Government of Pakistan
Ministry of Communications and Railways
(Communications Division)

NATIONAL TRANSPORT POLICY

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NATIONAL TRANSPORT POLICY

I. Introduction

The National Transport Policy Document sets forth the broad policy considerations that should underlie the government's response to the national transportation needs. Policy is an evolving process and indicates the changes that are required towards a better transportation system, consistent with other important national priorities and aspirations.

Transport is an all-pervading industry as it penetrates into all phases of production and distribution of goods besides ensuring the most needed mobility for its population. It has substantially shaped the growth and development of Pakistan. Basically, the rail and road network has developed along the main corridors of population, which has a strong linkage with the river/canal system of Pakistan.

The railways which run almost parallel to the highway network specially along the major corridor in the North-South direction, now have renewed significance in the era of environmental and energy consciousness. Highways have provided access across the length and breadth of the country and have altered the land use patterns, and established the truck, bus and automobile as an important part of mobility and economic activity.

The freight and passenger traffic has been growing at about 3% and 4.5% per year for the last about three decades. The roads have, however, emerged as the predominant mode over the railways, with its share in freight and passenger traffic to the tune of 95% and 90%, respectively

Civil Aviation has extended its reach and greatly increased accessibility by pioneering the opening up of formerly unreachable areas.

Along the coastline of 990 kilometers, Pakistan has two main deep seaports – Karachi Port and Port Qasim which handle about 95% of country's sea borne trade, out of which the share of the national flag carrier namely, the Pakistan National Shipping Corporation (PNSC) has been about 5 per cent over the recent years.

II. POLICY OBJECTIVES

To sustain and enhance the economic vitality and growth, the productivity of commerce, agriculture produce and the quality of life, a healthy and responsive transportation system is needed. The objectives of the National Transport Policy are :

> "To establish a transport system that provides efficient, safe, reliable, equitable, and environmentally friendly access and mobility for people and goods, thereby supporting the Government's goal of increasing public welfare through economic growth, human development and poverty reduction".

The transport system should meet the collective and individual transport needs at the least possible cost to the national economy besides ensuring optimum utilization of available resources.

III. TRANSPORT SECTOR ASSESSMENT

Pakistan, with the then population of around 30 million, inherited a limited but a well functioning transport system at independence in 1947 to cater for 8-9 billion pass-km and 2-3 billion tonne-km. The Karachi Port handled bulk of the trade around 3.5 million tonnes of cargo annually. Railway was the primary mode of inland transport carrying nearly 90% of freight and passengers. Road network was limited to about 50,000 km of roads with registered vehicles at 30,577. Buses, tramways, taxis, tongas, etc were the urban and public transport options and government was not in the business of road transport service provision. Karachi airport was the only airport and there was no indigenous airline.

The present population is about 140 million, the total inland traffic is 202 billion pass-km and 120 billion tonne-kms. The two ports now handle about 43 million tones annually (Karachi Port 26 million tonnes and Port Qasim 17 million tones). There has been a dramatic modal shift in favour of road transport. Road transport now accounts for 90% of passenger traffic and 95% of freight traffic. The road network is nearly 250,000 km with on-road vehicles at about 4.2 million. Freight and passenger traffic has been growing at 3% and 4.5% per annum respectively over the last 30 years. There are thirty-six operational airports; one major public sector airline and a few private airlines.

The inter- and intra-urban road transport services are dominated by the private sector. The decision of the government in 70s to deregulate the road transport services has resulted in development of a competitive and vibrant private sector for goods and passenger transport. Passenger services mainly cater to the needs of the low income population and leaves much to be desired in terms of quality, safety and environmental pollution. The goods vehicles are damaging the roads due to excessive axle loads.

Transportation currently accounts for about 10% of Pakistan's GDP and 17.3% of the Gross Capital Formation. The sector expends 35 % of the final energy annually consumed in Pakistan. The sector receives 20 to 25% of the annual Federal Public Sector Development Program (Rs 26-33 billion). Government agencies dominate the sector.

Road related public revenue collection is Rs32.5 billion per year (52 percent of these are from surcharge on POL products). Total public expenditures on roads are Rs. 20.3 billion per year of which 65 percent are spent on national roads. The road sector has been the main recipient of public sector funding in Pakistan; lately about 86% of the limited Public Sector Development Program (PSDP) funds available for transportation, have been allocated to the road sector, which in turn were spent mainly on new roads. Road maintenance expenditures have been at about 20% of the required amounts for the national and provincial networks.

