

Transport and Communications

Introduction

The technological advances in global communications and transportation have significantly catalysed the emergence of the global economy leading to integration of fragmented national markets of goods and services into a single global market. With these rapid developments, regions with adequate means of communications and transportation have grown economically and those lacking in these fields have lagged behind. The availability of an efficient transport and communications network is a pre-requisite for a meaningful economic cooperation amongst nations, particularly in the areas of trade and tourism for attracting foreign investment and realizing the potential gains from an outward oriented trade strategy.

Besides human capital (skill and education) a strong efficient and affordable means of transport and communications of the country contributes to the national economic growth by lowering domestic production cost, integrating markets, promoting economic opportunities and establishing links among the people. The transport and communications sector generates a large number of employment opportunities, and acts as a significant

tool in the fight against poverty. The sector is also a major contributor to government's revenue through taxes and duties on its production and imports, fees on ownership and operation of vehicles and licensing of modern communications facilities.

Sustainable economic development is dependent on a robust and low cost transport system. Enhanced export competitiveness is also contingent upon the efficient performance of the sector. The government is committed to implementing a comprehensive and modernizing transport and logistic sector through continuous reforms in all of its sub sectors. The transport system consists broadly of roads, railways, air transport and ports shipping services.

13.1: Road Transport

Roads are the most important segment of Pakistan's transport sector. Roads carry over 96 percent of inland freight and 92 percent of passenger traffic and are undoubtedly the backbone of the economy. The current road network is about 260,000 kms catering to eleven million vehicles of all types. The Province wise distribution of roads is given in the following Table:

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

Years	Category	Punjab	Sindh	KPK	Balochistan	GB & AJK	TOTAL
2007-08	Total	104115	80863	42369	29451	1552	258350
	Low Type	33864	26301	13781	9579	505	84030
	High Type	70251	54562	28588	19872	1047	174320
2008-09	Total	104114	80863	42369	29452	1552	258350
	Low Type	32949	25591	13409	9321	491	81761
	High Type	71165	55272	28960	20131	1061	176589
2009-10	Total	105085	81618	42765	29727	1565	260760
	Low Type	32179	24993	13095	9103	480	79850

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

Years	Category	Punjab	Sindh	KPK	Balochistan	GB & AJK	TOTAL
	High Type	72906	56625	29670	20624	1085	180910
2010-11	Total	105253	80625	42550	29500	1535	259463
	Low Type	32147	24000	13000	9000	450	78597
	High Type	73106	56625	29550	20500	1085	180866
2011-12	Total	106455	80960	42975	29625	1580	261595
	Low Type	32590	24335	13140	9125	465	79655
	High Type	73865	56625	29835	20500	1115	181940

Source: National Transport Research Centre (NTRC)

13.1-a: National Highway Authority

The NHA road network is around 12,000 kms, which is merely 4.6 percent of the overall road network but it takes 80 percent of Pakistan's commercial traffic. Despite overall budgetary constraints during the fiscal year, and the effects of heavy floods in 2010 and law and order challenges NHA performed well. This performance in terms, of NHA projects is summarized below:

a. Completed Projects

NHA has completed 12 projects of flyovers,

bridges, interchanges and road up gradation during the last one year at a cost of Rs 19.6 billion.

b. Ongoing Projects

At present, 46 development projects on roads covering 2,985 kms are ongoing at a cost Rs 245 billion in different sections/packages. These projects include construction of roads, river bridges, tunnels, flyovers, interchanges. Province wise break up of these projects is given below:

Table 13.2: Province wise break up of NHA Projects

	Province	Projects	Road length (Km)	Cost (Rs. Billion)
1	Punjab	14	315	48.2
2	Sindh	13	714	59.5
3	KPK, GB & AJK	12	738	73.1
4	Balochistan	7	1218	64.5
	Total	46	2985	245.3

Source: NHA

c. New Development Projects

During the financial year, NHA has launched/awarded 16 new development projects covering a length of above 500 kms including construction of

a number of bridges, flyovers and interchanges costing Rs. 70,951 million. NHA is simultaneously constructing 12 bridges across the rivers. These are; on river Chenab 4, on rivers Sutlej 2, on river Swan 1 and on river Indus 5.

Box-1**2011 Pakistan Floods Preliminary Damages and Needs Assessment Survey.****Report Jointly Prepared by the Asian Development Bank and the World Bank.**

Pakistan experienced severe flooding after torrential monsoon rains hit southern Sindh and the adjoining areas of Punjab and north-eastern Balochistan in August 2011. Floods caused severe damage to infrastructure in the affected areas, coupled with the damages of 2010 floods that were still in the recovery phase, the losses in transport and communication sector are estimated at Rs. 26,468 million.

Transport and Communications

The damages in the transport and communications sector involve various categories of roads, railways, bridges, and

telecommunications infrastructure. Preliminary estimates indicate that approximately 8,385 km of the road network and 190 km of railway lines were damaged by the flood including bridges and allied structures. Most of the damages are on provincial highways and district roads in Sindh. Out of the estimated total damage and losses, the road subsector sustained the highest damage and losses of \$299 million, followed by the railway subsector losses amounting to \$3 million. The floods have impaired the road conditions which will continue to deteriorate faster if repairs, rehabilitation and restoration works remain deferred for a longer period. The indirect losses due to damage in the road sector would cause an increase in the road user cost during a phased recovery period.

The telecommunication infrastructure losses includes damages to cellular sites, exchange centers, equipment, power system and supporting civil works amounting to \$1.9 million.

Recovery and Reconstruction Needs

The reconstruction needs of the sector have been estimated at \$ 388 million, including \$ 5 million for railways and excluding \$ 2 million required in the telecommunication subsector as these were private assets with insurance coverage. Most of the reconstruction needs are in the road subsector amounting \$ 383 million. The recovery strategy varies across each subsector based on the nature of the responsible agency and the importance of the infrastructure. For telecommunications, the private sector operations have mobilized and repairs carried out and telecom services restored. For roads, diversion routes were created and services restored. Emergency repairs on railway lines have been undertaken. As a short term measure, the National Highways Authority (NHA) has tasked the regional maintenance units to undertake the emergent works through pre-qualified contractors and using proceeds of the annual road maintenance funds. All reconstruction costs for railways and 10 percent of the road reconstruction costs are included in the short-term recovery phase for works to be completed within 12 months. The remaining road reconstruction will require careful prioritization to ensure efficient utilization of available resources since most of the restoration works are not complex and thinly spread across wider geographic area.

