

## **PARKING POLICY FOR THE DHAKA METROPOLITAN DEVELOPMENT PLAN AREA**

### **Preamble**

Development, management and coordination of transport systems within Dhaka Metropolitan Development Plan Area<sup>1</sup> (DMDPA) are the mandated responsibility of the Dhaka Transport Coordination Board (DTCB). One of the immediate tasks of the DTCB has been to formulate policies and guidelines which when approved by the government, would facilitate coordinated action among planning, implementing, regulating and enforcing agencies operating within the DMDPA.

With increasing number of vehicles plying on the city roads, more and more road space is being occupied by parked vehicles. As a result, there is a gradual reduction in the road space which is available for the movement of traffic. In the same period, traffic has also been increasing at a significant rate. This is now forced to move through narrower road space. Congestion and vehicle holdups have become a routine affair and is a major cause of concern to the road users, city authorities and traffic managers.

### **Purpose**

Though on-street parking is one of the major causes for congestion on the roads, it cannot be totally eliminated. But its negative effects can be reduced with proper planning. In order to reduce congestion and improve the traffic movement within the DMDPA, the DTCB has taken the initiative to outline strategies to reduce the negative effects of parking. This is to be achieved by formulating a parking policy. Apart from this primary purpose, the parking policy is expected to:

- Provide a guideline for working out strategies to handle the increasing demand for parking spaces.
- Provide a guideline for appropriate level of expenditures and cost recovery for provision of parking facilities.
- Provide a framework within which parking infrastructure and services can be provided and used efficiently with the support of the government, corporate and private sector.

- Provide a framework within which appropriate institutional arrangements can be created or strengthened to facilitate effective provision and management of facilities.
- Indicate the legal and administrative arrangements needed in support of this policy.

In formulating this policy, the DTCB has tried to address the requirements of all modes of transport viewed within the framework of prevailing urban and transport development policies for DMDPA.

### **Development of this Policy**

First draft of this policy was prepared by DTCB in February 2002 and was reviewed by the World Bank. Based on their suggestions, the policy document was revised with the assistance of a specialist and was circulated among concerned agencies in mid October 2002. A group discussion was organized by DTCB on 5<sup>th</sup> November 2002. Suggestions put forth by the participants has been incorporated in this revised draft of the policy.

As is the process in all policy development, this parking policy has to be discussed and revised many times before it can be finalized and adopted. This third draft of parking policy needs to be reviewed and discussed by all agencies and stakeholders involved with the urban and transport development aspects within DMDP area.

### **Policy Sectors**

There are many aspects of parking which need to be addressed if fairly comprehensive sets of policies are to be formulated. Policy statements have therefore been grouped into sections as listed below:

- Jurisdiction
- Demand for Parking Spaces
- Supply of Parking Spaces
- Parking Regulation
- Enforcement of Regulations
- Operation and Maintenance
- Institutional Setup and Strengthening
- Supportive Legislation

### **Policy Objectives**

Urban and transport development policies for DMDPA have already been framed and accepted. All sector development policies

<sup>1</sup> This is coterminous with the RAJUK area which is defined in the Dhaka Structure Plan (1995-2015) and approved by Government vide their SRO No. 184-law/97 dated 03.08.1997 and published in the Bangladesh Gazette on 04.08.1997.

framed subsequently such as this parking policy, *should be consistent with the urban and transport development policies outlined for the DMDPA.*

The parking policy to be formulated *should identify a cost effective strategies to satisfactorily supply parking facilities for the current and expected demand over the short and medium term.*

There could be scope for increasing the utility of existing parking facilities. The parking policy *should therefore outline strategies to maximize the utility and efficiency of available parking facilities.*

In order to effectively manage the parking facilities, the parking policy *should suggest the appropriate institutional setup required and if these are already in place, the human resource and infrastructure strengthening required, to make them effective.*

It may also be necessary to frame new legislations or amend existing statutes to support some of the policies. The parking policy *should suggest the supportive legislations required to make this effective.*

## **ISSUES, OPTIONS AND POLICIES**

Policies framed under each individual aspect result from a discussion of the emerging issues, the strategic options available for addressing these issues and the preferred option. This is followed by a discussion of the implications of the policy in terms of actions to be taken by concerned agencies.

### **Jurisdiction of this Parking Policy**

#### *Issues and Options*

There are many statutory bodies with varying jurisdictions operating within the DMDPA. Government agencies involved with urban development and transport within the DMDPA include the DTCB, RAJUK, DCC, Pourashavas, Upazilla Administrations, BRTA, DMP, District Police, RHD and LGED. Each has a different jurisdiction.

Provision and management of parking facilities on one hand and the regulation and control of parking on the other, are two complementary functions that have to be handled effectively to ensure satisfactory implementation of parking plans. Provision and management of parking facilities is the responsibility of local bodies

such as DCC and Pourashavas, whereas regulation and enforcement is the responsibility of BRTA and the Police. Each has a jurisdiction, which is different from the other.

Non-compatible jurisdictions, quite often create problems for effective coordination among implementing agencies. To overcome this, the options available are to either limit the applicability of policy to the City Corporation (provider) area or the DMP (regulator and enforcer) area.

Suggestion at the first group meeting was to formulate an overall policy for the DMDPA. So, for this parking policy to be effective over the DMDPA, it will require effective coordination between the providers of parking facilities and the corresponding regulating agencies operating within the DMDPA. The DTCB could take on the responsibility to monitor and coordinate the actions between agencies in the DMDPA.

