Chapter 13

Transport and Communications

Introduction

Pakistan is blessed with a very unique geo-strategic location posing strength and challenges for its endurance. The opportunities and potential can be realized by exploring its critical connectivity of land routes, coastal lines and pass through air routes which are endowed by the favourable climate. The country offers the most effective, economical and viable transit routes throughout the seasons to the land locked Central Asian Countries and other neighbouring countries providing a very convenient trade corridor. World Bank estimates that poor performance of the transport sector is costing Pakistan about five percent of its GDP. Furthermore thirty percent of agriculture output is currently wasted due to its inefficient farm to market channels, lack of cold storage facilities and an obsolete underpowered trucking fleet.

Government of Pakistan is committed to develop and enhance a modernize transport and logistics sector. Vision 2025 also seeks to establish an efficient and integrated transport system that will facilitate the development of our economy. The targets set forth are to ensure reduction in transport cost, safety, effective connectivity between rural areas and urban areas markets interprovincial high speed connectivity, integrated roads network and transportation corridor connectivity with major regional trade partner countries.

13.1 Road Transport

Topography of the region consists upon hilly mountain areas, far flung agriculture lands and the productive resources scattered all over the country. Roads provide easy and efficient means of transportation. About 61.4 percent of our population lives in villages. Roads network in Pakistan is of crucial importance for the movement of people and goods, integrating the country, facilitating economic growth and in reducing poverty. Total roads network in Pakistan is around 263,775 kms out of which about 70 percent are paved. Road density in Pakistan is 0.32 km/km^2 which is low in comparison of neighbouring countries.

This roads network carries over 96 percent of inland freight and 92 percent of passenger traffic and are undoubtedly the backbone of the economy. Table 13.1 shows the details of roads in Pakistan. National Highways consists of 9,324 kms (3.53 percent) and Motorways 2,280 kms (0.87 percent). Strategic roads and Expressways contribute 262 kms and 100 kms respectively that is 0.1 percent. Rest of the roads network contains provincial highways and roads under respective local administration like; Cantonment Boards, Municipal Corporations, Local Development Authorities, etc. About 40.9 percent of total roads lie in province of Punjab, followed by 30.9 percent in Sindh, 16.3 percent in Khyber Pakhtunkhwa and 11.3 percent in Balochistan. Azad Jammu & Kashmir, being mostly hilly area, shows a small proportion of just 0.6 percent, of roads network.

Table 13.1: Estimated Length of Roads in Provinces (kms)

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

Table 13.1: Estimated Length of Roads in Provinces (kms)

Years	Category	Punjab	Sindh	Khyber Pakhtunkhwa	Balochistan	GB & AJK	TOTAL
	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

Source: National Transport Research Centre (NTRC)

National Highway Authority

National Highway Authority (NHA) is rendering a vital contribution in improving the quality of roads 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 the river Indus in addition to investing more and paying extra attention towards the development of west.

Present NHA network comprises of 39 national highways, motorways, expressway, and strategic roads. Length of this network is 12,131 kms. NHA existing portfolio consists of 83 development projects costing Rs.615.2 million. GoP allocated Rs.63.04 billion in PSDP 2013-14 for development projects of NHA. This amount includes Rs.30.92 billion foreign currency and Rs.32.12 billion in local currency.

Ongoing Projects of NHA

Some significant ongoing projects are:

1. Faisalabad-Multan motorway (M-4)
2. Sehwan-Ratodero ACW (N-55)
3. Sukkur-Jacobabad (N-65)
4. Re-alignment of Karakorum Highway at Attaabad
5. Flood emergency Rehablitation Project
6. Peshawar Northern Bypass (E-2)
7. Khushalgarh Bridge (N-80)
8. Qazi-Amri Bridge across River Indus

Four projects having length of 320 kms are ongoing in Punjab that has achieved about 60 percent progress. Similarly, five projects of 182 kms length are also ongoing in Sindh for which more than 70 percent progress has been achieved. Six projects having length of 79 kms achieved 60 percent progress in Khyber Pakhtunkhwa, Gilgit-Baltistan and Azad Jammu & Kashmir, four projects in Balochistan having length of 474 kms have achieved more than 60 percent progress and will be completed by the year 2016.

Completed Projects of NHA

Some major completed projects include the following:

1.	Qila Saifullah-Zhob (N-50)
2.	Bridge over river Indus at Larkana
3.	Head Muhammadwala bridge over river Chenab
4.	Raikot – Khujerab section (335 kms) KKH
5.	6 Interchanges on Inner Ring Road Multan
6.	4-lane underpass at Wah Gate, Taxila
7.	Multan-Muzaffargarh (N-70)
8.	Larkana-Naudero-Lakhi Road
9.	Sakrand-Benazirabad Dual Carriageway
10.	Hyderabad-Badin. Road to Mir Wah Sanjar Chang Road
11.	Ghazi and Chuch Interchanges on M-1.

During last five years, NHA has constructed/ rehabilitated about 1151 kms roads all over the country. Province-wise break up is as follows:

Province	Kms constructed
Punjab	60
Sindh	205
Khyber Pakhtunkhwa	100
Balochistan	786
Total	**1151**

NHA has completed three major river bridges during last five years, three major bridges on river Indus and one river Ravi and one 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 basis and is seeking local as well as foreign firms for investment.

In order to ensure smooth and efficient movement of goods and passengers in healthy environment, NHA has planned to develop approximately 2,395 kms long China-Pak Economic Corridor (CPEC) connecting Gwadar to Kashghar (China) and has also planned Karachi-Lahore Motorway (KLM) 6-lane controlled access. Work is likely to commence on 460 kms section of KKH (Raikot to Islamabad) and KLM to serve initially as 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 ensure the social uplift of people living around this corridor.

Major Planned Development Projects

- Construction of Karachi-Lahore Motorway (1147 kms) (To be constructed on BOT/EPC basis)
- Improvement/Up-gradation of Raikot-Islamabad section of KKH (460 Kms) (through credit financing)
- Construction of Muzaffarabad-Mirpur-Mangla Expressway (196 Kms)
- Construction of Lahore Eastern Bypass (13.5 kms)
- Construction of Lower Topa-Kohala 4-lane Expressway (48 Kms)
- Improvement and widening of Mingora-Fatehpur section of N-45 (45 Kms)
- Construction of highway from Muzaffarabad to Taobult in Neelum Vaelley
- Construction of tunnel in Leepah valley
- Up-gradation of Jhaglot-Skardu Road, S-1 (163 Kms)
- Improvement and widening of N-45 (141 Kms)
- Malakand Tunnel
- Qilla Saifullah-Loralai-Waigum Rud section of N-70 (124 Kms)
- Zhob- Mughalkot section of N-50 (78 Kms)
- Approach Roads to New Islamabad International Airport (31.5 Kms)
- Rehabilitation and Dualization of Khanewal-Lodhran road (103 Kms)
- Dualization of Multan-Muzaffargarh-D.G, Khan section of N-70 (80 Kms) on BOT basis.

Box-1: Rawalpindi–Islamabad Metrobus Project

Islamabad–Rawalpindi Metropolitan area is third largest in Pakistan with a population of over 4.5 million inhabitants. Twin cities Islamabad and Rawalpindi are growing at a rate of more than 4 percent per annum, due to significant migration from all over the country. With present growth trends it is expected that the population would increase upto 7.0 million in next twenty years. Since both cities have grown into each other, significant amount of commuting takes place between the two cities. Currently private transport is the major means of mobility between two cities comprising of Mazda, Toyota Hiace, and Suzuki vans plying on various routes within and between the two cities. At present no organized urban bus transport service is operating in these cities and between cities of Rawalpindi and Islamabad. Level of service offered by the minibuses is far below any acceptable standard. Traffic volumes of over 210,000 vehicles ply on three major corridors connecting two cities carrying around 525,000 passengers. It is estimated that public transport demand of around 153,000 passengers is required to cater daily basis between the two cities. Interestingly this passenger demand is concentrated around a corridor which is of high density and strategically located to provide for a rapid transit system.

Based on studies conducted by Government of the Punjab and Capital Development Authority, a Metro Bus project is required to connect the twin cities and alleviate the traffic congestion on this corridor. In a meeting held in Lahore on 19th January 2014, co-chaired by the Prime Minister of Pakistan and the Chief Minister of Punjab, it was decided that the project shall be funded on 50:50 sharing basis by the Federal government and government of the Punjab. As Punjab government has already completed successfully a similar Metro Bus project in Lahore, Prime Minister of Pakistan decided that provincial government will execute this project through Rawalpindi Development Authority (RDA) as single executing agency for both parts of the project. It will work in close coordination with the Capital Development Authority (CDA) for the Islamabad Part of the project. Punjab Metrobus Authority (PMA) will control the operation & maintenance of the project after its completion.

