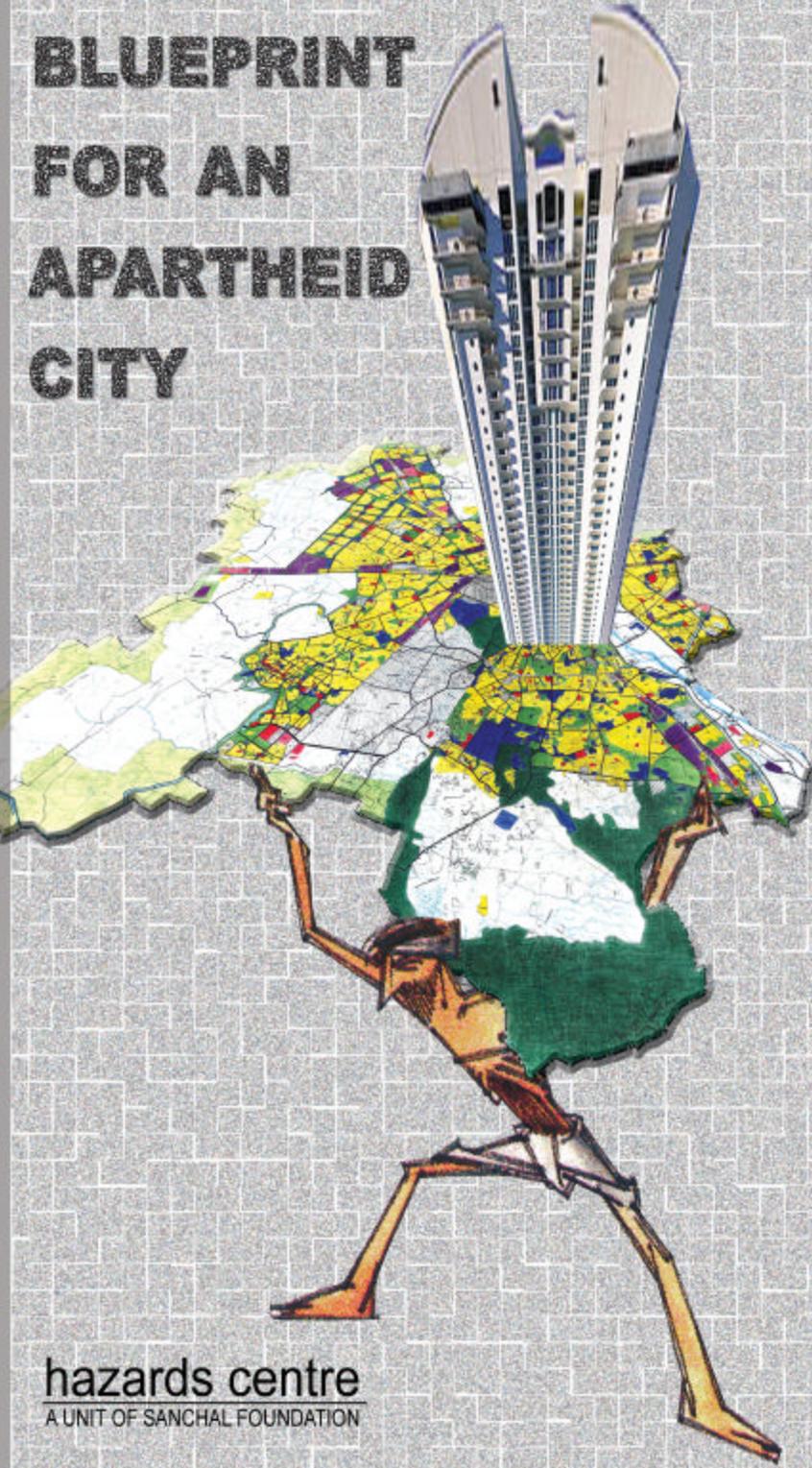


Draft Delhi Master Plan 2021

**BLUEPRINT
FOR AN
APARTHEID
CITY**



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DRAFT DELHI MASTER PLAN 2021