13.2 Pakistan Railways

An effective railway system of the country facilitates commerce and trade, reduces transportation cost and promotes rural development and national integration. Pakistan Railways has entered into the Public-Private Partnership business in; Passenger Trains, Rehabilitation of Locomotives, Management Operation of Terminal Facilities including Dry Ports. The Ministry of Railways has also adopted a "Track Access Policy" for private sector participation to operate freight and passenger trains on Pakistan Railways infrastructure. The Ministry of Railways is also in process of allowing private sector to operate on Pakistan Railways network under Public Private Partnership (PPP) frame work.

The Ministry of Railways has also created a "Real Estate Development and Marketing Company" as subsidiary of Ministry of Railways. The company will manage to commercialize the surplus lands of Pakistan Railways in order to overcome its financial challenges. In addition to the above, six factories including Locomotive Factory Risalpur,

Carriage Factory Islamabad, and four Concrete Sleeper Factories in Kohat, Khanewal, Sukkur and Kotri, are being corporatized for eventual privatization subject to approval of the government.

Restructuring of Pakistan Railways

The Cabinet Committee of Restructuring (CCOR) has approved a restructuring framework for Pakistan Railways. New Board of Directors of PR has been constituted by including academia, management professionals, rail experts and executive functionaries. The process for recruitment of a professional Chief Executive Officer and other technocrats is being undertaken. Repair of locomotives has been given a priority for restoration of Railway services and freight operations are also being prioritized for revenue generation. Financial viability is being ensured through improving revenue and support by GOP. It has been decided that adjustment of fares and freight pricing will be determined according to market conditions and cost of doing business. An asset management company is being established for optimum utilization of PR's assets. Private Sector involvement is the focus moving forward,

Chamber of Commerce and Industries, Lahore has been engaged for their freight transportation from Karachi to Lahore. Commercial management of

rail operations and outsourcing of noncore functions is being initiated with an aim to improve efficiency of rail operations.

Table 13.3: Railways Passenger Traffic and Freight

S. No.	Subject	2009-2010	2010-2011	July-Feb 2012
1.	Number of Passenger carried (Million)	74.9	64.9	25.0
2.	Passenger Traffic KM (Rs. Million)	23522.5	20618.8	16810.2
3.	Freight carried Tones (Rs. Million)	5.8	2.6	0.9
4.	Freight Tones Km (Rs. Million)	4846.9	1757.3	279.3
5.	Route Km	7791.0	7791.0	7791.0
6.	Freight Wagons	16499.0	18464.0	17698.0
7.	Gross Earning (Rs. Million)	21,886.9	18,739.9	9359.0

Source: Ministry of Railways

Achievements during the Fiscal Year

Track: During the last financial year, 16 kms of track was rehabilitated on the Pakistan Railways network besides doubling of more than 15 kms of track.

Service Buildings: Construction of D Class railway station at new Multan city was carried out at a cost of Rs. 39.8 million which has facilitated the local population to a large extent. Renovation of Khudian Khas, Usmanwala, Raiwind and Kanganpur railway stations was carried out at a cost of Rs. 24.0 million to improve facilities for the passengers.

Signaling: Signaling system of four railway stations damaged during the riots of 2007 was rehabilitated during the period.

Rolling Stock: During February of the current fiscal year, 52 new design passenger coaches were imported from China at a cost of Rs. 4.1 billion. Remaining 150 passenger coaches will be manufactured at Pakistan Railway Carriage Factory Islamabad by June 30, 2013. In addition, 22 passenger coaches have been rehabilitated at the Pakistan Railway Carriage Factory Islamabad during last year.

Establishment of new Dry Port: A new dry port was set up at Prem Nagar near Raiwind industrial area, Lahore through Public Private Partnership at a cost of Rs. 494.0 million.

Table 13.4: Earning of Pakistan Railways

(Rs. Million)

Fiscal Year	Earning	% Change
2007-08	19,973	-
2008-09	23,160	16.0
2009-10	21,886	-5.5
2010-11	18,612	-15.0
2011-12 (July-Feb)	9359.0	-

Source: Ministry of Railways

13.3 Pakistan International Airlines (PIA)

A restructuring plan of PIA has been finalized which addresses corporate governance, human resource rationalization, financial and operational restructuring, engineering improvement, procurement and logistics, marketing and fleet, airport services and dispatch reliability among others. Increased fuel cost has been a major downside risk to the financial strength of PIA; and, effective measures have been put in place to mitigate the effect. Various other cost minimization and revenue enhancement measures have been put in place to reduce the revenue-expenditure gap in the medium term. Fleet renewal and addition is being planned. Route rationalization, code sharing and alliances are being pursued for moving to a new business model. Dispatch reliability will be improved through various initiatives including expansion of reliability system, use of reliability tools and standardized data exchange on maintenance. Strategic Business Units (SBUs) are being established for outsourcing of non-core functions of PIA. Rationalization of employment in PIA is being addressed through attrition and no new

hiring is being undertaken except for operational staff. A financial restructuring plan has been finalized which includes equity injection, rollover of loan and government guaranteed loans among others. A holistic view needs to be developed for revitalization of PIA entailing industry dynamics, aviation policy and strategic needs. This is the focus of the government.

Pakistan International Airlines Corporation earned increased revenue amounting to Rs. 116.02 billion in year 2011 as compared to 107 billion last year. Passenger revenue increased upto Rs. 7.76 million. New destinations including Zahedan and Madina also added in increasing the revenue.

A purchase agreement of five Boeings 777 has been signed. Chairman PIAC inaugurated the state of the art PIA Boeing-777 Flight Simulator installed at the PIA Training Centre, Karachi on October 30, 2011. The acquisition of this full flight simulator has resulted in improved training standards, better coordinated crew scheduling and planning.

Following new destinations have been introduced during the year 2011:

Karachi – Madina
(Twice weekly with B747/A310 w.e.f July 2011)

Quetta – Zahedan
(Twice weekly with ATR w.e.f Jan 2011)

Following new routes were introduced during the year 2011.

