



## **DELHI DEVELOPMENT AUTHORITY**

**UNIFIED TRAFFIC & TRANSPORTATION INFRASTRUCTURE (PLG. & ENGG.) CENTRE**

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### **BICYCLE SHARING POLICY FOR NATIONAL CAPITAL TERRITORY OF DELHI**

#### **1.0 Background**

Bicycle sharing system is a public transport system in which bicycles are made available to multiple users for short duration trips, offering an option of returning the vehicles to different destinations. It is an eco-friendly, affordable and health-friendly system which would be an attractive travel mode option for all income and age groups.

Bicycle sharing systems are mostly integrated with public transit stations to provide last mile connectivity or provided in dense areas to facilitate short duration work and/ or personal trips. Bicycle Share system is designed to be used by one and all, but it may find use more frequently by daily commuters for last-mile connectivity, residents and office employees to run general errands in the vicinity, as well as by tourists and students.

Using Cycle Sharing is considerably cheaper than using Intermediate Public Transport (IPT) like cycle rickshaw, auto rickshaw or shared auto rickshaw. Moreover, one is flexible to choose one's own route on a cycle sharing than using a few IPT modes like shared rickshaw which run on specific routes and may not necessarily connect directly to one's destination. Additionally, cycling has many benefits; it can be treated as exercise with several health and social and environmental benefits.

#### **1.1 Consultation meeting held with Cycle Sharing operators and other stakeholders held under VC, DDA on 10.04.2015:**

DDA has initiated the project of project of bicycle sharing scheme for Dwarka based on the decision of the 45<sup>th</sup> Governing Body meeting of UTTIPEC dt. 22.11.13.

Subsequently, various consultation meetings were held with different cycle sharing operators from all over the country and senior officials of DDA, UTTIPEC, Centre for Green Mobility (technical advisor to DDA on cycle sharing project) and other stakeholders, where the following challenges to implementing/ expanding the cycle sharing system in Delhi were identified:

- Operators are not able to recover operations and maintenance cost from cycle rental fee and advertising revenue alone.
- Equipment costs were too high for operator to recover costs soon, due to requirement of higher grade cycles with GPS, solar, other technologies, etc.
- Expansion of cycle rental system was difficult due to involvement of multiple agencies in providing land for stations, advertising rights, operating rights, etc.

- Only low efficiency low-tech operations and management was possible due to absence of centralized control centre which is expensive and needs to be government led.
- Due to lack of comprehensive policy, it was difficult to get assistance from any govt. agency to address the above issues.

Based on the above feedback, it was decided that DDA should take up the work of preparing a Cycle Share Policy for NCT of Delhi that helps incentivize various agencies in scaling up the cycle sharing projects in the city. UTTIPEC was directed to prepare a draft cycle sharing policy which was discussed in subsequent meetings.

## 2.1. Provision of Masterplan-2021

The Transport Chapter revised as part of review exercise of Master Plan of Delhi 2021 was approved by the Authority dt.16.02.2015 and forwarded to Ministry of Urban Development for issue of final notification. As per Para 12.7 of Transport Chapter, the provision regarding Non-Motorized Transport (NMT) is given in para 12.7.1, wherein the following is mentioned:

*“Bicycle/ cycle-rickshaw could be an important mode of travel, particularly with reference to short and medium trip lengths. The following actions have been suggested for promoting Bicycle/NMT.*

- Prepare a cycling Master Plan for the city that creates a network of routes integrating all arterial roads, eco-mobility corridors along nallahs, heritage routes, school precincts as well as other recreational routes.*
- On all arterial roads fully segregated cycle/NMT tracks should be provided with provision for safe parking in park and ride lots. Wherever full ROW is not available, the cycles/ NMT may be allowed to flow in mixed-traffic condition.*
- In urban extension, cycle tracks should be provided at the sub-arterial and local level roads and streets.*
- In all areas of the city, the use of cycles/rickshaw as a non-motorized mode of transport should be consciously planned along with pedestrianization.*
- Plan and implement city wide, affordable and accessible cycle sharing / rental schemes to encourage public transit users in particular and public in general to use cycle as a mode to perform their first and last mile journey as well as to make regular short trips without using private vehicles.*
- A cycle sharing/ rental system could be planned/ implemented by any public/ private agency comprising of an owner and an operator, with the govt. playing the role of facilitator. The extant guidelines in this regard may be followed.*
- In case new pedestrian/ NMT networks need to be added in built-up/ developed areas, appropriate incentives may be given. Detailed cycle sharing system policy and guidelines shall be prepared by concerned local body separately.”*