The project will start from near Flashman Hotel on Mall Road Rawalpindi and follow the existing Murree Road upto Faizabad. It will then turn left into the federal territory and follow I.J.P. road upto 9th Avenue. Thereafter, it will turn right and follow the 9th Avenue in Islamabad then turn right on Jinnah Avenue upto the end of Blue Area. From Blue Area a connection to Secretariat stop will be provided through the open space behind parade ground. It will cross the Constitution Avenue and another couple of main roads through underpasses. However, the remaining length of this section is also designed on a lower level in an open Trench section keeping in view various security constraints.

The entire length 8.6 km of Metro Bus corridor in Rawalpindi area shall be of elevated structure whereas about 14 km in Islamabad shall be at grant but made signal-free by constructing grade separations at various intersections. Ten stations in the 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. A central ITS control room is also included in the project to control the whole operation of Metro Bus system.

Initially provision of a 10 lane underpass (2 Lanes for Metro Bus and 8 Lanes for mix traffic) along the 9th Avenue was proposed at Peshawar morr intersection. Later on, in view of the traffic issues at Peshawar morr intersection, ongoing Widening / Rehabilitation of Kashmir Highway and its link with new Islamabad Airport, it was decided to dovetail the Metro Bus corridor in the interchange already designed by CDA which will cost Rs. 6.75 billion. The same will be executed simultaneously with Metro Bus Project.

Project Cost / Expenditure (Rs. in billion)

Project Segments	Length (Km)	Cost	Expenditure Upto 16-5-2014
Rawalpindi Part (03 Packages)	8.6	19.37	3.93
Islamabad Part (05 Packages)	13.9	24.84	1.79
Total	22.5	44.21	5.72

The works of Rawalpindi Part (03 Packages) have been awarded and the contractors are mobilized at the site. The works of Islamabad part of five Packages has also been started. Prime Minister inaugurated the project on 23rd March 2014 and work was started from the same day. Metrobus project will be completed in next 10 months.

Infrastructure Projects in Collaboration with China

Infrastructure is both a cause and a consequence of economic growth, that is investment in infrastructure construction fosters the economic activities consequently on completion by using the infrastructure facilities provides means of economic progress of the country. Integrating development of the country with the global economies is only possible by providing transport and telecommunication services throughout the country. Developed infrastructure can also raise the quality of human capital, which is a key factor in achieving high and sustainable levels of growth. Improvements in the quality and quantity of infrastructure have a positive impact on the poor and thus play a vital role in reducing income inequality. Government gives high priorities in development the infrastructure for uplifting living standards of the masses at par all over the country. In the long term, transport system of Pakistan is likely to experience tremendous improvements with implementation of the National Trade Corridor Programme (NTCP). With this aim to achieve Pakistan government has sought extended collaboration with Chinese government to execute the following programme under China-Pak Economic Corridor (CPEC).

Box-2: China – Pak Economic Corridor (CPEC)
High Priority Early Harvest Projects (HPEHPs)
of Transport and Communications Sector

China-Pakistan Economic Corridor Long Term Planning

Pakistan and China have agreed on promoting and developing China-Pakistan Economic Corridor (CPEC). This decision was made at the Joint Working Group meetings of CPEC held in January and February, 2014 at Islamabad and Beijing respectively. The two sides reached consensus on implementation of CPEC and on construction projects of roads, railways and ports. To start with Kashgar, Xinjiang, Khunjerab, Islamabad, Lahore, Multan, Sukkur, Karachi and Gwadar are selected as the pivot cities.

To accomplish this, experts will conduct investigation in Southern and Northern Pakistan. Draft Master Plan of CPEC will be prepared, by June 2014 and final master plan by September 2014. A comprehensive feasibility study for technological standards for prioritized projects of Pakistan Railways will be funded by both sides for prioritized projects. Early Harvest Projects (EHP) in Railways will also be completed within six months of approval by the Joint Cooperation Committee (JCC).

Principles, Classification, and list of Prioritized Projects/EHP

It is agreed that there are five guiding principles for the determination of prioritized projects/EHP namely:

i. Bilateral connectivity
ii. Socio-economic urgency and impact

iii. Mature projects
iv. Relatively good economic returns and
v. Quicker completion time.

Prioritized projects/EHP determined by the 2nd JCC meeting include:

Transport Sector

1. Karakorum Highway (phase II) up gradation and reconstruction from Raikot to Islamabad via Mansehra.
2. Karachi-Lahore Motorway; Multan-Sukkur section.
3. Up-gradation/Rehabilitation of ML1 and construction of Havelian Dry Port.
4. Gwadar Port project mainly includes East Bay Expressway, Gwadar International Airport, Construction of Breakwater, Dredging of berthing areas and channels, Integrated Development of Gwadar city/region and Development of related infrastructure.
5. Orange Line Metro Train Project (Lahore).

Project Financing Arrangement

China Development Bank, the Export-Import Bank of China and other financial institutions will provide financing support of a certain size for construction of CPEC projects. It will include commercial loans, export credit, concessional loans, and non-reimbursable assistance etc. In light of the status of various projects, different financing modalities should be developed, such as grants, interest free loans, preferential loans, syndicated loans, and commercial loans plus concessional loans.

Pakistan has proposed China to consider establishing a low cost Economic Corridor Investment Fund initially of US$20 billion, US$10 billion for energy and $10 billion for infrastructure to support Chinese companies to invest in public and private sector projects under CPEC. With this understanding following projects have been initiated in the infrastructure sector:

S. No.	Name	Cost of the Project	Start Date	Completion date
Highways and Motorways				
1.	Karakorum Highway (Phase-II) Raikot to Islamabad (487 Kms)	Rs. 379 billion (including Rs. 6.0 billion for Land Acquisition)	Dec. 2014	Dec. 2017
2.	Karachi-Lahore Motorway (Multan-Sukkur Section) (387 Kms)	Rs. 246 billion plus Land Acquisition cost of Rs. 61.0 billion.	Oct. 2014	Dec. 2017
Railways				
3.	Rehabilitation & Up-gradation of Karachi-Lahore-Peshawar (ML-1) Railway Track (1736 kms)	US$ 3,650 million	July 2015	Dec. 2017
4.	Construction of Havelian Dry port including cargo handling facilities.	US$ 40 million	July 2015	Dec. 2017
5.	Orange Line Metro Train Project in Lahore (27.1 kms)	US $ 1.6 billion, actual cost of the project will be determined once the financial bids are opened	Not yet finalized	Not yet finalized
Gwadar Port				
6.	Construction of East-Bay Expressway, Gwadar Port (18.9 kms)	Rs. 11-12 billion	30 Aug. 2014	Sep. 2016
7.	Construction of Breakwaters, Gwadar Port	Rs. 13.0 billion	Oct. 2015	April 2016
8.	Dredging of Berthing Areas & Channels, Gwadar Port	Rs. 2.8 billion	Oct. 2015	Jan. 2016
9.	Infrastructure Development for EPZA & GIEDA, Gwadar	Rs. 3.45 billion	Oct. 2015	June 2017
Optical Fibre Cable (OFC)				
10.	China-Pakistan Optical Fibre Cable (OFC) Project	US$ 44 million including 15 percent local component through PSDP and 85 percent FEC provided through soft loan by Chinese Ministry of Commerce	2014	2017

Source: Ministry of Planning, Development & Reforms

13.2 Pakistan Railway

An effective railway system of the country facilitates commerce and trade, reduces transportation costs, and promotes rural development and natural integration. Network of Pakistan Railway comprises of 7,791 route kilometers, 423 Locomotives, 1,700 passengers coaches and 16,179 freight wagons. An overview of Pakistan Railway and Passenger and freight traffic are presented in the following tables:

Table 13.2: Earning of Pakistan Railway

Fiscal Year	Earning (Rs in million)	% Change
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	18,070	17.0
2013-14 (July-March)	17,736	--

Table 13.3: Passenger and Freight Traffic

S. No.	Subject	2011-12	2012-13
1.	Number of Passenger Carried (million)	41.1	42
2.	Passenger Traffic (million kms)	16,093	17,388
3.	Freight carried Tonnes (million)	1.3	1.0
4.	Freight Tonnes (million kms)	402	419
5.	Gross Earning (Rs. million)	15,444	18,070

Pakistan Railway is enduring the worst crisis mainly due to locomotive shortages. Passenger and freight services substantially declined during last five years. This is evident from above table that gross earning of Pakistan Railway has declined during last five 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 capping of over draft by government of Pakistan in 2007, the finances required for increased maintenance cost could not be borne by the Pakistan Railway. Finally, sharp increase in salaries and pension led to diversion of all the revenue earnings to this obligatory payment at the cost of operational and maintenance requirements. Finance Division has committed to bear the expenses of salaries and pension thereon along with its impact of increase in future till that crisis is over. Government of Pakistan has allocated 39.366 billion in PSPD for the financial year 2014-15 for the development projects of Pakistan Railway.