#### *Policies on Jurisdiction*

1. Parking Policy shall be applicable within the DMDP Area.
2. All local governments (city corporations, Pourashavas and Upazila Administrations), statutory bodies and government departments involved in planning, implementation, operation, maintenance, regulation, enforcement or any other aspect related to parking within the DMDP area shall operate within this policy framework.
3. DTCB shall monitor and coordinate the actions to be taken by the responsible agencies for the provision, management, regulation and enforcement of parking facilities within the DMDPA.

#### *Implications*

Each local body within the DMDPA such as the DCC, five Pourashavas and Upazila Administrations as indicated in **Figure 1**, shall have to prepare their own parking plan for the area under their jurisdiction. Such a parking plan shall follow the guidelines provided in this parking policy. The local bodies shall implement their parking plans with the support of the local regulating and enforcing agency (DMP, District Police, BRTA). DTCB shall monitor and facilitate coordinated action between the agencies.

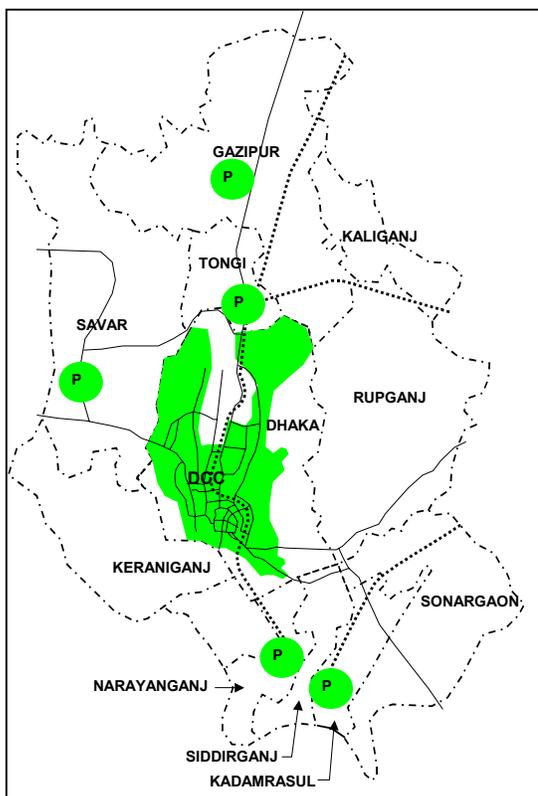


Figure 1. Local Governments within DMDPA

### Demand for Parking Spaces

Whenever people use vehicles for travel, they need a place to park their vehicles. Demand for parking is in general, directly proportional to the amount of travel. Demand for travel within urban areas, can be attributed to many factors. The resident population, their socio-economic status, location and access to work centers and other activities in the urban area, supply of transport services etc are some of the important factors which are known to generate the demand for travel. An increase in population or in the wealth of the people or the establishment of new businesses/ industries will naturally increase the demand for travel and hence parking.

If adequate facilities have to be provided for the ensuing parking demand, then it is important that a reliable estimate be made of the parking demand and its likely growth trends in the years ahead. To get an idea of the current trends, it would be useful to review some of the developments taking place within the DMDPA. These are expected to affect the demand for parking. These issues are discussed in the following sections.

### Issues and Options

Spatial Growth Trends within DMDPA: Dhaka being the capital of the country is the seat of government and a center for education, commerce and industry. DMDPA covers an area of about 1528 sq. kms (590 sq. miles) and contains a population of 10 million people. By the year 2015, over 20 million people are expected to reside within the DMDPA.

Urban areas within the DMDPA include the DCC area and the five pourashava areas of Gazipur, Tongi, Savar, Narayanganj and Kadamrasul. All together, these urban areas cover less than 25 percent of the DMDPA but about half the DMDPA's people reside within these urban settlements.

In the decade 1991-2001, population within these urban areas increased by over 3.5 percent per annum which is more than double the national average of 1.5 percent. Though most of the area within the urban settlements has already been developed, it continues to accommodate more people. This clearly suggests that the available land and buildings within these urban settlements are being put to more intense use.

Consequence of such development is that traffic will continue to increase within these urban settlements and so will the associated problems unless adequate facilities and services are provided at the same pace by the concerned civic authorities. Most often, due to constraint of fund, provision of facilities and services is deferred. As a result, the gap between demand and supply continues to widen.

Work Centers: Certain areas in the city have been designated for predominantly non-residential use such as for commerce and industry. When such areas are fully developed, these become centers of employment and work. Characteristically, there would be more people in the area during the work hours than during off work hours. Using information from the DITS<sup>2</sup>, it is observed that there are four areas in Dhaka (**Figure 2**) where the offices, shops, establishments and industries offer more employment than the resident workforce. These areas evidently attract more people and vehicles into the area during the work hours. Problems of parking and congestion could be expected to be more pronounced in these areas in comparison to others.

