Railroading the Rules: Transport, Government, and Stakeholders

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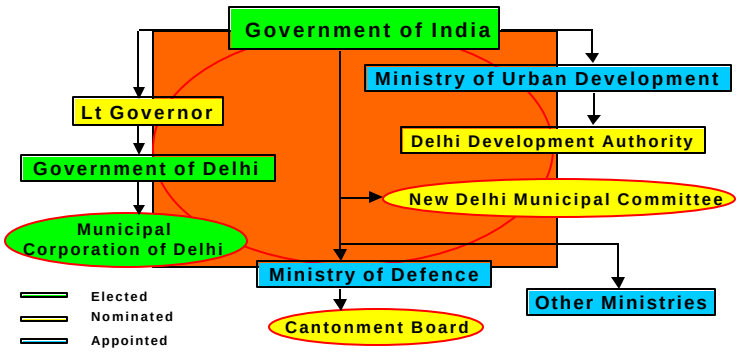
This paper attempts to define and analyse the relationships that exist within the institutions of governance, the various sections of the population and their sectoral interests, and the transport policies that flow from such social interactions. It is based on a reading of the situation in the national capital of Delhi, although many of the trends are also visible in other cities and towns of India. Sincethe Hazards Centre is a technical support agency responding to community needs, the paper is necessarily limited by the activities and experiences of the Centre with concerned and vulnerable social groups who have little access to information and research inputs.

1. Governance mechanisms

The National Capital of Delhi represents a complex system of governance since many "stakeholder" find a foothold in the decision-making process and there are implicit conflicts and overlapping areas of governance amongst them (Figure 1).

Figure 1: Delhi's Governance Structure



There are, firstly, the ***elected*** institutions, which are supposed the represent the people of the capital, as well as the nation. Chief amongst them is the Government of India (GoI) presided over by the legislatures of Parliament. It is also the largest owner of land in the country and the power of "eminent domain" over all resources resides within it. The Government of the National Capital Territory of Delhi (GNCTD) represents the citizens of the capital through the Delhi Assembly, but its powers are restricted to the provision of civic and welfare services. Here too, there is another body of elected representatives in the Municipal Corporation of Delhi (MCD) that is responsible for the actual provision of amenities.

There are four other ***nominated*** bodies, which often exercise more powers than the elected ones. The Lieutenant Governor (LG) of Delhi, for instance, is the nominated representative of the GoI, who has to approve of the decisions of the GNCTD. He also presides over the Delhi Development Authority (DDA), which is the planning body for the city. Sharing the burden of providing urban services with the MCD are the New Delhi Municipal Council (NDMC) and the Cantonment Board (CB).

Effective executive power remains with the ***bureaucracies*** within the Ministries. Thus, the Ministry of Urban Development is the parent body of the DDA, while the Ministry of Defence supervises the work of the CB. Other Ministries, such as the Railway Ministry, the Human Resource Development Ministry, the Information and Broadcasting Ministry, the Water resources Ministry, the Forest and Environment Ministry, and the Road Transport Ministry also own significant areas of land in the city and can exercise considerable clout in decision-making when it affects their respective constituencies.

There has also been a sharing and shifting of power bases within the various institutions of governance over the past six decades. Thus, the Ministry of Rehabilitation was set up by the GoI in 1948 to set up three camps to temporarily house the 5 lakh refugee population that came streaming into the city from Pakistan. In the same year the GoI also took over the transport services from the Gwalior and Northern India Transport Company to set up the Delhi Transport Services (DTS). Two years later the Ministry and Rehabilitation had completed the task of settling 1 lakh refugees in new houses along the Ring Road, while the remainder had occupied (97.5% illegally) the 1 lakh abandoned houses of refugees fleeing in the opposite direction, and the GoI set up the Delhi Transport Authority (DTA) to replace the DTS.

There was a partial (and temporary) transition to decentralisation in 1952 when the first Delhi Assembly was set up under the GoI. But in 1955 there was a jaundice epidemic, largely as a consequence of the establishment of the refugee colonies five years earlier, that left 700 people dead in the city. Consequently, the GoI set up the DDA in 1956 for the proper planning of the city and it was given authority over the slums under the Slum Areas Act. In 1957, Delhi was declared a Union Territory under the direct control of the LG, while the MCD and NDMC Acts were also passed to create those two bodies. The next year witnessed the historic sweeper's strike that marked the steady deterioration of civic services and the DTA was changed to the Delhi Transport Undertaking (DTU). DDA also finalised its slum resettlement policy in 1958 providing for 80 sq yd plots under a 99-year lease. In 1962, the First Master Plan was notified by DDA.

In 1966, the Delhi Administration Act was passed, once again constituting a Delhi Metropolitan Council under the LG. The next year DDA arbitrarily reduced the size of the resettlement plots from 80 to 40 sq yds. And even though 1969 marked the passage of a Declaration of Social Development, the next year the Union Cabinet decided the plot size would be further reduced to 25 sq yds, and that too at the periphery of the city at a rent of Rs 8 per month. In 1972, DDA decided it would give a flat of 18 sq m instead of a plot, and the payment charges were hiked to Rs 18,000. The Delhi Transport Corporation (DTC) was thus established to match the on-going commercialisation of services.