In view of the provisions of Master Plan of Delhi-2021 & to promote cycling in Delhi a Cycle Sharing policy is prepared. Based on the consultation meetings held under the Chairmanship of VC, DDA as mentioned in para 1.0, the modalities of expanding/ scaling up the system to the entire city of Delhi were discussed with various relevant stakeholders including DDA, GNCTD, MCD, NDMC, Traffic Police, DMRC, DIMTS,



NGOs and Operators of Cycle Sharing systems in Delhi. Based on the discussion, the draft policy for cycle sharing was approved by the 51st GB Meeting of UTTIPEC and is placed for consideration of the Authority.

## **2.2. Recommendations of the consultation meeting held on Draft 'policy for cycle sharing system in Delhi' held under chairmanship of VC, DDA on 07.05.2015:**

A meeting was held with senior officials from DDA, GNCTD, MCD, NDMC, Traffic Police, DMRC, DIMTS, NGOs and Operators of Cycle Sharing systems under chairmanship of VC, DDA to discuss the Draft cycle sharing policy prepared by UTTIPEC, where certain key decisions were taken regarding the following components of the cycle sharing policy:

- (i) *Regarding Operations Control Centre (OCC)*
- (ii) *Regarding Smart Card/ Common Mobility Card*
- (iii) *Regarding revenue sharing model between Local Body/ DDA/ DMRC / Operators:*
- (iv) *Regarding provision of space on lease/rental basis to the operators by road/ land owning agencies:*
- (v) *Regarding NMT Infrastructure:*
- (vi) *NMT Cell in UTTIPEC needs to be formed which will act as the Management/ monitoring Cell for all NMT and CSS projects in the city.*
- (vii) *It was decided that the updated version of the policy should be circulated to all members/stakeholders before finalization and to be placed before the next Governing Body for consideration.*

## **2.3. Decision of the 51<sup>st</sup> UTTIPEC Governing Body Meeting held under chairmanship of LG, Delhi on 29.05.15**

**[refer Minutes at <http://uttipeec.nic.in/writereaddata/mainlinkFile/File389.pdf>]:**

A presentation on revised cycle sharing policy was made to the Governing Body on 29.05.2015 under the chairmanship of Lt. Governor, Delhi. *The Governing Body agreed in principle for proposal of Cycle Sharing Policy and directed the same to be placed before the Authority for consideration.* The Authority approved the cycle sharing policy in its meeting dt.16.6.15 and the same is as below:

## **3. BICYCLE SHARING POLICY FOR NATIONAL CAPITAL TERRITORY OF DELHI**

### **3.1. Overview of Cycle Sharing Systems:**

- 3.1.1. **Public Cycle Sharing system is a form of a public transport system**, that enables a large number of short trips to the mass transit or other place in the city, on bicycles through closely spaced stations, for a short duration such that each bicycle can be shared by more number of people on a daily basis, with the advantage of returning the bicycle to any station in the city. **Therefore Cycle Sharing should be treated as a public transport system for all purposes.**
- 3.1.2. Just like any other public transport system, the key aspect in a cycle sharing system is **efficient delivery of services.**



- 3.1.3. **Key difference between Cycle Renting and Cycle sharing:** In “cycle rental”, the person renting a cycle from one point e.g. a metro station, needs to return it to the same station only, which defeats the purpose of making multiple short trips on cycle. However, in “cycle sharing” there is a network of cycle renting stations (generally every 3-5 min walk). Therefore, a person renting a cycle at a metro station could return it near his destination e.g. school/ college/ market/ home, etc.
- 3.1.4. **The redistribution function is necessary for making cycles available** at the cycle stations at all times. The distance between two stations should be approx. 300m, which is a 3-5min walking distance. A dense network of stations ensures that cycles are easily accessible to people for making short trips.
- 3.1.5. Key features of cycle sharing systems (MOUD Cycle Sharing Toolkit 2012) are as follows:
- i. A dense network of stations across the coverage area, with a spacing of approximately 300 m between stations for access within approx. 3-min walk.
  - ii. Cycles with specially designed parts and sizes to discourage theft.
  - iii. A fully automated locking system at stations that allows users to check cycles in or out with no need for staffing at the station.
  - iv. Radio frequency identification devices (RFIDs) to track where a cycle is picked up, where it is returned, and the identity of the user.
  - v. Real-time monitoring of station occupancy rates through General Packet Radio Service (GPRS), used to guide the redistribution of cycles.
  - vi. Real-time user information provided through various platforms, including the web, mobile phones, and/or on-site terminals.
  - vii. Pricing structures that incentivise short trips, helping to maximize the number of trips per cycle per day.