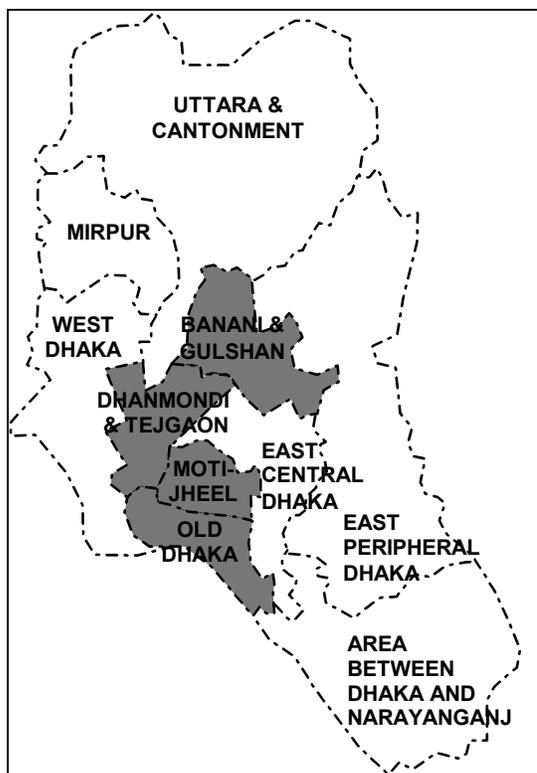


Figure 2. Areas within Dhaka where employment is greater than resident work force

With the continuing trend for greater utilization of available workspace, there will be further concentration of jobs within these work centers. Unbearable traffic congestion and parking problems may in course of time encourage relocation of work centers to less congested locations. But this process is slow and may not be perceivable in the short and medium term. Instead, there would be growing pressure on the civic authorities to address the parking problems and provide adequate facilities for the welfare of business, commerce and trade.

Spatial Development Policies for Dhaka: The Dhaka Metropolitan Development Plan 1995-2015 has clearly outlined the spatial development policies for the DMDPA. Strategy for the developed areas is one of consolidation. This means, existing developed areas would be allowed to develop to their full capacity. As a result, the population within DCC area would be allowed to reach 7 million by the year 2006. At the same time, there would be incentives to accelerate development in the urban fringes.

Regarding work centers, the policy is to gradually develop new centers in the suburbs

and new growth areas to the east and north of the DCC and discourage further concentration in existing work centers.

These policies if implemented properly, would in the long term, ensure a gradual leveling-off in the rate of growth of traffic within existing urban centers. But in the short and medium term, the present trends are likely to continue. The demand for parking can be expected to increase concomitantly.

Increasing vehicle ownership: In the past decade, the number of new motor vehicles being added to the existing stock, has been increasing each year. It is estimated that the average annual increase of motor vehicles in Dhaka has been of the order of 8 percent. At this rate, the number of motor vehicles in Dhaka would double every decade. In spite of this, Dhaka is one of the least motorized cities in the world and the proportion of all travel by motorized vehicles is also low (8 percent)<sup>2</sup> compared to other cities in this region.

But it is disturbing to note that the ownership of motor vehicles per capita is on the rise. Motor vehicle statistics indicate that average number of cars and vans per 1000 persons has increased from 6 in 1992 to 8.5 at present as illustrated in **Figure 3**. People with personal vehicles have a tendency to travel almost 50 percent more<sup>2</sup> than those without.

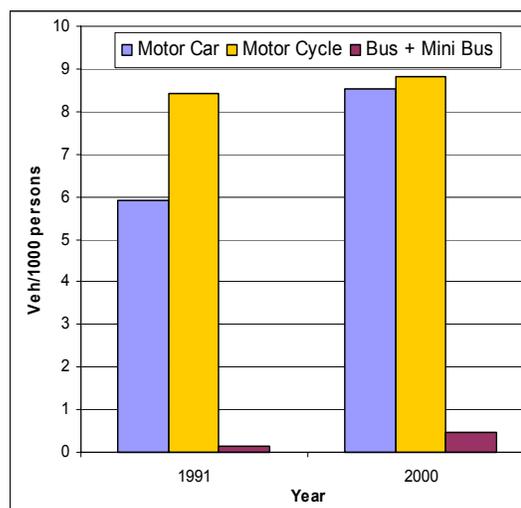


Figure 3. Motor vehicles per 1000 persons

During the same period, the supply of public transport buses and mini buses has been slow.

<sup>2</sup> Greater Dhaka Metropolitan Area Integrated transport Study, Final Report, Volume-1. 1994

This has in a way contributed to the rising trend in personal vehicle ownership and utilization. The net result is that the demand for private motor vehicle parking spaces has increased significantly. Roads, which had few vehicles, parked on it a decade ago now has to contend with multiple parking as shown in **Figure 4**.



Figure 4. Multiple parking of vehicles

Heterogeneity of Vehicles: Dhaka has about a dozen different types of vehicles plying on the roads, each with a unique size, shape and maneuverability. This does pose a challenge to the designers, providers and operators of transport infrastructure as also to the regulators and enforcers of traffic laws. While unrestrained development of all modes of traffic is a desirable objective from equity considerations, it may not necessarily be the best if the objective is to maximize passenger throughput on the road network, as envisioned in the National Land Transport Policy.

As can be seen from **Figure 5**, which indicates the road space required per person trip by a few typical modes of transport, the least efficient is the car while the bus is the most efficient. Strategic interventions will be necessary to encourage operation of high passenger carrying capacity transport systems while restraining the development of low capacity systems.