Faced with an acute housing shortage in the city during the preceding years, many families had settled at the periphery in what were called "unauthorised" colonies. 567 of these colonies were regularised at no cost in 1975, the Urban Land Ceiling Act was passed in 1976 outlawing the ownership of more than 500 sq m of land, and then in 1976, under the cloak of the declaration of National Emergency, 1.5 lakh families were moved out of the city and resettled in 44 colonies at the periphery. This was also the prelude to the Asiad Games of 1980, when the formal planning process was suspended and about 10 lakh labourers came into the city for the construction work for the Games.

Under different governments, the Metropolitan Council was dissolved in 1980, but revived again in 1983, and then subsumed under the National Capital Region Board in 1985. 1987 marked the decision of the GoI to provide public basic services, but the next year 1500 died of a cholera epidemic in the resettlement colonies, so a three-pronged Slum Strategy was adopted in 1990. The Second Master Plan was finally notified in 1991, ten years behind schedule and under the pretext that it was merely a "modification" of the First Plan. And the elected GNCTD was given the responsibility for providing basic services in 1992, while the DDA transferred its tasks of relocation to the MCD.

In 1994, the Ward Committees were constituted to comply with the decentralisation provisions of the 74th Amendment, but these Committees merely consisted of all the Councillors of the notified Ward area. In the same year the DDA dreamt up the ambitious Yamuna Channelisation project, estimated at Rs 1800 crores, 60% coming from Joint Ventures, and making available almost 10,000 hectares of land for commercial development. The same vision of the re-born city marked the filing of a Public Interest Litigation (PIL) in 1995 asking for the closure of 168 hazardous industrial units in the city, on the grounds that they were polluting the river. Eventually, this case resulted in the closure of 2245 "polluting" units and, still later in 2000, over 100,000 "non-conforming" units. This phase also marked the intervention of the judiciary in governance.

In 1996, RITES also prepared the first plans for the modified Metro, while the GNCTD took over the DTC. In the same year, another PIL was filed asking for the removal of waste from the city, and this eventually culminated, in 2000, in Court directions to remove the slums and the judicial characterisation of sum dwellers asking for their rights to resettlement as "pickpockets". Yet another PIL was filed in1998 against growing air pollution in the city and this time the diesel buses were targeted as being the main culprits. By 2002, orders had been passed for the conversion of all buses to Compressed Natural Gas (CNG). The Metro construction had begun a year earlier, while the Delhi Vidyut Board was privatised in the same year.

2002 was not so fortunate for other residents of the city though. Under pressure from court orders and the reigning concept of "nationalism" the GoI announced an Action Plan to deport the supposedly "lakhs" of Bangladeshis in the city. The High Court pronounced a ban on begging because seven of those unfortunates had died in a beggar's home. The next year, the High Court also ordered the removal of 35,000 slum families from the banks of the river on the grounds that they were polluting the river. While the Supreme Court gave a verdict for confining hawkers and vendors to certain zones. Three years later it also ordered the sealing of shops all over the city and the removal of cycle rickshaws from Chandni Chowk on grounds of "congestion".

The elected and executive institutions have tried to counter these moves of the judiciary by issuing notifications and passing legislation such as the Delhi Laws (Special Provisions) Bill and the 2021 Master Plan. But they too have been forced into a corner by the visions of the forthcoming Commonwealth Games in 2010, and possibly the Asiad Games in 2014 and the Olympics in 2016. In addition, the rising political power of affluent (and aggressive) stakeholders such as those organised into Manufacturers' and Traders' Associations, or Resident Welfare Associations and Non Government Organisations, under government sponsored programmes such as "Bhagidari" have left little space for manoeuvre by governing institutions.

It is, therefore, within this context that one can situate the issues of transportation in the city.

2. Transportation Modes

The official Statistical Handbook of the Delhi Government gives the following picture (Table 1) of the motorised transport in the city over the last three decades.

Table 1: Growth in vehicles

Vehicle	1971	1982	1993	1996	1997
Cars and jeeps	61521	134084	510242	685850	705923
Two wheelers	109112	429923	1467182	1844471	1876053
Auto rickshaws	10812	23396	71568	80208	80210
Taxis	4105	7744	11679	14593	15105
Buses	3266	10661	23943	29183	29572
Goods vehicles	15262	42723	114294	139300	140922

Source: Delhi Statistical Hand Book 1988, Delhi Statistical Handbook 1998.

The share between public and private transport has been estimated to be as given in Table 2:

Table 2: Growth In Daily Passenger Trips

Year	Total trips (lakhs)	Trips by Mass Transport (lakhs)	Trips by Personal Transport (lakhs)
1966	19.88	8.1	11.7
1981	39.0	23.4	15.6
2001	153.0	11.50	38.0

Source: Delhi is Doomed without Metro, Jag Pravesh Chandra.

However, this picture clearly does not span the entire range of transportation modes available in the city, as is given in the following Table 3:

Table 3: Man/Animal driven vehicles in Delhi

Description	1980-81	1990-91	1992-93	1993-94	1994-95	1995-96	1996-97
Rickshaw	3898	12421	15579	45963	45899	46386	55269
Tonga	1822	974	927	867	796	679	613
Rehras	483	269	190	190	205	131	144
Hand Carts	6231	4886	4998	4998	5518	5515	5448
Bullock carts	695	521	442	442	423	426	430
Cycle trolley	3815	11476	24637	35576	38925	42339	40666
Total	16944	30547	46773	88036	91766	95476	102570

Source: Delhi Statistical Hand Book 1988, Delhi Statistical Handbook 1998.