Transport sector contributes to Government revenues by way of taxes and duties on production and import of vehicles, parts, tires, tubes, petroleum and its products, fees on ownership and operation of vehicles, etc. Whereas Railways, Ports and Civil Aviation have integrated services, responsible for their own income and expenditure, road transport falls in the realm of public goods. Road infrastructure is provided by the Government, as a public utility. Whosoever owns a vehicle can use the road free of cost with a few exceptions where tolls are charged.

A recent study carried out by the Government indicated that expenditure incurred by the government on construction and maintenance of roads is about 63 percent of the taxes and duties paid by the road users. In 1999-2000, the overall expenditure in the transport sector totaled Rs. 108 billion compared to Rs. 135 billion in overall revenues earned. The sector thus generates a cash surplus.

As regards the administrative set-up, the Ministry of Communication and Railways (MOC&R) is responsible for roads and road transport, Ports & Shipping and Railways at the federal level. The National Highway Authority (NHA) under the MOC&R is an autonomous federal road agency responsible for planning, construction, maintenance and collection of toll and other right-of-way user charges on Highways and Motorways. The National Highway and Motorway Police (NHMP) is the enforcement arm of the MOC&R for the federal roads. It is a new institution and is currently active on only part of the federal highway network.

The Communications and Works Departments at the provincial level perform road functions for the provincial network similar to those performed by the NHA. As a result of the implementation of the Devolution Plan, responsibilities for road networks at the provincial and district/municipal levels have recently undergone major changes. A majority of the intra-district provincial networks have been devolved to the districts. At the district level, the Works and Services Department is responsible for roads.

The road transport services are regulated by the provincial governments. Provincial governments through Provincial Transport Departments, Provincial Transport Authorities (PTAs) and Regional Transport Authorities (RTAs) plan, allocate routes, regulate, enforce, collect revenues and assert day-to-day control over inter and intra city passenger transport services. They plan and lay down the routes, regulate fares, prescribe standards. The PTAs are the operational arm of the Transport Departments for inter-city transport activities while the RTAs are the district level operational arms. Urban transport is

within the purview of RTAs. Post devolution, the Transport and C&W Departments are being merged as the Works and Services Department. Road transport for city districts is now being managed by the city district government under an EDO (Executive District Officer) Transport. However, institutional structures for provision of road and road transport services at the district level are still evolving.

IV. SUB-SECTORAL FOCUS

(1) Roads and Road Transport

The road network comprises about 250,268 km, which is comparable in density (0.3 km/square km) to other developing countries in the area. Sixty percent of this is paved and is amongst the highest in the world. Of this total, 367 km are motorways, 8,479 km are national highways, 100,838 km are provincial roads and the remaining are district/municipal roads. The road network currently carries 183 billion pass-km and 116 billion tonne-km. The national highway network carries about sixty five percent of the total traffic volume and 40 percent of this network is in poor condition. The provincial networks are no better—more than 90 percent of the provincial network in Punjab is in fair to poor condition and 70 percent of Sindh's provincial roads are in poor condition. The main limitations of the road network are poor quality due to inadequate maintenance and short-fall in tertiary roads needed for basic access. Other major issues include investments in mega-projects (the motorway program) and a large portfolio of on-going works.

(2) Urban Transport

Urban Transport systems in most cities of Pakistan have become inadequate and inefficient. The system is entirely road-based. Rapid growth of population, increased migration of people over the years, proliferation of a diverse range of small size public transport vehicles and the increase in economic activity have led to traffic congestion and other related problems in the cities. In the larger cities like Karachi and Lahore congestion is severe and the average time taken to travel to work has increased significantly. In the relatively smaller cities there is localized congestion, which is threatening to become severe. The mix of motorized and non-motorized traffic in many cities and urban centers, road encroachments and parked vehicles make the problem even worse. There are often inadequate bus services due to inappropriate regulation and fare structures. Urban areas suffer from growing pollution and safety hazards, for both passengers and pedestrians, are assuming large proportions.

Public transport services, which operated a large, inter and intra city network have all been closed down due to heavy financial losses.