New Initiatives

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

i. Performance benchmarking and development of Key Performance Indicators for Pakistan Railway has been launched. It would help management to target right areas for improving service delivery, business processes and financials.

ii. Revival of Railway 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 Railway.

iv. Right mix of passenger and freight services is key. Passenger service has been kept, for time being, at 96 trains a day and most of the resources are being allocated to freight sector, which has produced encouraging results.

v. Improve availability of locomotives through special repair of existing locomotives and procurement of new locomotives. (From 8 to 25 locomotive per day only for freight thereby resulting in increase of daily freight train from almost nil to three trains ex-Karachi port)

vi. HSD Oil reserve remained low (sufficient for two days), which has been substantially enhanced to 12 days to streamline the train operation.

vii. 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.

viii. Encouraging public-private partnership. Under Public Private Partnership (PPP), Pakistan Railway has started following trains between Lahore and Karachi from 3rd February 2012 to cater the needs of business community and general public.

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

Pakistan Railway has also involved private sector in the management and operation of terminal facilities including dry ports. Prem Nagar dry port Lahore is the first successful model of joint venture between Pakistan Railway 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 financials 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 Railway.

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.

Achievements during fiscal year 2013-14

Track

During 2013-14, 63 kms of track was rehabilitated on the Pakistan Railway network besides doubling of 57 kms track.

Rolling Stock

The project for procurement and assembling of 202 passenger coaches is in advance stage. 56 new passenger coaches have been added and material for 146 coaches has been received. Out of which 111 passenger coaches have been assembled till April 2014.

Locomotives

At present more than 300 locomotives are out of service and 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.6284.000 million for which an agreement has been signed with M/S Electromotive Division USA. Two locomotives are expected turned out for service by end May, 2014 and one in June, 2014 and thereafter, two locos per month will be rolled out completing project by June, 2015.

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. Fifteen GMU-30 Locomotives have been rolled out with remanufactured traction motors during May, 2013 to October, 2013. Six locomotives have been turned out in 2012-13 and seven locomotives have been turned out in 2013-14.

iii. Procurement of 58 locomotives has been approved by ECNEC and contract awarded to M/s. Ziyang, China in November, 2012. So far 14 locomotives arrived in Pakistan, 29 locomotives will be arrived upto June, 2014 and remaining locomotives would be shipped in September-October, 2014.

iv. Procurement of 75 locomotives has been approved by ECNEC. The project is in tendering process.

v. Pilot project for manufacturing of five 3000 HP DE Locomotives at Locomotive Factory, Risalpur. The contract agreement for manufacturing of five 3000 HP DE Locomotives at Locomotive Factory, Risalpur has been signed with M/s. CSR Ziyang, China and LC established. Assemblies, components and material shipment are expected to complete within two months Manufacturing will be completed by December, 2014.

13.3 Pakistan International Air Lines

Pakistan International Airlines Corporation (PIAC) faced various challenges during the year 2013 and this has been another difficult year for the PIAC. The challenges faced like; ever increasing competition in the aviation market, fleet constraints alongwith the operational issues of the Corporation coupled with economic challenges facing the country and prevailing law & order situation.

Despite these circumstances, the Airline has been involved in taking various steps to reduce costs and improve productivity. These include:

i. Contracts re-negotiation;

ii. Route rationalization by discontinuing loss making routes like Amsterdam, Frankfurt, Bangkok, Hong Kong, Kandahar and Zahedan;

iii. Re-deploying aircraft on more profitable routes and additional flights on high yield strategic international routes like Toronto, Manchester, Dubai, Kuala Lumpur, Abu Dhabi and Muscat.

iv. Additional flights on primary domestic routes have also been operated after the addition of narrow body aircrafts acquired on lease basis.

Main focus of PIAC has been on cost reduction, improvement, expansion in network and revenue yield. PIA has made successful Hajj operations this year and carried 67,350 Hajjis achieving 95 percent flight regularity and punctuality.

Table 13.4: PIA Performance

Indicators	Units	Year 2013
Passenger Revenue	Rs. billion	78.4
PIA Fleet	No. of planes	34
Route	Kms	411,936
Available Seat	million Kms	17,412
Passenger Load Factor	in percent	70
Revenue Flown	000 Kms	63,144
Revenue Hours Flown	Hours	106,476
Revenue Passengers Carried	000 nos.	4,449
Revenue Passengers	million Kms	12,237
Revenue Tonne	million Kms	1,351
Revenue Load Factor	in percent	55
Operating Revenue	Rs. million	95,771
Operating Expenses	Rs. million	126,164
Available Tonne	million Kms	2,471

The Airline has also developed a strategic five years Plan which will transform the Airline into a strong, dynamic and vibrant institution, aggressively tackling with the new opportunities and absorbing external shocks. Induction new aircrafts in PIA fleet would be the turning point for the airline as it will be the foundation of being able to deliver cost cutting on fuel and improve punctuality and regularity bringing back the confidence of the customers. These fuel efficient Aircrafts will also help PIA to bring a positive change into overall financial health.

13.4 Ports and Shipping

Pakistan National Shipping Corporation

PNSC fleet comprises of nine vessels of various type and size. Six bulk carriers and three Aframax tankers with a total deadweight capacity (cargo carrying capacity) of 642,207 tonnes against a deadweight capacity of 510,282 tonnes of 48 ships on PNSC's inception in 1979. Present is the highest ever carrying capacity.

Consolidated revenues of the PNSC group of companies for the nine months of current financial year ended 31stMarch 2014 were Rs.11,368 million as against Rs.8,211 million in the corresponding period last year. This is a 38.5 percent increase in the PNSC group gross income. The earnings per share for the nine months period ended 31stMarch, 2014 were Rs.10.34, as against Rs. 9.09 during the corresponding period last year, an increase of 13.8 percent. Net profit of PNSC after tax was Rs.1,366 million as against Rs.1,200 million last year that is 13.8 percent increase. PNSC's better operational performance contributed in earning through shipping.

Despite a depressed shipping scenario worldwide, PNSC has improved its profitability. Commercial and Financial performance (un-audited) breakup during nine months July-March 2013-14 is given in the following tables 13.5 and 13.6:

Table 13.5: Cargo Lifted			
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
Jul-Mar			
2012-13	6.8	1.9	8.7
2013-14	11.3	20.0	31.3

Table 13.6: Financial Performance			
Years	Revenues	Expenditures	Gross Profit
2011-12	8.9	6.8	2.1
2012-13	12.3	8.9	3.3
Jul-Mar			
2012-13	8.2	5.6	2.6
2013-14	11.4	10.4	2.2

PNSC is providing transportation services for crude oil requirements of the Country. Almost 99 percent of total imports of crude oil is undertaken by PNSC. The Corporation is now actively working on 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 requirements of Pakistan's strategic liquid cargo, PNSC presently is in process for acquisition of one 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 three Aframax tankers.

Karachi Port Trust

The steady and continuous progress made by Karachi Port Trust (KPT) has helped boost the national economy over the years with increasing international trade in the globalized world. Karachi Port Trust 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. Karachi Port Trust operation comprised upon a 11.5 kilometers long approach channel, a depth of 12 meters and a turning basin of 600 meters, Karachi Port provides safe navigation for vessels up to 75,000 metric tonnes deadweight (DWt.). KPT handled 30.7 million tonnes of cargo during the first nine months of the current fiscal year which is 6.5 percent higher than the corresponding period last year. Data of cargo handled during last five years is given in the following Table 13.16. This shows an increase of 6.5 percent during period July-March 2013-14 against the same period last year.

Table 13.7: Cargo Handled at Karachi Port

(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
Jul-Mar			
2012-13	8,893	19,909	28,802
2013-14	8,452	22,225	30,677

Source: Karachi Port Trust

Port Qasim Authority

Port Qasim Authority was established in 1973 as a second deep sea port of Pakistan. Port Qasim caters around 40 percent of sea borne trade of the country. Port Qasim handled 18.971 million tonnes of total cargo during July-March 2013-14 which is 2.2 percent higher than the same period of last year. Volume of import cargo during July-March 2013-14 stood at 13.084 million tonnes. Exports handled 5.887 million tonnes during July-March 2013-14 as compared to 5.111 million tonnes handled during corresponding period of 2012-13, registering an increase of 15.2 percent. Liquid cargo handled 8.138 million tonnes (43 percent), containerized cargo 8.129 million tonnes (43 percent) and remaining 2.704 million tonnes (14 percent), includes miscellaneous types of dry bulk / break bulk cargo. PQA handled 0.632 million TEUs (Twenty Equal Units) of containers traffic in 2013-1, growth in container traffic during the nine months of 2013-14 is 17.5 percent higher by the July-March 2012-13.