Transport Development Policies for Dhaka: the final draft of the National Land Transport Policy has indicated the need for integrated development of all modes of transport. Specifically referring to the transport development strategy for Dhaka, the policy envisions ‘a reduction in traffic congestion and increase in personal mobility through a range of measures that improve conditions for public transport and create the environment for the implementation of mass transit along with the management of existing and future growth in road traffic.’

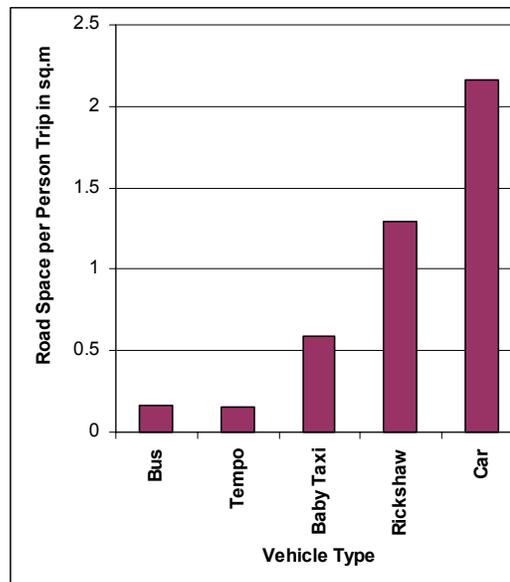


Figure 5. Road space required per person trip

Underlying focus of this policy for Dhaka (which can also be considered as applicable to all urban settlements in the country), is to encourage and facilitate mass transport systems. This indirectly suggests imposing some restrictions on the unconstrained growth of personalized and low capacity modes of passenger transport.

Parking Policy Options: Basically, there are two options available for meeting the increasing demand for parking spaces in DMDPA. The first is based on the premise that the parking provision should fully satisfy the unconstrained demands of the road users while the other looks at a restrictive strategy aimed at curbing demand to acceptable levels. Both strategies need to be considered and adopted depending on the local conditions and requirements.

Non-restrictive Policy: In cities with a very low level of motor vehicle ownership, the demand for parking spaces will also be generally low. Parking provisions as incorporated in the building construction rules, usually ensure adequate provision of parking spaces. But with the gradual increase in the economic well being of urban residents, the ownership of motor vehicles tends to increase rapidly and over the medium and long term, these provisions become inadequate. When there is inadequate parking space provided within properties, the additional demand spills over to the streets and begins to occupy road space. If this has to be prevented, additional off-street parking facilities would have to be provided by the civic

authorities. These are cost intensive in nature. Most often, such decisions are deferred due to non-availability of funds.

A non-restrictive parking policy will require a commitment for regular investment in additional parking facilities. It is also known that it is very unlikely that the investment made in such infrastructure can be recovered through direct user charges.

Such a policy of providing adequate parking spaces for the increasing demand unfortunately encourages the use of private vehicles, and contradicts the transport development strategy for Dhaka.

Augmentation of capacity to handle parking demands has traditionally been a reactive incremental process. This approach of trying to match demand and supply has been questioned in recent times. Mainly because demand never ceases to grow. As a result, investments for capacity augmentation, never ceases. There is a need to consider measures for managing demand and thereby minimize the costly investments required for capacity augmentation.

*Restrictive Policy:* Increasingly, there is acknowledgement that managing demand is a strategy which is well worth following because of its numerous advantages.

First of all, such a policy allows for a regulated growth of private modes of transport while public transport systems are given the opportunity to increase coverage and patronage. Secondly, the level of investment required for balancing the parking supply with the demand is much more affordable. Thirdly, restrictive policies allow for the adoption of pricing strategies through which it becomes possible to charge the users and recover some of the investments being made on such facilities.

Parking Charges: Policy regarding the parking charges to be imposed on users should complement the overall parking policy for the area. In areas where a non-restrictive parking policy is adopted, parking would have to be free. But in areas where restrictive parking policy is adopted, it would be logical to charge users for the occupation of public parking spaces. Many strategies have been adopted to fix parking charges. For example, If the strategy is to encourage short term parking, the charges for long-term parkers would be higher. In areas where the demand for parking is far in

excess of available spaces, the strategy could be to encourage public transport usage then all types of parking should be charged a high rate. Decisions of such nature will require a more detailed site-specific evaluation prior to its implementation. The local bodies will have to have an appropriate setup within their organizations to evaluate and recommend the parking charges to be levied at various locations. These charges should be prominently publicized so that the users are aware of them.

#### *Policies on Managing Parking Demand*

1. Non-restrictive parking shall be adopted in residential areas where the demand for parking is much less than the available of parking spaces.
2. Restrictive parking shall be adopted in areas where the demand exceeds the available parking spaces. These shall be enforced through pricing and regulatory mechanisms.
3. Two types of parking charges shall be levied at public parking places in the restrictive parking areas. Normal charges aimed to recover of operation and maintenance expenses, shall be levied in locations where the parking provision does not adversely affect the movement of traffic. Deterrent parking charges shall be more than the normal charges and shall be adopted in areas where parking demand is in excess of supply or in places where parking is observed to adversely affect the movement of traffic.
4. Regulations shall include parking restrictions to specific or all types of vehicles either by time of day or by duration or for specific purpose of travel or for vehicles carrying less than specified number of passengers per vehicle or by location.

