2009-10	13,528	27,892	41,420
2010-11	12,843	28,589	41,432
2011-12	11,674	26,201	37,875
2012-13	12,150	26,700	38,850
2013-14	11,007	30,343	41.350
2014-15	7,810	24,323	32,133
(July-March)			
Source: Karac	hi Port Trust		

Port Qasim Authority (PQA)

Port Qasim is a second deep sea port of Pakistan which was established in the early days i.e. 1973. Port Qasim Authority handles 21.6 million tons of total cargo during the period July March 2014-15 which is 14 percent more than the business carried out during the same period last year.

The containerized cargo was 9.170 million tons (43 percent), Liquid cargo was 8.471 million tons (39 percent) and remaining 3.976 million tons (18 percent) was miscellaneous types of dry bulk/break bulk cargo.

PQA handled 0.716 million TEUs of container traffic in 2014-15. The growth in container

traffic during the nine months of FY 2014-15 is 13.4 percent more than July-March 2013-14.

The volume of import cargo during July-March 2014-15 stood at 15.198 million tons, showing 16.2 percent higher than 13.084 million tons handled during corresponding period.

The exports handled 6.420 million tons during the current financial year 2014-15, as compared to 5.887 million tons handled during corresponding period 2013-14, registering an increase of 9.1 percent.

Total volume of business in different period carried out by PQA is given below in Table-13.8:-

Table- 13.8: Cargo Handled at Port Qasim(in 000 tonnes)			
Period	Export	Import	Total
2007-08	4,922	21,502	26,424
2008-09	5,584	19,445	25,030
2009-10	6,380	19,226	25,626
2010-11	6,657	19,511	26,168
2011-12	5,950	18,075	24,025
2012-13	7,047	17,754	24,801
2013-14	7,699	18,076	25,772
2014-15	6,420	15,198	21,618
(July-March)			

Gwadar Port

Gwadar is the first free port city on the southwestern Arabian Sea coastline, in the Balochistan province of Pakistan. It is about 700 km from Karachi and 120 km from the Iranian border. Gwadar Port is located at the mouth of Persian Gulf, just outside the Strait of Hormuz, near the key shipping routes in and out of Persian Gulf. Gwadar Port is a strategic warmwater, deep-sea port and phase-1 of the port has been developed jointly by Government of Pakistan and the Government of China with a total cost of US\$ 288.0 million, which was inaugurated in March, 2007.

Gwadar Port is fully functional with three multipurpose berths, each 200 meters in length dredged to 14.5 meters in depth, with a bulk carrier capacity of 50,000 DWT and 50,000 DWT container vessels. By 2055, it is anticipated that Gwadar Port will be the largest site of its kind in Pakistan, with a 50 km sea front and 10,000 hectares of utilized property.

In May 2013, the port's Concessional Rights were transferred from Port of Singapore Authority (PSA) to the new operator viz, China Overseas Ports Holding Company Ltd (COPHCL). The new operator has started "recovery "of existing available infrastructure and equipment on the port. COPHCL submitted Operational Plan' of the port in consultation with Gwadar Port Authority (GPA), which suggests a framework for the Port Business Plans as per the Concessional Agreement.

As per decision of government all bulk cargo comprising urea, wheat and coal will be imported through Gwadar Port. Since its completion in 2006, Gwadar Port has handled around 6.279 million metric tons of dry bulk cargo (imported wheat and urea only) from 175 ships.

Till date the port operations are given in Table:13.9.

	(Quanti	ty in 000Tonnes)	
No. of ships	Type of Cargo	Quantity	
arrived		(000 Tones)	
26	Wheat	963,609.1	
149	Urea	5,315,525.1	
Total: 175	Wheat + Urea	6,279,134.2	
Source: Gwadar Port Authority			

Table 13.9: Total Import	of Cargo at Gwadar Port
	(Quantity in 000Tonnes)

Under CPEC, the Gwadar Port is said to be strategically important to China because it will bring closer the Middle Eastern ports to China through Karakoram Highway (KKH) linking Gwadar with Kashgar. Under CPEC, Gwadar Port is considered as Gateway of CPEC, and Gwadar city as one of the pivot cities of the corridor. The first Special Economic Zone (SEZ) of CPEC is being developed in Gwadar city.

The government-to-government CPEC agreements have created bright prospects for optimum operationalization of Gwadar Port and harnessing the benefits of regional trade connectivity through this naturally deep-sea port by Pakistan, China, Central Asian Republics and Afghanistan.

To resolve the port connectivity with the highway network, "Gwadar Port Eastbay Expressway" project has now been agreed upon for funding under CPEC. The project has been approved by ECNEC at an estimated cost of Rs.14.00 billion and its execution has been started in 2015.

The proposed expressway will connect the Gwadar Port with the Mekran Coastal Highway, passing along the east bay of Gwadar City, with a total length of 18.98 Km, including 4.3 Km along-the-shore/ off-shore and 14.6 Km on-shore sections. A rail link along this expressway is also part of the project.