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Introducing the Draft Master Plan for Delhi-2021

Dunu Roy

The major thrust of the Draft 2021 Master Plan for Delhi, released on April 8, 2005, appears to be the transformation of Delhi into a “World Class City”. What exactly this means has not been clearly spelt out, but both verbal presentations by DDA (Delhi Development Authority) officials, as well as random remarks in the Draft Plan itself, suggest that “world class” relates to the promotion of:

- (a) International tourism
- (b) International conventions
- (c) International sports

In other words, the future development and redevelopment of the city has to cater to the requirements of these three activities. Whether these are consonant with the requirements or aspirations of the local population has not been examined at all in the document. To make matters even more confusing, various “studies” and “surveys” are mentioned in the document, but no references or citations are given, nor is any primary data from these so-called studies ever given to substantiate the different claims.

Thus, the growth of the population has been projected to be 230 lakhs in 2021, from the 138 lakhs in 2001. Of this increase, roughly half is by natural growth, while the rest is from migration. The working population is expected to grow from 32% to 35%, increasing to about 79 lakhs in 2021. The major sectors where 84% of this working population is expected to be absorbed are Other (26 lakhs, including government employment); Trade and Commerce (24 lakhs); and Non-household Manufacturing (17 lakhs). However, this stands in stark contrast to the avowed aim of the Plan that “*no new major economic activities, which may result in the generation of large scale employment related inflows*”, should be located in the National Capital Territory of Delhi. In addition, the Plan proposes to promote high technology, low volume, high value added, and low labour



enterprises. Consequently, the question arises whether there really will be adequate employment available in Delhi in 2021?

For instance, while government and quasi-government employment is supposed to almost double by 2021, the sad truth is that in the last two decades it has actually grown by only 15%. Whereas employment in Trade and Commerce is supposed to make a dramatic jump of 145%, the actual projection of the workers to be employed in the stipulated number of shopping centres, markets, and informal sector grows by only about 74%. As for non-household manufacturing, the Plan itself projects a requirement of 17 new District Centres, but makes actual provisions for only 13. There is no provision for additional industrial areas while the existing 30,000 industrial units will be modernised in line with the high technology, low labour requirements of the “world-class” city. On the other hand, 100,000 manufacturing units in non-conforming areas will actually be shifted out into the National Capital Region (including parts of Uttar Pradesh, Haryana, and Rajasthan), along with all new proposed units. So where will the jobs actually increase?

This pattern of high targets, but low provisions, is a recurrent theme right through the Plan document. For instance, there are high expectations from the commercial sector as being the engine of transforming the landscape of the city, but the actual provision of land for this sector is about 67% of the requirement. Similarly, the supply provenance for water is 54% of what will be needed in 2021. Land development is supposed to theoretically go up from 39,171 to 59,171 hectares, whereas DDA’s actual performance in land development over 40 years comes to a meagre 24,005 hectares. Equally, DDA has managed to meet a measly 35% of housing targets in the past decades, but has now significantly increased the 2021 targets by 100%. Four times the current number of hospital beds will be needed in 2021; the modal share of public transport is predicated to go up from 60% to 80% (presumably because of the five-route Metro); primary schools are supposed to increase by a whopping 80%. But the draft Plan is silent on how all this will be achieved.