(3) Freight Transport

Road freight service industry is dominated by single owner operators. The services are cheap in terms of tariffs charged but impose huge externalities on account of overloading and excessive pollution. The two-axle Bedford trucks still constitute more than half the national trucking fleet. While fuel inefficient, these trucks are perceived as 'cheaper' for the single-owner-operator. Due to lack of strict enforcement, these are modified to carry excessive loads. The easy availability of spare auto-parts and maintenance know-how even at remote places, have still made it a popular brand.

(4) National Logistic Cell

National Logistic Cell (NLC), created in 1978 for emergency transport of wheat and fertilizer from the port, is the only public sector road freight operation carrying about 5% of the total freight traffic. It is currently attached to the Planning Commission.

(5) Road Safety

It is estimated that Pakistan's record of 36 plus fatalities per million population per year is one of the worst in the world. This is imposing a heavy social cost. There is a need to realistically assess the total cost of road accidents and take appropriate measures to arrest this growing trend.

(6) Rural Access and Mobility

About 85% of the rural communities in Pakistan are approachable through motorable access and almost 90% of this network constitutes all-weather access. Almost 2/3rds of this motorable network is metalled or otherwise paved with brick and stone. On the transport service side, more than half of the rural communities, which have motorable access, are not served directly by transport services and have to travel an average of about 4 km to access such services. Communities seemingly connected with motorable access, complain of a lack of an affordable occasional transport services.

About 70-80% of all health, education and market access facilities are accessible only by earthen tracks and paths, with most journeys to these facilities being on-foot, and entailing frequent load carriage on the head or back. Healthcare for all, and above-primary educational opportunities for females, are the hardest hit by the generally poor condition of the existing access facilities and the lack of regular and expensive, occasional, transport services. In the agriculture sector, the small farmer, who relies heavily on manpower and intermediate means of transport resources for export and import transportation is ill-served by the existing rural access and mobility structure.

The existing rural transport infrastructure is lopsided with government interventions restricted to black topped roads connecting villages with towns, but not necessarily with facilities in the everyday use of villagers like farms, schools and healthcare units. No basic access or low-cost construction criteria is adopted by either the public or private sectors to ensure basic accessibility, with focus on providing limited but paved access to the communities.

(7) Railways

The rapid growth of the road sector has in part been at the expense of the railways. Currently Pakistan Railways accounts for only 5 percent of freight traffic compared to 73 percent in 1955-60. Today PR carries only 53 percent of the freight it carried in 1970—when compared in absolute terms (4.2 versus 7.9 billion tonne-km)—whereas the total freight volume has increased 247 percent during the same period.

The situation on the passenger side is not encouraging either. In 2001, PR carried only 19 billion pass-kms compared with 16.7 billion pass-kms in 1970. Its share of the passenger market has dropped from 42% in 1955-60 to 10% at present.

The rail network has shrunk over the years and the general condition of infrastructure and rolling stock has gone down. More than half the track is old and in need of replacement. Sixty eight percent of the 612 locomotives are over-age and in need of major overhaul/replacement.

Pakistan Railway's passenger traffic as percentage of its total traffic is very high—around 80%—while its ratio of average passenger fares to average freight tariff of 0.3 is very low. Its annual freight and passenger handled per employee ratio of slightly above 200 is one of the lowest in the developing world.

Average annual revenues—90 percent are passenger and freight revenues—over 1990-2000 have been Rs9.2 billion compared with average annual expenditures of Rs13.1 billion over the same period which translate into an average annual deficit of Rs3.9 billion. Pakistan Railways is one of the largest public money loosing operation in the country with recent [1997-2000] annual deficits in the range of Rs. 6-7 billion. Repair and maintenance, operating expenses and interest payments constituted more than 80 percent of total expenditures in 1999-2000. Since 2000, the new management has succeeded in slowing the loss-making trend. Overall railway deficit in 2000/2001 is expected to be Rs. 1.8 billion, which is 25% less than the previous year—but this reduction is difficult to sustain in the face of conflicting fare structures (high passenger shares with low fares), decaying rolling stock (low wagon productivity) and infrastructure, and huge fixed costs coupled with low employee productivity.

Until 2000, Pakistan Railways and its board were governed by their own ministry. Since 2001, the Ministry of Railways and Communications have been merged as Ministry of Communications and Railways (MOC&R). They are functioning as two Divisions under one Ministry with one Minister; and, as far as strategic planning, regulation, financial management, and service delivery are concerned, they still operate separately.