Gwadar Port Free Zone

Federal Government through PSDP has provided funds for acquisition of land to be handed over to the Concession Holder for establishment of Gwadar Port Free Zone (FZ). This would be the first Zone in Pakistan, spread over an area of 9.23 sq. km, adjacent to the Port. The land acquisition process has been completed and its execution will start during 2015 by the Gwadar Free Zone Company (a subsidiary of COPHCL). With the development of FZ the port throughout in transshipments and export / import will enhance significantly. The same time the Company is going to establish a large Exhibition Centre adjacent to the Port for display of Chinese and Pakistani products.

Investment Opportunities

Gwadar port, offers lots of opportunities to prospective investors that include, inter alia, port related infrastructure such as storage, warehouses etc.; hotels, motels, travel and tourism; industrial sector including but not restricted to seafood processing and export, dates processing and export; construction of office spaces etc.; social sector and other infrastructure projects; telecommunication, road network, construction of airport, railways, and special economic zone.

Chinese investors have taken keen interest in establishing "Marine Silk Route and establishment of heavy industries in the industrial zone".

ICBC-HBL also organized a 2-day "Invest Pakistan" conference on 2- 3 April 2015 at Suzhou (China) that was largely attended by Pakistani and Chinese industrialists, investors, government and public representatives. The focus of the event was mutual benefit, common prosperity and win-win approach in cooperation between the two countries. ICBC-HBL are working on the concept of development of Special Economic Zones in Punjab and Balochistan and the investors, especially the Chinese, are planning to establish a steel mill and a cement factory in Gwadar.

13.5 Communications

Telecom Sector of Pakistan

Pakistan Telecommunication Authority (PTA) has been entrusted with the responsibility to govern the development of telecom sector in Pakistan keeping in view the consumer interest while providing a level playing field for all the market players. During the year 2014-15, telecom sector of Pakistan achieved new heights of success after the launch of Next Generation Mobile Services (NGMS). PTA sustains on research in regulation, technical shrewdness, harmonizing competition and discharging its social responsibility with the patronage of the Government of Pakistan. PTA strives to maintain a balance between smooth provision of latest telecom technologies, protecting telecom consumer interests and facilitating fair business concerns of the investors. PTA has also taken several measures to streamline the SIM sale process and implemented Biometric Verification System (BVS) at sales channels of Cellular Mobile Operators (CMOs) which is a landmark achievement in this regard. Working hand in hand with the telecom industry and under the patronage of Government of Pakistan, the telecom sector continued to perform well above expectations during the first two quarters of FY 2014-15.

During "Pakistan App Awards 2015" organized by PTA, it was recognized that implementation of telecom policy would have following far reaching impacts on the economy:

- Telecom services will contribute up to 1.4 percent of GDP by 2025.
- The active export of telecom sector will be enhanced from \$ 1.4 billion to \$ 4.0 billion by 2020.
- The proposed telecom policy envisaged increase in telecom revenue to Rs. 800 billion in next five years.
- National technology group of Saudi Arabia want to invest around \$ 200 million in the sector.

International Recognition

PTA's efforts have been well appreciated for proliferation of telecom and ICT services in Pakistan by prestigious international forums. Since the auction of NGMS spectrum in April 2014, PTA has won many accolades within and outside Pakistan for not only conducting fair, transparent and efficient auction of NGMS spectrum but also for being proactive in meeting the present day challenges of the telecom industry.

In recognition of significant achievement of the Government of Pakistan and PTA in driving the growth and socio-economic impact of the mobile industry in the country, Pakistan was awarded with the prestigious "Spectrum for Mobile Broadband Award 2015" at the Mobile World Congress 2015 held in Barcelona, Spain. This award recognizes the governmental that demonstrates the most transparent and stable long term spectrum policy roadmap. After successful auction of 3G and 4G spectrums in April 2014, there has been a rapid uptake of 3G services. bringing significant benefits to consumers and the national economy thus providing huge growth potential for industry players including operators, device manufacturers, application developers and distributors. The rapid roll-out of 3G and 4G services is expected to boost growth and efficiency in all sectors including education, banking, media, health and retailing, and is a key enabler for innovative e-services such as emedicine and e-education in rural and remote areas of Pakistan.

Pakistan Wins ITU Council Seat

Pakistan has won a seat on the ITU Council in the 19th ITU Plenipotentiary Conference held on 27th October, 2014 in Busan, South Korea which decided 12 members of the Radio Regulations Board (RRB) and 48 members of the ITU Council through an election. In the Asia and Australasia region, Pakistan secured its position with a total of 103 out of 167 votes.

The ITU Council is the nucleus of ITU's strategic and policy framework and its members are elected every four years. As a member of the ITU Council, Pakistan will be able to make substantial contributions towards shaping the future of information and communication technologies.

Chairman PTA, has been elected as Vice President of General Assembly of Asia Pacific Telecommunity (APT) for three years during the 13th Session of the APT General Assembly held from 25-26 November, 2014 at Yangon, Myanmar. APT is an Intergovernmental Organization that operates in conjunction with telecom service providers, manufacturers of communications equipment, and research and development organizations active in the field of communication, information and innovation technologies. The APT comprises of 38 member countries, with 4 associate and 131 affiliate members.