#### *Implications*

Local bodies will have to develop the parking plan for their respective areas clearly indicating the non-restrictive and restrictive parking areas. They will also decide on the parking charges to be levied at the identified public parking places. The local Police shall announce these plans and enforce the regulations. DTCB shall facilitate the coordinated actions between the agencies.

## Supply of Parking Spaces

Typically, there are two types of parking, one is On-Street and the other is Off-Street. On-street parking refers to vehicles parked within the right-of-way of a road, while vehicles parked outside the right-of-way (such as within properties and parking lots) is referred to as Off-Street parking. Issues and options are discussed in the following sections.

### *Issues and Options*

Supply of Off-Street Parking spaces: This is governed by the prevailing building construction rules as incorporated in the Building Construction Act of 1952, Town Planning Act of 1953 (amended in 1987). It specifies the parking space to be provided within the property and is in proportion to the total floor area of the buildings within the property. Normally, parking provisions in the building rules do not get updated at regular intervals. But whenever these are revised, an issue which surfaces is about what should be done to the buildings built as per the earlier rules and how should the deficiencies if any, be made good. Should they be exempted from the new codes or should they be forced to make the necessary structural changes in the building or should they contribute to a parking infrastructure fund to facilitate the construction of additional parking facilities.

Parking Standards: Parking demand generated by various types of activities, keeps changing with time. Unless these are updated regularly, there is the possibility of be a progressive underestimation of parking demand. This results in inadequate provision of parking spaces within properties. The excess demand spills over to the roads and begins to occupy road space and causes congestion.

Supply of On-Street Parking spaces: Provisions in the building rules generally under estimate the requirements of visitor or customer parking demand. As a result, visitors quite often do not find parking space within the property and are forced to park on the street or in available open spaces. As business increases, so will the number of visitors and customers. If on-street parking demands have to be met, it will have to be achieved either by providing more off-street parking facilities or by widening the road to accommodate more on-street parking spaces or by ensuring greater utilization of existing parking space through better management. Of these, better management is known to offer the most cost effective solution. Using enforcement and parking charges as tools, strategies could be

devised to discourage long-term parking while favoring short-term parking. By doing so, this could substantially increase the turnover of vehicles at the on-street parking facilities.

Slow Augmentation of Road Capacity: The road network of Dhaka City comprises of about 2000 km of roads. Substantial portion of this network is narrow and was constructed during the period when motor vehicles were a rarity. Most of this is located in the densely populated areas of Old Dhaka where there is little scope for widening without recourse to large-scale demolition and rehabilitation. Roads built after the advent of motor vehicles have a reasonable right-of-way. But with increase in personal mobility, the volume of traffic on these roads has also increased. In many cases, the present level of traffic is almost the capacity limits of the roads. Added to this is the demands put on the road space by the other users such as the pedestrians, hawkers, utility companies and encroachers. Widening roads to accommodate more parking spaces appears to be a remote possibility.

Parking for Non-motorized vehicles: Cycle Rickshaws have been recognized as one of the most unorganized and uncontrolled group of vehicles operating on the city roads. Regulation and control of cycle rickshaws has been a complex and challenging issue. The DITS<sup>2</sup> had assessed that about 21 percent of all daily trips within Dhaka is catered to by the cycle rickshaws. It is acknowledged that the rickshaws of Dhaka play a significant role as an intermediate public transport system especially on the feeder and local road networks of Dhaka.

No one knows the exact number of the cycle rickshaws operating in Dhaka. The DCC, which is the licensing authority for the cycle rickshaws, has issued licenses to about 78,000 cycle rickshaws. But the actual number operating within Dhaka is estimated to be anywhere up to 3,00,000 vehicles. DCC stopped registration of the cycle rickshaws with the perception that the growth will be deterred. Without a proper system of monitoring and enforcement in support of this initiative, this has not produced the required result. Instead, there has been unauthorized growth of the cycle rickshaws in Dhaka. DCC is of the view that though they are the licensing authority for the cycle rickshaws the responsibility of monitoring and penalizing unlicensed rickshaws lies with the Metropolitan Police. DMP on the other hand argue that there is no provision in the Motor Vehicle Ordinance and the Metropolitan Police

Ordinance to control and regulate the cycle rickshaws. Thus, one of the major transport service providers in Dhaka is apparently outside the ambit of law.

The role of the cycle rickshaw needs to be considered in the context of the overall urban transport development strategy for Dhaka. As indicated earlier in **Figure 5**, the cycle rickshaw is not an efficient mode of transport in terms of road space usage. The city's transport system would be better off if the same space could be used by more efficient public transport modes.

In recent times, there has been a move in this direction. Cycle rickshaw movements are being restricted along high-density motor vehicle corridors and bus routes. But this has brought into focus another set of parking and traffic problems encountered at locations where rickshaws are forced to terminate at the main road as shown in **Figure 6**. It is now apparent that there has to be a proper design for provision of rickshaw parking and turnaround at such locations.



Figure 6. **Rickshaw accumulation at edge of NMT free main road**

Truck Parking: The parking of trucks on curbside to load or unload freight is quite often a cause for congestion along roads, which carry other commuter traffic. Unrestricted movement of trucks on urban road network also results in a significant number of accidents and fatalities. Keeping this in view, trucks have been regulated from entering the city limits between 8am and 8 pm. With the absence of adequate facilities, trucks have thus been forced to wait on the roads outside city limits during this period. This has caused considerable congestion along these road stretches. In the process, intercity trucks, which need to pass through Dhaka, are also affected by this regulation.

