Chapter 27

TRANSPORT AND LOGISTICS

The Plan proposes a thematic change to the traditional definition of the 'transport and logistics sector'. Firstly, it will not be just confined to physical infrastructure such as rails, roads and transport, sea trade and related freight, but will also include services such as packaging, delivery, storage and trade logistics. Secondly, factors like high freight, insurance, longer delivery times and renewal costs, will be considered as important additional costs, which require careful review. Thirdly, the aggregate transport and logistics costs—including opportunity cost, service standards and trade facilitation—ultimately determine the efficiency of the transport and logistics Sector, and also represent the cost of doing business in Pakistan. Hence, these will be featured prominently in reform efforts, and a comprehensive but effective plan is being developed for the sector. This will help make the country more competitive economically, which is the central theme of the Five Year Plan.

Sustainable economic development of Pakistan is dependent on a robust and low-cost transport and logistics sector. Enhanced export competitiveness also depends on the efficient performance of the sector. Despite economic slowdown, the sector has maintained positive growth trends. Signs of the economic recovery are already visible and the GDP growth rate is likely to rise further during the Plan period. In line with the country's expanding economic activity, the current levels of inland traffic by road and rail – estimated at 433 billion passengers-kilometre (BP-km) and 269 billion tonnes-km (BT-km) respectively– is likely to increase to 614 BP-km and 381 BT-km by 2018 (Annexure-A). At present, the sector provides approximately three million jobs, and these are expected to increase to about 3.6 million during the Plan period.

The government is aware of the vital role of the sector in the overall economic development and in improving the competitiveness in exports. It is, therefore, committed to implement a comprehensive development initiative for modernising the sector through a continuous process of reform supported by focused investments in all of its sub-sectors. The sector claims 25 to 30 per cent share of the annual Public Sector Development Programme (PSDP), but this level of investment is not enough to meet the growing needs. Approximately two to three times more investment is required to enable the sector to perform in harmony with the needs arising from the expansion of economic activities. Concerted efforts will, therefore, be made to promote the public private partnerships for leveraging higher investments from the private sector.

Major issues

Diverse in composition, the transport and logistics sector comprises railways, roads, ports and shipping, aviation and logistics services. Roads and road transport dominate the mix and carry 93per cent of all passengers and 94 per cent of the freight traffic. The Pakistan Railways, once much cheaper and effective, has lost its competitiveness to road transport, and now handle only six per cent of the freight traffic. This modal imbalance is not only over-burdening road systems, causing congestion, creating pollution and damaging roads, but also contributes towards high cost of transportation due to imported fuel. It is estimated that 35 per cent of fuel

is consumed by the transport sector. The declining freight business, coupled with subsidised passenger traffic, has adversely affected financial health of the railways. Consequently, it is perpetually running at a loss.

The bulk of imports and exports (95 per cent) are handled through Karachi and Qasim ports, while the former handles three-quarters of the total volume. Because of the limited infrastructure development, these ports are congested and lack capacity to handle the ever-growing port traffic. Though ship handling charges have declined recently, but still there is a need for an efficient infrastructure to keep them sustainable.

Pakistan has a total of 46 airports, including 10 international, to conduct commercial operations. Out of these, 42 are owned and operated by the Pakistan Civil Aviation Authority (CAA). At present, 13 are being used for both international and domestic operations; 11 are for domestic operations and the remaining 22 have been either scaled or closed down for operations due to various reasons. Out of the four private airports, one, situated in Sialkot, is being used for international and domestic operations, while the rest three are only for chartered aircraft operations.

The Pakistan International Airline (PIA) carries most of the passenger and freight traffic (87 per cent), whereas two private airlines handle the remaining traffic. Although the economy has been expanding, the passenger and freight traffic by air has registered only a nominal increase. High freight charges, coupled with inadequate cargo facilities at airports, have aggravated the situation. Procedures of the Customs are considered to be cumbersome despite introduction of some reforms. The local logistics industry is under-developed and does not provide integrated logistics services, and the gap is being filled by a few international companies.

The country has an elaborate canal system, which was primarily based on five rivers, but inland water transport is almost non-existent. A concerted effort will be made during the Plan period to explore inland waterways for transport and logistics.

While the cost of transport and logistics services is decreasing worldwide due to global competition, these are generally higher in Pakistan as compared to the region because of the numerous inadequacies (discussed above). Consequently, high transport costs are badly affecting the export competitiveness of the country, and resultantly it also has a negative impact on investment for the export-oriented industries. Since the private sector participation is limited to some sub-sectors only, the transport and logistics sector puts significant pressure on the public sector funds. In the PSDP, there are a large number of schemes with specified allocations, leading to a throw-forward, which slows down the pace of implementation.

Plan

Objectives

Firstly, development of the infrastructure projects through the private sector on the Build Own Operate (BOO) and Build Operate Transfer (BOT) bases is to be worked out. In addition to the PSDP, infrastructure building and financing institutions will be encouraged through the public-private partnerships to expedite infrastructure development.

The establishment of the Bureau of Infrastructure Development (BID) has been proposed, which will coordinate and oversee the programme for the private sector participation in infrastructure

development. The BID will be a single window for the development of infrastructure projects, which will provide a mechanism for mobilising commercial equity and debt financing. An important objective of the BID will be to improve transport and communication by constructing national trade corridors and provide mass transit facilities in all major cities.

For meeting goals of the sustainable economic growth and global export competitiveness under the government's new initiative Economic Trade Corridor Programme (ETCP), the objectives of the transport and logistics sector are to:

- develop an integrated inter-modal transport and logistics sector that efficiently meets requirements of the growing population and expanding economic activities
- modernise management to ensure harmony and coordination among different transport systems, that is, ports, railways, highways, inland waterways, and airways, and reduce costs to the economy
- make a sustained effort to achieve world class transport infrastructure and logistic services to facilitate domestic and international trade through the private sector participation, and
- support research and development for its sustainable progress.