(8) Ports

The two major ports in Pakistan (Karachi and Qasim) handle over 95% of the international sea-borne trade (43 million tonnes annually). Karachi port (KPT) with a storage capacity of 65 hectares and 33 berths [of which 3 are liquid cargo berths] and a draft between 9 to 12 meters handled 26 million tonnes in 2000-2001. Port Qasim (PQA) with a storage capacity of 5 hectares and 7 berths handled 17 million tonnes in 2000-2001. The total existing marginal quay length at both ports is 5,950 meters—against an estimated requirement of 5,100 meters for 2015.

The physical facilities (cranes and berths) at the two ports, are generally adequate with the exception of access channel condition and aging/outdated port equipment.

The two ports are running an annual surplus—KPT earned Rs 6.47 billion against an expenditure of Rs. 4.51 billion in the period 1999-2000 and PQA earned Rs 1.96 billion while incurring an expenditure of Rs 1.26 billion over the same period. But while PQA's finances are balanced, the storage Charges at the Karachi Port are dropping due to the government's attempt at improving custom clearance and through commercial trade facilitation. The high labor costs (about two third of operating expenses) and the declining storage charges, have increased the reliance of KPT on its investment income (35% in 2000). The shortfall between operating revenues and operating expenditures was about Rs. 130 million in 1999-2000.

Both the Karachi Port Trust (KPT) and the Port Qasim Authority (PQA) are under the MOC&R through its Ports and Shipping Wing (PSW). KPT is based on legislation enacted in 1886 and is administered by a Board of Trustees with a Chairman who is appointed by the government and who is also the Chief Executive of the Port. It is required to seek government approval for all its decisions.

Another important port institution at KPT is the Karachi Dock Labor Board (KDLB). Before 1973 dock labor was informally employed by 18 stevedoring companies operating at KPT. But since then with the enactment of the 'Karachi Dock Workers (Regulation of Employment) Ordinance', there is a Karachi Dock Labor Board with 6,000 plus employees at present. KDLB's expenditure is in excess of Rs. 0.2 billion per year collected through a mandatory levy on port users (KPT 30 percent, ship-owners/agents 52 percent, and stevedores 18 percent).

The PQA is an authority with a Chairman and six board members all appointed by the government. PQA is also under the MOC&R through its PSW. PQA's powers are strictly limited. Budget approvals, revisions of tariff, and major investments all require government approval. PQA is in intent a landlord port. PQA is mostly a bulk handling port with a majority of cargo being government controlled. With the establishment of the Qasim International Container Terminal (QICT), private cargo volumes and hence services are increasing.

(9) Shipping

On the services end, the Pakistan National Shipping Corporation (PNSC), a public sector corporation is losing its market share to international competitors. Its share has reduced from about 19 to 5 percent in the overall sea-borne trade of the country over the recent years. Ever since the nationalization of the Pakistan shipping industry in the 1970s, there are no Pakistani Flag Vessels in the private sector.

(10) Civil Aviation

There are thirty-six operational airports in Pakistan, of which six are international, nineteen domestic and eleven feeders. The Civil Aviation Authority (CAA), regulates the air traffic and also operates the airport facilities. Traffic volumes have stagnated at 13-15 billion pass-km annually. In 2000-2001 CAA handled 5 million passengers or 16.1 billion revenue pass-km of which 11.9 billion pass-km

were international. In the same year CAA handled 670 million tonne-km of cargo, of which 615 million tonne-km was international.

Over the period 1990-2000, CAA revenues averaged Rs3.4 billion per year of which 80 percent were operational revenues—average expenditures over the same period were Rs3.5 billion per year. CAA is losing money due to stagnant market conditions and large investments being undertaken for major airports at Karachi and Lahore. Fewer international airlines are coming to Pakistan and stations such as Dubai—and newly developed airports like Fujairah, Rasul Khaima—are taking away bulk of our technical landing traffic mainly on account of their lower landing, parking and air navigation charges.

Civil aviation developed rapidly in the 70s and 80s due to growing international traffic, particularly to the Middle East. State owned Pakistan International Airlines (PIA) enjoyed monopoly privileges till the early 90s when the domestic market was deregulated and a policy of 'limited open skies' was introduced, which allowed other international and local airlines to the Pakistan market. Due to stiff competition and stagnant traffic volumes, PIA is going through severe financial crisis—PIA's loans and liabilities are in excess of Rs. 50 billion. Rs. 20 billion were provided by the government during 2001 to keep the airline afloat.