Peshawar - Kuala Lumpur

Sialkot – Riyadh & Sialkot - Dammam.

Table 13.5: PIA Performance

Description	2011*
Revenue Hours Flown	141,727
Route KMS	460,719
Revenue KMS Flown (000)	84,898
Revenue Passenger carried (000)	5,953
Revenue Passenger Kms (mil)	15,664
Available Seats Kms (mil)	21,725
Passenger Load Factor %	72.10
Revenue Tonne Kms (mil)	1,678
Available Tonne Kms (mil)	2,972
Revenue Load Factor (%)	56.45
Operating Revenue (mil)	117,356
Operating Expense (mil)	132,970
PIA Fleet (No. of Planes)	39
Passenger Revenue (Rs. bn)	104.41
Passenger Yield (2010: 6.12)	6.67

Source: PIA

* : PIA Data is on calendar year basis

13.4 Ports and Shipping

13.4 (a) Karachi Port Trust (KPT)

The Karachi Port Trust (KPT) came into being under the 1886 Act. With a 11.5 kilometers long approach channel, a depth of 12 meters and a turning basin of 600 meters, the Karachi Port provides safe navigation for vessels up to 75,000 metric tones deadweight. The KPT consists of two wharves; the East and West Wharf. The East wharf has 17 multipurpose berths and the West Wharf has 13 berths. Each of the Wharves has two dedicated container terminals and oil piers to handle liquid cargo. The KPT handled 27.8 million tones of cargo during the first 9 months of the current fiscal year. The data on cargo handled during the last five years is given in the following table:

Table 13.6: Cargo Handled at Karachi Port (000 M/Tones)

Period	Imports	Exports	Total
2007-08	25,517	11,676	37,193
2008-09	25,367	13,365	38,732
2009-10	27,892	13,528	41,420
2010-11	28,589	12,843	41,432
2011-12 (Jul-Mar)	19,196	8,586	27,782

Source: Karachi Port Trust

13.4 (b) Pakistan National Shipping Corporation

Shipping is a highly competitive market driven industry; its profitability is dependent on optimum utilization of vessels, strict cost controls and maximization in cargo lifting. The economic downturn has affected every sector of the maritime industry and the PNSC was no exception. Despite this PNSC remained profitable during the period under review. The Commercial performance of the PNSC translated into financial gains. The PNSC remained profitable during the first nine months of fiscal year 2011-12.

The consolidated revenue of the PNSC Group during July-March 2011-12 were Rs. 6640 million.

One dry Combi vessel was sold for demolition as it had completed its useful commercial life. The Commercial and Financial performance of the PNSC (un-audited) from July-March 2011-12 is given in the following tables.

Table 13.7: Commercial Performance

(In Metric Tons)

Cargo Lifted	Jul-Mar 2011-12
Liquid Cargo	5,804,294
Dry Cargo	205,379
Total (Dry + Liquid)	6,009,673

Source: PNSC

Table 13.8: Financial Performance (Rs. in 000)

	Jul-Mar 2011-12
Revenue	6,639,971
Fleet Expenses	5,173,907
Gross Profit	1,466,064
Other Income	327,412
Expenses	1,541,464
Profit before tax	252,012

Source: PNSC

Table 13.9: PNSC-Fleet Deadweight Tonnage

(In MT)

Year	No. of ships	Total DWT
2007	14	536,821
2008	14	536,821
2009	11	477,238
2010	10	633,273
2011	11	646,666
2012	10	628,409

Source: PNSC

The Corporation intends to acquire four vessels on commercial loan / joint venture-basis. Acquisition of two vessels is in process, while two more will be acquired in next financial year.

13.4 (c) Gwadar Port

The Gwadar Port was inaugurated on the 20th of March, 2007 and started commercial operations from March 2008. The government has decided to import all bulk cargo comprising of Urea, Wheat and Coal through Gwadar Port. The total cargo handled at the port up till now is 4.1 million tones. Gwadar Port has earned total revenue since its start of operation amounting to Rs. 53.4 million.

13.4 (d) Port Qasim Authority

Port Qasim Authority was established in 1973 as a second deep sea port of Pakistan. Port Qasim caters around 40 percent shipping requirements of the country. PQA handled a cargo volume of 19.7 million tones during July-March 2011-12. The volume of import cargo during July-March 2011-12 stood at 14.7 million tones, while the exports handled during the same period was 4.9 million tones.

Table 13.10: Cargo Handled at Gwadar Port

(000 Tones)

Year	Imports	Exports	Total
2008	231.6	-	231.6
2009	1218.1	-	1218.1
2010	705.9	-	705.9
2011	462.5	-	462.5
2012	541.2	-	541.2

Source: Gwadar Port Authority

Table- 13.11: Cargo Handled at Port Qasim

(00 Tones)

Period	Import	Export	Total
2007-08	21,502	4,922	26,424
2008-09	19,445	5,584	25,030
2009-10	19,226	6,380	25,626
2010-11	19,511	6,657	26,168
2011-12 (Jul-Mar)	14,722	4,942	19,664

Source: Port Qasim Authority

Box Item–2**Draft National Transport Policy (NTP)**

To address the Transport Sector issues and implement government's policies and strategies for sustainable growth, Ministry of Communications has prepared a draft National Transport Policy in consultation with all stakeholders. It covers all modes of transport sectors i.e. (i) Roads, (ii) Railways, (iii) Ports & Shipping and (iv) Aviation, NTP also includes the National Transport Corridor Improvement Program (NTCIP) to make it more productive and environment friendly. The broad objective of the draft National Transport Policy are:

To Provide safe, reliable, effective, efficient, affordable, accessible, sustainable and fully integrated transport system that will best meet the needs of freight & passenger access and mobility requirements and will be aimed at improving levels of service and cost effectiveness in a fashion that supports governments goal of increasing public welfare through economic growth, and social improvement, poverty reduction and infrastructure and development while being environmentally and economically sustainable and energy efficient.