Strategies

China-Pakistan Economic Corridor

Recognising importance of transport for the economy, besides making large investments to improve road, rail, air and port infrastructure, the government has planned to support trade and logistics services through development of the Economic-Trade Corridor (ETC) to connect Gwadar with

China-Pakistan Economic Corridor (CPEC)

A composite transport system of ports, rail, road and airways – aligned between Karachi and Peshawar along which bulk of local and foreign trade of the country moves– is known as the Economic Trade Corridor. To achieve a coherent performance of the system in support of the economic stabilisation, sustained growth and global competitiveness, a reform initiative supported by investments, especially through the Chinese government and other international funding agencies, has been launched by the government of Pakistan, called the China-Pakistan Economic Corridor (CPEC). The initiative aims to:

- provide connectivity through Khunjrab up to Kashgar with a link to China and other Central Asian countries
- modernise transport infrastructure and streamline policies, procedures and practices to promote international trade
- improve port handling capacities, reduce charges and reforming port management
- bring delivery of the rail services at par with international standards and privatisation of commercial operations of the Pakistan Railways
- modernise the trucking industry and reduce the cost of transportation, highway damages and environmental pollution
- develop a sustainable, efficient, safe and reliable system of highways and motorways
- ensure safe, secure, economical and efficient operations of the civil aviation
- enhance export of perishables through a modern cold chain system through public-private partnership arrangement
- develop economic zones along the proposed corridors to support industrialisation and business development
- establish inland water transport in canals and rivers in phases
- develop and strengthen institutional capacity-building and sector efficiency

Khunjrab up to Kashgar, and developing further east and west links besides establishing economic trade centres and zones at potential locations.

The Plan will also stress on the improvement of trade and logistics services, bringing these to international standards through the world-class ETC. This initiative is a flagship programme, aiming at development of both physical and supporting institutional infrastructure of the transport and logistics sector.

The development work along with the ETC will be implemented through the China-Pak Economic Corridor Support Project (CPECSP). The investment will of China and its financial institutions in addition to Pakistan's own resources.

The framework of the reforms takes an integrated approach to reduce the cost of doing business in Pakistan by improving the trade and transport logistics chain and bringing it at par with the key international standards. Several studies will be undertaken in various sub-sectors, examining how to carry out reforms and make these more competitive.

During a visit of the President of China to Pakistan in April 2015, both countries have signed financial agreements worth $46 billion under the CPEC. Out of this, agreements worth $28 billion are to immediately kick-start early harvest projects, which are expected to be completed by the end of 2018. Projects worth $17 billion, which are in the pipeline, will follow as soon as required studies, processes and formalities are completed. The ground-breaking and signing of the financial agreements has demonstrated that there is a strong will on both sides to implement the CPEC as early as possible to help Pakistan meet its energy needs through the Chinese investment in the Independent Power Projects(IPPs). Beijing will inject about $33.8 billion into energy projects and $11.8 billion into infrastructure schemes. Beijing considers the CPEC as an opportunity to expand its trade and transport links and boost economic influence across the Central and South Asia. The major chunk of $33.8 billion is the Chinese investment in the IPPs, whereas $11.8 billion will be the Chinese concessional loans for infrastructure development like roads, ports and railways, etc.

Under the infrastructure development, financing agreements include: construction of the Karachi-Lahore Motorway (KLM) Multan-Sukkur section costing about $2.6 billion, Karakoram Highway (KKH) Phase-II, Thakot-Havelian section ($920 million), Gwadar East-Bay Expressway ($140 million), Gwadar International Airport ($230 million), expansion and reconstruction of the existing main railway line (ML-1) from Peshawar to Karachi, including construction of a dry port at Havelian and $1.63 billion for the Orange Line Metro Train Lahore.

Another component of the CPEC is development of the Gwadar Port, which has already been given to the Chinese with operational control for 40 years. The Chinese government will construct a container handling facility, a major highway and an international airport. Control over Gwadar brings China closer to Europe and Africa. The cost of shipping from the Western Europe to China is almost double the cost of shipping from Pakistan.

The Chinese people and government will also benefit from it immensely. The project creates an easy outlet for the western region of China to the Gwadar seaport; thus bringing China close to the Middle East. A ship takes just one day from Dubai to reach Gwadar, whereas it can take about two weeks to reach Shanghai. It also cuts costs hugely as the per container cost from the United Arab Emirates to Pakistan is about $250, while the same for China could be up to $1500.

Once completed, the distance of goods transported from Urumqi (Xinjiang) to Dubai via the Gwadar Port will be 5,772 kms, with reduction in distance by 11,061 km compared with the old route via Shanghai. And the distance from Urumqi to London will be cut by 10,884 kms. This will make Gwadar a primary gateway for trade between China, and Middle East and Europe as well as making Xinjiang a transit hub for China.

To provide intellectual leadership and overall policy guidance on the CPEC, a Project Management Unit (PMU) has been set up in the Planning Commission and functional units in the PM office and line ministries. The CECP PMU will take on-board all relevant ministries and organisations, including Ports and Shipping, Railways, Communications, IT and Telecom, Board of Investment, Information Broadcasting and National Heritage, Economic Affairs Division, Petroleum and Natural Resources, Federal Board of Revenue, National Highway Authority, CAA, international development partners and the private sector to work together in achieving the desired objectives.

Sub-sector strategies and programmes

Ports and shipping

Issues

Two main ports of the country, that is, Karachi and Qasim handle 95 per cent of the national imports and exports. The Gwadar Deep Water Port is the third port of the country which has recently started operations. The traffic at these ports has been growing at an annual rate of over eight per cent. By type, it is dry bulk cargo which is expanding at a much higher rate 12 per cent per year as compared to containerised traffic and general cargo. With increasing traffic and inadequate cargo handling capacity, the ports are becoming congested; the dwell time for containers is still on the higher side. The pace of work on infrastructure improvements, including access channel conditions, design depths at berths and better equipment, is slow and the ports are becoming increasingly unsuitable for receiving larger carriers.

While the nature of traffic has changed to containerised cargo, the ports tariffs have not been fully restructured. The tariffs are high for container cargo and relatively low for bulk and general cargo. Physical improvements at the ports, being carried out to meet the requirements of increasing containerised traffic, are generally inadequate. Dedicated container terminals have only recently been created at the ports. The major container terminals are: Pakistan International Container Terminal (PICT), Qasim International Container Terminal (QICT) and Karachi International Container Terminal (KICT). However, in spite of these steps, the dearth of container berths at ports still persists. Ports are becoming commercial in management, but at a slow pace. The Port Qasim has been operating as a landlord port, but the Karachi Port Trust (KPT) is yet to make significant progress in this direction.

The shipping industry in Pakistan has not flourished. The fleet of vessels is now reduced to nine. Almost the entire trade of the country is dependent on foreign ships. The recent changes brought in the regulatory framework for shipping, that is, better aligning it to international practices have not significantly improved the prevalent situation. Due to financial constraints, it has not been able to take any major initiative to acquire vessels to capture dry cargo and containerised trade.