In other words, there is a significant presence of non-motorised transport within the city, which does not come to the attention of the transport planners, except for the purposes of licensing and regulating. It is also interesting to note that this cognition of transport modes does not include walking and cycling either. This is all the more surprising since in the first Master Plan of 1962, there was a specific mention of cycles and provision was made for the construction of cycle paths. The mention of cycles disappeared in the second Master Plan (MPD-2001) although there was still provision for cycle paths. At the same time, another survey done by the Sajha Manch (with assistance from the Hazards Centre) in resettlement colonies, slums, and unauthorised colonies in 1998 revealed that there were a significant number of people from these sub-standard settlements, who were still walking and cycling to work (Table 4).

Table 4: Distribution of Transport Modes (%)

Transport Mode	MPD-1962	MPD-2001	Sajha Manch
Private Cars	8.0	16.6	NA
Two-wheelers	2.0		2.0
Taxis/Autos	NA	3.6	NA
Bus	30.0	59.7	31.0
Bicycle	60.0	17.3	39.0
Walking	NA	NA	22.0

Source: Master Plan of Delhi 1962, Delhi Master Plan 2001, and Sajha Manch, 1998

When asked about the dangers faced by them at work, a significant percentage, particularly from the slums reported a category termed "other". On personal enquiry several of the respondents said that this referred to the hazards encountered while travelling to and from work – a category that was not present in the questionnaire. A subsequent study steered through an UNDP project by the Sajha Manch in 2006 in five resettlement colonies specifically included this category and, once again, it was observed that for this class of road users the fear of accidents and injuries on the road is very real and pressing (Table 5). But this concern finds no place in the lexicon of the decision-makers and policy planners. Thus, it is evident that one entire class of stakeholders in transportation is missing in the perspective of the governing authorities.

Table 5: Dangers of Work for Lower Income Groups (% respondents)

Hazard	Jhuggi Jhonpri clusters (Slums)	Unauthorised colonies	Resettlement colonies 1998	Resettlement colonies 2006
Mechanical	2.01	33.33	20.99	11.20
Chemical	5.29	7.34	7.73	3.75
Thermal	0.74	6.21	7.18	13.40
Noise	0.95	12.43	10.49	10.10
Electrical	3.81	21.47	23.20	5.05
Other (Travel)	87.18	19.21	30.38	11.05
Travel	-	-	-	49.75

3. Planned Transportation

A quick glance at the Master Plans of Delhi illustrates the perspective of the planners with respect to transportation (Table 6). The cycle paths have actually disappeared from the latest Plan (DMP-2021), while the shift of modal share to public transport has arbitrarily shown to be 80% in spite of strong evidence of a contrary trend. In fact, the Plan explicitly states that the "use of rickshaws has a direct relation ship to migration" and, hence, cycle rickshaws are to be discouraged in order to prevent the undesirable migrants from entering the city. The Metro is regarded as being the factor that will bring about this miraculous change to public transport, although the data shows that the Metro caters to only 1.25 trips per day (tpd), as compared to the 23.4 tpd carried by buses.

Table 6: Transportation provisions in the three Master Plans of Delhi

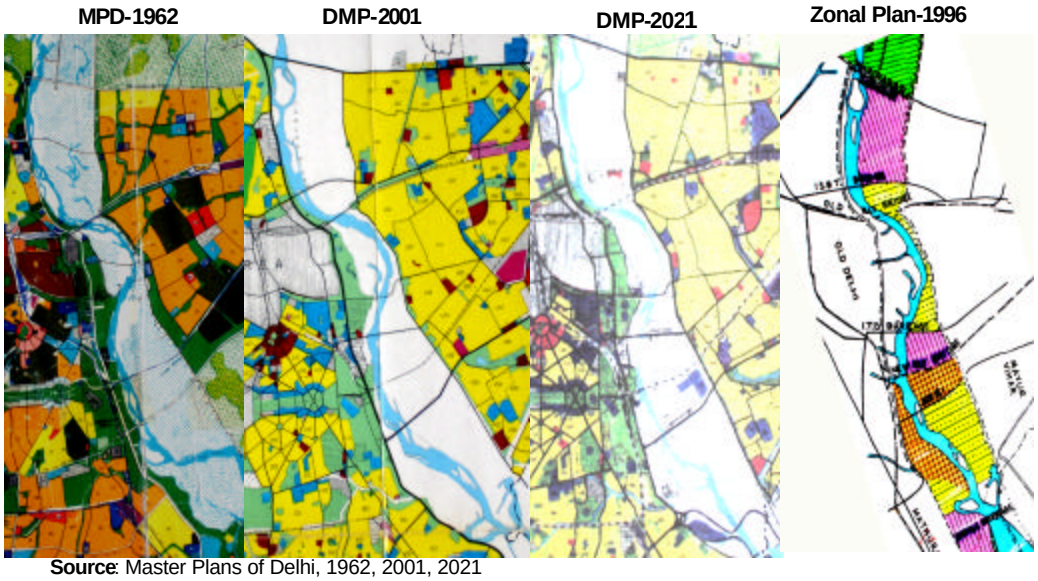
Planned norms for the Plan ending in	1981	2001	2021
Lakh trips per day	45	118	230
Vehicles	513000	3238000	NA
Buses	8600	41483	NA
Private modal share %	NA	36	20
Public modal share %	NA	60	80
Planned cycle paths	5	4	0

Source: Master Plans of Delhi for 1962, 2001, and 2021.

