

**POLICY FOR
SUSTAINABLE URBAN TRANSPORT**



**TRANSPORT & MASS TRANSIT DEPARTMENT
GOVERNMENT OF SINDH**

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Messages

Message by Minister Transport & Mass Transit Department:-

Sindh Government is fully committed to better Transport facilities for Sindh in general, and Karachi particularly has a Clear Vision to improve the Transport System for Sindh and particularly the current traffic congestion in Karachi. Government of Sindh, has taken serious efforts for improving the transport issue of Karachi. The Sustainable Urban Transport Policy is a mile stone for better Transport system in Sindh. Under this policy we have already taken concrete efforts for giving new vision in transport sector. For example we have initiated Bus Rapid Transit System (BRTS) and Karachi Circular Railway (KCR). The BRT System consists of Abdul Sattar Edhi line (Orange line), Blue line, Red line, Yellow line, Green line and Aqua line. The work on Green & Orange line has already been started and INSHA'ALLAH , is nearing to completion. The work on other lines is also under process. It is very essential to add over here that Government of Sindh has already taken necessary steps for addressing the Transport issue in Karachi in particular and Sindh in general. Bringing the Bus Rapid Transit System (BRTS) and revival of Karachi Circular Railway (KCR) are the key essential features of urban transport policy With the introduction of this system, the citizens of urban areas of Sindh would INSHA'ALLAH enjoy the fruits of new Transport vision of Government of Sindh.

Message by Secretary Transport & Mass Transit Department:-

The existing transport policy commonly called Free Transport Policy was introduced all over Pakistan in the year 1973. The fast growing urbanization trends of province strongly suggest developing strategies for managing and fulfilling its increasing transportation needs by developing a sustainable urban transport policy. Accordingly, the Transport & Mass Transit Department has formulated the policy document in line with the draft National Transport policy of Pakistan. Such legislative, policy framework and regulatory activities enhance safety, ensure comprehensive planning, and uphold the public trust.

Establishment and operation of such transport system is essential to assist in sustainable economic growth of the urban centers by efficiently utilizing resources and infrastructure in order to achieve the sustainable goals.

1. Background

Rapid urbanization, increases in income and even faster growth in private ownership and use of motorized vehicles have created an urgent need to develop a coherent urban transport policy. For urban areas to be able to support economic activity, they must provide for an efficient and effective transport system for the movement of goods and people. Cities around the world, more so in the developing world, are facing serious problems of congestion, air pollution, safety and energy security on account of the rapid motorization. It is also the fastest growing contributor to GHG emissions, a globally increasing concern. This trend is projected to continue, if remedial measures are not taken.

Travel is fundamental to almost all of human activities, as transport provides access to job opportunities, health, education and recreational facilities. The smooth functioning of a transport system is thus crucial to the efficiency of a city and its live ability.

The Sindh province has two major cities—Karachi and Hyderabad, with a population of 23 million and 1.7 million, respectively. Other cities are much smaller, each with a population of less than 500,000. The main transport issues facing urban areas are congestion, increased air pollution, high cost of travel for the poor and poor road safety.

The growth in population and urbanization has not been met with the adaptation and expansion of transportation network and services in the largest city of Karachi. Lack of efficient public transport system has resulted in growth in motorization and the number of private vehicles have almost doubled over the past ten years. Moreover, the emphasis has been made on the supply side with the construction of infrastructure and not enough on the demand side with travel demand management strategies. This approaches resulted in travel delays, environmental pollution and accidents and as a whole huge social and economic costs as cities function less efficiently. For all these motives, a policy is needed on the approach to deal with the problems and also to determine a clear direction and a framework for future actions. The policy will need to be integrated both within the transport sector as well as between transport and other aspects of urban development. This is because there are strong linkages between the demand for transport and the way a city is laid out – thus a linkage between transport and spatial planning. Again, there are strong linkages between transport and ICT – good e Commerce leads to a reduced demand for transport. There are strong linkages between density and transport – higher densities lead to a lower demand for transport. Thus, transport cannot be looked at in isolation but has to be looked at in coordination with several other aspects of urban transport.