Aviation Division of the Ministry of Defense controls both PIA and CAA. CAA also regulates the aviation industry. There seems to be a conflict of interest arising due to CAA's dual role as a regulator and service provider.

(11) Inland Waterways

Pakistan's extensive system of rivers and canals has limited scope for inland water transport due to extended periods of low water flow volumes, numerous bridges and an extensive network of hydraulic structures built to regulate the water flow. The waterways do not match traffic origin destinations. The studies indicate that river Indus can be made navigable from Kalabagh to Arabian Sea, but at prohibitive cost. In the presence of existing rail and road services which have more than sufficient capacity to carry available traffic, the development of inland waterways is not financially viable.

(12) Pipeline

There is little pipeline transport volume at present. About 6 million tons of crude oil and diesel is transported between Karachi and Mahmoodkot, and up to Machike/Sheikhupura. A new white-oil pipeline is expected to be commissioned by 2004. Recently some local oil refineries have also started planning and building further pipelines. Generally, new pipelines have been slow in coming up due to high capital investment requirements and inherent monopolistic nature of pipeline transport.

(13) Trade And Transport Facilitation

Commerce/Trade facilitation procedures and distribution/collection systems in Pakistan are archaic and do not respond to modern demands for just-in-time deliveries. This reduces the competitiveness of exports and increases cost of imports. Based on a recent review of selected commodities it was concluded that savings equivalent to 16.5% of the value of exports could be achieved by improving the trade and transport logistics systems in Pakistan.

(14) Research and Planning

National Transport Research Center (NTRC) in the Communications Division is the only public sector research organization carrying out research in the transport sector to provide support in the areas of Policy Formulation, Transport Planning and Road Engineering to the various government transport and other related organizations.

The Planning Commission prepares the national five year development plans and the Annual Public Sector Development Program (PSDP) in collaboration with the concerned federal Ministries and provincial departments.

In conclusion, the transport sector generates a cash surplus, despite a number of problems facing it. Symptoms becoming obvious are in terms of inadequate maintenance of infrastructure, revenue shortfalls in some sub-sectors, inappropriate regulations and a poor road safety record.

V. MAJOR ISSUES

A national transport policy covering key strategic principles for transport in line with the national economic and social goals need to be adopted. The transport policy should evolve over time and be supplemented with an institutional and policy development framework for monitoring its implementation.

The key issues which deserve immediate attention include : institutional development; expenditure rationalization and additional resource mobilization; encouraging greater private sector participation; and delivery of road transport services and infrastructure at all the levels specially at the district level. Surmounting these key issues will lower the overall transportation costs and ensure a well-maintained transport infrastructure.

(1) Institutional Development

The fragmented nature of transport sector amplifies the need for a coordinated decision making process. The recent merger of the ministries of Railways and Communications into a unified federal ministry provides an opportunity to rationalize respective roles of the various sector entities. The functions of planning, implementation, service delivery and regulation need to be properly defined such that :

- the role of the government is to focus on macro planning, regulation, monitoring and broader sector development issues like resource mobilization, research and development, human resources development, safety, environment, etc.
- implementation of projects and management of the assets/infrastructure is left to the executing agencies (federal, provincial and other concerned agencies);
- the private sector is able to enhance its role mainly in provision of transport services and maintenance of infrastructure; and
- Transport sector agencies are able to establish strong linkages with other important sector players including government and non-government bodies, local universities and research institutions, user groups and other stake holders, etc.

(2) Expenditure Rationalization And Resource Mobilization

The prospects for increased public sector funding for major transport infrastructure projects are not bright. Similarly, private sector funding for the transport infrastructure is not forthcoming. In this situation, the main challenges facing the government are :

- to rationalize the use of limited public funds available to the sector, and
- to increase internal resource mobilization – through road tolls, other road user charges, and pricing of other transport services.

(3) Private Sector Participation

Given the existing involvement of the private sector mainly in provision of road transport services at competitive prices, it should be encouraged to enhance its investment and areas of involvement mainly in provision of transport services and maintenance of infrastructure as follows :

(a) **Pakistan Railways.** For the Railways it is essential that it improves its efficiency and regains its market share using the comparative advantage in bulk/ long haul freight. This is possible by introducing scheduled freight train operations through concessioning of the railway freight operations to the private sector, with appropriate enabling framework.