As for the transport infrastructure, the DMP-2021 prescribes the construction of 7 urban relief roads, several bridges on the river Yamuna, 4 Inter State Bus Terminals, and 5 Freight Complexes by 2021. These are somewhat unreal prescriptions because there is no data or analysis to show where and how these will be required and how they will cater to the needs of the city. For instance, a look at the three Land Use maps of the three Plans (Figure 2) shows that in 1962, there were 6 crossings across the Yamuna, of which 2 were fords and pontoon bridges that were not usable in the rainy season. By 1982 (although the map was published only in 1990), the number of bridges was 7, with one carrying only railway traffic. In the 2002 map, the number of bridges increases to 8, and this remains the same for the zonal development plan for the riverbed, prepared in 1996.

These maps are particularly revealing because they indicate that in 1962, the riverbed was coloured a light blue and assigned a land use as "flood plain". But in the second Master Plan, the colour become white or "not assigned". And in the third Master Plan other coloured sections begin appearing on the riverbed, including the proposed Commonwealth Games Village, indicating the future development of the entire flood plain for commercial purposes, as given in the Zonal plan. In other words, the underlying concept is that of commercialisation and sale of land for making high profits, and has nothing to do with either transportation or of catering to the needs of the citizens of Delhi. The same holds true for the "relief" roads, the bus terminals, and the freight complexes, because the Plan document provides no information of any studies having been done to identify where the greatest need lies and how the needs may be fulfilled at optimum cost.

Figure 2: Bridges across the Yamuna and the changes in the flood plain



Source: Master Plans of Delhi, 1962, 2001, 2021

From other accounts of the planned development of the city, in fact, it appears that it is the forthcoming Commonwealth Games that is determining the transport requirements. Thus, of a total of Rs 770 crores earmarked for infrastructural development for the Games, as much as Rs 270 crores has been set aside for DTC to buy 1100 dedicated low floor shuttle buses, with Automatic Vehicle Tracking System, to link the airport, hotels, stadia and tourist spots. An additional Rs 265 crores has been set aside specifically for the Public Works Department. DDA

planners have said, “special care will have to be taken to ensure a smooth ride from the airport to the stadiums and Games village venues so that minimum time is spent on commuting.” The contract for modernisation of the airport has already been awarded to GMR-Fraport for handling 80 million passengers by 2021. The railway stations are also going to be spruced up and their connectivity to the airport ensured to handle the additional visitors expected to come for the Games.

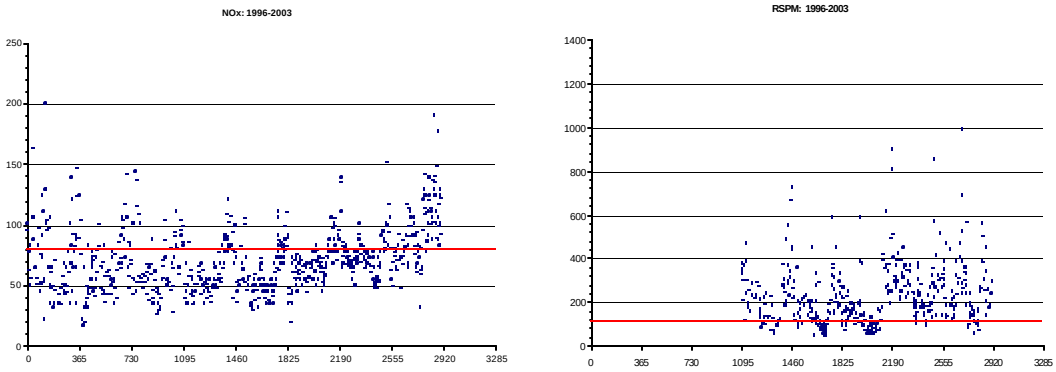
The Ring Roads are expected to become Expressways, and a third Ring Road is proposed to provide access to the Games Village, as also two new bridges and a tunnel under the river. There will be several bye-passes and under-bridges along with improvements to some of the key roads linking up to the different sites for the Games. There are plans for construction of 24 new 6-lane flyovers before 2009 to improve traffic circulation at a cost of about Rs 1900 crores. These would be built to improve intra-city connectivity, especially from the airport to the Commonwealth Village, the Village to the venues, the Village to hospitals, and so on. Apart from extending the Metro to NOIDA for the Games, there is alsoa proposal for the Metro to construct a High-Speed Corridor from New Delhi railway station to the airport for the Games. A High Capacity bus system would be started in seven corridors.