Through this sleight of hand, the Plan thus paves the way for presenting the twin brothers of commercialisation and privatisation as the solution to all ills. Without analysing the failure of DDA in providing developed land and shelter all these years, the planners use that as a convenient excuse for advocating a “*multi-pronged strategy for provision of housing stock ... involving the private sector to a significant extent*” (actually up to



81%). The same builder-contractor lobby is now also expected to negotiate with and acquire land from private owners, especially in the 1 km wide “influence zone” bordering the “world-class” Metro routes. While reducing the per capita norm of water from 80 gpcd (gallons per capita per day) to an arbitrary 30, the Plan also proposes “public-private participation” in its distribution and recovery of dues. The disastrous experience of the last four years of the Delhi Government with privatisation of power distribution notwithstanding, the Plan now proposes the privatisation of generation too. And the same mix of intensive use and private “efficiency” is a priori offered for the health and education sectors as well, without any evidence being offered of the proven functionality of either.

Finally, as part of the world-class package, the Plan offers a vision of the city free from the malaise of the working poor. This is basically done by cleverly building upon popularly propagated images of the poor as being a criminal under-class. Thus, production involving a minimum of labour is touted as being part of the global city. The poor are assured that they can now buy homes measuring a minimum of 25 sq.m. (as opposed to the present norm of 12½ sq.m.) but these will be in vertical high-rises, where maintenance costs are known to be high, and they will not be permitted to “illegally” sell off the property as agents of the land mafia. Single-point connections for the supply of power through contractors in unauthorised colonies and slums is further “evidence” of the presumed venality of the occupants of these settlements. They will also be prohibited from engaging in any “significant” water polluting activity. Even the simple cycle rickshaw, acknowledged to be a non-polluting mode of transport, will be restricted as it *“has a direct relationship with migration into the city and the phenomenon of JJ clusters and slums”*.

The draft Plan, thus, is an outstanding example of a fabricated, illogical, unreal, and anti-people nightmare fondly nurtured by the global and national elite. ■



Draft Master Plan for Delhi – 2021 Some Legal Issues

D. Leena

The Delhi Development Authority claimed to have started work on the Delhi Master Plan 2021 five years ago. It also issued the Guidelines in July 2003, which were widely disseminated through the Media, Resident Welfare Associations, Traders Associations, Experts, Professional Bodies and individuals with a view to get suggestions from public. They also mentioned that nearly 2000 responses were received, which they said have been considered but there is no information whether the due process of law was followed or not.

A look at the sub-groups and the list of participants, shows the nature of public representation.. Barring three or four groups, most of the groups were a collection of like-minded people and it's clear that selection was done on the basis of the DDA's preferences. Interestingly, in a meeting with MLAs of the East Delhi Parliamentary constituency where the draft Plan was discussed, a cabinet minister raised a lot of objections regarding the draft Master Plan 2021. It was shocking to observe statements made in the Master Plan vis-à-vis industry and employment, for e.g. the Master Plan's vision includes strategic minimization of labour intensive opportunities.

Procedure for Preparation of Master Plan

Delhi Development Act 1957 delineates the procedure to be followed for making the Master Plan in Chapter 3. It is stipulated in Section 7 of the Act that *“the Authority shall, as soon as may be, carry out a civic survey of and prepare a Master Plan for Delhi”*. Rule 3 of the Delhi Development (Master Plan and Zonal Development Plan) Rules 1959 gives the parameters of the survey form and content of the Master Plan. Herein it is mentioned that the civic survey is to include survey and analysis of the physical, economic and sociological features of Delhi, with reference to natural resources, distribution of population, industry, communication and housing requirements related to the development of Delhi.



Section 10 enumerates the procedure to be followed in the preparation and approval of plans. The authority shall have to prepare and publish a draft Plan which will have to be made available for inspection; then publish a notice to invite objections and suggestions from any person with respect to the draft Plan before the date specified in the notice.

Rule 7 states that the authority shall give a copy of the same to every local authority within the planned area within a period of 90 days from the date of the notice. This stipulated time of 90 days is the only legal instrument for peoples' participation in the making of the Master Plan.

But a critical issue still remains unaddressed- whether the objections filed by the public will be included or only best-suited arguments will be considered. Decisions must be taken about the monitoring and inclusion of the suggestions and minimizing the objections.