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
Jul-Mar			
2012-13	5,111	13,458	18,569
2013-14	5,887	13,084	18,971

Source: Port Qasim Authority

Gwadar Port

Gwadar Port was inaugurated on the 20th March, 2007 and started commercial operation from March 2008. Phase I of Gwadar Port project has been completed. Following facilities are available at Gwadar Port:

- Three multipurpose berths, each 200 meter long (total 60.2 meter) dredged 14.5 alongside.
- One 100 meter service berth.
- 4.7 kilometer long approach channel, dredged to 14.4 meter.
- Turning basin 450 meter dia, dredged to 13.8 meter.
- Port related allied structures like control tower maintenance workshops, security building, GPA head office building etc.

Government has decided to import all bulk cargo comprising of Urea, Wheat and Coal through Gwadar Port. During the period July-March 2013-14 Urea 563.2 tonnes was handled. Total cargo handled at the port from start up till March 2014 is 5764.4 thousand tones against the Cargo handled 5064.8 thousand tonnes up till March 2013 which an increase of 13.8 percent. Detail of ships arrived and cargo handled is given in the following Table:

Table 13.9: Total Import of Cargo at Gwadar Port Since 2008 upto March 2014

No. of ships arrived	Type of Cargo	Since 2008 upto March 2014
26	Wheat	963.4
136	Urea	4831.5
Total: 152	Wheat + Urea	5764.4

Source: Gwadar Port Authority

13.5 Communications

Telecom Sector of Pakistan

Telecommunication sector of Pakistan has proved itself versatile and dynamic with adoption of next generation advanced technology. Pakistan Telecommunication Authority (PTA) performs its regulatory duties and responsibilities with professional approach in accordance with the new approaches of Telecom sector in Pakistan. PTA has undertaken a number of significant initiatives for the development of telecom sector and protection of consumers. Some of these initiatives include the Auction of Spectrum for Next Generation Mobile Services (NGMS), deployment of biometric verification system to streamline the SIMs sale procedure, devising the Vision for telecom sector by 2025, blocking of objectionable content on the web, increasing the efforts to curb illegal telephony, settlement of international call rates, enforcing the decisions made by PTA, protecting consumers from unauthorized call rate changes and monitoring the quality of service of telecom operators.

Next Generation Mobile Services (NGMS) License Auction

Government issued a Policy Directive on 7th October 2013 for the auction of Spectrum standardized for 3rd Generation and 4th Generation of mobile cellular technologies termed as ‘Spectrum Auction for Next Generation Mobile Services’. An Advisory Committee appointed by the Prime Minister headed by the Finance Minister examined and finalized the Policy Directive and oversee the auction process.

As per the Policy Directive, PTA hired a consultant of international repute M/s Value Partners Management Consulting Limited. Consultant carried out the market study and Spectrum Valuation, and prepared the Information Memorandum (IM) for the said auction. Consultant also prepared the draft license template and the auction methodology, for two stage auction process valid for a term of 15 years.

Following Spectrum were designated for auction for deployment of Next Generation Mobile Services (NGMS) in Pakistan:

i. 2 x 30 MHz paired Spectrum in 2100 MHz band

ii. 2 x 20 MHz paired Spectrum in 1800 MHz band

iii. 2 x 7.38 MHz paired Spectrum in 850 MHz band (only offered to new entrant)

As bidders demand was greater than Spectrum supply, the Simultaneous Multiple Round Ascending (SMRA) auction was held on 23rd April 2014 publicly in the most transparent and open manner. A large number of participants were invited to attend the auction from print and electronic media, Ministries and Departments. Auction lasted eight rounds and upon commencement of each round, its results were published on PTA’s website. Final outcome of the auction is as under:

Applicant	Winner in 2100 MHz Band	Amount in million $	Winner in 1800 MHz Band
CMPak	2x10 MHz	$306.9	2x10 MHz ($210.0 million)
PMCL (Mobilink)	2x10 MHz	$300.9	-
PTML (Ufone)	2x5 MHz	$147.5	-
Telenor	2x5 MHz	$147.5	-
Total		$902.8	$210.0 million

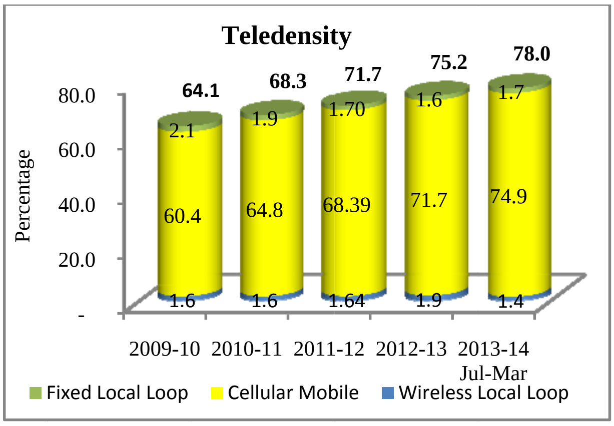
The auction generated an amount of $ 1,112.8 million. In addition to the bid amounts, the operators have to pay Advance Tax rate at 10 percent of the total Auction winning price to PTA for onward remittance to FBR. Hence the total revenue to the GoP from this auction would be amounting to US$1,224.1 million, while two licenses one of 4G and another exclusively kept for new entrants are still in hand and would be auctioned in due course. Two successful bidders Zong and Mobilink have made full payment while Telenor and Ufone paid 50 percent of the winning bid amount and the remaining 50 percent would be paid with a mark-up at the rate Libor + 3 percent in equal annual installments over a period of five years.

This auction has brought the country at par with the rest of the world which will not only be beneficial for the country's Telecom Sector but is also going to spur significant economic growth and will also usher a new wave of prosperity for the nation. It is estimated that 3G/4G auction would create 900,000 new jobs into the country, increase data penetration up to 10 percent in next three years and increase GDP growth by 1.5 to 1.8 percent.

Prime Minister has awarded 3G and 4G spectrum licenses to the successful bidders companies in an auspicious ceremony held on 22-05-2014. On this occasion Prime Minister said that "the introduction of 3G/4G spectrum would help in expediting socio-economic progress of country and telecom operators would provide quality services through these technologies". The incumbent companies have started providing 3G/4G services to their customers creating new business opportunities in the country.

Telecom Economy

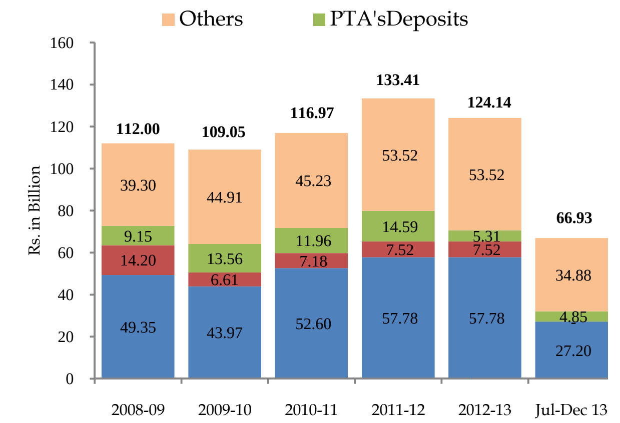
Telecom sector indicators showed positive growth: teledensity improved to 78 percent at the end of Mar-2014, telecom revenues reached over Rs. 345.5 billion during the July-March 2013-14 and total investment reached US$ 576 million. PTA encourages use of telecom based solutions and applications for other sectors in the economy, for example, mobile banking, e-education, e-health etc. Productive use of these services can greatly enhance growth of the overall economy.



Telecom Contribution to National Exchequer

Telecom sector is one of the highest contributor to the National exchequer, putting Rs. 119 billion per year on average for the last five years. During FY-13, telecom sector contributed Rs.124 billion to the national exchequer.