Strategy

Making ports attractive: The sector strategy will aim at maximising the support of the ports to external trade by reducing ports and ship handling charges, and developing port facilities that allow all types of ships to call at the country's ports. The investment will focus on the improvement of physical infrastructure at three ports, improvement of shipbuilding and repair facilities, procurement of additional ships by the Pakistan National Shipping Corporation (PNSC) and the private sector, while the latter will also be encouraged for investment.

Reforms and programmes

The reforms and programmes proposed in the port sector, to be implemented during the Plan are: i) continuation of landlord port strategy, ii) corporatisation of ports, iii) preparation of ports business Plans and their implementation, iv) preparation of ports master plan; v) full application of paperless transactions for ports and customs procedures, vi) complete outsourcing of the port services, vii) contracting out dredging and using performance-based contracts for capital and maintenance works; viii) resolving draught issues to accommodate larger ships, and ix) setting up a Maritime Task Force in the Ministry of Ports and Shipping – comprising highly technical in nature, a think tank of maritime professionals – and x) promoting public-private partnerships.

The proposed reforms envisioned under the Plan will comprehensively tackle the impediments, which have stalled progress of the shipping sector. These reforms include: i) improvement in legislation by incorporating modifications in the existing Merchant Shipping Ordinance 2001, ii) finalising recommendations to revamp port facilities, iii) procurement of ships by the private sector and reduced dependence on foreign ships, iv) deepening of the navigational channels at all ports as per requirement, v) development of the private terminals, ship building, ship repair, container manufacture and repair, etc. vi) initiation of pilot project for inland waterways, vii) revamping of the Karachi Shipyard and Engineering Works (KSEW), viii) facilitation of direct foreign investment, public-private partnerships and commercial financing, and ix) tapping of network resources in Pakistan's maritime exclusive economic zone. With the implementation of these reforms during the Plan period, it is expected that country's shipping sector will substantially improve.

The following programmes have been envisaged for the sector.

- **Karachi Port Trust:** Major projects planned are: i) construction of Pakistan Deep Water Container Port east of Kemari Groyne, ii) construction of port bridge-cum-Karachi Harbour Crossing, iii) construction of a cargo village in the Western Back Waters and deepening of the navigation channels, and iv) reconstruction of old jetties and facilities and procurement of additional floating craft.
- **Port Qasim Authority:** Major projects planned and being executed are**:** i) second container terminal, ii) grain fertilizer terminal, iii) coal, clinker and cement terminal, iv) LNG terminal on the BOT basis, private sector projects, and vi) deepening and widening of the navigation channels and night navigation, to be undertaken on self-financing basis, and vii) Capital dredging to increase channel depth to accommodate large ships.
- **Gwadar Port Authority:** Major projects envisaged are: i) construction of the main port access road, namely East Bay Expressway, ii) Mullaband land for development of port facilities and other allied paraphernalia. In addition, the GPA plans upgradation and paving backup areas, further equips multipurpose berths with modern craft and

equipment, development of the free zone for warehousing and other port facilities, and construction of additional container terminals.

- **Shipping:** Programmes to be given priority are: expansion of the PNSC's shipping fleet, and promotion of the private ships operating under Pakistan's flag.

Trade facilitation and logistic service

Issues

A number of steps have been taken by the government to reduce long and cumbersome customs clearance procedures. These include procedural obstacles, for example, 'up to 36 signatures and 62 controlled steps required for clearance and 100 per cent physical inspection of containers. Some improvements have been witnessed in trade facilitation targets, which are: i) port dwell time reduced from 11 days to six days, ii) customs clearance time at the KICT reduced from four days to less than one day for exports and one to two days for imports, iii) ports storage period reduced from nine days to five days, and iv) adoption of the National Trade Facilitation Strategy 2008. However, these reforms are not enough and the country is still far away from meeting the regional averages. The local freight-forwarding industry is predominantly undeveloped. It is not capable of providing integrated and value-added services, which are features of any advanced and modern logistics industry. These services include: tracking and tracing, cross-docking, vendor managed inventory, global door-to-door delivery, etc. Integrated logistics services are being provided by a few international chains, which have opened local branches in the country.

Strategy

Development of modern and efficient trade facilitation and logistics services: The focus of the proposed plan will be to facilitate efficient distribution of production to the domestic and international markets. This will be achieved by streamlining and modernising procedures, practices and policies relating to the transport and logistics sector. Development of logistic hubs in the private sector, integrated into the existing industrial estates, industrial parks, export processing zones and others, will be carried out on pilot basis in all the provinces.

Reforms and programmes

Two major reforms have been partially accomplished to set in motion a process of improvements in trade facilitation, namely: i) preparation of the Trade Facilitation Strategy, and ii) development of the Pakistan Automated Custom Systems. During the Plan period, these reforms will be further spread across the country at ports, dry ports and border terminals. Additionally, the implementation of the following reforms will further improve the existing standards, which include: i) development and finalisation of a trade facilitation strategy, ii) implementation of important international treaties and conventions, particularly accession to the International Road Transit (IRT), iii) upcountry licensing and registration of freight forwarders, iv) adoption of transparent pricing and reduced private sector port charges, vi) implementation of a Pakistan electronic trading platform, vii) streamlined role of the commercial banks in trade facilitation, viii) establishment of a modern multi-agency transit station at Jamrood, x) development of border terminals at Taftan, Chaman, Khokhrapar and Wagha for composite facilities, xi)establishment of a training institute for freight forwarders, and xii) development of logistic hubs overlaid to important industrial estates across the country.

The Pakistan Customs is in the process of developing an integrated web-based and paperless arrangement 'Web-based one customs system'. It will be tested first at Karachi, and

subsequently rolled out to all other stations in the country. The system will be operated in the public sector, and will provide one-stop shop for all commercial, industrial and other transactional requirements of various stakeholders. The end-users will include importers, exporters, regulatory authorities, tax collectors, logistics service providers, carriers, terminal operators and banks, etc. The system is expected to significantly reduce the custom clearance time from two days (current) to a few hours, and add efficiency to facilitate trade immensely.

Cold chain system

Issues

In Pakistan, the post-harvest losses of the perishable goods, that is, fruits, vegetables, meat and dairy products, are estimated to be very high (about 35 per cent). One important reason is the absence of appropriate transport logistics, comprising pack houses, cold storage facilities, reefer containers and reefer yards for marketing perishable goods produced domestically and internationally.