This paper outlines the Urban Transport Policy for Sindh Province, identifying the **overall Vision, key Objectives, Policy Principles, and Strategies** to achieve the goals in line with the policy

principles. The overall policy will constitute the guiding tool to explain government's decision and actions and set the basic framework and the "rules of the game" for downstream planning, management and monitoring.

2. Urban Transport Issues in Sindh

The main transport issues in Sindh cities are:

- Rapid urbanization (5% per annum in Karachi and over 3% per annum in other cities);
- Insufficient coordination of urban and transport planning;
- Increase in car ownership (over 13% per annum recently) at twice the rate of growth in population, putting more pressure on the urban roads. This has also resulted in an increase in transport energy demand (the transport sector accounted for an average of 48.7% of total petroleum consumption between 1990 and 2004 and petroleum demand increased by an average of 4.9% annually over the same period);
- Inadequacy of the current public transport system in general and for women and people with disability in particular;
- Lack of coordination among urban transport stakeholders;
- Inadequate and ill-maintained transport infrastructure;
- Lack of pedestrian friendly facilities even though non-motorized trips represent 50 to 60% of trips in major cities;
- Poor traffic management;
- Degradation of air quality in cities especially particulate matter pollution which is 6-10 times above World Health Organization (WHO) limits which has led to increased health costs;
- Inadequate road safety measures shown by increased road crashes and fatalities (19 fatalities per 10,000 vehicles per annum or over 5000 fatalities per year) involving a relatively large proportion of pedestrians and bike/motorcycle riders;
- Inadequate systems in place for management of emergencies and emergency vehicles - police, fire brigade, ambulances.

3. The Vision of the Urban Transport Sector in Sindh

The **overall vision** on the Government of Sindh is to put citizens at the center stage and make its cities livable and efficient. This global vision of livability and efficiency will be sought by setting up a transport system focused on three **Objectives**:

- a) **Promote Citizen Needs and security.** The policy aims to put in place a transport system focused on **citizen** needs, with a special attention on the needs of women, children and people with disability. It aims to provide users with a reliable, efficient, safe and affordable service, integrated across different modes, both functionally and financially.

- b) Encourage Economic Growth.** As developing cities have become the engines of economic growth, they are faced with increasing congestion. The cost of congestion in Sindh's main cities ranges between 2-4% of the GDP. Sindh aims to increase the economic efficiency of its cities by improving travel conditions of people and goods by reducing congestion. To achieve this, the Government will create the right balance between "hardware" issues like building new infrastructures, and "soft" issues, such as improving coordination among multiple departments and stakeholders and strengthening regulation and implementation capacity.
- c) Promote Environmental sustainability.** The vision is also to create an **environmentally** friendly transport system. As congestion in cities has an adverse impact on the quality of the air and living conditions, systematic measures to lower the toxic emissions generated by the transport sector will be pursued to improve the well-being of the population, improve health and contribute to the climate change efforts to lower carbon footprint.

The Vision is intended to guide policy, planning, investment programming, and operation implementation for the cities of the province for a 20-year planning horizon.

4. The Principles of the Urban Transport Policy in Sindh

To achieve these overarching policy objectives, the following principles will be pursued:

f) Integrate Urban and Transport planning

- Support compact cities with mixed land use to ensure that all essential facilities, such as houses, offices, shops and recreational facilities are located within a short distance of each other
- Integrate formally land-use and transport planning processes at the local, regional and national levels.
- Promote mixed-use development and medium-to-high densities along key corridors within cities through and actively promote transit oriented development (TOD)
- Support investments in NMT infrastructure and facilities to support safety of pedestrians and cyclists as well as introduce measures to enhance social image of non-motorized modes.

g) Provide users with a high quality of Public Transport service, accessible and inclusive

- Promote high-quality and well-integrated public transport system, to provide convenient, reliable, safe, comfortable and clean services;
- Adopt social equity as a specific design criteria in the development and implementation of transport initiatives, leading to improved quality and security for the population and especially for women universal accessibility of streets and public transport systems for

the physically disabled and elderly and affordability of transport systems for low-income groups.