The Era of Next Generation Mobile Services (NGMS)

PTA concluded successful spectrum auction for NGMS Licenses on 23^{rd} April, 2014 and soon 3G and 4G services were commercially

launched by all the cellular mobile operators in major cities of Pakistan.

Commercial Launch of NGMS Services

All four successful winners of spectrum auction for NGMS launched their commercial services of 3G at reasonable tariffs for both pre-paid and post-paid customers. Ufone and Telenor started 3G services in May 2014, followed by Zong in June 2014 and Mobilink in July 2014. The technological advancement continued with the commercial launch of 4G services by Zong on 27th September, 2014. Shortly after, Warid also started offering LTE commercial services on 26th December, 2014 in major cities of Pakistan. Hence, Pakistan has proudly joined the illustrious list of countries having commercial 4G LTE services being offered to their citizens. The long anticipated availability of broadband speeds on cellular handsets became an immediate phenomenon as the number of 3G and 4G LTE subscribers spiked instantly. According to latest available statistics, approximately one million 3G and 4G LTE subscriptions are being added by CMOs each month since the commercial launch of these services in Pakistan. The coverage area of 3G and 4G LTE services is also expanding to the major cities of Pakistan which means that the subscriptions will also expand in parallel with expanding coverage.

Auction of Unsold Spectrum

The unsold spectrum of 10 MHz in 1800 MHz band having base price of US\$ 210 Million and 7.38 MHz spectrum in 850 MHz band with base price at US\$ 291 Million in the last auction in April 2014 accounts for at least a total of US\$ 501 Million. As per Government's Policy Directive dated 17th March 2014, no further related auction will be carried out for another 18 months from the date of the auction. However, for any spectrum and the license for a new Operator which has remained unsold in NGMS license auction in April 2014, PTA can hold an auction of the same as deemed appropriate. In this regard, PTA is in the process of hiring of international consultants for the market assessment and marketing of unsold spectrum and will plan the auction accordingly.

Streamlining the SIMs Sale and Authentication

PTA has been striving to develop effective mechanism for not only streamlining the new

SIMs sale process but also to resolve the issue of existing unauthorized/unverified SIMs in the market. In order to stay ahead on both fronts, PTA took some radical steps in collaboration with CMOs and Law Enforcement Agencies (LEAs). It is expected that the effective implementation of the multiple initiatives undertaken by PTA will produce a clean, updated and verified pool of active SIMs in the near future.

Biometric Verification System (BVS) for SIMs

After successful implementation of BVS at sales channels across the country with effect from 1st August 2014, PTA continued to periodically assess the compliance status of CMOs on a bigger footprint during August 2014. The results revealed that SIMs were being issued and activated in line with PTA's Standard Operating Procedure (SOP). Implementation of BVS at the sales channels of CMOs is a significant landmark, wherein SIMs are sold and activated only after online verification of the purchaser's finger prints from NADRA. The roll out of BVS is expected to further strengthen the SIM sale process and facilitate the authentication of subscriber antecedents.

Monitoring of Sales Channels of CMOs

With a view to check compliance of SIMs per CNIC rule, PTA carried out a survey in November 2014. Moreover, a survey of Mobile Number Portability (MNP) through BVS was also conducted by PTA in December 2014 in addition to the MNP audit. The survey results were analyzed and observed anomalies were communicated to CMOs for remedial measures.

Biometric Re-Verification of SIMs

In order to eradicate the issue of unverified and unauthorized SIMs once and for all, PTA issued an SOP for SIM Re-verification as per directions of GoP, to be followed by all cellular operators to make sure that all SIMs are verified by 12th April, 2015. PTA devised the SIM Reverification process in collaboration with Interior Ministry and cellular operators. A massive media campaign/SMS broadcast has been started for the customers to get their SIMs re-verified as per the given SOP. SIM reverification process was carried out in two phases, as given below:

Phase-I:

From 12th January to 26th February, 2015, numbers to be re-verified; Three or more SIMs per CNIC per operator. Blocking Deadline; All un-verified numbers from this list were to be blocked on 27th February 2015.

Phase-II:

Starting from 27th February, 2015, numbers to be re-verified: One and 2 SIMs per CNIC per operator. Blocking Dead line: All unverified numbers from this list were to be blocked on 12th April, 2015 at midnight.

A total of 48.7 million unique CNICs corresponding to 70 million SIM connections have been verified by CMOs.

Monitoring the health related effects of Radio Base Station Antennas

During the period under review, PTA along with FAB conducted an extensive survey at Lahore, Karachi, Muzaffarabad, Peshawar, Quetta, Rawalpindi/Islamabad to check the emission of power level from transmitters and receivers of Base Transceiver Stations (BTSs)/Towers installed by CMOs. The results revealed that power level of radio waves of all BTSs surveyed is much below the prescribed danger limits and in line with the policy directives of Ministry of IT & Telecom, World Health Organization (WHO) and International Commission on Non-Ionizing Radiation Protection (ICNIRP) guidelines.