About fourteen number of authorized and un-authorized truck parking area (Truck terminal, Truck Depot/Truck stand) prevail in Dhaka City.

Among these terminals the Doyaganj Truck Terminal is the only authorized one. DUTP -II (Final Report) has suggested that truck terminals should be established in five locations such as Tejgaon, Pagla, Sayedabad, Mohammadpur and Amin Bazar area. If the proposed Truck terminal areas are developed and utilized, the unauthorized parking of trucks within the city limits could be monitored and enforced more effectively. Action needs to be taken to identify land for the truck terminals and investigate the possibility of private sector participation in building and operating these facilities.

Bus and Tempo Parking: With the encouragement being given to public bus transport systems, the number of buses and tempos has been increasing steadily (Refer Figure 3) though not at a rate comparable to private motor vehicles. Many of the operators use public road space for terminating their services and for repairs as shown in **Figure 7**.



Figure 7. **Use of road space for servicing and repairs by inter-district contract carriers**

These include stage carriers and contract carriers. Stage carriers are being provided parking facilities within the bus terminal areas at Gabtoli, Mahakhali and Sayedabad, which is being developed under DUTP. But the contract carriers, which mostly operate overnight on, inter district routes are the ones which use public spaces for their parking and repairs. According to the Motor Vehicle Ordinance 1993, it is not mandatory for these operators to have proper garaging facility to obtain a permit. As the numbers of such operators increase, there is every likelihood of more and more road space being occupied by such buses.

Taxi Parking:

Taxis have recently entered the market as an intermediate public transport service provider. Obviously, there has been very little facilities provided for their parking needs. Due to their limited presence, their requirements could be

adequately provided in public parking places. Spaces could be reserved for taxis by proper signage and markings.

#### *Policies on Supply of Parking Spaces*

1. Parking standards shall be reviewed once every five years. Necessary modifications shall be incorporated in the building rules.
2. There shall be regular monitoring of parking provisions in all buildings. Buildings found to be deficient in parking provisions vis-à-vis current building rules shall be required to pay a parking facility fees. This shall be in proportion to the extent of violation with respect to the required provision. The revenue from this source shall be used for augmenting parking facilities (on-street / off-street) in the area.
3. Private sector shall be encouraged to build and operate parking facilities to augment parking capacity in deficient zones. A standard and transparent procedure shall be adopted for selection of private enterprises.
4. Effort shall be made to develop park and ride facilities at all public transport interchanges in the city.
5. While imposing restriction to the movement of specific types of vehicles effort shall be made to provide adequate vehicle parking facilities at the terminal or interface points.
6. Effort shall be made to identify locations for truck terminals. Private sector participation shall be encouraged in the development and operation of these facilities.
7. Existing statutes shall be amended to make it mandatory for owners and operators of stage and contract carriers to park their vehicles in garages when the vehicles are not in operation.
8. Adequate parking spaces shall be reserved for taxis in all public parking places.

#### *Implications*

RAJUK will have to strengthen its capability to inspect buildings for non-compliance of parking provision with respect to the prevailing building rules. They will also have to fix the fees to be charged to building owners for such non-compliance.

RAJUK will have to identify the location and reserve land for truck terminals within the DMDPA.

BRTA could initiate proceedings to amend the Motor Vehicle Ordinance to incorporate the requirement of garaging facilities for stage and contract carriers.

#### **Operation and Maintenance of Parking facilities**

Operation and maintenance of public parking spaces is the responsibility of the local bodies. Very little attention seems to be given to this aspect. As a result, the parking spaces are poorly managed and maintained. Quite often, wrecked and damaged vehicles permanently occupy valuable road space while short term users who invariably are willing to pay for a parking space, are denied such facilities. On-street parking should be operated and maintained like any other business proposition.

Parking charges should be collected at all public parking facilities in the restricted parking areas. Adequate staff will have to be employed at each location to collect the parking fees. In addition, such parking areas should to be kept well marked and maintained well all year round. This is a responsibility, which will have to be taken by the local authorities that are the providers of such facilities. However, there is the possibility of outsourcing this service from the private sector. Appropriate mechanisms could be developed to facilitate private sector participation. This generates employment. Selection of contractors for operating and maintaining the on-street parking facilities will have to be done in a transparent manner and their performance evaluated against a set of criteria.

#### *Policies on Operation and Maintenance of Parking Facilities*

1. Concerned local authorities shall be responsible for the efficient operation and maintenance of public parking facilities.
2. Private sector should be encouraged to operate and maintain the public parking facilities on behalf of the local authorities.
3. A clear and transparent procedure shall be adopted for selection of contractors.
4. Local Authorities shall develop a standard training program and ensure that all staff of the contractors involved in the operation

and maintenance of parking facilities undergo this training. This would enable standardized operation and maintenance of parking facilities.

#### *Implications*

Civic authorities will have to take a proactive role to ensure standardized operation and maintenance at all locations in their jurisdiction.

### **Parking Regulations**

As and when demand exceeds the supply, regulations are invariably needed to effectively manage the system. Quite often, such regulations are not very transparent and users are ignorant of such regulations. This in turn leads to a large number of violations, which again becomes unmanageable to the enforcement authorities.