Strategy, reforms and programmes

Development of a well-integrated Cold Chain System (CCS) will be an important logistics service, which will be developed to enhance export volume of the perishable goods. The Pakistan Horticulture Development and Export Corporation (PHDEC) has been assigned the task of developing CCS infrastructure using public-private partnership modalities, so as to realise the enormous potential of the horticulture sector in the international market. A comprehensive feasibility study has been planned to launch a chain of initiatives, such as pack houses, cold storages, reefer containers, reefer yards and testing labs in the country. Similar arrangements are also underway for dairy, meat and fisheries products by the Livestock and Dairy Development Board (LDDB). The private sector will be responsible for creating assets through dedicated businesses and delivery of services. The public sector will create an enabling environment through supportive policies and regulations.

Roads and bridges

Issues

The national road network (national and provincial roads) comprises 260,000 kilometres of roads, of which 68.4 per cent is of high-type. Network expansion has been rather modest, which is at a rate of about 2,211 kms per year (1996-2009). The focus had been on consolidation of the existing network and upgradation of low-type roads to high-type. The road spread, which facilitates economic activity in many ways, is rather low, that is, at 0.33 km of road length per sq. km of land area. It is relatively high in the Punjab (0.51) and Sindh (0.57), but low in Balochistan (0.12) and Khyber Pakhtunkhwa (0.30). In the neighbouring countries, the road spread ranges from 2.1 km/km^2 in Bangladesh and 1.1 km/ km^2 in India. In order to upgrade the road density to 0.50 km/km^2, it is estimated that approximately 138,000 kms road length (based on surface area of 796,096 sq. km) will have to be added to the network, which appears unattainable through the public sector investment alone; hence concerted efforts will be required to leverage the private sector funding to achieve the target.

The National Highway Authority (NHA) looks after the construction and maintenance of the national highways system linking the centres of population and economic activity to ports and neighbouring countries. The highways system extends over 12,000 kms, which caters to 80 per cent of the inter-provincial passenger and freight traffic in the country. The remaining road

network is maintained by the provincial and local governments. For development works, the NHA receives funds through the federal PSDP – on average about Rs50 billion to Rs60 billion annually – which are often short of their annual requirements. Maintenance costs are primarily met through toll receipts, which are often low (Rs17 billion per year) as compared to annual requirements (Rs27 billion per year).

Strategy

Achieving faster and reliable national highways: During the Plan period, efforts will be made to improve the country's export competitiveness and promote regional trade by developing highway infrastructure, which is capable of providing faster and more reliable transportation facility for passengers and freight.

Reforms and programmes

The national highways will be under focus since being an important component of the CPEC. For this, major reforms are: i) preparation of the NHA business plan, ii) establishment of performance monitoring indicators and benchmarks, iii) implementation plan for limited access motorways, iv) integration to optimise multi-modal transportation plans, v) integration with all intercity feeder systems of the network including local road network, vi) termination of interventions and check-posts on the highways, vii) conversion of the NHA's existing debts into equity and restructuring of the future financing, viii) recruitment of professionals on market-based packages, ix) reduction in fatal accidents through preventive measures and strict enforcement of rules, x) reduction in travel time by 50 per cent, ix) reduction in transport costs by 10 per cent, xi) enhanced toll receipts, and xi) focus on Research and Development (R&D) to design most economical roads pavements according to the soil and climate.

The on-going projects to be completed and new projects to be initiated during the Plan period are at Annexure-C.

In addition to the PSDP, projects will also be undertaken using public-private partnership modalities. These include: i) Tarnol Interchange at Rawalpindi, ii) Rawalpindi Bypass Expressway, iii) Shahdarah Flyover, iv) Multan–Muzaffargarh–DG Khan Section of N-70 with VGF 30 per cent, v) provision of overlay on the entire length of Islamabad–Lahore Motorway M-2, and vii) conversion of 4-lane Pindi Bhattian–Faisalabad Motorway (M-3) into a 6-lane Motorway.

Under the provincial programme, besides construction of new roads, 9,610 kms of the existing roads will be rehabilitated and improved. This includes: 3,500 kms in the Punjab, 750 kms in Sindh, 4,260 kms in Khyber Pakhtunkhwa and 1,100 kms in Balochistan besides allied facilities.

In the Special Areas, 630 kms of new roads will be constructed and 1,410 kms of the existing roads will be improved and rehabilitated. This includes: construction of 480 kms in the AJ&K and 150 kms of new roads in Gilgit-Baltistan and improvement and rehabilitation of 1,200 kms in the AJ&K and 210 kms of the existing roads in G-B besides allied facilities.

Trucking industry

Issues

The expanding economy requires a fast and reliable road freight industry, something which the country's trucking industry in its current state cannot provide. The trucks manufactured locally

are open-type, have small capacity and under-powered. These trucks are not compatible with containerised traffic arriving at the ports. The containers have to be unpacked and cargo stuffed into open trucks, which lead to wastages and delays. It is important to replace these old models with large-capacity international standard trucks.

Due to high competition within the local market, tariffs are low. To enhance their revenue, transporters resort to overloading, which causes damage to roads, reduces speed and leads to frequent vehicle breakdowns. The delivery of freight becomes uncertain and is usually delayed. In 2005, a survey revealed that there were 35 check points maintained by various organisations and agencies on N-5 between Karachi and Lahore, which are also a source of interruptions and delays in the smooth flow of the vehicular traffic.

Strategy, reforms and programmes

Modernising trucking industry: The principal objective will be to reduce the external cost of the existing trucking sector to the economy and business by modernising the trucking industry and organising it to offer integrated road transport and logistics services of the international standards.

The principal reform initiated in the sub-sector has been the preparation and approval of the Trucking Policy 2008. The implementation of some reforms is already underway through the sponsors, that is, Ministry of Industry. These reforms are in conformity with the Trucking Policy, and their implementation will continue during the Plan period. These reforms include: i) establishment of performance monitoring indicators and benchmarks, ii) reduction in overloading of trucks to 15 per cent or less (currently at 43 per cent), iv) 25 per cent of the truck fleet to be modernised (currently less than 5per cent), v) diesel with lower sulphur contents to be made available in the market to enable usage of the Euro-specs Turbo Diesel engines, vi) provision of the trucking facilities along the national highways, vii) further rationalisation of truck import tariffs to increase availability of prime-mover trailer combination in long-haul freight by 50 per cent, viii) revamping of the Motor Vehicle (MV) registration and examination systems, ix) enforcement of axle load control plan, x) launching of truck financing schemes, xi) establishment of truck driver training facilities, xii) capacity-building of truckers associations, xiii) increase in number of formal truck operators by 25 per cent, xiv) delinking and corporatisation of the National Logistics Cell's trucking units to lead trucking modernisation, xv) revision of the national truck specifications for two, three and multi-axle prime movers, and xvi) establishment of the trucking terminals.