National Trade Corridor Improvement Programme

“National Trade Corridor Improvement Programme (NTCIP)” has been launched in the country to revamp the whole transport sector including ports, roads, railway, aviation etc. and a frame work to develop and improve the North South corridor has been formulated. The framework takes a holistic and integrated approach to reduce the cost of doing business in Pakistan by improving the trade and transport logistics chain and bringing it up to key standards. The strategy also takes into account the regional and domestic scenarios, particularly with respect to rail, road and shipping sub-sectors, enhancing regional connectivity to improve links with the Central Asian States, China, Iran, Afghanistan and India. With the development of the North-South and East West trade links, energy and industrial corridors with these states would also be developed.

Progress on Studies in 2011-12

- ▶ Study on Aviation Safety Audit by Civil Aviation Authority/Ministry of Defence has been completed
- ▶ Work is underway for preparing a Ports Master Plan by the Ministry of Ports & Shipping with the help of international consultants.
- ▶ Study on Financial Restructuring of Pakistan Railways is ongoing while consultancy firm is being hired for preparation of Pre-Feasibility of Peshawar-Jalalabad Railway Link
- ▶ Pakistan Railways Revitalization Strategy (PRRS) has been prepared for the approval of Cabinet
- ▶ The Trucking Policy approved in October 2007 is being updated
- ▶ Procurement of consultants is on fast track for preparing an “Implementation Strategy” for the Trucking Policy.

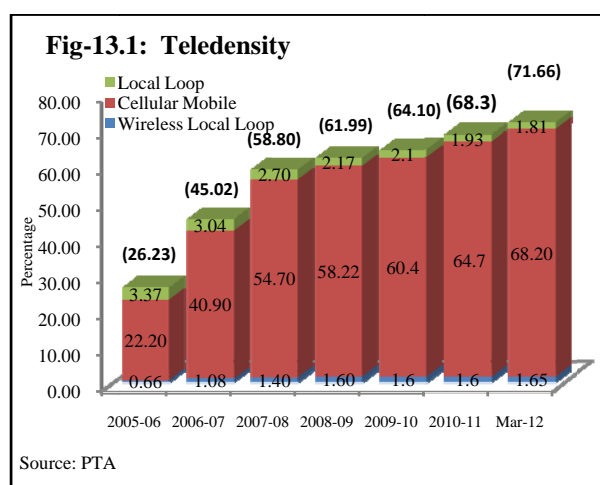
13.5 Communications

The 21st century can safely be named the IT Century as no institution can run without the help of IT in the future. The advancement of IT has brought enormous benefits to individuals, businesses and organization. The world has developed into an information economy and the application of new technologies has become the centerpiece of activities.

Rapid development of Information and Communication Technology (ICT) infrastructure and its adoption is now a prerequisite for making national progress in the economy and in daily life as well. Modernization and development of telecom infrastructure has been correlated with increase in economic activities. The Information Technology (IT) revolution is probably the most important force shaping communities today.

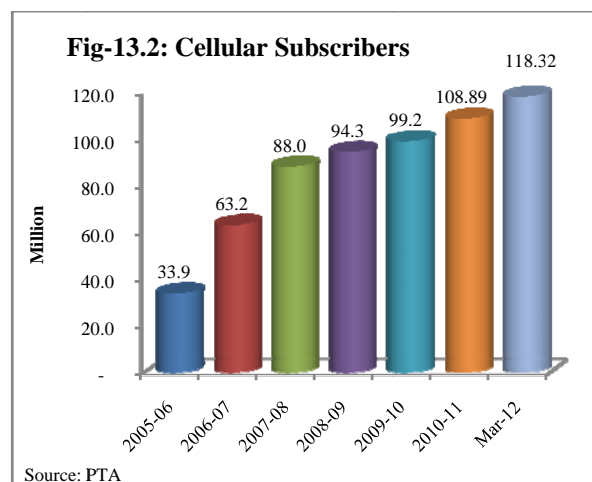
13.5-a Telecom Sector

At the end of fiscal year 2011-12, teledensity in the country stood at 68.3 percent showing 6.7 percent growth as compared to the previous year. Since the mobile sector contributes over 95 percent to the total teledensity of the country, an increase in mobile penetration from 60.4 percent in 2010-11 to 64.9 percent in 2011-12 resulted in improvement of 4.3 percentage points in total teledensity. Fixed Local Loop teledensity has been declining over the years due to mobile substitution and today it stands at 1.93 percent in 2011-12 as compared to 2.1 percent last year showing a decrease of 0.17 percent. Wireless Local Loop subscribers have been increasing but the proportionate rise in population keeps the teledensity of WLL services at 1.6 percent over the last three consecutive years.



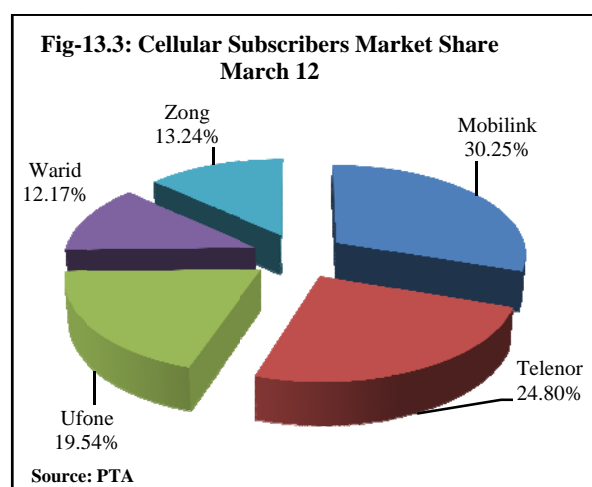
Cellular Mobile Sector

Pakistan's cellular sector faced a tough economic and business environment during the last fiscal year due to taxes, power crisis, security situation, extensive subscriber and natural calamities. Despite all these factors, the cellular industry managed to double its growth rate from the previous fiscal year. According to the World Economic Forum's Global Information Technology Report 2010-11, Pakistan ranks no. 1 in the Internet and Telephony Competition. The total of mobile subscribers reached 118.3 million at the end of March 2012.