The common perception among all road users in Dhaka is that there is no clear indication of the parking regulations in force. Neither is there a standard method adopted for indicating the parking regulations through road signs, markings and legislations. The common road users are generally unaware about the authority under which these regulations are to be promulgated. Nor do they know the penalties for violating these regulations.

To overcome these drawbacks, it is important that the regulations are transparent and widely publicized. Locations where such regulations are in force should be clearly indicated by signs, and markings. Users should be made aware of the penalties that would be imposed in case of violations.

As mentioned earlier, area wide parking policies shall be adopted. In non-restrictive parking areas, all roads would have free and unregulated parking unless indicated otherwise by road signs and markings. In areas where a restrictive parking policy is in force, no parking would be allowed on all roads unless indicated otherwise by road signs and markings.

Equally important is the need to identify the appropriate authority to promulgate the parking regulations and the method of publicizing these to the public at large. Penalties for parking violations need to be formulated and approved by the government.

#### *Policies on Parking Regulation*

1. In restrictive parking areas, on-street parking shall be prohibited on all roads within the area except at places where it is specifically permitted by authorized road signs and markings.
2. The Chief of Police in each local area shall be the authorized person to notify the parking regulations, parking fees to be charged at each location and penalties for violation of parking regulations. This will be done through press releases and gazette publications.
3. The Chief of Police shall be advised by a Committee on matters relating to parking regulations, parking charges and penalties for violation.

#### *Implications*

The Chief of Police should announce the parking regulations and movement restrictions as and when required. Appropriate publicity and press releases should be accompanied with each notification. This would ensure better compliance by the users and make it easier for the enforcement authorities.

The advisory committee to the Chief of Police could be the Transport Advisory Committee of the BRTA.

### **Enforcement of Regulations**

#### *Issues and Options*

While regulation is one side of the coin, enforcement of these regulations is the flip side. Laxity in enforcement quite often negates the whole purpose of imposing parking regulations. Visible presence of enforcement authorities supported by adequate equipment is essential to make the road users to follow the regulations. Appropriately structured penalties for parking violation further induces the road users to comply voluntarily.

#### *Policies on Enforcement of Regulations*

1. The Local Police shall be responsible for enforcing parking regulations as notified by the Police Chief.
2. They shall assign adequate number of police personnel of appropriate rank for surveillance and enforcement of parking regulations in each zone. Each zone shall have a tow truck to facilitate eviction of offending vehicles.

3. Tow trucks shall be requisitioned from private enterprises to facilitate enforcement of parking regulations. The operating expenses shall be recovered through penal fees collected from violators.

#### *Implications*

Enforcement of regulations is an important task, which needs to be carried out seriously and relentlessly. Police need to assign adequate staff for such duties. In course of time, after the Police have gained adequate experience and knowledge of the enforcement duties, possibility of contracting this task out to private security firms (or similar such agencies) could be considered. This would reduce the workload of the Police force.

#### **Institutional Setup and Strengthening**

##### *Issue and Options*

Analysis of parking requirements, preparation and updating of parking plans, provision of facilities, its management, regulation and enforcement are activities, which will have to be done continuously. It is important that the agencies responsible for each of these tasks, know their responsibilities and make efforts to establish appropriate units with adequate manpower and equipments. Based on the discussions and actions outlined in earlier sections, the institutional setup and strengthening required to ensure proper implementation is summarized in the following policies.

##### *Policies on Institutional Setup And Strengthening*

1. Preparation of parking plans, provision of parking facilities and its management shall be the responsibility of the Local Civic Authorities. They shall also monitor the operation and maintenance of facilities and ensure uniform standards at all locations.
2. RAJUK shall regularly monitor the parking provisions in buildings vis-à-vis prevailing building rules and collect necessary fees for non-compliance.
3. Local Police shall be responsible for enforcement of parking regulations and shall ensure regular surveillance for parking offenses.

4. All fees namely, Operation and Maintenance Contract fees, parking fees, parking development fees etc. collected by the Local Civic Authorities, RAJUK and Local Police shall be credited to a parking fund. An appropriate authority in the Local Civic Authority shall operate this fund exclusively for provision of parking facilities and for procurement of equipment and services for all concerned agencies.

#### *Implications*

DTCB shall monitor the setting up and strengthening of the agencies responsible for the various activities. They shall coordinate with the government to facilitate early compliance with this requirement

#### **Supportive Legislations**

##### *Issues and Options*

Although there are adequate acts, ordinances and laws available for implementing most of the policies, there are a few which require amendments and some, which require new legislation. These are suggested through a set of policy guidelines.

##### *Policies on Supportive Legislations*

1. The Chief of Local Police shall be given the authority to regulate and enforce parking within the city.
2. The Local civic authorities shall be given the authority to collect parking fees at public parking facilities.
3. RAJUK shall have the authority to inspect premises for parking provision violations. They shall be given the authority to fix, levy and collect development fees from building owners who do not comply with parking provisions as in the prevailing building rules.
4. Local Civic Authorities shall be given the authority to create a Parking Fund. All fees collected by Local Civic Authority, RAJUK, and Local Police in connection with parking operation and maintenance, violation of building codes and enforcement shall be credited into this.
5. Necessary legislation shall be made to direct the RAJUK and Local Police to deposit the collected fines and fees into the parking fund.

*Implications*

DTCB shall take on the responsibility of getting these legislations formulated and approved by the Government at the earliest.