Clearly, all the above construction has been planned with an eye on commercial profits to be made from the host of athletes, managers, and tourists expected to come to Delhi for the Games. This is in spite of the cautionary warning issued by the International Commonwealth Games Committee that, "no country has ever shown a profit from the games” and that all host cities have been “warned that they were likely to incur a deficit." There have also been huge cost over-runs in the past. Thus, Manchester in 2002 spent over four times the original bid and Melbourne in 2006 spent over 5 times its original bid. Melbourne had hosted the 1956 Olympic Games and finished paying off the debt incurred for that event only in Mar 2006, during the Commonwealth Games. So extensive has been the damage to the economy in other cities that the Manchester Council was prepared to give its Commonwealth Stadium away for nothing, while t he Ku ala Lumpur Commonwealth Games in 1998 provided a legacy of empty sports stadia, suppressed public demonstrations, and the policing of media coverage. But so strong has been the hold of some “stakeholders” over the government that all these warnings have been systematically ignored.

4. Public Transportation

There is sufficient evidence to show that government agencies fall prey to pressure from lobbies in spite of evidence from expert bodies to take other more appropriate policy measures. Thus, o n July 28, 1998, the Supreme Court of India passed a series of orders in a PIL filed by the lawyer, M C Mehta, on air pollution in Delhi, based on the expert recommendations of the Bhure Lal Committee (BLC), for full conversion of the entire bus fleet in Delhi to CNG by March 31, 2001. Subsequently, the date was extended to 2002. But, two years later, the data from the Central Pollution Control Board (CPCB) indicated that pollution levels for two parameters, Nitrogen Oxides and Respirable Particulate Matter, had incr eased after 2002 (Figure 3).

Figure 3: Nitrogen Oxides and Respirable Particle concentrations after CNG



Source: Central Pollution Control Board

Before one gets into the discussion on CNG being a cleaner fuel, one has to examine whether in fact th e diesel buses were the real culprits. In 2001, only 6.7% of the total vehicles in Delhi were diesel-driven, the rest all ran on petrol. Buses constituted a mere 1.1%, although they carried over 60% of all motorised passengers. So it is not surprising that even if all the buses were converted into CNG, there would hardly be any dent in pollution levels. While these vehicles may be far more "polluting", their numbers do not add up to much for ambient pollution levels. In addition, for each bus removed (with 5 round trips), 200 private petrol-driven vehicles would be required to carry the same number of commuters. In other words, the removal of 28,000 buses would entail a doubling of the number of private vehicle trips. Thus, the debate on diesel versus CNG appears to have been somewhat misplaced and designed to camouflage the massive impact of petrol.

Is all this in hindsight? Not surprisingly, the answer is no. For instance, just before the BLC came out with its recommendations, the papers of a World Bank Workshop on Vehicular Pollution Control were published. These papers not only analysed a range of options in fuels, lubricants, engine design, and technological upgradations, they also looked into traffic patterns, transport modes, enhancing public transport, and most importantly, petrol engine emissions. Several of the authors also presented evidence before the BLC. Thus, the real question should be, "What were the cogent reasons that the BLC gave for rejecting the recommendations of all these experts?" Since the proceedings of the BLC have never been made public nor has there been any transparency in its deliberations, we shall never know what these reasons were (even for future decisions).

But the lack of transparency may have had to do with the constitution of the BLC itself and the stakeholders it represented. It had as its members the Delhi Transport Secretary, an Environment Ministry official, a Petroleum Ministry official, the founder-Director of the Centre for Science and Environment (CSE), the CPCB Chairman, and later, the Managing Director of Maruti Udyog (the car manufacturer). How many of these gentlemen were 'technically competent' to decide on pollution is debatable. The CSE founder publicly wrote he had a "vested interest" in the issue because ofhis struggle with asthma and cancer – which he somehow related to "protecting the interests of the poor". Logically then, other affected parties (such as the real poor, the commuters, and the employees) should also have been allowed space on the BLC, but they did not.

For instance, one of the clearly identifiable "stakeholders" could have been the bus drivers of the DTC itself and what were their concerns with diesel and CNG. A limited survey of 158 drivers by the Hazards Centre in 2006 gives pointers in this direction. The sample is a little skewed because 130 of the respondents were temporary drivers while only 28 were permanent employees. Nevertheless, the results give some clear indications of the manner of DTC's restructuring and its impact on the drivers. While the ostensible reasons given for restructuring are *efficiency*, *adequacy*, and *self-sufficiency*, the data on the drivers shows that the means employed to achieve these objectives are self-defeating – and have been so even for earlier attempts to reform DTC.

Table 7: Distribution of work experience amongst DTC drivers

Drivers (%)	Years of working in DTC								
	0-1	***1-2***	***2-3***	***>3***	***20-22***	***23-25***	***26-28***	***29-30***	No reply
Temporary	24.6	31.5	40.0	2.3	0.0	0.0	0.0	0.0	1.5
Permanent	0.0	0.0	0.0	0.0	39.3	32.1	14.3	14.3	0.0

Source: Hazards Centre

Table 7 illustrates that while very few of the temporary drivers have work experience in DTC for more than 3 years, all the permanent drivers have been in their posts for over 20 years. The reason is that DTC stopped recruitment of permanent staff 18 years ago as part of the process of restructuring and cutting down on wage costs. The implications of this on the wages of the drivers is clearly visible in Table 8, which shows that the temporary drivers generally earn less than Rs 4,000 per month, while the permanent drivers have an average pay of Rs 12,000 per month. This clearly benefits DTC, but it also places undue pressure on the drivers who have been recruited on a temporary basis. This pressure has apparently been further compounded by the change to CNG, as indicated by the drivers.