Rule 8 and 9 provides for the setting up of a Board and the date of hearing of the objections, representations or suggestions made by any other local authority or any person and then they will be allowed a personal hearing in connection with their objections/ suggestions. It is mandatory for the Board to issue a notice intimating the time, date and place of hearing.

There are neither institutional nor legal obligations binding on the Board regarding whom to invite and whom to exclude. Proviso to Rule 9 clearly empowers the Board to "*disallow personal hearing to any person, if it is of the opinion that the objection or suggestion made by such person is inconsequential, trivial or irrelevant*". This is the impunity enjoyed by the planning Masters.

It is clear from the DD Act 1957, and the Rules 1958, that the public participation is only limited to the wishes of the DDA and its likes.

Missing links in the Draft

While it is mandatory as per law (Rule 4.3.b of the DDA rules) to provide the Land use plan in the draft Master Plan, interestingly this has not been provided to the public in the present draft whereas it is there on DDA's website. The internet is a medium that may be out of reach for the majority owing to which their access to this crucial document is restricted. Hence they are not even in a position to object to it.



The Draft Plan should have included the reports of the survey and analysis of the socio-economic features of Delhi with special reference to the trends of the growth of population, industries, business, commerce and all such other matters that may be related to planned development.

Apart from this, the draft should also carry the land use map, a transit and transportation plan, a public utilities plan, a housing plan, education, recreation and community facilities plan, a financial plan, an administration plan along with reports of specific development plans, satellite town ship, industrial estate schemes and proposals for the elimination of slums and blighted areas.

Both the Rules and the Act maintain a measured silence regarding situations where objections are disallowed or furnishing reasons for disallowing. It is the free will of the Board to entertain certain types of objections and reject those which are not in conformity with their ideas.

Position on Ward Committees

There is no mention of the 135 Ward Committees in the entire Master Plan. These committees were formed vide 74th constitutional amendment, these ward councilors are accountable in a peoples' participation process. The Plan fails to address the issue of decentralization and the process of implementation of the same, considering that these ward committees will be bearing a still larger population size in coming years.

As per the Draft Master Plan,

Enforcement of the Master Plan provisions is an area which will require much more focussed attention at all levels. One aspect of this pertains to the legal framework and actual implementation and enforcement of the legal provisions. The other aspect relates to the practicality and current relevance of some of the provisions in the Building Byelaws, etc., and the need for flexibility so that the provisions of the Master Plan do not themselves become a stumbling block or otherwise leave scope for their violation.

To enforce this aspect of the Master Plan, there is a strong need to divide the wards into smaller units and encourage real public participation. One of the suggestions could be to see the functions given to the ward



councilors and then plan to establish Mohalla Sabhas and Mohalla Samities in consonance with the 74th Amendment; this would push for more accountability on the part of the State and greater participation of the public.

Modifications

Section 11 – A gives specifications for modifications to the Master Plan or the zonal development Plan made after the implementation of the former. The procedure is that of issuing a public notice of the modifications and inviting objections and suggestions before they are finalised. This give us the scope to check the DDA for modifications but in last 43 years there have been 300 odd modifications which have been conveniently passed through gazette notifications without any significant invitation for objections.

In one such instance where the FAR has been increased to accommodate the MRTS corridor. These modifications are to facilitate land commodification at the cost of citizens' entitlements.

Focus of the Third Master Plan for Delhi 2021

The focus of the draft Master Plan 2021 is on public - private partnership whereby it is clear that the process of privatization will be part and parcel of the various aspects of city planning.

As a result the PHDCCI lauded the Master Plan's stress on group housing along with a metro station at a walking distance from every neighborhood. *"It is high time the character of Delhi is redefined with flexibility and rationality in land use planning and development to make Delhi a world-class city,"* said Mr Kamal Meattle, Chairman (Delhi Committee), PHDCCI. (*"PHDCCI lauds Delhi Master Plan's stress on group housing"* The HINDU, New Delhi, June 22, 2005)

In 1981, when the Second Master Plan for Delhi was due it took the DDA 5 years to finally bring it in. The preparation for the Asiad Games was said to have delayed the planning process. The reason for delay in the finalization of the current Master Plan is still unknown; it had to be released by 2001 but is still in its draft form.