**3.2.** Based on MOUD Cycle Sharing Toolkit 2012, the institutional structures were explained with their key roles. These include:

- i. **Municipal corporation, state Local Body/ DDA/ DMRC and/or central Local Body/ DDA/ DMRC** – provide technical guidance; Space for stations and revenue rights; institutional and policy support; and viability gap funding, if required.
- ii. **Implementing agency (e.g. public transport SPV)** – conducts system planning, contracting for operations, monitoring of operator and system performance; is recipient of all revenue, and pays the operator for services provided, with incentives and penalties, as outlined in the service level agreement
- iii. **Private operator for cycle sharing** – is contractually responsible for day-to-day operations, including redistribution, maintenance, and customer service activities.



### **3.3. Operations Control Centre (OCC):**

- 3.3.1. The Operations Control Centre clubbed with a Call Centre forms the backbone of a cycle sharing system and is critical for the operation and management of any cycle sharing system. A space measuring at least 300sqm is required for an OCC to run a system of minimum size of 1000-3000 cycles.
- 3.3.2. The OCC created for the first cycle sharing system should preferably be expandable to approx. 700sqm to cover the entire Delhi, and be located within any Local Body/ DDA/ DMRC building with matching investments to setup the hardware and software.

### **3.4. Smart Card Integration – Common Mobility Card (CMC)**

- 3.4.1. Delhi to have a single common mobility card/ smart card which should (at minimum) be usable in all public transport systems including (but not limited to) metro, all types of buses, auto-rickshaws, taxis, feeder vans and cycle sharing systems. Having seamless integration between modes is the most important factor in encouraging use of public transportation systems.
- 3.4.2. Smart Card for any Cycle Sharing system should be integrated with the smart cards being created by DMTC (metro) and DIMTS (cluster buses) for the Transport Dept, GNCTD.
- 3.4.3. It is possible to rope in a third party provider (eg. Banking institution, etc) to provide transaction services integrated with 'Know Your Customer' (KYC) services for user identification on smart cards (that can be used as bank's debit card as well) and through a model of revenue sharing, could also pass on a part of the profit on transactions to the Local Body/ DDA/ DMRC. The Local Body/ DDA/ DMRC may decide to use the revenue from transactions as Viability Gap Funding for Cycle Sharing operations. This card could be used at shops for purchases also, widening its reach.

### **3.5. Revenue Sharing:**

- 3.5.1. Three models for revenue sharing between a private operator and public agency are suggested:
  - i. In the first model, the private operator should be required to pay a nominal license fee based on the area required for setting up the station along with electricity charges, etc. The right to advertisement and collecting user charges should lie with the operator. The capital expenditure and entire operating expenditure is met with by the private operator by their own-self, without any Local Body/ DDA/ DMRC subsidy.
  - ii. In the second model, the private operator and public agency should share the revenue from the advertisement, in addition to the nominal license fee on the station area and electricity charges, etc. that is levied on the operator. In this model, the Local Body/ DDA/ DMRC may decide to pay a limited subsidy to the private operator to help sustain operations.
  - iii. In the third model, the cycle sharing is owned by a public agency which provides the capital and operational expenditure to the private operator against fixed monthly charges for services provided by the operator. The revenue from user charges, sponsorships, advertisement or any other source is retained by the public agency.



- 3.5.2. All three municipalities or the head of municipalities may prepare a policy considering **cycle sharing as a public transport project for social welfare and is not to be treated as a sole revenue generation project.**
- 3.5.3. All the spaces and other facilities provided to operators shall be based on a comprehensive cycle sharing plan to be approved by UTTIPEC. The subsidy support to operators will be linked to Performance Measurement Standards which is part of this policy.