Table 8: Monthly income of DTC drivers

Drivers (%)	Average monthly income (Rs '000)									
	2-3	***3-4***	***4-5***	***5-6***	***10-11***	***11-12***	***12-13***	***13-14***	***>14***	No reply
Temporary	42.3	46.1	6.1	0.7	0.0	0.0	0.0	0.0	0.0	4.6
Permanent	0.0	0.0	0.0	0.0	21.4	25.0	21.4	17.9	14.2	0.0

Source: Hazards Centre

As Table 9 indicates, even though the temporary drivers have been working for far fewer years than the permanent ones, they are already victims of musculoskeletal and neurological disorders. The symptoms of respiratory problems are far more marked in the permanent drivers who have been exposed to diesel fumes for over twenty years, but they have already become apparent in the temporary drivers. The drivers report that the new CNG engine is hotter, but not more powerful, than the old diesel one and consequently their working conditions have worsened. This provides an insight into the kind of pressure these drivers are operating under, and this will obviously affect DTC's performance as a whole as well as its.

Table 9: Illnesses reported by DTC drivers

Drivers (%)	Illnesses							
	Musculoskeletal	***Dermal***	***Ophthalmic***	***Cardio Vascular***	***Gastro intestinal***	***Respiratory***	***Neurological***	***Others***
Temporary	45.3	0.0	3.8	2.3	7.7	6.9	26.9	25.3
Permanent	67.8	0.0	3.5	17.8	17.8	71.4	21.4	3.5

Source: Hazards Centre

These trends of contractual employment, privatisation, and inappropriate investment of public funds are also clearly evident within the other arena of public transport, that is, the Metro. A study of the Metro done by the Hazards Centre reveals that the Environment Impact Assessment (EIA) done by RITES in 1995 is not applicable to the present corridors of the Metro because they comprise only half of the planned sections for which the EIA was done, while the distance is more (Table 10). The EIA report was never brought into the public domain and there has been no public participation in the plan. In fact, there has been no public or expert review to look into the several methodological flaws contained in the EIA. Thus, various important decisions were taken but not exposed to public gaze.

Table 10: Proposed and Actual Routes of Metro

No	Proposed (modified) Phase I		Actual (constructed) Phase I	
	Section	***Km***	***Section***	***Km***
1	Vishwavidyalaya - ISBT	4.5	Vishwavidyalaya - Secretariat	10.84
2	ISBT - Connaught Place	4.2		
3	Connaught Place - Secretariat	2.3		
4	Shahdara - ISBT	6.4	Shahdara - Tri Nagar - Rithala	22.06
5	ISBT – Shakur Basti	10.6		
6	Shakur Basti - Nangloi	8.0		
7	Subzi Mandi - Siraspur	12.8	Indraprastha - Barakhamba - Dwarka	32.10
8	Siraspur – Holambi Kalan	6.5		
	Total	55.3	Total	65.00

Source: EIA for Integrated Multi Modal Mass Rapid Transport System for Delhi, http://www.dmrc.delhigov.in

Similarly, the majority of the amount invested in the Metro has been generated through loans. In the present scenario the Metro is not in a position to cover its operation costs, leave alone pay back its returns. It is currently running at a loss and the trends show that in the future also it will continue doing so (Table 11). Eventually other heads of government funds (public money) would be exploited for the repayment of the existing loans. On the other hand, the Metro is meeting only one-third of its revised expected ridership and one fifth of it's claimed ridership of 1995 because of the inequitable fare structure, no concession scheme, and the distance from the Metro station. This means that Metro as a mode of public transport is only catering to the needs of a more affluent section of the public, which is ready to pay more for its travel.

Table 11: Profit and Loss Account of Metro

Item	Amount (Rs crores)			
	2001-02	***2002-03***	***2003-04***	***2004-05***
Income		5.9	46.6	72.2
Expenditure	67.6	5.8	32.0	52.2
Profit before depreciation & interest	1.7	0.1	14.6	20.0
Profit(+) / Loss(–)		– 8.3	– 32.4	– 76.3

Source: 1) Annual Reports, DMRC, 2) Metro hurtles into financial abyss, Times of India,22 May 2006

Hence, in order to make up for its losses, Metro has to go in for extensive property development for commercial purposes and DDA has to declare a 500m belt next to the Metro routes as a "development corridor" while permitting high-rise constructions. This further adds to congestion on the routes and defeats the very purpose for which Metro was set up. In addition, the buses along the routes have to be diverted or curtailed or even cancelled (Table 12) so that they cannot compete for passengers with their lower fares, greater flexibility, and commuter convenience.

Table 12: Bus routes affected because of Metro construction

	Route No	No. of buses
DTC buses affected		
Discontinued	247	
	132	
	167	
Curtailed	817	13
	832	10
	405	10
	805	2
	61	1
Extended	778	3
	801	4
	915	2
	927	1
	968	1
Diverted	233	1
	917	1
Total	**15**	**58**
STA buses affected		
Curtailed	832	29
	817	61
Cancelled	247	16
Total	**3**	**106**

Source: Data acquired from DTC through RTI

It is quite explicit from these issues that the Metro is a part of a larger agenda driven by a group of select "stakeholders" to transform Delhi into a "world class city" for facilitating and encouraging the investment of global capital into the city. The large-scale development of property on both sides of the Metro lines is an indicator that it has not really been brought into the city to provide better transport options to the commuter. Eventually in the name of fast, efficient and pollution free 'public' transport, the Metro benefits only a small section of the 'private'. This transfer of public money into private pockets and distributing social and environmental costs over a much larger population that will not even travel by Metro, has been quite systematically camouflaged under a huge propaganda barrage by the government and the media and reveals the true nature of "stakeholder" participation in governance.