Railways

Issues

The Pakistan Railways (PR) is the sole government agency responsible for rail transport. It has a network of 7,791 route kms, but two-thirds of this is of non-commercial value and consists of branch and strategic lines. The remaining one-third of the network carries most trains and handles the bulk of rail-based passenger and freight traffic, that is, 85 per cent. In comparison to road-based freight traffic, the rail network has gradually lost its competitiveness. It has become a passenger-handling network and carries only six per cent of the total freight traffic. Comparatively more revenue earned by freight traffic is often used to subsidise passenger tariffs rather than to improve infrastructure for freight transportation.

The financial health of the PR has deteriorated with the gradual decline in rail-based freight traffic. This has prevented it from making any substantial investment in infrastructure and rolling stock, which has become old and requires replacement. Freight is increasingly becoming containerised, but the Railways has inadequate infrastructure and capacity to handle it. Its organisation lacks commercial orientation, innovative marketing and effective coordination with other modes of transport.

Strategy

Promoting commercial railways: The principal objective will be to restore the historic role of the PR as an economical and quality service provider, both for passenger and freight traffic. The strategy adopted for this will be to restructure the Railways management and its operations on the commercial lines. This will be done through appointment of independent and professional Railway Board. Programmes include: upgradation and doubling of the remaining sections of the main line – Shahdarah to Peshawar and Shahdarah to Faisalabad – in a phased manner, procurement of new rolling stock, improvement of the signalling system with state-of-the-art new computerised signalling system, privatisation of the railways operations with particular reference to track access and improvement in its systems and processes.

Reforms and programmes

A number of reforms have been identified for revitalisation of the PR during the Plan period. A few are already in the process of completion, which include: i) Business Plan, ii) track access policy, and iii) linking of the private freight forwarders and truckers for door-to-door services (Karachi, Lahore, Multan and Faisalabad). Several other reforms are in progress and will be completed during the Plan period. These include: i) establishment of performance monitoring indicators and benchmarks (freight business), ii) rail restructuring plan, including provision for an autonomous Railway Board, iii) corporatisation and appointment of a professional Chief Executive Officer (CEO), iv) financial restructuring, v) introduction of corporate accounts, specifically for freight and passenger services, vi) commercialisation of the PR land, vii) establishment of a separate holding company for non-core activities and land assets, viii) introduction of the private sector management and investment in the freight sector, ix) procurement of more locomotives and flat-bed wagons, x) closure of the loss-making lines and trains (strategic exceptions to be made after carrying out studies), xi) PR to deliver 20 per cent of all long-haul freight (currently at five per cent), and xii) promotion of the public-private partnerships.

In support of the reforms outlined above, the major projects to be initiated and completed during the Plan period are at Annexure C. Besides the PSDP funding, some of the projects will be considered for implementation on public-private partnership basis. Revival of the Karachi Circular Railway (KCR) project, 43 kms long, through 93.5 per cent Japanese financing of the total cost of $2.60 billion, and the project will be implemented through the Karachi Urban Transportation Corporation (KUTC). Development of the infrastructure for uninterrupted coal supply chain from Karachi to various coal fired power plants destinations and major component of this initiative will be provision of locomotives and rolling stock.

Civil Aviation

Issues

While the economy has expanded, the aviation sector has not been able to gain benefits of the economic growth. Growth of the international passenger traffic, for example, between 2001

and 2005, has been only about nine per cent. The PIA is the flagship carrier and accounts for over 73 per cent of domestic air passenger traffic (2008), while the private airlines has the remaining share of 27 per cent. The growth of passenger as well as freight traffic by air is slow – less than two per cent per year during 2001-2005. The volume of cargo is also modest, and has been fluctuating at a level of 400 to 425 million tonnes per km over the last five years. As compared to traffic by other modes, it is about four per cent of the freight traffic by rail and 0.2 per cent by road. The financial status of the Pakistan International Airlines Corporations (PIAC) is not very healthy, and it is not earning enough to sustain itself. Too expensive to operate and maintain old wide bodied aircraft are needed to be replaced with medium to small bodied aircraft to economise the expenditure.

The administration of aviation sector is with the CAA, which is responsible for air traffic control, and development and maintenance of airports. The CAA's major income is generated from the charges it recovers from the airlines using its airports and facilities. Its financial status is sound, and it is constructing a few airports from its own resources, including New Benazir Bhutto International Airport (NBBIA) at Islamabad and upgradation of the Multan International Airport. The users' charges at airports need rationalising, as it is being a principal factor, which determines airlines usage of airports, for both transit use and as a destination for services.

Strategy

- **Developing air cargo infrastructure:** The principal objective will be to enhance role of the aviation sector in building-up trade competitiveness in various sectors of the economy, particularly perishable items. This will be done by developing cargo infrastructure such as cargo villages, cold storages, and pack houses at the important international airports. The development programmes will include: a) development of a new international airport at Islamabad, b) improvement of facilities at other international airports, and c) procurement of additional small and medium aircraft.
- Increasing non-aeronautical revenue by establishing cargo villages, airport cities' master plan and changes in any other policy, which can hinder the leasing of the land parcels for commercialisation.
- The old surveillance and communication equipment needs early replacement. The redundancy element is also needed in addition to matching the system with the region as well as for global expediency.
- Development and growth of air transport through trained and skilled human resource
- Promotion of tourist information at all international airports and national airlines

Pakistan International Airlines

As part of the PIA's fleet modernisation, it has been planned to phase out the ageing Boeing 737, Boeing 747 and Airbus A310 aircraft. The replacement will also cater to provide additional support for the future growth. To generate the projected volume of capacity as well to replace the ageing fleet, 34 aircrafts are being considered for induction during 2014-2018.

New avenues have to be explored and policies need to be implemented to generate additional revenues like Maintenance, Repair and Overhaul (MRO). Air transport MRO business in the world was about $40.8 billion in 2006. The Asia-Pacific aircraft and engine MRO market totalled $8.71 billion in 2005, and is estimated to touch $14 billion in 2013. The PIA has already initiated

the process for establishment of the MRO Business, which will result into an improved efficiency, reduced maintenance cost and generation of the additional revenue streams.