The completion of the Plan depends on inviting suggestions and objections from the public and then finalizing it after making the necessary incorporations. It is clear from the above discussion that the process of the preparation of the Plan leaves much to be desired in terms of people's participation. It is more likely that the form and content of the third Master Plan will eventually pander to the interests of private players and will overlook the objections and requirements of the common man in Delhi, if he/she does get the opportunity to participate. ■



MPD-2021 and the Vision of a “Slum-free Delhi”

Sunitha Dasappa Kackar

Master Plans are meaningful as strategic documents, charting a direction not only for the physical, but - more critically - the economic growth of a city, in a manner that is socially equitable and environmentally sustainable. The current Master Plan for Delhi had a slated thrust towards enabling a slum-free city. This seemed to indicate that it would tackle the issue of affordable housing for the poor in a bold and meaningful manner, addressing both the physical, and economic dimensions of the issue. Such an approach would have been well in keeping with the UPA's agenda of 'inclusive growth', i.e., investment and development to include everyone in the city.

For the approach towards housing derives directly from development decisions endorsed by any regime. In the context of Delhi, over 50 percent of the population currently resides in substandard housing developments. The root cause of this problem lies in the fact that, so far, the legal supply of low-cost rental, or owner occupied housing in the city has been severely limited with respect to demand. Implementation of the development policies adopted for Delhi in 1962 effectively served to exclude large segments of the urban population from formal, or institutional access to land and housing. As a result, the housing requirements of these segments were met through non-institutional channels - unauthorized colonies and squatter settlements.

Subsequent strategies towards low income housing areas have focused overwhelmingly on the poor physical and environmental conditions prevailing in these areas - thus obscuring attention from the root causes of their genesis. Successive Master Plans have adopted a three-fold strategy towards them - relocation from areas required for public purposes; in-situ up-gradation at select sites; and environmental up-gradation upto minimum standards. This approach, however, has been largely curative in nature, rather than targeting prevention of the situation¹.



Before proceeding further, it is worth noting some economic trends in urban areas in the country, relevant for Delhi. Results from a fresh round of the NCAER's Market Information Survey of Households reveal that the number of low income households — having an income below Rs. 45,000, at 2001-2002 prices - in urban areas has been approximately halved, from 14.9 million households in 1989-90, to 7.6 million, in 2001-2002. As a result of sustained economic growth, there has been a migration of households from lower to higher income bands. When combined with increase in the aggregate number of households, this has meant a substantial increase² in the number of households having an annual household income above Rs. 90,000 (2001-2002 prices) over the last eleven years. Average household size has been just above five.

This increase in household incomes is principally driven by economic growth, in turn a result of investment. Average per capita investment in Delhi, at Rs. 5410, as well as per capita income, at Rs. 51,664, are considerably higher than the national average, and it is reasonable to assume that the figures of the NCAER survey quoted above hold good for the city.

The most striking aspect of these figures is that they clearly reveal the process of considerable economic betterment taking place in the city. However, they contrast starkly with figures recording living conditions in these areas - indicated by percentage of population residing in slum and squatter settlements. In 1991, about 13 lakh of Delhi's total population of 95.5 lakh resided in slums - effectively 14 percent of the city's population. In 1999, this figure had swelled to an estimated 32 lakh, out of a total population of 130 lakh - i.e., over 20 percent of the city's population resided in slums.