Regulations for Technical Implementation of Mobile Banking

PTA was given mandated to prepare Regulations for Technical Implementation of Mobile Banking Services. To this end, a joint regulatory committee was formulated between State Bank of Pakistan (SBP) and PTA. The Committee prepared the draft mobile banking regulations and initiated an exhaustive consultative process with the stakeholders including MoIT, SBP. Cellular Mobile Operators (CMOs) and Financial Institutions (FIs). The draft regulations have clearly defined the rights and obligations of the CMOs in the case of one-to-one model and any-to-any model of mobile banking and the role of TPSPs in the provision of technical services of mobile banking to CMOs and FIs. The Regulations also contain sections on the arrangements for service level agreements, network conditioning and procedure for the award of TPSP license, consumer protection, awareness and dispute settlement mechanism.

Mobile Emergency Alert System

PTA in collaboration with Islamabad Police and mobile application developer Pure Push developed Mobile Emergency Alert System for Schools (MEASS) to ensure effective security of schools and hospitals situated in Islamabad Capital Territory (ICT).

Through this project, the access of Android based Smartphone application will be given to the administrative staff at different schools, colleges, universities and hospitals in the Capital city who will be able to send emergency alerts to get timely help from the Police. Islamabad Police will have direct control over the system and will ensure better use of latest technology in managing such matters. The triggers can be activated in situations like armed attack by anti state elements, bomb blast, kidnapping, fire, and other suspicious activities.

Monitoring the Quality of Service (QoS)

PTA monitors the quality of services being provided by the telecom licensees to the people of Pakistan on a regular basis. In this regard, PTA conducts periodic surveys of telecom operators. The survey results are then analyzed against the QoS parameters defined by PTA in telecom licenses and Regulations. Following surveys have been carried out by PTA in the period under review:

QoS Survey of Cellular Mobile Services

PTA carried out a drive test in seven (7) cities of Pakistan and AJ&K to verify the compliance of predefined Key Performance Indicators (KPIs) for all cellular mobile operators. The overall results of QoS survey were found to be satisfactory.

Broadband QoS Survey

PTA conducted nationwide broadband QoS Survey in metropolitan cities. The performance of different packages offered by operators was measured in different times. Three months' data of non-technical parameters i.e. response time of assistance service, billing and service 226

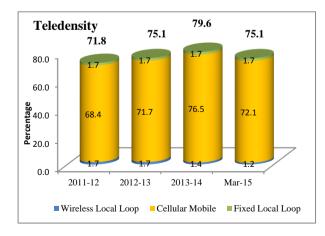
provisioning complaint resolution time etc was also analyzed. The survey results analysis revealed that by and large QoS performance of the broadband service providers can be rated as Good.

Telecom Economy

The first half of 2014-15 has brought many opportunities and challenges for the telecom industry in Pakistan. While the industry has witnessed a new wave of data growth driven by the launch of 3G and 4G networks and an outstanding response in terms of exponential growth in 3G and 4G subscribers, which has made Pakistan a success story at international arena, the implementation of BVS at sale channels in August 2014, re-verification of SIMs and restricted points for SIM sales have slowed down the pace of growth in cellular subscription.

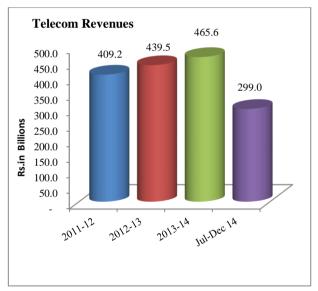
Teledensity

The total teledensity including cellular mobile, Local Loop (LL) and Wireless Local Loop (WLL) decreased to 75.2 percent at the end of March, 2015 compared to 79.6 percent at the end of June 2014, showing a decline of 5.5 percentage points. Consolidation of cellular subscriptions, resulting in a decline of 5.1 million cellular subscribers during July-March 2015, was the main contributor towards the overall decline of teledensity. Cellular mobile teledensity has witnessed decline of 4.4 percent points, reducing from 76.5 percent in Jun 2014 to 72.1 percent in March 2015. The WLL teledensity has also shown a slight decline of 0.2 percent points during July, 2014-March, 2015.



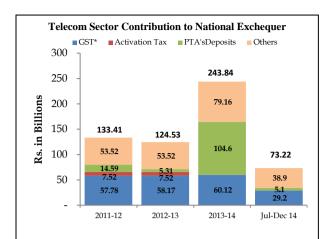
Telecom Revenues

Revenues from telecom sector reached an estimated Rs. 299 billion during the first two quarters of 2014-15. The commercial launch of 3G and 4G LTE services has opened new opportunities for revenue generation for the mobile operators. Availability of 3G and 4G services has enabled development of new applications and data base services, and people of Pakistan are quickly adopting to these new technologies and services. This has resulted in surge in data revenues of cellular mobile industry, reaching Rs. 37.3 billion during July-December, 2014 compared to Rs. 22.1 billion in July-December, 2013, showing an increase of 69 percent. Revenues are expected to further increase in the coming years as more subscribers are added into the 3G and 4G LTE fraternity, generating more data revenues of telecom industry.