Reforms and programmes

The reforms and programmes envisaged for the safe and efficient performance of the sub-sector include: i) approval and implementation of the draft National Aviation Policy, which has been reviewed and developed in consultation and coordination with all stakeholders. It is aimed at liberalising air transport regulations, providing level playing field to all the national airlines and paving way for the public-private partnerships in the infrastructure development, ii) preparation of a business plan to increase the aviation business in Pakistan, and encourage international airlines, iii) preparation of the performance indicators and benchmarks, iv) development of in-house expertise on airworthiness matters to reduce reliance on foreign consultants and to enable export of expertise to other countries, v) upgradation of the existing communication and surveillance systems, vi) automation, modernisation and mechanisation of services leading to reduction in the operating cost as practicable, vii) development of airport cities, cargo villages at major international airports with the public-private partnerships and in the private sector, viii)human resource development by developing facilities at the Civil Aviation Training Institute (CATI) at Hyderabad to enhance the quality of training, ix) completing construction of the NBBIA, Islamabad, x) construction of new international airport at Gwadar, xi) development of four cargo villages, trans-shipment hubs to increase cargo handling capacity, xii) establishment of business centres, IT, logistic and retailing centres at airports, and xiii) development of the cold storage facilities at Karachi, Lahore and Multan airports.

An outlay of Rs86,796 million has been proposed on development projects through self-financing of the CAA during the Plan period. The major projects to be implemented are at Annexure-C.

Public-private partnership

Significant investment is required in transport and logistics infrastructure, which is far more than the limited fiscal space available under the PSDP. This necessitates involvement of the private sector. However, infrastructure projects in the transport and logistics sector often require large quantum of funds. Given the inadequate incentives on investment, and the fluid security environment, such projects have not elicited interest amongst the foreign investors. Local enterprises suffer from lack of capacity to fund and manage mega-projects.

Supporting private sector development

The strategy will be to create an enabling environment for development of the private sector in the country for its full participation in infrastructure projects and programmes under the proposed Bureau of Infrastructure Development (BID).

The reforms in a phased manner, to be implemented during the Plan period, are: i) establishment of a BID to strengthen capacity of the already established the Infrastructure Project Development Facility (IPDF) in the Ministry of Finance, and coordinate and oversee the programme for the private sector participation in infrastructure development, ii) capacity-building of the public sector institutions to develop feasible and attractive public-private partnerships projects, iii) introduction of legal, administrative, financial and regulatory measures to facilitate the private sector development, and iv) creation of an enabling framework for the public and private sectors to perform effectively in harmony with each other.

Inland water transport

There is a 30,000 kilometre long network of rivers and perennial canals, which offers an excellent opportunity to establish an economical water transport system. Fuel consumption for the inland water transport can be just 10 per cent of the road transport, and 25 per cent of the rail transport. But it is only recently that a full-scale Inland Water Transport Project, based on link-canals in the Punjab and Sindh as well as some sections of the Indus River, has been given serious consideration and is in the process of research. Based on studies carried out by the private sector, potential exists to invest in developing operational section in a phased manner for eventful access to sea. As per the initial study, it has been found that a section of the Indus River between Nowshera and Kalabagh has the potential for navigation.

Following a detailed feasibility study, a pilot project will be planned during the Plan period to test the technical, commercial and environmental viability of moving commercial cargo on canals in the Punjab and Sindh, and along the Indus River. If successful, the pilot project will be replicated in other feasible waterways in the country.

Supporting research and development

The emphasis will be to revamp and restructure the existing National Transport Research Centre (NTRC), working under the Ministry of Communications, and make it a premier national research and development centre in the transport sector. In this regard, the following measures have been proposed:

- The principal seat of the R&D will be financially supported, and its research faculty will be appropriately expanded.
- The Centre will not only be tasked to lead research studies that can culminate in comprehensive national transport policies, but also develop policy guidelines with reference to which provinces can formulate provincial policies and programmes.
- The Centre will continuously engage itself in carrying out objective research in the sector, which will provide authentic information (traffic data) and analytical underpinnings to the national and provincial policies and reforms.
- It will also be developed into a centre of excellence innovating best practices and piloting model projects.
- Establishment of the Highway Research and Training Centre (HRTC) under the NHA at Attock, through JICA assistance, is at an advanced stage of completion, which will provide research in the field of pavement design, its testing and related training facilities.

Financing

The expected resource requirement for the transport and logistics sector during the Plan period is Rs2,038 billion. About Rs1,581 billion will be made available through the PSDP, while the remaining funds will be arranged by each sub-sector on self-financing basis or through mixed funding arrangements, like BOOT, BOT and BOO. Annexure-B shows proposed budgetary allocations during the Plan period.

Annexure-A

Traffic forecast (Transport and communications)

Sub-sector		Units	2012-13	Targets					ACGR %
				2013-14	2014-15	2015-16	2016-17	2017-18	
Railways traffic									
a)	Passenger	BP-km	29.20	30.35	31.55	32.80	34.09	35.44	3.95
b)	Freight	BP-km	15.30	17.94	21.04	24.67	28.93	33.92	17.26
Road traffic									
a)	Passenger	BP-km	403.31	433.56	466.08	501.03	538.61	579	7.50
b)	Freight	BP-km	253.43	269.90	287.45	306.13	326.03	347.22	6.50
Ports & shipping traffic									
Karachi Port Trust (KPT)									
a)	General and containerised cargo	Million tonnes	23.83	25.96	28.27	30.79	33.54	36.53	8.92
b)	Liquid cargo	Million tonnes	13.68	14.19	14.72	15.27	15.84	16.44	3.74
c)	Dry bulk cargo	Million tonnes	21.52	24.43	27.73	31.47	35.73	40.55	13.51
	Total Cargo	**Million tonnes**	**59.03**	**64.57**	**70.72**	**77.54**	**85.11**	**93.52**	**7.99**
d)	Containers (TEUs)	Nos. (000)	1,960	2,156	2,372	2,610	2,872	3,159	10.02
Port Qasim Authority (PQA)									
(a)	General and containerised cargo	Million tonnes	12.95	13.82	14.75	15.74	16.80	17.94	6.73
(b)	Liquid cargo	Million tonnes	15.23	16.46	17.78	19.22	20.77	22.44	8.06
(c)	Dry bulk cargo	Million tonnes	9.43	11.17	13.22	15.65	18.53	21.94	18.40
	Total cargo	**Million tonnes**	**37.61**	**41.44**	**45.76**	**50.61**	**56.10**	**62.32**	**8.80**
(d)	Containers (TEUs)	Nos. (000)	949	994	1,040	1,089	1,140	1,194	4.70
Gwadar Deep Sea Port									
(a)	General and containerised cargo	Million tonnes	0.77	0.81	0.85	0.98	1.03	1.08	5
(b)	Liquid cargo	Million tonnes	0.05	0.053	0.056	0.060	0.064	0.068	6.26
(c)	Dry bulk cargo	Million tonnes	1.97	2.13	2.31	2.50	2.71	2.93	8.28
	Total cargo	**Million tonnes**	**2.79**	**2.99**	**3.22**	**3.54**	**3.80**	**4.08**	**6.57**
(d)	Containers (TEUs)	Nos. (000)	100	105	110.25	152.09	174.90	201.14	12.50
The containers (TEUs) handling of the Gwadar Port is expected to increase within two years owing to the operations of the Port taken over by the state-run Chinese firm COPHC.									
Total all ports									
A	**Total cargo**	**Million tonnes**	**99.43**	**109.01**	**119.69**	**131.70**	**145.02**	**159.92**	**8.26**
B	**Total containers**	**Nos. (000)**	**3,009**	**3,255**	**3,523**	**3,851**	**4,187**	**4,555**	**7.17**