**Summary of Policies***Policies on Managing Parking Demand*

1. Non-restrictive parking shall be adopted in residential areas where the demand for parking is much less than the available of parking spaces.
2. Restrictive parking shall be adopted in areas where the demand exceeds the available parking spaces. These shall be enforced through pricing and regulatory mechanisms.
3. Two types of parking charges shall be levied at public parking places in the restrictive parking areas. Normal charges aimed to recover of operation and maintenance expenses, shall be levied in locations where the parking provision does not adversely affect the movement of traffic. Deterrent parking charges shall be more than the normal charges and shall be adopted in areas where parking demand is in excess of supply or in places where parking is observed to adversely affect the movement of traffic.
4. Regulations shall include parking restrictions to specific or all types of vehicles either by time of day or by duration or for specific purpose of travel or for vehicles carrying less than specified number of passengers per vehicle or by location.

*Policies on Supply of Parking Spaces*

5. Parking standards shall be reviewed once every five years. Necessary modifications shall be incorporated in the building rules.
6. There shall be regular monitoring of parking provisions in all buildings. Buildings found to be deficient in parking provisions vis-à-vis current building rules shall be required to pay a parking facility fees. This shall be in proportion to the extent of violation with respect to the required provision. The revenue from this source shall be used for augmenting parking facilities (on-street / off-street) in the area.

7. Private sector shall be encouraged to build and operate parking facilities to augment parking capacity in deficient zones. A standard and transparent procedure shall be adopted for selection of private enterprises.
8. Effort shall be made to develop park and ride facilities at all public transport interchanges in the city.
9. While imposing restriction to the movement of specific types of vehicles effort shall be made to provide adequate vehicle parking facilities at the terminal or interface points.
10. Effort shall be made to identify locations for truck terminals. Private sector participation shall be encouraged in the development and operation of these facilities.
11. Existing statutes shall be amended to make it mandatory for owners and operators of stage and contract carriers to park their vehicles in garages when the vehicles are not in operation.
12. Adequate parking spaces shall be reserved for taxis in all public parking places.

*Policies on Operation and Maintenance of Parking Facilities*

13. Concerned local authorities shall be responsible for the efficient operation and maintenance of public parking facilities.
14. Private sector should be encouraged to operate and maintain the public parking facilities on behalf of the local authorities.
15. A clear and transparent procedure shall be adopted for selection of contractors.
16. Local Authorities shall develop a standard training program and ensure that all staff of the contractors involved in the operation and maintenance of parking facilities undergo this training. This would enable standardized operation and maintenance of parking facilities.

*Policies on Parking Regulation*

17. In restrictive parking areas, on-street parking shall be prohibited on all roads within the area except at places where it is specifically permitted by authorized road signs and markings.

18. The Chief of Police in each local area shall be the authorized person to notify the parking regulations, parking fees to be charged at each location and penalties for violation of parking regulations. This will be done through press releases and gazette publications.
19. The Chief of Police shall be advised by a Committee on matters relating to parking regulations, parking charges and penalties for violation.

#### *Policies on Enforcement of Regulations*

20. The Local Police shall be responsible for enforcing parking regulations as notified by the Police Chief.
21. They shall assign adequate number of police personnel of appropriate rank for surveillance and enforcement of parking regulations in each zone. Each zone shall have a tow truck to facilitate eviction of offending vehicles.
22. Tow trucks shall be requisitioned from private enterprises to facilitate enforcement of parking regulations. The operating expenses shall be recovered through penal fees collected from violators..

#### *Policies on Institutional Setup And Capacity Building*

23. Preparation of parking plans, provision of parking facilities and its management shall be the responsibility of the Local Civic Authorities. They shall also monitor the operation and maintenance of facilities and ensure uniform standards at all locations.
24. RAJUK shall regularly monitor the parking provisions in buildings vis-à-vis prevailing building rules and collect necessary fees for non-compliance.
25. Local Police shall be responsible for enforcement of parking regulations and shall ensure regular surveillance for parking offenses.
26. All fees namely, Operation and Maintenance Contract fees, parking fees, parking development fees etc. collected by the Local Civic Authorities, RAJUK and Local Police shall be credited to a parking fund. An appropriate authority in the Local Civic Authority shall operate this fund exclusively for provision of parking facilities

and for procurement of equipment and services for all concerned agencies.

#### *Policies on Supportive Legislations*

27. The Chief of Local Police shall be given the authority to regulate and enforce parking within the city.
28. The Local civic authorities shall be given the authority to collect parking fees at public parking facilities.
29. RAJUK shall have the authority to inspect premises for parking provision violations. They shall be given the authority to fix, levy and collect development fees from building owners who do not comply with parking provisions as in the prevailing building rules.
30. Local Civic Authorities shall be given the authority to create a Parking Fund. All fees collected by Local Civic Authority, RAJUK, and Local Police in connection with parking operation and maintenance, violation of building codes and enforcement shall be credited into this.
31. Necessary legislation shall be made to direct the RAJUK and Local Police to deposit the collected fines and fees into the parking fund.

#### **Flexibility**

This parking policy may need to be reviewed and modified to meet the changing demands, which may be the result of changes in related policies or other economic factors. When ever this is done, the planning, implementing, regulating and enforcing agencies should be advised to proactively respond by making changes if necessary, to the parking plans and regulations in force.