5. Other Road Users

It would also now be useful to look at some of the other "stakeholders" who are on the roads for the purpose of their livelihoods, and to what extent their concerns are incorporated into transportation planning. One of these road user groups is the three-wheeled scooter rickshaw (TSR). In a survey by the Hazards Centre in 2002, 57% of the respondents had bought new CNG powered vehicles, 14% had had CNG kits retrofitted into their old engines, while 29% continued to use the petrol vehicles. It was revealed that most of the drivers of the TSRs are also the owners and there are few who take the vehicle on rent (Table 13). Most of them drove between 100 to 150 km in a day and their daily income averaged Rs 200. Thus, the TSR represents an important source of self-employment as well as a very convenient mode of para-transit for a large number of commuters within the city. They should, therefore, be encouraged through policy measures.

Table 13: Owner-driver characteristics of TSRs

No.	Response of respondents	% Owners	% Drivers
1	Yes	64.9	84.2
2	No	25.9	8.4
3	No response	9.1	7.3

Source: Hazards Centre

A TSR is preferable to a car as it carries the same number of people on an average, takes one-third the parking area and one half the space while moving as a car. Since it weighs one/third of a car it wears out the road much less, has less tyre/rubber use, and uses one third of national resources to produce it. All this reduces indirect pollution. Since TSRs have a small engine they pollute much less per passenger than a car if the engine is as specified. Because of the small size of the engine, they can't go faster than 50 km/h, thus keeping to urban speed limits, controlling others' speeds, and reducing the number of fatal accidents among pedestrians and bicyclists as compared to cars. However, the conversion to CNG because of stringent policy measures has not been without its adverse impact on the TSRs (Table 14).

Table 14: Problems with CNG

Problems	%	Problems	%
CNG kit retrofitted		***New CNG vehicle***	
Technical problem	61.5	Technical failure	37.9
Consumes more oil	5.1	Costly Maintenance	36.5
Gas is not available	5.1	Gas not available	10.9
Lots of problems	5.1	Lots of problems	14.6

Source: Hazards Centre

Apart from these problems with the conversion to CNG, as reported by the TSR drivers, there are several issues that affect them, and these are directly driven by the policies adopted by the government towards this class of road users. Some of these issues relate to the issuance of permits and clearances, the corruption prevalent in the Department of Transport, the low rates prescribed by the authorities, the absence of proper facilities for parking and rest, the non-availability of repair workshops and skilled mechanics, harassment by the traffic police, non-functioning of (tamper proof) electronic meters, and the high costs of operation and maintenance (Table 15). What is important to note that over 40% think that low fares are at the root of the conflict between customer and TSR driver, followed by 36% who are concerned about corruption in the Transport Department. And as many as 10% are seeking to be heard as bona fide stakeholders by Government.

Table 15: Policy Suggestions by TSR drivers

No	Suggestions	%
1	Increase rates to prevent conflict between driver and customer	41.1
2	Zonal offices; no agents; compulsory identity cards; pass vehicle after completion of papers; reduce fees to curb harassment by Transport Department.	35.9
3	Proper facilities at increased number of stands to increase utilisation.	23.4
4	Issue tamper-proof certificates for meters to fix regulator's responsibility.	15.8
5	Reduce cost of vehicle/spare parts; provide institutional finance for employment.	11.0
6	Mechanics and increased gas supply to improve turnover and efficiency.	10.5
7	Access to Government to promote discipline, single union, public dialogue	10.0
8	Replace meter and permit system to reduce red tape.	9.1
9	Avoid CNG kit as it has too many associated technical problems.	6.7
10	No penalties for parking, adequate parking areas, for convenience of passengers.	5.2
11	Close prepaid counters, promote payment by meter, to curb touts and corruption.	3.3

Source: Hazards Centre

Another class of vulnerable stakeholders are the cycle rickshaw pullers. A series of interviews with 50 of them by Hazards Centre in 2006 discovered that three-fourths were between the prime working ages of 20 to 40 years, while over half were illiterate. But, unlike the TSR drivers, the vast majority (over 90%) took the rickshaw on rent of Rs 25-30 per day, travelled on random routes as per the requirements of the customer, ferried an average of two passengers per trip, most of which were families, and travelled over 30 km in a day. Two-thirds earned more than Rs 2000 per month, which was reasonably more than the rent they had to pay the owner, and were not in favour of restrictive licensing of cycle rickshaws.

More than half felt they had to park wherever they could find space, as there was no demarcated parking, and complained of routine harassment by the police and the municipal authorities on this account. These authorities would either puncture the tube or confiscate the rickshaw itself, thus making earning a livelihood all the more difficult. Plagued as they are by the charge that they are responsible for congestion in the roads, 90% favoured a separate lane, but more than half argued that traffic jams occurred primarily because of wrong parking by cars. Yet this class of road users, like the TSR drivers, has no voice in governance nor do they have the opportunity to present their case when transport policy is being formulated.