Air transport traffic									
(a)	Domestic	Million nos.	6.28	6.46	6.64	6.82	7.01	7.21	2.79
(b)	International	Million nos.	8.50	8.74	8.99	9.25	9.51	9.78	2.85
	Total	**Million nos.**	**14.78**	**15.20**	**15.63**	**16.07**	**16.52**	**16.99**	**2.82**
Freight									
(a)	Domestic	Million tonnes	0.060	0.063	0.066	0.070	0.073	0.077	5.15
(b)	International	Million tonnes	0.200	0.21	0.22	0.225	0.234	0.243	4.01
	Total	**Million tonnes**	**0.260**	**0.271**	**0.283**	**0.295**	**0.307**	**0.321**	**4.28**
Inland traffic									
Passenger									
(a)	Railway	BP-km	29.20	30.35	31.55	32.80	34.09	35.44	3.95
(b)	Road	BP-km	403.31	433.56	466.08	501.03	538.61	579	7.50
	Total (Passenger)	BP-km	**432.51**	**463.91**	**497.63**	**533.83**	**572.70**	**614.44**	**6.04**
Modal split for passenger									
	Railway Share		7%	7%	6%	6%	6%	6%	
	Road share		93%	93%	94%	94%	94%	94%	
Freight									
(a)	Railway	BTKM	15.30	17.94	21.04	24.67	28.93	33.92	17.26
(b)	Road	BTKM	253.43	269.90	287.45	306.13	326.03	347.22	6.50
	Total (Freight)	**BTKM**	**268.73**	**287.84**	**308.48**	**330.80**	**354.96**	**381.14**	**6.01**
Modal split for freight									
	Railway Share		**6**%	6%	7%	7%	8%	9%	
	Road Share		94%	94%	93%	93%	92%	91%	
Total all three ports									
(a)	General cargo and containerised Cargo	Million tonnes	37.55	40.59	43.87	47.52	51.38	55.55	6.76
(b)	Liquid cargo	Million tonnes	28.96	30.70	32.56	34.55	36.67	38.94	5.07
(c)	Dry bulk cargo	Million tonnes	32.92	37.73	43.26	49.63	56.97	65.43	12.15
	Total Cargo	**Million tonnes**	**99.43**	**109.01**	**119.69**	**131.70**	**145.02**	**159.92**	**8.26**
(d)	Containers (TEUs)	Nos. (000)	3,009	3,255	3,523	3,851	4,187	4,555	7.17

Annexure-B

Proposed Allocations during 2013-18

(Rs million)

S. No	Ministry / Sub-sector	Five Year (2013-18) allocation			
		Budgetary	Self-financing / Corporation	Public-private /private financing	Total
1	2	3	4	5	6
A	**FEDERAL**				
1	**Ministry of Railways**	**239,383**		**35,000**	**274,383**
2	**Ministry of Communications**				
A	National Highway Authority (NHA)	554,652		66,500	621,152
C	National Highways and Motorway Police (NH&MP)	82			82
D	National Transport Research Centre (NTRC)	282			282
E	Construction Technology Training Institute (CTTI)	876			726
	Total M/o Communications	**555,893**		**66,500**	**622,393**
4	**Ministry of Ports and Shipping**	2,455			**2,034**
5	**Ministry of Defence Production**				
A	Karachi Shipyard & Engg. Works	3,357	5,000		8,357
	Total M/o Defence Production	**5,812**	**5,000**		**10,812**
6	**Ministry of Defence**				
A	New Gwadar Int'l Airport (NGIA)	8,576	250		8,826
B	Pakistan Meteorological Department (PMD)	151			125
C	Airport Security Force (ASF)	**302**			302
D	Maritime Security Agency (MSA)	573			475
E	Civil Aviation Authority (CAA)		150,000		150,000
F	Pakistan Int'l Airlines Corp. (PIAC)		200,000		200,000
	Total M/o Defence	**9,602**	**350,250**		**9,602**
7	**Inland Water Transport**	**60**		**300**	**360**
8	**Others in charge of logistics and urban transport**	**68,557**		**200**	**68,757**
	Total federal programme	**879,307**	**355,250**	**102,000**	**1,336,557**
B	**Provincial road programme**				
	Total provinces	**699,642**			**579,649**
C	**Special Areas**				
A	Azad Jammu and Kashmir	1,207			**1,207**
B	Gilgit-Baltistan	604			604
	Total Special Areas	**1,811**			**1,811**
	Total T&C (A+B+C)	**1,580,759**	**355,250**	**102,000**	**2,038,009**