(b) **Ports:** Commercialization of the port operations by adopting of a 'landlord port model' and expanded private concessions may be a desirable solution. While PQA is to a great extent working on this model, KPT is still working on implementing 'landlord' port concepts. Careful planning and strong government support would be required for KPT to fully implement this proposal. With regard to labor, the challenge for KPT is to increase labor productivity without abandoning social responsibility.

(c) **Shipping:** Expansion of Pakistan flag merchant fleet should be ensured so as to increase its share of cargo from 5% to 40% by the year 2020. Opportunities of huge transit market offered by Afghanistan and the Central Asian States need to be capitalized by compatible development of cargo fleet and port facilities. This has already been provided for in the approved National Maritime Policy of Pakistan (July, 2001).

(d) **Civil Aviation:** As per the approved National Aviation Policy (September, 2000), unilateral Open Skies Policy may not be adopted for the present. However, selective Open Skies Policy may be implemented by having agreements on the principle of reciprocity and bilateralism with maximum number of countries. On domestic routes, PIA and private sector airlines will continue to operate freely..

(e) **Urban Transport**: All the Government owned bus companies have been shut down due to heavy losses. On the passenger side, especially in Urban Transport, the private sector is mainly catering to the travel needs of the urban population. There is a proliferation of small sized public service vehicles which are causing congestion and environmental degradation. There is a need to encourage large size buses in major cities.

(4) **Roads**

Meagre allocation of funds for the road maintenance has resulted in depletion of assets in terms of serviceability of road network. Moreover, the practice of overloading on highways also lead to premature pavement failure causing huge loss to economy.

(5) **Road Safety**

The high toll of deaths and accidents on roads in Pakistan is mainly on account of lack of effective enforcement, improper driver training and testing, disregard of observing safe driving practices and defective road vehicles.

(6) **Improving Rural Access and Mobility**

This remains a challenge and evidence shows that in the absence of improvements in rural access and mobility, the desired wide spread delivery of social services will be thwarted and the much needed equitable economic growth will remain unachieved thereby adversely affecting the programs of poverty alleviation.

In the post devolution scenario, delivery of road transport infrastructure and services at the district level for the enhancement of access and mobility of the poor is still a challenge. 30 to 40 percent of the perishable harvest has still no access to the markets. The institutional mechanisms for districts to finance and deliver roads and road transport services need to be strengthened.

(7) **Research and Development**

The National Transport Research Centre (NTRC), which is the only R&D set-up in the field of transport research should be patronized and its requirements of funds and manpower be met so that it can play an effective role in policy formulation, transport planning and road engineering.

VI. RECOMMENDATIONS:

The following policy recommendations are proposed :

(1) Role of the Government

The government may mainly focus on its role as a policy maker, planner, coordinator and regulator. It would continue to play the leading role in investment in fixed transport infrastructure while reducing its function as a supplier of transport services and infrastructure maintenance.

(2) Financing

The transport sector presently is generating a cash surplus in overall terms through the mechanism of taxes, duties and user charges, etc. This practice may be continued and the government may strive to recover cost of transport provision through explicit or implicit user charges, within affordable limits.

(3) Financial Management

There a is need to introduce a strong team of financial managers in the various transport organizations like the railways, highway authorities, ports, shipping, aviation, etc so that decision making is based on sound commercial accounting principles and practices. Financial impact on account of undertaking public service obligations by the railways or any other agency should be fully quantified and paid for timely by the government.

(4) Regulatory Framework

For an effective regulatory framework for transport services, the responsibility for regulation should be placed on an agency with the required independence, autonomy, expertise and accountability.

(5) Human Resource Development

To ensure professional handling of transport and to develop a critical mass of transport professionals, a Human Resource Development Plan should be prepared and implemented by the government. The private sector should also play its role in the development of a pool of transport professionals.

(6) Transport for the Poor

The government shall improve the approach and criteria for addressing the transport problems of the poor and shall also focus on developing a rural access and mobility plan. For employment generation, labor intensive construction methods should be used in low cost rural transport schemes.

(7) Women's Transport Needs

The government shall focus on developing an accessibility and mobility plan for addressing women's transport needs both in rural and urban environments.