Telecom Contribution to National Exchequer

Telecom sector is a significant source of revenue generation for the national exchequer. During the first two quarters of the 2014-15, telecom sector contributed Rs. 73.22 billion to the national exchequer in terms of taxes, regulatory fees, initial and annual license fees, activation tax, and other charges.



* GST and other taxes are estimates.

Source: Federal Board of Revenue and Pakistan Telecommunication Authority.

Note: PTA's contributions comprise of all its receipts including Initial and Annual License Fees, Annual Radio Frequency Spectrum Fee, Annual Spectrum Administrative Fee, USF and R&D Fund Contributions, APC for USF, Numbering Charges, License Application Fee, etc.Others include custom duties, WHT and other taxes.

Telecom Investment

The government liberalised investment policies allowing foreign investors in the telecommunications sector to own all the shares in a company and repatriate all of the profit. Such policies have attracted significant FDI in telecom sector over the last few years. In 2013-14, the auction of spectrum for 3G and 4G services in Pakistan and deployment of next generation cellular networks brought an investment of US\$ 1790 million in the telecom sector. Due to the continuous an outstanding subscriber's response to the launch of 3G and 4G services in the country, cellular mobile operators are continuously expanding their next generation networks.

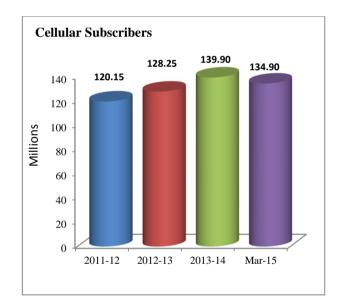
Telecom Investment		US\$ (Million)		
-	2011-12	2012-13	2013-14	Jul-Dec-
				14
Cellular	211.8	570.4	1,789.7	356.28
LDI	16.2	1.9	1.8	4.63
LL	5.0	16.1	14.2	1.93
WLL	7.3	11.9	10.0	4.45
Total	240.3	600.3	1,815.6	367.29

Due to these expansions, an investment of US\$ 356.3 million has been witnessed in the cellular mobile sector during July-December 2014, There is another encouraging sign in the industry that FDI in telecom sector remained

US\$ 114.0 million during July-December, 2014 compared to net negative telecom FDI inflows in the corresponding period last year. The impetus of expanding 3G and 4G networks will continue the pace of investment in the telecom sector in coming months.

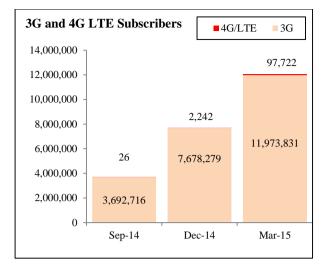
Cellular Subscribers

By the end of March 2015, the total number of mobile subscriptions in Pakistan reached 134.9 million with net decline of 3.5 million subscribers. Biometric SIM Verification was a massive exercise recently undertaken by the CMOs across Pakistan. On the one hand, it is a dire necessity of the present times but on the other hand, it will also have a major impact on the telecommunication statistics. Millions of mobile connections will be churned by every CMO with the resultant drop in teledensity and telecom subscribers.



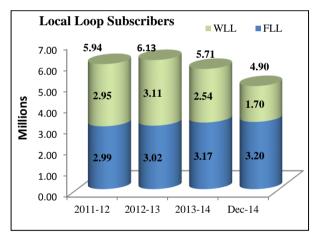
3G and 4G LTE Subscribers

After the commercial launch of 3G and 4G LTE services, the number of 3G and 4G LTE subscribers has been growing at a commendable pace. 3G and 4G LTE subscribers have sharply increased during the last ten months and have reached 12.1 million in March 2015. The 3G and 4G LTE subscribers constitute 8.9 percent of the total cellular subscriber base as of March-2015.



Local Loop Subscribers

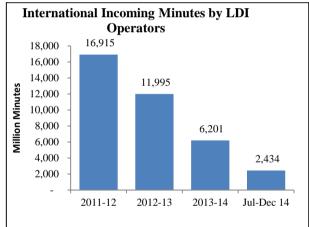
The subscriber base of local loop sector has reached 4.9 million at the end of December, 2014 as compared to 5.7 million as of June 2014. The overall subscriber base has decreased by 15 percent.



11. Long Distance & International (LDI)

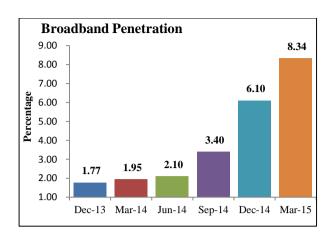
LDI is an important segment of the telecom sector as it serves as a gateway to international connectivity of Pakistan with the outside world. LDI services have been the centre of attention for the Authority due to continuous regulatory initiatives being undertaken to tackle grey traffic. Counter measures being introduced by the Government of Pakistan and PTA have been forefront of the telecom sector at the developments in the recent past with establishment and implementation of International Clearing House (ICH) regime in October, 2012; international incoming call rates were also increased. Due to this increased rate, inflow of foreign exchange and revenue per minute of ICH consortium initially increased. However, trend of increasing inflow of traffic could not be sustained as the increased call rates allowed growth of grey traffic which ultimately resulted in constant decrease in reported legal traffic. The deregulation of Approved Accounting Rate (ARR) and Approved Settlement Rate (ASR) on 24th February, 2015 is expected to stabilize Pakistan's international incoming traffic, curb the grey traffic, and increase revenues for the government.