- Make the best use of modern technologies, such as electronic fare and road user charging-systems, transport control centers and real-time user information, into transport initiatives,

h) Increase economic efficiency of cities

- Improve efficiency of the urban transport system and coordination among multiplicity of departments by creating a Transport Authority.
- Reduce the urban transport mode share of private motorized vehicles through Transportation Demand Management (TDM) measure, including pricing measures that internalize congestion and pollutant costs gradually eliminating subsidies that encourage motorization and develop programs that increase average motor vehicle occupancy.
- Build capacity to plan for sustainable urban transport.
- Seek partnerships with the private sector in the instance where its strengths can be valuable.

i) Safeguard the environment

- Set progressive standards for fuel quality, fuel efficiency and emissions for all vehicle types, including new and in use vehicles.
- Diversify towards more sustainable transport fuels and technologies, including vehicles operating on electricity generated from renewable sources, hybrid technology, and natural gas;
- Establish effective vehicle testing and compliance regimes, including formal vehicle registration systems and annual vehicle inspection and maintenance requirements to enforce progressive emission and safety standards, in order to remove older polluting vehicles from the vehicle fleet.
- Develop necessary tools that could be used to better monitor and evaluate carbon footprint in the transport sector.

j) Improve safety and health

- Adopt a zero-tolerance policy with respect to road safety and implement strict driver licensing and insurance requirements;
- Build a friendly and safe environment for pedestrians and other vulnerable road users such as motorcyclists.

5. Implementation of the Policy

The objectives of this policy will be fulfilled through the following **Strategies**:

a) Developing Integrated Governance Structures

Currently, different tiers of government at national, provincial, regional, and local levels are involved in providing and managing urban transport infrastructure and services in Karachi and other cities in the province. These structures were put in place well before the problems of urban transport began to appear in Sindh and thus do not provide for the right co-ordination mechanisms to deal with them. To support institutional coordination across space and functions and develop an integrated and comprehensive urban transport system will require:

- Build the capacity of the Sindh Mass Transit Authority to co-ordinate the planning and implementation of urban transport programs and projects, including design networks and routes, assess demand, contract services, licensing, monitor performance and manage parking;
- Develop enabling legislative framework for existing and emerging transport services;
- Regulatory and planning functions will remain the responsibility of the planning units while actual operations will be contracted out;
- Implement integrated traffic management systems utilizing ITS to manage passenger and freight transport.

The Traffic/transport Magistrate, at least one in each district will be appointed to strengthen the law enforcement mechanism. Subsequently, Provincial tribunals with regional and district courts on the pattern of labour courts will be established to support the law enforcement.

b) Coordinating Land Use and Transport Planning

A comprehensive transport planning framework that is integrated with the land use plan of Karachi is vital to ensure effective use of resources and minimize travel. The plan should enable the city to adopt an urban form that best suits its topography and supports the main social and economic activities of its residents. To implement this strategy, the Government will:

- Promote development of integrated land use and transport plans
- provide financial support for the preparation of such integrated land use and transport plans;
- improve, strengthen and implement building and town planning regulations and parking regulations requirements and ratios for various building land uses
- Develop urban transport master plans in accordance to the principles of Transit Oriented Development

- Update and maintain data bank of the city transport infrastructure and relevant traffic information/travel pattern along with the land use data

c) Giving priority to Public Transport

Public transport occupies less road space and is more environmentally sustainable than private vehicles per passenger- kilometer. Making public transport efficient and accessible to the whole city population reduces negative externalities such as congestion, road accident, and pollution. Therefore, Sindh Government will give priority to the use of public transport and promote investments in public transport as well as measures that make its use attractive. To implement this strategy, the Government will:

- Improve quality of service and affordability of Public Transport
- Provide an integrated public transport system
- Set up a parking policy favoring Public Transport
- Improve allocation of road space and pedestrian infrastructure
- Manage Freight traffic efficiently
- Use financing to promote Public Transport

d) Sustaining the Environment

Many of the environmental hazards are caused by transportation activities, hence sustainability of the environment is among the initiating factors for this policy. To improve environmental sustainability, the government is undertaking the following measures:

- Make Environmental Impact Assessment (EIA) mandatory for all transportation projects;
- Monitor air quality and take interventions where levels exceed national standards;
- Declare private vehicle free zones, especially in peak hours, in CBD areas to reduce noise and air pollutions;
- Consider reducing Green House Gas (GHG) emissions through a multigenerational effort to reach the levels set by Intergovernmental Panel on Climate Change (IPCC) for GHG emissions;
- Work with fuel refineries and oil retail companies to improve the quality of diesel for operation of EURO IV& V types of vehicles. Plan and execute projects for sustainable transport such as Bus Rapid Transit;
- Explore and encourage the use of renewable resources as fuel through provision of tax rebates to the industry;
- Develop electric and other low-carbon technologies to reduce greenhouse gas emissions and phase out internal combustion engine;

e) Improving Safety and Security

Road Safety is a major health and development issue in cities around the world and Sindh cities are no exception to this. By 2030, deaths from road traffic injuries are projected to become the world's fifth leading cause of death.

Fully aware of the issues at stake in terms of the social and economic cost, the Government of Sindh wants to include urban road safety as one of its priorities and will act upon it by action on the infrastructure, human behavior and in documenting the causes of accidents and developing data bases. To enhance safety and security of the urban transport system, the policy will support following strategies:

- Strengthen, update and rigorously implement existing laws related to road safety;
- Improve driver training and safety awareness, and establish training schools to train personnel engaged in driver's training;
- Develop and maintain an accident database, at all urban centers, and analyze accident black spots at all times using the accident database;
- Make Road Safety Audits mandatory for all existing and new transport infrastructure developments;
- Drivers' training is mandatory for licensing of firms for drivers of public and freight transport vehicles;
- Basic courses for road safety, focusing on pedestrian behavior on the roads, to be added in the curriculum of schools. These courses will be designed with the consultation of traffic police and educationists;
- Mandatory usage of appropriate safety equipment (seatbelts, helmets, car seats for minors);
- Training of ambulance crews and traffic police to respond appropriately to the different emergencies.

f) Building Capacity

Urban transport planning and management is complex and multi-dimensional. Strategies must be comprehensive and multi-modal, encompassing both supply and demand measures. They must go beyond merely adding more capacity, and reflect an understanding of linkages among transport, land use and human behavior. However, the capability for holistic thinking and planning is weak in the developing world and Karachi is no exception. Professional planners who can balance different perspectives to find the right mix of strategies is rare. Therefore, it is no surprise that there is an absence of comprehensive solutions.

To address this issue, capacity building will be addressed at the institutional and individual level. Institutional capacity would primarily involve creating a pool of knowledge that would sustain and enhance expertise as well as facilitate more informed planning.

To address these issues, Sindh government will:

- Encourage the development of institutional capacity at the Provincial level through the organization of workshops to benchmark international practices (on governance, financing) and delivery of training program on urban transport planning;
- As part of the exercise of skill development, academic programs in urban transport; especially at the post-graduate level, will be strengthened so that a nucleus of qualified urban transport professionals become available in the country;
- Develop a centralized urban transport database for benchmarking and to support evidence based decision making.

g) Raising Public Awareness through Communication and Citizen Engagement

Proper management of stakeholders, communications and public involvement improves understanding of urban transport policies and increased buy-in and appreciation among diverse interest groups. The key principles of stakeholder management involve: a) understanding the motives and interests of the multiple organizations and people with some stake in successful implementation; b) building and maintaining active support and commitment of all residents to policy objectives; and c) maintaining regular engagement with residents to inform, negotiate, receive feedback and adapt strategies accordingly.

The Sindh Government will involve citizens in project design and implementation to enhance awareness and improve communications in support of sustainable transportation programs.