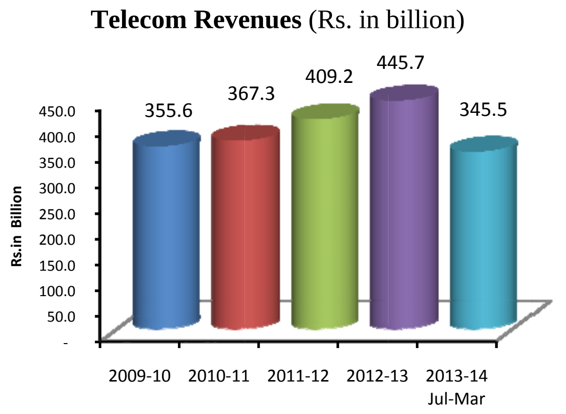
Telecom Sector Contribution to National Exchequer



***GST for the province of Punjab is estimated for the fiscal year 2012-13**
Source: ***Federal Board of Revenue and Pakistan Telecommunication Authority.***
Note: PTA's contributions comprise of all its receipts including Initial and Annual License Fee, 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, WH Tax and other taxes.

Telecom Revenues

Telecom revenues during July-March 2013-14 were amounting to Rs. 345.5 billion. Despite stiff competition in the market and low tariffs, telecom operators have been able to keep their revenue stream stable through new value added services, subscribers addition and innovative packages and offers.



Figures Jul-Mar 2013-14 are estimated
Note: Class Value Added Services Revenues FY-13 are estimated

Average Revenue per User

Owing to tough market competition in cellular industry, Average Revenue per User (ARPU) per month slightly declined to Rs. 211.0 during the fiscal year 2012-13 whereas, the ARPU for corresponding period of the previous year was Rs. 217.0 per month. Further addition of low income users in the mobile subscriber base and aggressive price competition in the market has contributed to lower ARPU during the recent months. Cellular mobile operators can increase ARPUs through additional data revenues by offering non-voice services like mobile broadband, mobile banking and other associated offers. With the launch of 3G services, it is anticipated that the operators would be able to improve their data revenues and thereby ARPUs will rise again in upcoming years.

Telecom Investment

With 188 million population and 136 million cellular mobile subscribers, Pakistan's telecom sector provides enormous opportunities to foreign and local investors. International telecom companies have significant presence in Pakistan. These companies are successfully doing business all over the country. Telecom sector of Pakistan has attracted substantial foreign investment after the deregulation.

During the period July-March 2013-14, over US$0.53 billion have been invested in the telecom infrastructure and new technologies. This increase is solely due to an increase of investment by cellular mobile operators during July-March 2013-14. Investment in telecom sector is expected to increase in near future due to left over spectrum auction and network up-gradation. Detail of the investment in Telecom Sector is given in the following table:

Table 13.10: Telecom Investment **US$ million**

	2009-10	2010-11	2011-12	2012-13	Jul-Mar 2014
Cellular	908.8	358.6	211.8	421.5	507.0
LDI	183.1	108.7	16.2	1.9	14.2
LL	22.5	18.2	5.0	36.7	5.3
WLL	23.0	7.6	7.3	11.9	-
Total	1,137.4	493.1	240.3	472.0	526.5

Telecom Imports

Total telecom imports have increased during last two quarters mostly on account of sharp increase in the imports of cellular mobile handsets. Imports of cellular mobile sets have reached above US$293 million during the period Jul-Dec 2013. Demand for cellular mobile handsets is on the rise since government has allowed import of cheaper Chinese brand mobile handsets. With huge telecom market of over 136 million subscribers, telecom companies and the manufacturing industry should put efforts for the telecom manufacturing in the country. Several mobile sets manufacturers companies are showing interest to invest in the country on public private partnership basis.

Table 13.11: Telecom Imports US$ million

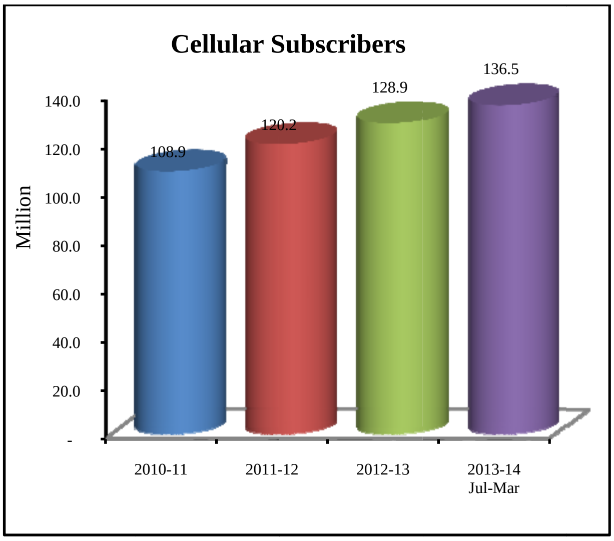
	2010-11	**2011-12**	**2012-13**	**2013-14 Jul-Mar**
Cellular Mobile sets with battery	218.2	465.3	467.1	293.1
Other Telecom Apparatus	548.1	488.7	451.3	369.0
Total Telecom Imports	766.3	954.0	918.4	662.1

Source: State Bank of Pakistan

Cellular Mobile Services

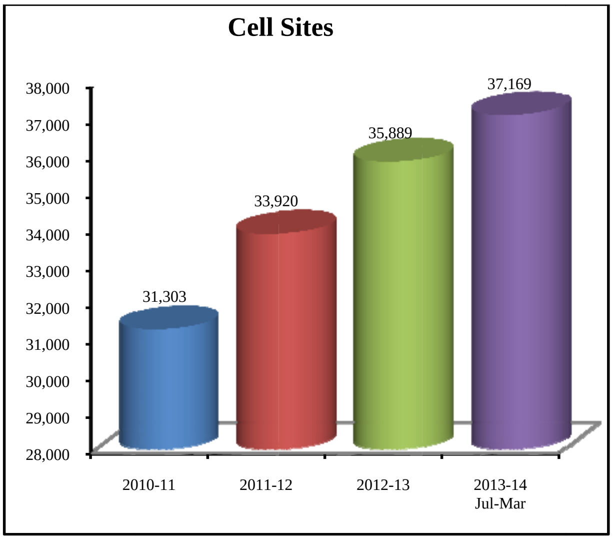
Cellular Subscription

Subscribers of cellular mobile in Pakistan have increased 45 percent during last five years. By end March 2014 these subscribers were 136.5 million at the compared to 118.3 million as of end March 2013 which is 15.4 percent increase.



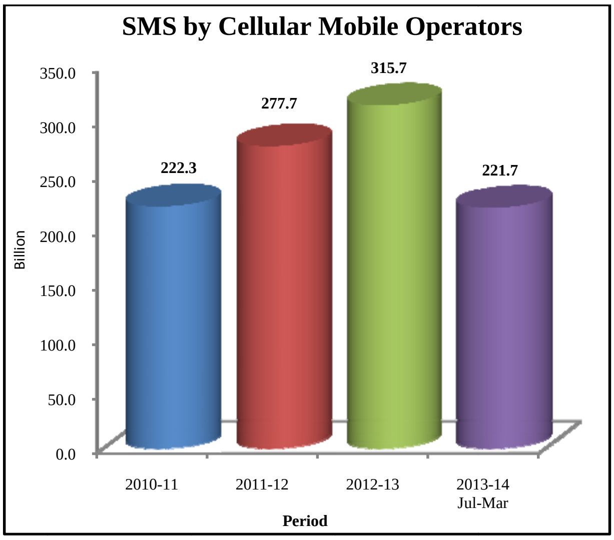
Network

Network coverage of cellular mobile operator has increased to 92 percent of the total land area of Pakistan. During FY-13, the number of cell sites grew by 5.8 percent, total number of cell sites reached 37,169 at the end of March, 2014 as compared to 35,889 in FY-13.



Traffic

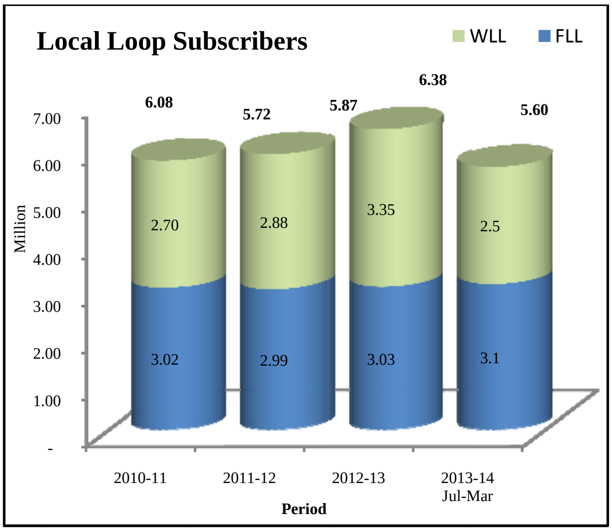
Cellular mobile operators adopted aggressive promotional strategies for winning competition from each other by offering attractive packages for Voice, Data and SMS including free calls and unlimited SMS. These marketing tactics resulted in more business for companies mainly voice calls and SMS. Both the voice and SMS traffic has raised during FY-13 owing to bundle packages and SMS offers. During July-March 2013-14, a record 221.7 billion SMSs were exchanged by the mobile consumers.