Cellular Market Share

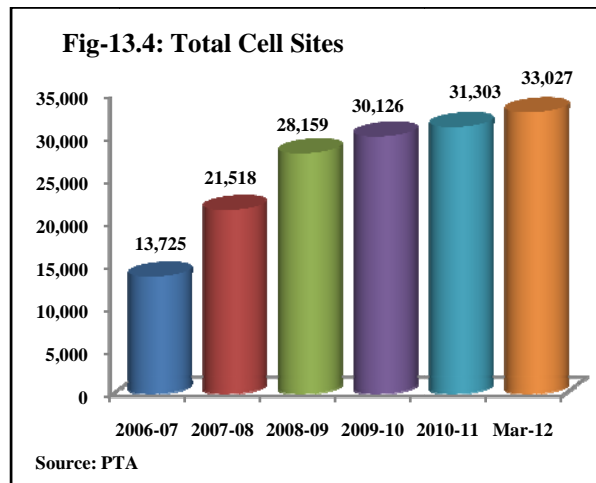
The mobile market over the years has become more stable due to intense competition. Market shares are now more balanced among the five operators with almost insignificant changes over the year. At the end of March 2012, Mobilink had a market share of 30.25 percent followed by Telenor with 24.80 percent and Ufone with 19.54 percent.



Network Coverage

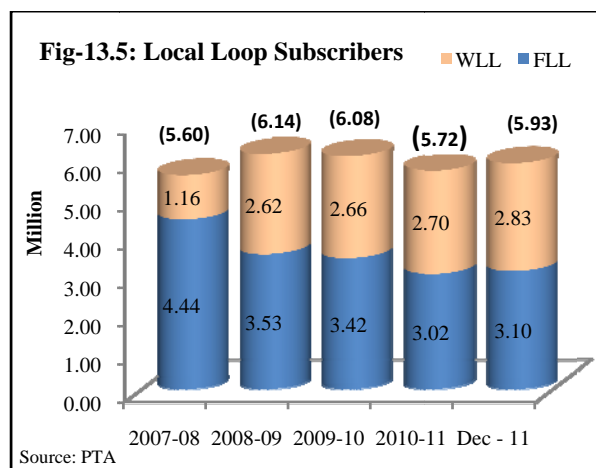
One of the key indicators of a successful and advanced cellular market is the geographical coverage of land area by the cellular mobile operators in the country. Pakistan has a unique topography ranging from steep mountains to raging deserts. Despite such difficult terrain, more than 92 percent of the land area is under the umbrella of cellular mobile services – a laudable effort by the

mobile companies. At the end of March 2012, there are 33,027 cell sites across Pakistan.



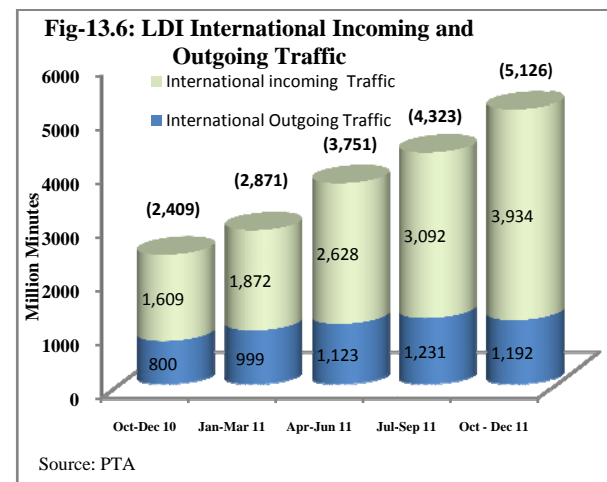
Basic Services

Basic Services comprising of Local Loop (fixed and wireless) and Long Distance International services form the basis of telecommunication infrastructure of Pakistan. The technological revolution, mainly wireless services, had a major impact on Fixed Local Loop business since mobility, coverage, quality of service and low maintenance requirement shifted consumer focus from fixed to wireless services. The figure below shows the declining trend in local loop subscribers, especially FLL services over the years. By the end of Dec, 2011, Local Loop (FLL & WLL) subscribers reached 5.93 million all over Pakistan. Out of total 5.93 million subscribers 3.10 million belong to FLL and 2.83million to WLL.



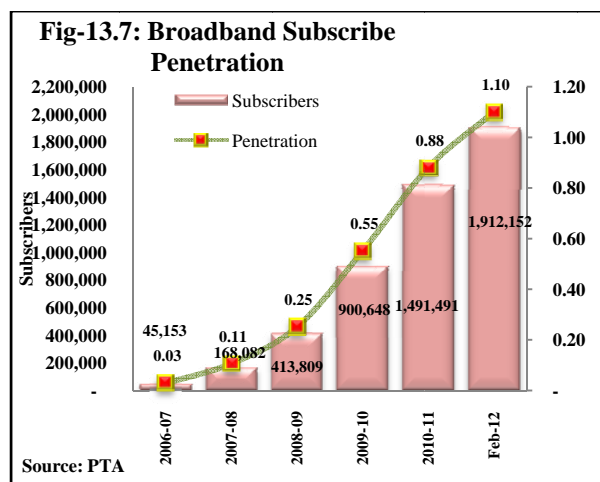
Long Distance International

Long Distance and International (LDI) is another pillar of Pakistan telecom sector, responsible for carrying international traffic to and from Pakistan. LDI licensees are responsible for receiving international traffic from other countries and handing these over to their respective LL/mobile operator for nation-wide long distance and international telephony service. PTA awarded 14 licenses for Long Distance and International services and currently 13 of them are operational. PTCL is the largest LDI operator in the country as it also owns the international backhaul of Pakistan. The other major players include Link Direct, Wateen, WorldCall and Telecard. International traffic in Pakistan is increasing every year owing to lower tariffs and availability of international connectivity through fiber optic and satellite links. During 2011 total international traffic (Incoming + Outgoing) stood at 5,126 million minutes.



Broadband

The growth of Broadband subscribers has been more than 150 percent on average for the last four years. Such an astounding growth rate highlights the tremendous potential in Pakistan's broadband market. Broadband subscribers have crossed the one million mark in 2011 with the highest net additions in a year. According to the latest market data, Broadband subscribers reached 1.9 million at the end of February 2012 with the penetration 1.1 percent.