Finally, we present the case of the waste pickers who form an important link in the informal chain of recovery and recycling that is part of the economy of the city. Not only do these waste pickers forage on the side of the roads and occasionally live there too, but the entire transportation of waste is a matter of grave concern for them because it also constitutes a part of their overall illegality in the eyes of the ruling establishment. Not only does the waste legally belong to the Municipality (and, therefore, they cannot officially pick it up), but their source of livelihood also gives them an appearance, which is easily prosecutable under the Beggary Act or the Foreigner's Act.

The waste picker not only forages in the markets and at the collection points or open sites for the material which has value in recycling, she/he also has to sort out the material into different categories before selling to the kabari or junk dealer. In a study conducted by Chintan with the assistance of the Hazards Centre in 2002-2003, 54.4% of the respondents who were making most of their collection in the New Delhi Municipal Council (NDMC) area said they were segregating their waste in or in front of the kabari's godown, while 33.1% conducted this activity on the footpath. But closeness to the eventual buyer was obviously critical for the trade itself. The waste pickers were collecting an average of 69 kg of waste per day. The mode of transport for collecting the waste was mostly cycles, followed by walking, and cycle rickshaw (Table 16). This is understandable because NDMC authorities do not permit cycle rickshaws within their area.

In another phase of the study, in the MCD areas, where rickshaws are permitted on payment of Rs 360 per year, it was discovered that the waste pickers covered a much larger range of ground. Only 152 of their trips were into the NDMC area, while 826 trips were made within MCD territory. Because of their direct association with kabaris, a much higher percentage (90.5%) were segregating their waste inside, near, or outside the godown. Also, there was much greater use of rickshaws than cycles because of the relaxation of permits in the MCD area (Table 16). 90% of the sample were single wage earners and, on an average, they were collecting 57 kg of waste daily, which is quite comparable to the NDMC sample. Earnings of this group averaged Rs 90 per day, which

is significantly lower than the minimum wage for unskilled labour (Rs 127) stipulated for Delhi.

Table 16: Mode of Transport for Waste Pickers

Wastepickers (%)	Area		Thiawalas (%)
	NDMC	*MCD*	
Walking	24	29	69
Cycles	58	19	31
Rcikshaws	18	51	-

Thiawalas are intermediary collectors who operate out of a "thia" in markets and other central locations. They do not go to collect the waste but the waste generator comes to them for sale of the waste. Thus, they do not need to use cycle rickshaws but prefer to walk as their personal mode of transport (Table 16). In the context of the wastepickers, though, what is of great significance is the correlation between the mode of transport, the loads that can then be transported, and the related earnings. As the survey data shows, the waste pickers who operate on foot are largely able to carry less than 40 kg of waste on one trip, range between 6-7 km and earn Rs 50 daily. Those who have cycles are mostly transporting between 40 to 60 kg over 20-25 km and earning Rs 100 per day. The rickshaw operators load between 40 to 100 kg in one trip, but travel 10-15 km.

Since the distances and territory that the rickshaw operators cover are also determined by the restrictions placed on rickshaw movement by the municipal and police authorities, this becomes an important issue of transport policy. The ability to enhance earnings is also, therefore, dependent on the mode of transport that the waste picker is able to use. Quite clearly, this is related to the extent to which the waste picker is able to get formal recognition and space in the design of civic life. However, the waste picker (and the associated kabari) is considered to be at the lowest rungs of the social ladder because of the vocation she/he pursues, hence such legitimacy is not granted by authority. On the contrary, judicial orders spurred by mischievous "public interest" litigation has seen to it that the waste picker is further criminalized and marginalised.

6. Conclusion

The evidence presented in this paper shows that the procedures of governance in the city are conditioned by the variety of elected, nominated, and bureaucratic institutions that contend for supremacy in decision-making. In the current period it is clearly the judiciary which has taken the lead in steering both policy as well as implementation, mainly based on a debatable interpretation of what constitutes "public interest".

Within such a context, there has been increased focus of policy makers on private motorised modes of transportation that exclude large sections of the people who are dependent on personal non-motorised or public transport vehicles. In particular, walking and cycling, which are the most preferred modes for the weaker sections, are almost completely ignored in transport planning.

Such exclusion is evident in the manner in which the Master Plans of the city have been formulated over four decades and how the cycle path has disappeared while the pedestrian finds little or no mention. In addition, mega events such as the Commonwealth Games have taken over the imagination of the city and all transport planning seems to be directed at how to transport the athlete and the tourist across selected parts of the city ass rapidly as possible.

In the arena of public transport, policy has been driven by issues of pollution and congestion. Hence, the conversion of the DTC fleet to CNG and the construction of the Metro routes have actually ignored the needs of the common commuters who use public transport. Consequently, both have had adverse impacts on the life of the working population and will, in the long run, prove to be counter-productive for the economy of the city.

Other vulnerable road users such as the auto rickshaws, the cycle rickshaws, and the waste pickers have also been eased out of the perspective of the planners, although they contribute in significant ways to the mobility and health of the city. Hence, there appears to be a deepening gap between the institutions of government and the people. Policy is catering to the needs of a select few within the population who are wealthy enough to be able to both met the increased costs as well as powerful enough to influence government.

In conclusion, it is clear that one set of “stakeholders”, among the many, is calling the shots, and is railroading the rules to strengthen its convenience, its profits, and its control.