(8) **Environmental Impact**

The government shall address health-threatening impacts of transport as a first priority. Environmental evaluation needs to be integrated in appraisal of transport projects.

(9) **Roads:**

For effective road asset management, the government should ensure that :

(a) Resources mobilized through revenue collection (road tolls, road user charges, etc.) for the road sector are efficiently and rationally utilized to meet road rehabilitation and maintenance needs.

(b) New investment is made in roads that are economically viable and for which adequate funding and stable and secure resources for preservation of assets are available. Priority should be given to tertiary roads.

(c) Resources are used most efficiently with the principal focus on conservation of road assets rather than expansion of the network.

(d) Road asset management systems are developed so that road sector agencies effectively carry out asset management and preservation mandates.

(e) An axle load control program is introduced to protect and increase service life of road assets.

(10) **Road Safety**

(a) Introduce measures to reduce the unacceptably high toll of deaths and accidents on roads in Pakistan.

(b) Improve the knowledge, capability and training of personnel associated with accident prevention in the fields of accident analysis, traffic engineering and management, and the design of low-cost road accident counter measures

(c) Increase awareness of road safety among road users and communities.

(d) Establish national and provincial agencies to oversee road safety efforts at policy, operational, community, and agency levels.

(e) Establish and strengthen enforcement, monitoring and evaluation procedures for road safety initiatives.

(11) **Urban Transport**

(a) Concessioning and Franchising policy of the government to the private sector for large size buses should be continued/introduced in the major cities.

(b) Minimum and maximum fares should be prescribed for franchised routes depending upon the service quality. This would also take care of revised fares due to periodic fixation of petroleum prices.

(c) Depending on the level of congestion, bus priority schemes and restraint measures on small size public service vehicles and personalized transport modes (temporal, spatial, fiscal, etc.) may be introduced on major urban corridors.

(12) **Railways**

(a) Railway as a major mode of transportation in the country should be accorded requisite priority in planning and resource allocation.

(b) The infrastructure of railway specially on the main corridor should be rehabilitated. The culture of scheduled freight trains need to be introduced and due priority should be given to the bulk movement of goods over long hauls.

(c) To begin with, private sector should be allowed to operate freight (minus POL) train on payment of 'track access charge'.

(d) A strong team of financial managers should be inducted and commercial accounting principles and practices introduced.

(e) Railway should operate on commercial basis and government should meet the full cost of Public Service Obligations (PSO).

(13) **Ports**

(a) The Port Qasim Authority may play a lead role in fully implementing the 'landlord port' model.

(b) The KPT may follow suit after taking into account its own peculiar problems of labour, etc.

(14) **Civil Aviation**

(a) CAA should perform the regulatory role, while Airport Development Authority (ADA) should provide the aviation infrastructure and services.

(b) Competition between PIA and other Pakistani private airlines on international routes need to be avoided.

(c) The landing and fuel charges need to be brought at par with the neighboring countries.

(15) **Shipping**

As per the approved National Maritime Policy of Pakistan (July, 2001), expansion of Pakistani flag merchant fleet should be ensured so as to increase its share of cargo from 5% to 40% by the year 2020.

(16) **Research and Development (R&D)**

It is imperative to have an indigenous R & D base to take advantage of the technological advancements of developed countries. In order to adopt the technology, procedures and processes in accordance with local requirement, one percent of the annual budget of each organization need to be earmarked for R & D programs.

(17) **Pipeline**

Existing capacity of pipeline for transportation of oil cargo to up-country should be augmented to reduce load on the road and railway as well as transportation cost.

(18) **Multimodal Transport and Trade Facilitation**.

(a) The concept of Multimodal Transport should be fully integrated in the system for international trade from and to Pakistan.

(b) Legislation for carriage of goods through Multimodal Network should be finalized.

(c) Infrastructure facilities such as inland container depots, improvement/development of dry ports and container terminals, etc need to be established.

VII. CONCLUDING REMARKS

A National Transport Policy is not a plan. Policy helps direct decision making toward national goals and provides the reasons for proposed changes, but it does not define the optimal infrastructure or transportation system for the future. Keeping the Policy guidelines in view, specific plans and programs have to be prepared and implemented by each and every executing agency in accordance with its assigned responsibilities/duties. It is only then that the sense of direction imparted by the Policy shall pay dividends.