The total international minutes (incoming and outgoing) stood at 3,495 million during July-December, 2014. This is due to decline in both the incoming and outgoing international traffic. It is evident that the outgoing traffic on LDI networks is sliding with every passing year/quarter as a total of 2,434 million minutes have been received by LDI operators during July to December, 2014.



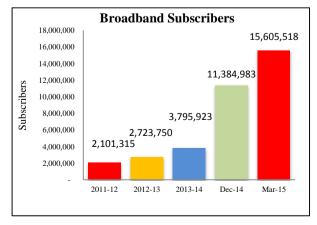
Broadband - Penetration

Broadband penetration of the country stands at 8.34 percent as of March, 2015 as compared to 1.95 percent at the end of corresponding period last year. This enormous jump in the broadband penetration can be attributed to the NGMS spectrum auction as mobile broadband leads the way in the total broadband subscriber base. As evident from the figure, an immediate spike in the broadband penetration can be observed in the quarter after the commercial launch of NGMS in the country. It is expected that mobile broadband will continue to form the major chunk of the broadband market and may also prove to be a catalyst for the other broadband technologies to prosper in the future.



Broadband Subscribers

Broadband subscribers stood at 15.6 million at the end of March, 2015 as compared to 3.8 million at the end of 2013-14, depicting 311 percent growth over the last nine months. The number of net subscriber additions in this period stood at 11,809,595 which is almost four times more than the entire broadband subscriber base till June, 2014. Most of the net additions are due to 3G and 4G subscribers which collectively form the figure of 12,071,553 while the fixed broadband subscribers (DSL, HFC, FTTH) have also added 140,087 subscribers during the period under review. On the other hand, fixed wireless subscribers (WiMAX, Satellite etc) dropped by 30.395 and EVO subscribers also declined by 371,650 during the first three quarters of 2014-15. This disparity in subscriber addition highlights the substitution effect of NGMS on the other wireless broadband technologies. In order to further provide impetus to the broadband sector, synergy of various elements is required. Therefore, external factors also need to be addressed which include affordability of general public, education level, computer literacy, religious and cultural views regarding objectionable content on internet and lack of localized content.



13.6 Electronic Media in Pakistan

13.6-A Pakistan Electronic Media Regulatory Authority (PEMRA)

PEMRA is primarily mandated through March, 2002 Ordinance 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 etc.) throughout the country.

The law was later on revamped as PEMRA Amendment Act-2007. Apart from licensing PEMRA mandate further includes:

- To improve the standards of information education and entertainment;
- Enlarge the choice available to the people of Pakistan in 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;
- Facilitate the devolution of responsibility and power to the grass roots by improving the access of people to mass media at local and community level;
- Ensure accountability, transparency and good governance by optimizing the free flow of information;

Present Status of Private Electronic Media

In a span of 13 years the country has witnessed a massive spurt in the number of TV channels and FM radio stations in the private sector which, unmatched in the South Asian region and perhaps elsewhere. 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 unprecedented 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, a glance at the following facts and figures on licensing of media amply substantiates the massive growth which has taken place in electronic media in the private sector in the last thirteen years. The details are given in Table 13.12 below:-

S. No.	Category	Number of licenses Issued
i.	Satellite TV Channels	91
ii.	Landing Rights Permission to TV Channels	27
iii.	FM Radio licenses	200
iv.	Cable TV Licenses	3,659
v.	Multimedia, Multi Channels Distribution System (MMDS)	06
vi.	Internet Protocol Television (IPTV)	01
vii	Mobile TV License	04
viii.	Mobile Audio Licenses	02
Source: P	akistan Electronic Media Regulatory Authority (PEMRA)	

Table 13.12: PEMRA Performance

S. No.	Category	No. of licenses
i.	Landing Rights Permission to TV Channels	01
ii.	FM Radio licenses.	07
iii.	Cable TV Licenses	30

Economic Contribution

Due to the government's investment friendly policies the country has witnessed a remarkable economic growth particularly over the last five years. The overall national growth has been conductive for the development of the electronic media industry in the private sector. According to estimates there has been a cumulative investment of approximately US\$ 3.500 billion in the electronic media industry in Pakistan. Electronic media sector has generated direct employment for more-than 200,000 people of diversified skills and qualifications. Going forward the estimated cumulative investment in the electronic media industry will reach nearly US\$ 4.0 billion by the end of the current financial year. This expansion in investment would in turn have multiplier effect on increasing job opportunities for skilled media personnel and journalists, expanding work of media production houses, advertising agencies and proliferation of the performing arts.