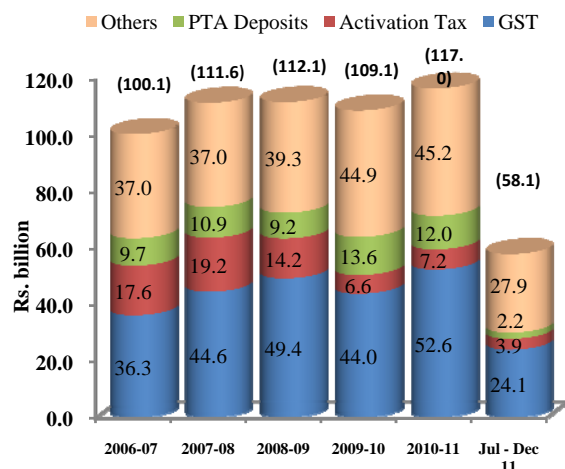


Telecom Economy

Telecom Contribution to Exchequer

The Telecom sector is an important contributor depositing over Rs. 100 billion on average each year to the National Exchequer. The Telecom sector made its highest ever contribution to the national exchequer in 2011 as almost Rs. 117 billion were deposited by the telecom companies showing 7 percent growth during 2011. During the first two quarters of 2012, Rs. 58.1 billion have been deposited to the national exchequer.

Fig-13.8: Telecom Contribution to Exchequer

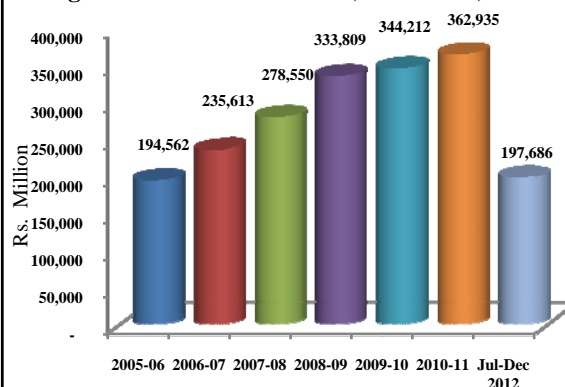


Note: PTA's contributions comprise of all its receipts including Initial and Annual License Fee, Annual Spectrum Administrative Fee, USF and R&D Fund Contributions, Numbering Charges, License Application Fee, etc. Others include custom duties, WH Tax and other taxes.

Telecom Revenue

Revenue of the telecom sector reached an all time high during the 2012, standing at Rs. 363 billion. Telecom revenue showed an increase of 5.4 percent as compared to the previous year. In line with the teledensity, the cellular sector also has the highest share in telecom revenue. During 2011, cellular revenue increased by 11 percent to reach Rs. 262,761 million as compared to Rs. 236,047 million in the previous year. The rise in total telecom revenue is mainly attributed to the increase in revenue of mobile services only since the rest of the services except WLL have reported decrease in their total revenue. During the first two quarters of 2012, Rs. 197,686 million worth of revenue has been generated by the telecom sector.

Fig-13.9: Telecom Revenue (Rs. Million)



Telecom Investment

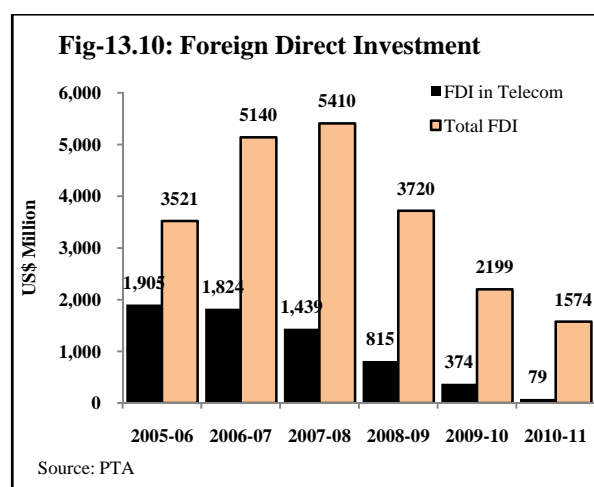
Advancement in technology and new innovations require a continued investment stream into the telecom sector. Although companies have invested over US\$ 12 billion in building of infrastructure and other projects in the last six years, there is no denying the fact that there are untouched lands and grey areas that need new or improved infrastructure. Most of the telecom companies have established their infrastructure and expanded to every nook and corner of the country. However, due to the terrain/security situation, companies are reluctant to invest further. PTA recognizing this fact has worked out with both operators and Universal Service Fund (USF) to make investments in areas where there is no telecom service. In 2011, the telecom sector invested US\$ 495.8 million; with the cellular mobile sector being

the major contributor. In addition USF invested Rs. 3.5 billion during the 2011.

Foreign Direct Investment by the telecom companies is more than 30 percent of the total FDI in the country during the last six years. As in the investment scenario explained above, telecom companies reduced FDI because they have already laid down the required infrastructure. In 2011, telecom sector attracted over US\$ 79 million FDI in the country which is about 5 percent of the total FDI in Pakistan in 2011.

Analysis of investment and FDI clearly reveals that the telecom sector of Pakistan needs an influx of new investment in the near future to boost these figures. The auction of 3G licenses is expected, that will bring more FDI into the country. An

improved economic condition of the country will further encourage investors to bring capital into Pakistan.



	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11
Cellular	1,420.9	2,584.5	2,337.7	1,229.75	908.8	358.6
LDI	50.5	602.8	403.9	276.75	183.1	108.8
LL	0.3	40.6	342.1	57.37	22.5	18.2
WLL	259.4	747.0	52.8	82.11	23.0	10.2
Total	1,731.1	3,974.8	3,136.4	1,645.9	1,137.5	495.8

Source: PTA

Regulatory Intervention by PTA

- Spectrum Auction for 3G & Defunct Instaphone License**

The Government of Pakistan announced spectrum auction for 3G and Instaphone license on 24th November 2011. The Ministry of Information Technology issued a policy directive to PTA with the objective of redefining the policy framework and setting guiding principles for the auction of 3G frequency leading to introduction of relevant services. It was announced by the Federal government that the auction would be transparent and competitive; the allocation will be neutral; and, usable for any available or upcoming technology. Similarly the auction of three blocks of 10 Mhz each, out of currently available 3G spectrum (1.9 GHz/2.1Ghz band), shall be announced by PTA. The license of defunct Instaphone along with allocated frequency will also be auctioned.