Basic Telephony

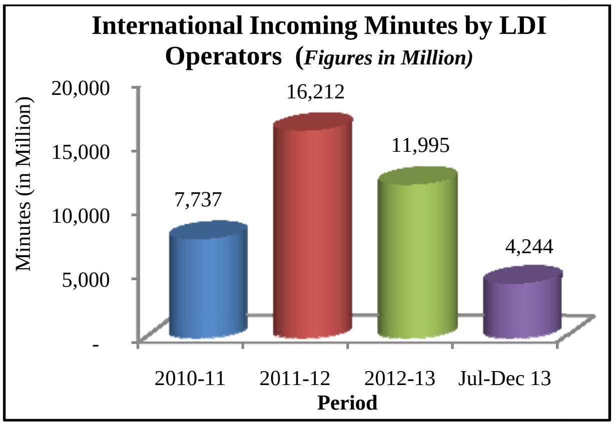
Local Loop Subscribers

Subscriber base of local loop sector has reached 5.7 million at the end of March, 2014 as compared to the 6.38 million as of June, 2013. Overall subscriber base has decreased by 12.2 percent. Sector-wise analysis shows that FLL subscriber base has actually increased by 2.8 percent and stood at 3,107,719 as compared to 3,024,288 as of June 2013. However, this positive performance of FLL segment was nullified by 18.6 percent decline in WLL sector's reached to 2,528,929 total connections as of March 2014.



Long Distance and International Segment

LDI services have been the core area of focus for the Authority in past few years due to constant reforms being implemented in this important segment of telecom sector.



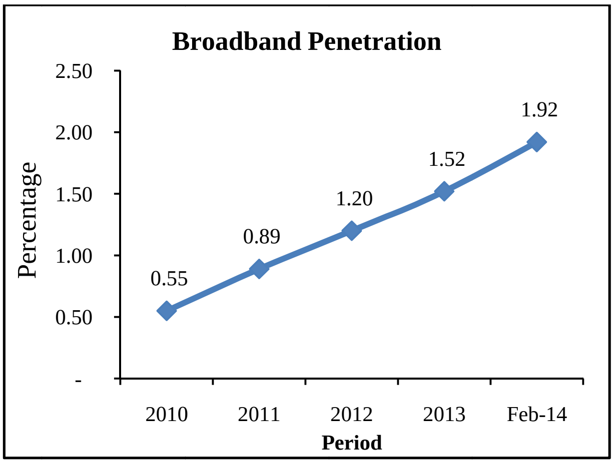
Total international minutes (incoming and outgoing) stood at 4,244 million during Jul-Dec 2013. This is due to decline in both incoming and outgoing international traffic. It is evident that incoming traffic on LDI networks is sliding with every passing quarter as a total of 3,184 million minutes have been received by LDI operators during Jul-Dec, 2013. High tariff for calls to Pakistan due to increase in Approved Settlement Rate (ASR) and more traffic on Over the Top (OTT) services and illegal channels are some of the key factors behind the fall in incoming international traffic.

Total international outgoing minutes have been reported 531 million minutes during October to December, 2013 whereas 717 million minutes were carried by LDI operators to international destinations during the same period last year. One of the possible causes for this trend could be increased usage of OTT services such as Skype, Viber, Tango and other Smart phone applications. Only a broadband connection is required to communicate through these OTT channels, therefore, the rapid influx of locally assembled and foreign made smart phones has given more awareness to the general public to use such channels.

Broadband

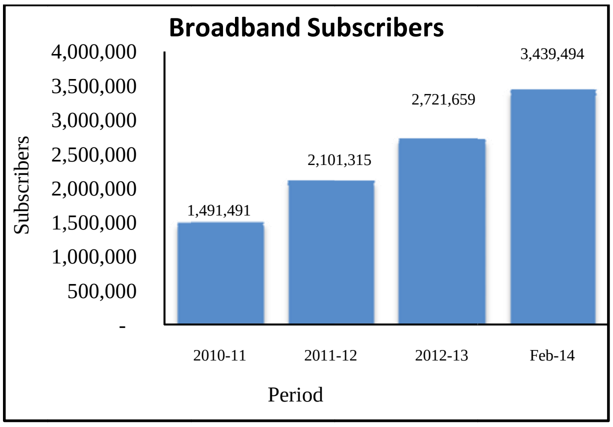
Penetration

Broadband penetration in the country is showing slow growth despite broadband penetration 1.92 percent at the end of February 2014 as compared to 1.52 percent as of June 2013. With the introduction of 3G/4G mobile services, it is expected that mobile broadband penetration in the country would substantially increased in the coming years.



Subscriber Mix

Broadband subscriber base reached 3.4 million at the end of Feb-14 as compared to 2.7 million at the end of FY-13. It is estimated that 717,835 new subscribers have joined the broadband platform during last eight months. Average annual growth rate is still above 100 percent in the broadband sector. One subscription can cater broadband needs of a number of people in a house/business facility; therefore, broadband users are in larger numbers than the subscription. Taking an average family size of four people, the broadband users, based on the number of broadband subscriptions of 3.4 million are around 13 million. This number are reasonably be higher than this as corporate subscriptions of broadband are also used by multiple users.



Issuance of New Licenses

PTA is mandated to issue licenses to the existing and new operators under various categories from time to time. Following new licenses have recently been issued to various operators in different service categories:

- Long distance International (LDI) license to CMPak on 19-12-2013
- Infrastructure license to Trans World Infrastructure Services (Pvt.) Ltd on 04-11- 2013
- Local Loop License in all 14 Telecom regions of Pakistan to CMPak.

Monitoring of sales channels of Cellular Mobile Operators

To assess the ground situation and ensure the compliance by Customer Service Centres (CSCs), franchises and retailers, PTA carried out two surveys in the months of January and July, 2013 focusing on sales channels/retailers of the cellular mobile companies. It was observed that all the CSCs, 16 percent-50 percent of the franchises and 80 percent of the retailers were violating the Standard Operating Procedures for SIM verification and documentation. The common violations among these sale points were related to overlooking to present the original CNIC and SIM sale without proper authorization. PTA took a serious notice of this situation and penalized five CSCs, twelve franchises and seventy three direct sale outlets with fines.

Establishment of Web Blocking Call Centre

PTA blocks blasphemous, pornographic and anti-state websites on a regular basis as reported by Ministry of IT & Telecom or identified by PTA itself. In this regard, a dedicated Web Analysis Cell /Call Center has been established at PTA headquarter for the analysis of blasphemous and pornographic content and blocking of the offending websites through operators. A total of 41,175 websites have been blocked since establishment of web blocking call centre in January 2014.

Biometric Verification System for SIMs Sale

Unprecedented growth in the cellular mobile sector has brought multitude of benefits to the country. However, some elements misuse the cellular platform. In this regard, law enforcement agencies and various Courts of Law have been stressing the need for rationalization of the SIM sales procedure. PTA has undertaken various projects in collaboration with Cellular Mobile Operators (CMOs) to deal with the issue effectively.

Implementation of Biometric Verification System (BVS) at the sale channels of CMOs is a significant landmark, wherein SIMs would be sold and activated only after online verification of purchaser's thumb impression from NADRA. It is expected that the use of BVS at SIM sales channels of CMOs will eliminate leakages in the authentication procedure and bring down the illegal use of SIMs by a considerable margin thereby reducing the use of illegal SIMs. The implementation is being carried out in a phased manner starting from CSCs and Franchisees, which has been completed by 20th December 2013 and subsequently, the deployment is now moving towards covering the retail outlets by 31st July 2014.

Efforts to Curb Grey/ Illegal Voice Termination

Grey telephony causes heavy revenue losses to the National Exchequer by bypassing the legal gateways to avoid applicable Taxes and/or Regulatory Fee. PTA has been making best efforts to curb the grey/illegal traffic termination since long and had already taken a number of significant steps to prevent government losses through this menace. As per Standard Operating Procedure, PTA identifies irregular traffic patterns through analysis of heavy callers' data and monitoring of voice traffic and shares the results with Federal Investigation Agency as per the Act for subsequent raid/legal action under their laws.

PTA established a dedicated 24/7 call centre to receive and process complaints against suspected grey traffic activity, made to the Authority by general public through Toll Free Number (080055055), Telephone (0519207059), Fax (0512878127), E-mail (complaint@pta.gov.pk) and dedicated short code 8866 for sending complaints through SMS. This has been advertised in the leading print and electronic media that if a person receives a call from abroad and local number is displayed on his/her mobile phone, that number may be immediately reported to PTA. A total of 157,000 complaints have been received by the Authority so far since the commencement of PTA's Call Centre in October, 2013.