13.6-B Pakistan Television Corporation Limited

Pakistan Television Corporation Limited (PTV) is the only public sector broadcasting centre which telecast national programmes to remote and economically backward areas of the country in order to keep the people of remote areas aware of about the current affairs of the country as well as the whole world. It can also provide different entertainment, education and sports programmes to the people enabling them to uplift their socio-economic conditions, to eliminate the existing disparity.

At present 7 multiple channels are broadcasting its different programmes through PTV world, PTV News, PTV Home, PTV Bolan, PTV Sports, PTV National and PTV Global. The only English News Channel in Pakistan telecasting the information about Pakistan domestically as well as internationally has been launched by PTV.

PTV has also established a TV Channel in AJK with one TV Centre, and with four Rebroadcast Centers at Kotli, RawalaKot, Bagh and Bhimber.

Due to distinctive culture and historical heritage of Saraki region a separate TV centre has been established at Multan to project the socio uplift of this particular region, with particular focus on telecasting saraki programmes.

Modernization of the broadcasting system is need of hour and PTV management has planned to modernize its technical facilities & electronic equipments during 2014-15 to enhance the coverage of area and population. It has improved a lot its programmes of infotainment, news, current affairs and sports on various channels.

Digitalization of PTV Signals with Collaboration of China

During the visit of Chinese's President to

Pakistan an MoU has been signed between NDRC on behalf of the People,s Republic of Information. China and Ministry of Broadcasting & National Heeritage on behalf of the Islamic Republic of Pakistan to harvest the benefit of the project of Digital Terrestrial Multimedia Broadcasting (DTMB) technology. A pilot project for transition/migration to digital transmission system has been established at RBS Murree by M/s ZTE Corporation for demonstration of PTV's Terrestrial network. If this DTMB pilot project validated qualitatively & quantitatively, the Government of Pakistan will adopt this technology under Grant-in-Aid from China.

13.6-C Pakistan Broadcasting Corporation

Pakistan Broadcasting Corporation, Central News Organization (CNO), highlighted Prime Minister's, Finance Minister and other Federal Ministers speeches and policy statements regarding economic development of the country and its trickle down effects on the masses. The economic policy of the present government yielded positive results including improvement in the living standard of the masses due to reduction of prices of items of daily use. It was covered in all the bulletins and through Current Affairs Programmes. Interviews of political and prominent personalities of civil society and journalists were also broadcasts from Current Affairs Channel.

Speeches/interviews and statements of Finance and the Federal Ministers were also widely covered in all the bulletins with a view to inform the masses about low inflation rate due to the prudent policies of the federal government.

Coverage was given to Prime Minister's Youth Loan Programme, Benazir Income Support Programme and announcement regarding introduction of new Internship for Post-Graduate students and surging of stock market and foreign reserves in our National and Business bulletins. Special interviews/talks were also held by our News and Current Affairs Channel.

Radio Pakistan, in all its programmes highlights government's energy generation projects in all its bulletins regarding elimination of Gas and electricity load shedding in the country as well as in industrial units.

Central News Organization (CNO) also highlighted present government's agreements with China on establishing economic corridor and energy projects through its bulletins and News and Current Affairs Channel.

Being a popular media among the rural masses, Radio Pakistan ensures projection of government policy for enhancing agriculture yield and latest development in the agriculture sector.

Achievements and sacrifices of Pakistan Army and Law Enforcement Agencies in fight against militants and anti-state elements were highlighted by PBC with full spirit as a national cause under the scope of "National Action Plan". Wide-spread microphone publicity was given in this regard.

PBC conducted a comprehensive campaign for Rehabilitation/Re-settlement of IDPs and Operation Zarb-e-Azb from 22 Stations of FM-93, 9 channels of FM-101 and 26 channels of MW national network of PBC.

13.7 Pakistan Post Office

Counter Automation System

Quick communication system is must for business and prosper rapid economic development of any country. Pakistan Post Office is engaged to modernize its services in such a way to ensure quick delivery/transfer facilities to the citizens of the country. Throughout the country over one hundred GPOs including renovated post offices / sub offices 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

An Industry standard-off the shelf solution "Riposte Essentials" from M/s Escher Group has been implemented. Currently, Electronic Money Order Service (EMOs), Online Computerized collection of all utility bills through Centralized Software Solution Child Support Programme and BISP Services has been implemented at the 83 automated GPOs. While rollout of Military Pension Payment System in more than 72 GPOs have been implemented too. However, Savings Bank and PT Services are in customization stage which will soon be implemented in 83 GPOs.

Computerized Pension Payment System

Over 1.4 million pensioners has been disbursing 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 83 GPOs.

Achievements of Saving Bank

Pakistan Post has been doing the work of saving bank as an agency functioning on behalf of the Ministry of Finance under the Government Savings Bank Act 1873 on commission basis. During the period July-2014 to March-2015 an amount of Rs.126 million has been collected through National Savings Schemes and under this scheme earned commission amounting to Rs. 630 million during this period.

Computerized PTCL Pension Payment System

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 particular and amount of payment of each & every pensioner.