**3.6. Space for Stations & Depot:**

- 3.6.1. All land owning agencies like DDA, MCDs, PWD, DMRC, DTC, and others, to consider providing space for stations and depots at nominal rates to Operators, which will be part of their own Cycle Sharing Policy (as mentioned in 3.5.2 above). Apart from spaces at metro station for cycle stands, spaces may have to be explored from the govt. owned land like park edges, commercial centres, LSC, CSC, hospitals, schools, etc. and also approach private societies/ RWAs for space.
- 3.6.2. In case of a privately owned system, it was proposed that for on-street stations or stations on private/public land, a minimal license fee maybe charged to private operator.
- 3.6.3. In case of public owned system, on-street space and space on Local Body/ DDA/ DMRC land should be provided **on lease, without any fees.** For space on private land, the Local Body/ DDA/ DMRC may provide a tax rebate to the owner, for a public owned system.
- 3.6.4. A depot space should be required for cycle sharing operations, consisting of indoor office space of approximately 40sqm, indoor meeting space of 20sqm, enclosed space for storing of bicycles of area 500sqm, covered cycle repair space of 300sqm and space for parking of 3-5 redistribution vehicles. Depot to have all cycle repair facilities that are required. Space standards may vary from place to place.
- 3.6.5. Cycle stations to be provided on-street and/or off-street, either on private or Local Body/ DDA/ DMRC land. The “No Objection Certificate” for use of land for cycle sharing stations should preferably be provided free of cost to operators by the land/ road owning agencies. Space for stations shall be provided as per UTTIPEC approved cycle sharing system plan.
- 3.6.6. Metrics for space required per cycle for different typologies of stations is provided below. This metric is indicative in nature and may be used for computation of space required at each station:

S. No.	Docking Style	Space Req./ Bicycle (sq.m)	Circulation Space (m)	Total Area Required for 20 cycles (sq.m) Approx.
1.	Typical Cycle Stand	1.0	1.5	<b>35</b>
2.	Bollard Style	1.4	1.5	<b>42</b>
3.	Dutch Two Tier Racks	1.2	2	<b>22</b>
4.	Vertical Style Parking	0.4	1.5	<b>20</b>



- 3.6.7. It is proposed that parking of redistribution vehicles should be provided, but the charges for parking will have to be borne by the private operator, as per the prevailing rates.
- 3.6.8. In addition, for the upkeep and maintenance of the system to high levels, Performance Measurement Standards are essential. These standards should be adhered to by the Operator at the time of signing of contract and should cover various aspects, including but not limited to the following:
- i. Maintenance Aspects: to have a few docks always empty for users, to have a minimum percentage of fleet always available for use, to have low wait time (2mins) at the stations for cycles and empty docks, to have high maintenance of cycles and related infrastructure.
  - ii. IT Aspects: to have less period of downtime of mobile and web application, to have quick access from smart card without having any downtime,
  - iii. Customer Service Aspects: to have quick registration of users on the system, to have the call centre available for users at most times, to have quick turnaround times for complaints and to have low queuing of calls.
- 3.6.9. Performance Standards shall be built into the contract of the Operator with the Local body and incentives/ penalties should be tied to it. In addition, the Operator should have to produce required bank guarantees at the time of selection.
- 3.1.1. The Local Body/ DDA/ DMRC may earn carbon credits on the project once it is rolled out.

### **3.2. NMT Infrastructure:**

- 3.2.1. All road owning agencies like DDA, PWD and MCD, shall provide the NMT infrastructure, e.g. cycle lanes, dedicated cycle tracks, retrofitting of junctions, and provide or enable related cycling infrastructure such as dedicated cycle signals, cycle parking, drinking water stations, cycle repair shops, etc.
- 3.2.2. UTTIPEC street design guidelines will be followed for details on providing NMT infrastructure for all roads, especially arterial, sub-arterial and collector roads.
- 3.2.3. Cycle tracks should be planned in such a way that it connects to all major locations, stations and public places.

### **3.3. NMT Cell**

- 3.3.1. An NMT Cell shall be formed in UTTIPEC for the purpose of planning guidance, monitoring and training pertaining to Cycle Sharing and NMV projects taken up by various agencies in Delhi. The NMT Cell shall function with hired consultants/ PMC/ Advisors, as required.