- WLL Spectrum Auction in 1.9 GHz and 3.5 GHz Frequency Band**

During the de-regulation of the telecom sector in 2004-05, significant portion of the frequency spectrum in 1.9 GHz and 3.5 GHz bands was auctioned for WLL licensees. However, with unprecedented growth of wireless broadband services and introduction of new players in the market, it became imperative for the government to allocate more spectrum resources to WLL operators. In this regard, PTA has been entrusted with the task of carrying out the auction of the WLL spectrum as per guidelines provided in the Policy Directive issued by Ministry of IT on 16th December 2011 for spectrum auction of available frequency in 1.9 GHz and 3.5 GHz. The Information Memorandum for WLL auction is available on the PTA website. The base price for 3.5 GHz band is set at USD 28.2 million (covering all telecom regions) and the base price for 1.9 GHz

band is set at USD 88.75 million (covering all telecom regions).

• Mobile Banking

Introduction of efficient mobile banking services in the country can utilize the strengths of mobile networks to provide financial services to the large unbanked (rural, poor) population as well as increase the overall efficiency of the banking sector in Pakistan. The State Bank of Pakistan introduced the Branchless Banking Regulations in March 2008. Subsequently, the Ministry of IT issued the Policy Directive (May 2008) to support the technical implementation of mobile banking in the country. The government under the Policy Directive states that a relevant telecom sector policy framework is required to complement SBP Branchless Banking Regulations. For implementation of this Policy Directive, PTA drafted the Third Party Service Providers (Branchless Banking) Regulations 2011.

In order to provide an enabling regulatory environment and develop cooperation for a simplified mobile banking framework that can allow license holders to take on branchless banking activity and harness the full potential of such services, the Pakistan Telecommunication Authority and the State Bank of Pakistan (SBP) signed a Memorandum of Understanding (MoU) on 11th January, 2012. With this MoU, both the institutions have shown their interest and

commitment in stimulating the mobile banking services in the country. The SBP and PTA would act as facilitators for third party service providers for mobile banking in Pakistan.

• Cellular Mobile Network Quality of Services Regulations, 2011

To ensure that mobile operators maintain quality of service the PTA has prepared the Cellular Mobile Network Quality of Services (QoS) Regulations, 2011. These regulations apply to all cellular mobile operators and identify the minimum quality of service standards and associated measurement, reporting and record keeping tasks (except packet switched or GPRS/EDGE services). The Regulations have been gazette notified.

• GPRS/EDGE Service Quality of Service Regulations, 2010

In order to maintain Mobile cellular Quality of Service, Pakistan Telecom Authority prepared GPRS/EDGE Key Performance Indicators (KPIs) following the international standards and consulting the industry. Further these KPI's have been incorporated in the regulations. These regulations are applicable to all cellular mobile communication service licensees for the purpose of laying down quality of service parameters for GPRS/EDGE services, to ensure consumer satisfaction in line with the criterion determined by the Authority from time to time.

Table 13.13: Pakistan Telecommunication – Subscribers Category (Nos.)

Years	FLL Subscribers	WLL Subscribers	Mobile Phones	Broadband Subscribers
2007-08	4,548,350	1,155,188	88,019,812	168,082
2008-09	3,526,634	2,617,616	94,342,030	413,809
2009-10	3,419,271	2,659,824	99,185,843	688,373
2010-11	3,016,852	2,704,873	108,894,518	1,491,491
Jul-March 2011-12	3,098,117	2,968,813	118,316,916	1,912,152

Source: PTA

13.6 Electronic Media

13.6 (a) Pakistan Electronic Media Regulatory Authority

The electronic media in Pakistan, remained dominated, since independence, by the state-run Pakistan Broadcasting Corporation and Pakistan

Television. Pakistan Television was launched in November 1964. As access to diverse sources of information was limited and people could not keep abreast of the rapidly growing developments around them, the government in 2002 opened up the electronic media to the private sector in the country. Pakistan Electronic Media Regulatory

Authority (PEMRA) as a statutory body was set up with a view to facilitate through licensing and to regulate the growth of the electronic media in the private sector. PEMRA is mandated for regulating the establishment and operation of all broadcast media that is satellite TV, FM radio and distribution services like Cable TV, DTH (Direct To Home), IPTV (Internet Protocol TV), Mobile TV etc. in the country.

Economic Contribution

Investment friendly policies of the government have been conducive to the development of the electronic media industry in the private sector. According to estimates there has been a cumulative investment of approximately U.S. dollar 2.5 billion in the electronic media industry in Pakistan. New jobs to more than 200,000 people of diversified skills and qualifications have been provided. In addition, over 7 million people have been accommodated through indirect employment. 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 above \$ 3.0 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.

Present Status of Private Electronic Media

During the last decade 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. The unprecedented growth of TV channels, Cable TV and FM Radio stations has indeed contributed remarkably in raising the standards of public awareness and literacy. The massive growth which has taken place in the electronic media in the private sector in the last one decade is as follow:

Table 13.14: PEMRA Performance

Sr.No.	Category	Licenses Issued in 2011-12	Total Licenses Issued
i.	Satellite TV Channels	06	89
ii.	Landing Rights Permission to TV Channels	10	26
iii.	FM Radio licenses	06	157
iv.	Cable TV Licenses	600	3,000
v.	Multimedia, Multi Channels Distribution System (MMDS)	--	6
vi.	Internet Protocol Television (IPTV)	--	01
vii.	Mobile TV license	04	04
viii.	Mobile Audio Licenses	02	02

Source: PEMRA

13.6-(b) Pakistan Television Corporation Limited (PTV)

PTV has launched Sports Channel on 11-01-2012. To eliminate the disparity and uplift the socio-economic conditions PTV is gradually extending its signals in remote and economically backward areas. Prime Minister inaugurated the Rebroadcast Station at Bhimber on 12-03-2012 RBS in Neela-But, Jura, Athmaqam, Karan, Dhudhnial, Sharda , Kel and Mirpur, Palandri are in progress. RBS at Badin is in progress and National News Bureau at Larkana is almost completed. Prime Minister

inaugurated TV Centre at Multan on 30-12-2011. RBS at Besham and Kohat are ready for inauguration; RBCs at Buneer, Kund Bangla and Pooran are in progress. RBCs at Kharan, and Bar Khan are in progress. RBS Chilas, Gahkuch, Khaplu, Shigar are ready for inauguration and RBS at Aliabad/Karimabad, Jaglot/Bunji and Astore are in progress. PTV will launch English channel shortly. In fiscal year 2011-12 TV sets were 12,252 million in the country.