This system eliminates the manual filing of pension payment form (No. Code-15) voucher and now the same is auto generated by the system.

The System automatically updates the record of PTET, once the payment of pension is disbursed to the PTCL pensioner. Disbursement software of PTCL pension has been deployed at GPOs.

Western Union Money Remittance Business

During July- March 2014-2015, Pakistan Post has received the foreign remittances amounting to US\$ 60.972 million equivalent to Rs.6114.912 million.

Benazir Income Support Programme (BISP)

Complete web-enabled tracking Α and monitoring system for disbursement of funds for Benazir Income Support Programme (BISP) has been evolved that include continuous processing, monitoring and reconciliation of the specialized money orders scheme. The same is implemented at all 83 automated GPOs throughout Pakistan. Over 46.5 million money orders have been issued up to 31st March 2014 and an amount of around Rs. 120.442 billion has been disbursed. During July to March. 2014-2015 total 906,666 BISP money orders along with required funds for Rs.3.819 billion were received from BISP authorities, out of which 65 percentage Money Orders amounting to Rs.2.0 billion 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 under rules and regulations of the Universal Postal Union. Direct mail links exists with 165 countries for the rest mail is exchanged by utilizing the transit facilities of intermediary countries.

Achievements in International Postal Services

Pakistan Post dispatches more volume of mail than it receives for delivery. Thus it always remains net-creditor. Pakistan post received an amount of Rs.33.625 million during the period from July to March 2014-15 on account of Terminal Dues for imbalance of international mails received from dispatched to other countries.

First Micro Finance Banking (FMFB)

Pakistan Post has collaborated with First Micro Finance Bank (FMFB) in Micro Financing for disbursement of loans and its recovery to general public in four regions i.e. Lahore, Multan, Hyderabad and Sukkur. Pakistan Post has earned following revenue from this scheme during July-2014- March 2015.

(Rs. in million)	
Amount Disbursed	541.67
Amount Recovered	407.11
PPO Commission 0.5 percent on	1.39
disbursement & recovered Loans Including	
Rent Charges	

Postal Life Insurance (PLI)

Postal Life Insurance has issued the 424,306 total policies upto March 2015 against policies issued 409, 988 upto March 2014. The sum assured amounting to Rs. 65,178,912 million

upto March 2015 against Rs. 59,444.6 upto March 2014.

Transport and Communications

Total PLI Policies	(No. in million)	
	2013-14	2014-15
No. of fresh Policies Issued	409,988.0	424,306
Premium Income	2,178.8	2,989,532
Sum Assured	59,444.6	65,178,912

Philately

Following Commemorative Postage Stamps have been issued in the given period.

S. No.	Celebrities	Date	Rate
1	Issuance of Commemorative Postage Stamp on 100 years of Frontier Constabulary	11-7-2014	Rs.08/-
2	Issuance of Commemorative Postage Stamp on 100 years of Sahiwal Breed Conservation (1914-2014)	05-08-2014	Rs.08/-
3	Issuance of Commemorative Postage Stamp on one nation –One Vision Pakistan - 2015	11-8-2014	Rs.10/-
4	Issuance of Commemorative Postage Stamp on 100 birth day anniversary of Norma E. Borlaug	4-12-2014	Rs.08/-
5	Issuance of Commemorative Postage Stamp on "Say no to corruption" International Anti Corruption Day.	9-12-2014	Rs.08/-
6	Issuance of Special Postage Stamp GEMS & Minerals of Pakistan	11-12-2014	Rs.08/- Each design
7	Issuance of Commemorative Postage Stamp on 14 th National Scout Jamboree	23-12-2014	Rs.08/-
8	Issuance of Commemorative Postage Stamp on joint issue Pakistan Ukraine monuments of Ancient Cultures and Special Souvenir Sheet	25-12-2014	Rs. 20/- Each design
9	Issuance of Commemorative Postage Stamp on 100 th death Anniversary of Moulana Altaf Hussain Hali (1914-2014)	31-12-2014	Rs.08/-

The detail of Rural & Urban Post Offices is as under:

Urban	Rural	Total
1813	10264	12077

Conclusion

Transport and Communication network of any country is of vital importance to its development and affects all sectors through sectors linkages. It ensures safe and timely travel, encourages business activities and cuts down transportation costs while granting products access to markets for their disposal. A reliable transport and communication network also provides swift access to labour force and hence generates employment opportunities. It has been widely recognized that economies with better road and communication networks are positioned more advantageously terms in of overall

competitiveness as compared to economies having poor networks. Reliable and large transportation and telecommunication facilities benefits industry, agriculture, and other services sectors as well as improving the standards of living of the general public. It is the need of time to make timely investment to develop and maintain an efficient network of transportation and telecommunication facilities to ensure cost efficient integration of markets both domestically and internationally which the present government is doing. In this respect Vision 2025 emphasis on efficient and integrated transport & communication network that can ensure safety in mobility, effective connectivity between urban-rural areas. reduction in transportation cost and high capacity transportation corridor connectivity among major trading partners of the region.