Annexure-C

Pakistan Railways projects to be completed during the Plan period

S. No.	Names of the projects	Capital cost
1.	Rehabilitation and improvement of tracks from Landhi to Khanpur main line	9,405
2.	Doubling of track from Khanewal to Raiwind (Revised) (Khanewal, Lahore)	12,617
3.	Doubling of track from Shahdarah to Faisalabad (Lahore, Faisalabad)	10,281
4.	Doubling of track from Shahdarah to Lalamusa (Lahore, Gujrat)	13,593
5.	Mechanisation of track maintenance (pilot project in the Lahore Division)	4,055
6.	Procurement and manufacture of 530 high capacity wagons (revised)	4,135
7.	Procurement and manufacturing of 50 Diesel Electric locomotives	19,406
8.	Procurement and manufacture of 75 new DE locomotives	46,810
9	Procurement of 150 DE new Locomotives	55,488
10.	Rehabilitation of 27 (HGMU-30 Class) DE locomotives	6,284
11.	Special repair of 150 DE locomotives to improve availability and reliability	5,005
12.	Rehabilitation of the rolling stock and track	4,000
13.	Rehabilitation of the railway assets damaged during riots of 27-28 December 2007 (Sukkur and Karachi Divisions)	7,856
14.	Reconstruction of assets damaged during the floods of 2010	6,365
16.	Replacement of old and obsolete signal gear from Lodhran-Khanewal-Shahdarah Bagh Mainline Section	18,484
17.	Replacement of three break down and rescue cranes and procurement of five sets of relief train equipment	1,638
18.	Replacement of metal sleepers and track renewal on the Lodhran-Shahdarah Section	2,216
19.	Procurement of 500 high capacity bogie wagons and 40 power vans	11,998
20	Procurement and manufacture of 202 new design passenger carriages	15,890
21.	Rehabilitation, upgradation and conversion of 400 coaches	5,200
22.	Strengthening and rehabilitation of 159 weak bridges	412

Pakistan Railways projects to be initiated during the Plan period

S. No.	Names of the projects	Capital cost
1.	Upgradation of main line 1 from Karachi to Peshawar and development of a dry port at Havelian under the China-Pakistan Economic Corridor (CPEC) initiative	400
2.	Feasibility study for the Peshawar-Jalaladad (Afghanistan) Rail Link	67
3.	Construction of the Chaman-Spinbouldak (Afghanistan) Rail Link	1,378
4.	Feasibility study for dedicated freight corridor for transportation of coal from Karachi to Lahore	391
5.	Improvement of the Signalling System on Lodhran-Khanpur-Kotri Section and provision of the Centralised Traffic Control (CTC) on Shahdarah-Lodhran Section	38,263
6.	Renovation and upgradation of Quetta, Karachi, Lahore and Peshawar Railway Stations	1,000
7.	Special repair of 100 DE locomotives and recommissioning of 19 stabled DE locomotives (15 AGE-30 and 04 RGE-24)	4,883
8.	Upgradation of the terminal facilities at the Marshalling Yard Pipri, Lahore and Peshawar dry ports	200
9	Special repair of 800 coaches and 200 wagons	1,810

NHA projects to be completed during the Plan period

S. No.	Names of the projects	Capital cost
1.	Mossa Pak–Shaheed Bridge	1,988
2.	Construction of a bridge over the River Chenab linking Shorkot and Garh Maharaja	1,603
3.	Construction of a new bridge over the River Sutlej at Emanwala	1,108
4.	Construction of Hassanabdal–Abbottabad–Mansehra Expressway (110 kms)	30,494
5.	Construction of the Faisalabad–Khanewal Motorway(M-4) (184 kms)	28,564
6.	Construction of the Peshawar Northern Bypass (32 kms)	9,003
7.	Upgradation of the Karakorum Highway (KKH) for the Bhasha Diamer Dam project (Mansehra to the proposed Dam site)	
8.	Rehabilitation, improvement and widening of the KKH (Raikot-Khunjerab Section, 335 kms)	30,911
9	Realignment of the KKH at the Barrier Lake, Attabad, Hunza, and Gilgit-Baltistan (17 kms new + 7 kms rehabilitation)	26,477
10.	Construction of the Jhalkhad-Chillas Road (66 kms)	4,017
11.	Construction of the Lowari Tunnel (tunnel excavated)	26,855
12.	Construction of additional carriageway of the Indus Highway (N-55)–Sehwan–Khairpur Nathan Shah–Ratodero section (200 kms approximately)	12,342
13.	Bridge on the River Indus at Larkana with approaches (bridge portion completed) and two other bridges at Nishtar Ghat and Khushhal Garh	9,225
14.	Construction of portion of M-8 from Gwadar-Turbat to Hoshab (200 kms) and Khuzdar to Ratodero (143 kms)	23,168
16.	Construction of the Surab-Basima-Nag-Panjgur-Hoshab Road (454 kms) N-85	22,413
17.	Widening and improvement of the Kararo-Wad section (96 kms) N-25	3,373
18.	National Highway Development Sector Project envisaging improvement, rehabilitation and upgradation of 687 kms along the National Highway road network	49,955
19.	Kalat-Quetta-Chaman section of N-25 (247 kms)	19,140
20	Construction of road from Gharo to Ketti Bunder (90 kms) N-110	3,036
21	Construction of the Lyari Express way.	12,909

Major projects of the CAA to be implemented during the Plan period

S. No.	Names of the projects	Capital cost
1.	New Benazir Bhutto International Airport (NBBIA) Islamabad	85,000
2.	Upgradation of the Multan Airport – runway, apron, terminal building and associated facilities	5,910
3.	New terminal building at Quetta	15,000
4.	Construction of the New Gwadar International Airport (NGIA), Gwadar	7,675
5.	Reconstruction of the Quetta and Faisalabad runways to facilitate operation of 777 type aircraft at these airports	4,000
6.	Reconstruction of the secondary runway and expansion of terminal building of the Allama Iqbal International Airport, Lahore	5,500
7.	New Air Traffic Control (ATC) Tower at the Jinnah Terminal Complex, JIAP Karachi	800
8.	New terminal building at Quetta	15,000
9.	Reconstruction of the primary runway, addition of two satellites along with apron, replacement of old and addition of new Passenger Loading Bridges(PLBs) at the Jinnah International Airport (JIAP), Karachi	30,000
10.	Construction of the new terminal building and extension of apron of the Bacha Khan International Airport (BKIAP), Peshawar	15,000
11.	New Air Traffic Control (ATC) Tower at the Allama Iqbal International Airport (AIIAP), Lahore	500
12.	Airport cities, aviation towers and club complex	10,000
13.	Upgradation, rehabilitation and reconstruction of runways, taxiways and aprons at various airports	18,000
14.	Renovation and expansion of the terminal buildings at various airports	3,250
15.	Replacement of the Primary and Secondary Surveillance Radars (PSRS &SSRS), its allied facilities, and Automatic Dependent Surveillance-Broadcast (ADS-B) System at five locations	2,345
16.	Provisioning and replacement of the Navigational Aid Equipment	2,731
17.	Procurement, replacement and augmentation of power, air field lighting and docking system, etc.	3,345
18.	Replacement of the telecommunication and electronic systems	705
19.	Civil Aviation Training Institute (CATI) Hyderabad (Development)	300
20.	Augmentation of communication equipment	300
21.	IT software and hardware, including infrastructure expansion	538