13.6-(c) Pakistan Broadcasting Corporation

Pakistan Broadcasting Corporation is the largest radio network in the country with a listenership larger than all private radio channels in the country. Its mission is to entertain and educate people through music programmes, features and plays.

Following are the prominent services of PBC:-

- ▶ National Broadcasting Services was launched on 28th August, 2008. NBS has seventeen hours daily transmission from 7 am to 12 midnight. The programmes are originated from Islamabad and provincial capitals.
- ▶ PBC World Service broadcasts daily Urdu programmes of 8 hours and 30 minutes duration for the audience living abroad.
- ▶ PBC External Services, broadcast programmes for 8 hrs daily in 11 foreign languages covering Afghanistan, Iran, China, India, Bangladesh, Nepal and Sri Lanka.
- ▶ Central Production Units (CPU) produce music, drama, features, documentaries and programmes for special occasions. CPU has over 2 million minutes recording in its archives which are being digitized.
- ▶ Pakistan Broadcasting Corporation has established different FM Stations to cater to the infotainment and educational needs of listeners in their respective languages all over the country.
- ▶ These stations are broadcasting programmes in their respective local/regional languages and in Urdu with a ratio of 70/30 respectively. Total broadcast hours of these FM Stations are 260 hours daily.
- ▶ PBC News is putting on air 117 News bulletins daily. These include National, Regional, External and Local News bulletins besides resume of National Assembly and Senate. In addition PBC news launched the broadcast of FATA News, special news bulletins from PBC Hyderabad on rain/ flood situation and ongoing rescue and relief activities in Urdu and Sindhi languages.

- ▶ PBC has nine approved development projects in hand for which an amount of Rs. 217.7 million has been allocated in 2012. The details of these projects are given below:-

- 1 Balancing and Modernization of equipment.
- 2 2 X 100 KW SW transmitters and HF aerial system Landhi Karachi.
- 3 Up-gradation of PBC Larkana from 10 KW Medium Wave to 100 KW MW transmitter.
- 4 Replacement of 100 KW MW transmitters at Multan, Hyderabad & Muzaffarabad.
- 5 Establishment of PBA and IT Centre at Lehtrar Road, Islamabad.
- 6 100 KW MW transmitter at Gwadar.
- 7 Establishment of 47 FM Radio Stations all over Pakistan.
- 8 Replacement of 100 KW MW with 400 KW Medium Wave transmitter Peshawar under USAID programme.
- 9 Replacement of 10 KW MW with 100 KW MW transmitters D.I. Khan under USAID programme and shifting of Broadcasting House.
- 10 Installation of 100 KW MW transmitter and BH at Turbat.

13.7 The Pakistan Post

To provide trust worthy, efficient and time sensitive services to the customers, Pakistan Post has offered full blend of Express Mail and Financial Services. It provides services through a network of 12,035 (1,797 urban and 10,238 rural) post offices across the country. Some salient achievements of the Post Office department are given below:

Benazir Income Support Programme (BISP)

Complete web-based tracking and monitoring system for disbursement of funds for Benazir Income Support Programme (BISP) has evolved that includes continuous processing, monitoring and reconciliation of the specialized money orders scheme. During the 1st nine months of the current

fiscal year (July-March) total 8,621,193 BISP Money Orders along with required funds for Rs.17,242.4 million were received from BISP authorities, out of which 97 percent Money Orders amounting to Rs.16,642.0 million have been paid within prescribed period of time.

Western Union Money Remittances Business

During the first nine months of current fiscal year (July-March), Pakistan Post has received the foreign remittances amounting of Rs. 9,247.9 million.

Establishment of “Small & Smart” Express Centers

To provide quality services to the customers, 55 Small and Smart Express Centers have been set up in the urban areas. These Express Centers are fully computerized and automated and cater the requirements of the public. These centers facilitate the customers, particularly in trade, commerce and business. The services offered in these centers include: Urgent Mail Service, urgent Money Order Service, Expedited Mail Service, Fax Mail, Fax Money orders, Payment of incoming foreign remittances through Western Union, Acceptance of Utility Bills, Traditional Services, Booking of Inland and Foreign Parcels.

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-March 2011-12 an amount of Rs. 160,266.9 million has been collected through National Savings Schemes and earned commission amounting to Rs. 801.3 million during this period.

Postal Life Insurance

Total Policies are 382,019, for a sum assured Rs. 49,507.9 million and a Premium Income is Rs. 1,993.8 million.

Computerization Counter Automations System

Over one hundred General Post Offices including renovated post offices throughout Pakistan have been provided with counter computerization facilities for the better service quality to the customers through a LAN based system.

Computerized Pension Payment System

Over 1.4 million Civil and Military pensioners are being served by Pakistan Post about 1.3 million pensioners have been disbursing pension from Pakistan Post. The pensioners are receiving the pension in a hassle free environment. Pakistan Post is also disbursing pension to over 40,000 PTCL pensioners. Pakistan Post has also developed a separate system for PTCL pension disbursement.

Conclusion

With the continuing expansion of the transportation and communication sector throughout the country, Pakistan is preparing for the future in various areas from creating vast transport networks to building up a sustainable information technology infrastructure with the objective of setting the foundations for continued growth and success. Despite such challenges in areas of natural disaster recovery and difficult terrain to develop upon, transportation developments have continued, and expect to expand. Communications infrastructure has widened despite challenges with security, power outages and rough terrain in which to build upon. The cellular mobile sector has been a major contributor to the expanding market for telecommunication and the various technologies that come with it, bringing the country to high standards of telecommunication structures on par with the rest of the world. This area is expected to grow at an accelerated pace due to demand, however it is important that capital and investments come with it. Overall, the transportation and communication arena remains strong, is changing, expanding and seeking to meet with the needs of Pakistan's citizen.