Approval of Type of Mobile Phones

The infiltration of sub-standard mobile phones, having no or fake IMEI numbers has been a problem for the law enforcing agencies since these handsets can also be used in criminal activities without being traced. Section 29 of the Act mandates PTA to type approve the terminal equipment to be connected directly or indirectly to the public switched network. In pursuance to the Supreme Court Order dated 28th November 2013, PTA has re-started the type approval of mobile phone handsets. In this regard, PTA has prepared SoPs and has published advertisements for type approval of mobile phones in the leading newspaper. Furthermore, an extensive media campaign has also been launched by PTA for awareness of the general public to avoid use of non standard handsets i.e. without genuine IMEI and PTA's type approval. Customers have been warned that the use of non standard mobile handsets may lead to legal implications.

Quality of Service of Cellular Mobile

PTA has been entrusted with the responsibility to ensure the provision of high quality telecom services to the people of Pakistan. To monitor the performance standards of the mobile industry, CMOs in compliance with their license terms and conditions are required to carry out the quality of service analysis of their respective networks on quarterly basis and submit detailed reports to PTA,. In this regard, PTA provides continuous guidance to the cellular mobile operators about the methodology, Key Performance Indicators (KPIs) and geographical areas for Quality of Service QoS inspection. During the period July-March 2013-14, cellular mobile operators conducted QoS surveys in 22 cities designated by PTA. The analysis reports were submitted to PTA reviewed thoroughly and resultantly, the operators were directed to improve quality of service where the results were not as per the laid down benchmarks in the license and relevant regulations.

Mobile Banking

State Bank of Pakistan and PTA aim to provide an enabling environment for mobile banking services in the country. During the period under review, both the regulators continued their joint efforts on the regulatory framework for m-banking services. Current m-banking services are being governed by the SBP's Branchless Banking Regulations 2008, amended in 2011. PTA and SBP are working on mobile banking regulations which will be in line with the above Branchless Banking Regulations, and will facilitate the existing m-banking arrangements.

With an enabling regulatory environment, the cellular mobile companies are actively pursuing their mobile banking initiatives in collaboration with the financial institutions. Easy-paisa and Omni are the major agent based mobile banking services in the country and are in operation since 2010 with country-wide network of 30,000 agents. Recently, Mobilink, Ufone, CMPak and warid have also launched their agent based mobile banking services. Mobilink is providing its m-banking services in affiliation with Waseela Microfinance Bank and CMPak has collaboration with Askari Bank. Ufone has launched its m-banking service in collaboration with U Microfinance Bank and Warid launched its m-banking service with Bank Alfalah. Now, overall m-banking agents network has reached to over 125,000 numbers of Agents.

New players in the m-banking market can expand the existing base of m-banking network if a healthy competition in the market reduces the cost of m-banking transactions and new products and business models are launched while considering the consumer requirements. Internationally, the m-banking model of m-paisa has been widely quoted for its success as it has reached more than 65 percent households in Kenya. However, achieving a similar success in Pakistan with different regulatory frameworks is a challenge. Mobile banking segment of Pakistan has vast potential for growth in the coming years provided that mobile operators and banks keep up with their innovations and the regulators remain proactive to facilitate this process.

13.6 Electronic Media in Pakistan

13.6-a Pakistan Electronic Media Regulatory Authority (PEMRA)

Pakistan Electronic Media Regulatory Authority (PEMRA) is a statutory body established in March 2002 through an Ordinance to facilitate and regulate growth of Electronic Media in the private sector. The law was later revamped as PEMRA Amendment Act-2007. PEMRA is primarily mandated for licensing and regulating the establishment and operation of all broadcast media (satellite TV & FM radio) and distribution services (Cable TV, DTH, IPTV, Mobile TV etc.) in Pakistan. Its 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

During last 12 years the country has witnessed a massive spurt in the number of TV channels and FM Radio stations in the private sector which is, 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 one decade.

Table 13.12: PEMRA Performance

S. No.	Category	Number of licenses Issued
i.	Satellite TV Channels	91
ii.	Landing Rights Permission to TV Channels	27
iii.	FM Radio licenses	193
iv.	Cable TV Licenses	3,629
v.	Multimedia, Multi Channels Distribution System (MMDS)	06
vi.	Internet Protocol Television (IPTV)	01
vii	Mobile TV License	04
viii.	Mobile Audio Licenses	02

Table 13.13: Licensing in 2012-13

S. No.	Category	No. of licenses
i.	Satellite TV Channels	02
ii.	Landing Rights Permission to TV Channels	01
iii.	FM Radio licenses.	05
iv.	Cable TV Licenses	113

Economic Contribution

There has been a cumulative investment of approximately US$ 3.5 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. With the current growth rate of more than seven percent per annum, it is estimated that the 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 a 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 gradually extending its signals to remote and economically backward areas of the country in order to uplift the socio-economic conditions, to eliminate the existing disparity.

PTV is operating 6 multiple terrestrial channels in the country i.e. PTV Home, PTV News, PTV Bolan, PTV National, PTV Global and PTV Sports.

PTV has launched English News Channel. This is only English News Channel in Pakistan telecasting the information about Pakistan domestically as well as internationally. Apart from it, a TV Channel has been established in AJK with one TV Centre, and with four Rebroadcast Centers at Kotli, RawalaKot, Bagh and Bhimber.

Nine Projects, comprising, RBS-Neela-But, RBS Besham, RBS Pooran, RBS-Khaplu, RBS- Shigar, RBS- Gahkuch, RBS-Chilas RBS-Kohat, & NNB-Larkana will be ready to inaugurate by 30-06-2014.

PTV has planned for Digitalization of PTV Terrestrial network. Government of Pakistan is doing efforts for grant-in-aid from Chinese Government after completion of the project. PTVC would be able to extend Terrestrial coverage of 6 more channels in National Bouquet.

Establishment of TV Rebroadcast Stations (RBS) in following areas is in progress throughout the country during the year 2013-14.

Sindh

RBS at Badin.

Punjab

RBS at Shakargarh, KotliSattian, and MianChannu.

Khyber Pakhtunkah

RBS at Buneer, Kund Bangla.

Balochistan

RBS at Karan, and Barkhan

Northern Areas

RBS at Aliabad/Karimabad, Jaglot, Bunji, and Astore

PTV has installed a State of the Art complete digital studio equipment at all the five TV Centers during 2006-07. Apart from it four Digital Satellite News Gathering System (DSNGS) which are complete mobile satellite transmission units are fully in operational.

13.6-c Pakistan Broadcasting Corporation

Radio is the fastest, mobile and cheapest electronic media which is capable of reaching the masses far and near. PBC is catering to all segments of society through its varied and wide ranging programme.

At present, PBC has 64 broadcasting Stations/ Channels, this number is intended increased up to 68 in 2014-15 and up to 76 in 2015-16.

News from the Pakistan Broad Casting Corporation (PBC) is the biggest source of dissemination of news in the country. The main aim of PBC News is to keep the people informed of important happenings at National and International levels with focus on development activities at home, government policies and matters of national importance. PBC News is putting on air 123 News bulletins daily. These include National, Regional, External, and Local News bulletins besides coverage of National Assembly and Senate sessions. PBC in its News bulletins highlights the policies of the elected government especially for the political harmony in the country, awareness on extremism and against sectarianism, extremism as well as projection of Pakistan's foreign policy. PBC News also projecting Prime Minister's Youth Business Loan Scheme, various projects of power generation agreements with China & other countries and other development projects. PBC News has a network of news gathering spread all over the country. In addition to the Central Reporting Desk in Islamabad, PBC News has Correspondents at almost all the Radio Stations. District Correspondents are working in remote and far flung areas of the four provinces, Gilgit-Baltistan and FATA. Radio Pakistan is the only government organization that has bilingual website i.e. English and Urdu. Major news bulletins in text and audio form are available at the website. It is active both on twitter and face-book. Radio Pakistan's twitter account has more than twenty thousand followers. Radio Pakistan being a public sector broadcaster gives impartial balanced and un-biased coverage to all political in its national and regional bulletins.

PBC throughout its versatile programmes educates people on social issues and problems with broadcast of public service programmes covering health, education, environment, population welfare, agriculture, and rights of children, women, minorities, special persons, human rights, media freedom, tolerance and democratic values through discussions, interviews, talk shows, impressions of community leaders. Further, to educate the people more passionate and concerned for our arts, culture, literature, history and common heritage. Entertain the audience through music programmes, features skits and plays in a creative manner. VoA (Voice of America) programmes are being broadcast for 30 minutes daily in the evening transmission from 14 FM-93 Stations. PBC has signed an agreement with China Radio International (CRI) for 2 hours broadcast from 5 FM stations Islamabad, Multan, Kohat, Lahore and Karachi in English and Urdu languages. Two new FM stations have been established at Karachi and Islamabad. The Karachi station has been made operational while the Islamabad station will be operational shortly.

PBC has an ambitious programme to steps ahead in modern digital, satellite and IT Technology. The newly established Earth Station is a key part of this programme. The main emphasis at this stage is to provide a 24-hours first class signal to the maximum number of people within the country and for our foreign listeners. Earth Station will provide satellite capacity for the transmission of entertainment, news, sports and educational programming for content providers and direct-to-home (DTH) platforms. It also provides value-added services that include managed fiber services, digital encoding of video channels, and addressing programmers' need for delivering content to multiple distribution channels throughout multiple regions. PBC intends to enhance its coverage up to 98 percent of the country population in the years 2015-16.

PBC has up-graded its two MW transmitters at Peshawar and D. I. Khan. The 400KW MW transmitter at Peshawar and 100KW MW Transmitter at D. I. Khan have commissioned their transmission, which is reaching not only to a vast population within the country, but also to the neighboring countries. PBC is also working to replace decades old MW transmitters at Islamabad and up-grade FM transmitters in different cities in order the improve quality and enhance quantity of programmes in near future.

Digital Central Audio Library is available in all studios of National Broadcasting House Islamabad with customized search solution. Web streaming of 15 PBC channels on internet and 4 channels on mobile stream, has made PBC accessible throughout the globe.

Development projects are under way:

1. Balancing and Modernization of Equipment phase-V
2. 2X100KW SW Transmitter and HF Aerial System Landhi Karachi
3. Establishment of PBA and IT Block at Lehtrar Road Receiving Centre, Islamabad
4. Up gradation of PBC Larkana and 10 KW to 100 KW MW transmitter Larkana
5. 100 KW MW Transmitter Gwadar
6. Establishment of 47 FM Transmitters all over Pakistan
7. Replacement of 03 transmitter of 100KW MW Transmitter at Multan
8. Replacement of 100KW MW with 400 KW MW Transmitter Peshawar under USAID programme.
9. Replacement of 10KW MW with 100 KW MW Transmitter D. I. Khan under USAID programme and shifting of Broadcasting House.
10. Rehabilitation of MW Radio Broadcasting Network with Financial Assistance of Japan.
11. Digital archival system has been installed at Central Production Unit, PBC headquarter. Islamabad with the financial assistance of US Embassy. Work has been initiated to transfer precious audio material of historic value form magnetic tapes to digital format on computer system.
12. A new 100 KW medium waves, digital enable transmitter is under installation at Hyderabad. Work on the project is in the final stage.
13. A new 100KW medium wave, digital enabled transmitter is being installed at Larkana. The physical progress of the project is about 80 percent.
14. Work has been initiated on the installation of new digital enabled medium wave transmitter of 500 KW power at Faqeerabad (Attock) are revamping of five studios alongwith master control room at National Broadcasting House Islamabad with the financial assistance of JICA. The project is expected to be completed by September, 2014.
15. Latest equipment are being procured for upgrading the studios of Radio Station at Karachi.

13.7 Pakistan Post Office

Counter Automation System

Computerization Counters Facility has been provided in more than one hundred GPOs including renovated Post Offices throughout Pakistan for the better service quality to the customers through a LAN based system. This number will be increased in a phased manner. Computer Cell is actively engaged in expansion of computerization of Postal Services in all the Post Offices throughout Pakistan.

Centralized Software Solution for Financial Services

A computer based line “off the shelf solution” has been provided in 83 Post Offices throughout the country. The following facilities have been provided to the customers in these 83 Post offices;

- Electronic Money Order Service (EMOs).
- Online computerized collection of all utility bills through Centralized Software Solution.
- Payments for Benazir Income Support Programme (BISP) and Child Support Program (CSP).
- Rollout Plan for Military Pension Payment System, Savings Bank and PT Records.

Computerized Pension Payment System

Over 1.3 million pensioners are receiving 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. In an effort to streamline payment of pension to PTCL pensioners, Pakistan Post has developed a separate system for PTCL pension disbursement.

This system eliminates the manual filing of pension payment 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 78 GPOs.

Achievements of Saving Bank

Pakistan Post has been doing Saving Bank work as an agency function on behalf of the Ministry of Finance under the Government Savings Bank Act 1873 on commission basis. During the period July to March 2013-14 an amount of Rs. 161,365.865 million has been collected through National Savings Schemes and Pakistan Post has earned commission amounting to Rs. 806.8 million during this period.

Western Union Money Remittance Business

During the first nine months July-March 2013-14 of current fiscal year 2013-14, Pakistan Post has received the foreign remittances amounting to US $ 64.9 million dollars equivalent to Pak Rs.7,451.4 million.

Benazir Income Support Programme (BISP)

A Complete web-enabled tracking and monitoring system for disbursement of funds for Benazir Income Support Programme (BISP) has been evolved. The same is implemented at all 83 automated GPOs throughout Pakistan. Over 35 million money orders have been issued up till 30th April 2014. An amount of around Rs. 85 billion has been disbursed.

Complete web-based tracking 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. During the first nine months of the current Financial Year (July-March 2013-14) total 432,918 BISP Money Orders along with required funds for Rs. 1.3 billion were received from BISP authorities, out of which 92.2 percent Money Orders amounting to Rs. 1.2 billion have been paid to beneficiaries 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 remaining mails are exchanged utilizing transit facilities of intermediary countries. Airmail is transported through airlines selected through open tendering process.

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.35.5 million during the period July-Feb 2013-14 on account of Terminal Dues for imbalance of international mails received from and dispatched to other countries.

Future Plans

Pakistan post is in process of implementing the Doha Postal Strategy approved by the 24th Congress of the Universal Postal Union having following broad areas:

- Improve the inter-operatability of the international postal networks.
- Provide technical knowledge and expertise related to the postal sector.
- Promote innovative products and services.
- Foster sustainable development of the postal sector.

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-March 2013-14.

	(Rs. in million)
Amount Disbursement	538.8
Amount Recovered	560.9
PPO Commission 0.5 percent on disbursement & recovered	5.5
Total Revenue Earned	5.8

Postal Life Insurance (PLI)

Postal Life Insurance has issued the 409,988 total policies upto March 2014 against 395780 policies issued upto March 2013 which is 3.6 percent higher. The sum assured amounting to Rs. 59,444.6 million upto March 2014 against Rs. 54,297.0 upto March 2013 which is 9.5 percent higher.

Total PLI Policies (No. in million)

	2012-13	2013-14
No. of Policies	395,780.0	409,988.0
Premium Income	2,528.4	2,178.8
Sum Assured	54,297.0	59,444.6

Philately

Following Commemorative Postage Stamps have been issued for the period from July to December 2013:

S. No.	Celebrities	Date	Rate
1	Pir Meher Ali Shah (Sufi Saint)	30-7-2013	Rs. 8/-
2	First Indigenously made Bait F-22 Frigate PNS-Aslat	03-9-2013	Rs.8/-
3	Malika-e-Tarannum Noor Jahan	21-9-2013	Rs. 8/-
4	Commemorative Postage Stamp on Men of letters series Jon Elia	08-10-2013	Rs. 8/-
5	Commemorative Postage Stamp on Two decades of Extended Cooperation Economic Cooperation Organization (ECO)	28-10-2013	Rs. 8/-
6	Commemorative Postage Stamp on Poets of Pakistan series Parveen Shakir	26-12-2013	Rs. 8/-
7	Commemorative Postage Stamp on 150 years of faithful series Pakistan Bible Society	28-12-2013	Rs. 8/-
8	Issuance of Commemorative Postage Stamp on Men of letter series Habib Jalib	12-3-2014	Rs. 15/-
9	Issuance of Commemorative Postage Stamp on Air Commodore (R) M.M. Alam SJ (with bar)	20-3-2014	Rs. 8/-

Conclusion

Infrastructure Sector that comprised upper Roads, Railway and Ports & Shipping is of high priority for the development. A gigantic collaboration extended by the Chinese government in construction of infrastructure projects like; China-Pak Economic Corridor and High Priority Early Harvest Projects will pave multi dimensional socio-economic and geo-political benefits to both the countries. The advancement in Telecommunication sector will also brought new job creation and a way forward towards the development of knowledge based society.

Government is making strenuous efforts to develop an efficient transport and communications network in facilitating the growing needs of the country. Government is also encouraging the private sector to complement the efforts in accelerating the development of transport and communications network in the country.