In effect, while household incomes in urban areas are improving dramatically, living conditions are deteriorating further. One of the inferences from this scenario is this: over the last decade, there has developed a significant urban market for housing of a minimum standard; however, it is as yet not being met, forcing an increasing number of households into substandard housing conditions. Unblocking the bottlenecks in supply, in order to meet the demand should thus constitute the key focus area of any Master Plan for a slum free city. Ensuring alternatives / options for adequate shelter for the vulnerable, or the poor, should logically complement this approach.



In the Draft Master Plan 2021, the sub-group on shelter has rightly noted that up to the year 1991, institutional agencies had contributed only 53 percent of the housing stock. The component of housing created through non-institutional sources - unauthorized colonies and squatter clusters - was thus quite significant. This trend has continued in the current decade as well. Unblocking the bottlenecks in the supply of affordable housing would necessarily imply enabling the activities of “non-institutional” agencies, and bringing them into the legal sphere through appropriate regulations and standards, in a manner that they are able to cater to the markets they are now serving within an institutional framework. In other words, the low income groups’ efforts at accessing housing in the city - through individual enterprise, community effort, or through the services of private developers capable of meeting their requirements - have to be supported and facilitated. In order to realize this, four basic requirements, central to housing, have to be made available: land, infrastructure, building technologies and finance. Serviced land and finance are critical, and the provisions for housing in the Draft Master Plan 2021 are examined with respect to these.

Access to land is synonymous with housing. Any Master Plan aiming at slum-free development must identify appropriately sited land, in adequate quantities, and make these available for housing the lower income groups through arrangements that will prevent the lands from being diverted to other uses or groups. It had frequently, and convincingly been illustrated that the availability of land is not an obstacle in this, as much as the lack of political and administrative will. How much land will be required in Delhi?

The draft Master Plan Document estimates a requirement of about 24 lakh additional dwelling units to meet housing needs during 2001 to 2021. It further estimates that upto 55 percent of this requirement would be for the urban poor, and lower income groups, in the form of houses of two rooms or less, with average plinth area of 25 sq. m. to 40 sq. m. It is assessed that 20 percent - or 4.8 lakh dwelling units - of the total requirement can be met in the adjacent NCR cities. Another 40 percent will be met through densification within the present urban limits, and in the sub-cities of Dwarka, Narela and Rohini. The balance 40 percent (10 lakh DUs) of the requirement would have to be provided in new housing areas to be developed. This amounts to at least 50,000 DUs per annum in the new areas, and an additional 50,000 per annum to be created



through densification. Even assuming that densification will not require additional lands - which is unlikely - at a conservative estimate, approximately 125 hectares of land will have to be made available, annually, in the new areas exclusively for low income group housing (27,000 dwelling units, developed at densities of 500 DUs per hectare).

Going by past trends in the city, this is a considerable commitment, and will require to be organized for in a concerted and very systematic manner. As against this, identification, or even the desired locational characteristics of this land have not been specified in the Draft Plan. The document stops short at recommending that each module of housing developed, catering to 1 lakh population, should contain up to 35 percent units of area below 40 sq.m. The details of the mode and manner of development; the nature of property holdings proposed; the role of various stakeholders, including the private sector, in the process; the financing mechanism; and the institutional arrangement for implementation have simply not been addressed.

The Draft Plan Document is equally ambiguous on how densification within the present urban limits will generate 27,000 additional dwelling units per annum for the lower income groups. Areas suitable for redevelopment for this purpose, based on locational or other considerations, have not been identified. Moreover, the entire onus of redevelopment - including the financial burden - in DDA developed areas, inner city areas and unauthorized / regularized colonies has been placed on the owners or residents' welfare associations. It is unlikely that these bodies will have the expertise, or mobilisational capacity, to carry out such programmes without considerable support from the appropriate agencies. This would include financial, organizational and technical help; and support with respect to extension of city level infrastructure.

As for the urban poor, comprising, for the purposes of the plan, inhabitants of squatter settlements; migrant employment seekers and low paid workers, it is recommended that the existing three-fold strategy be continued. As already mentioned, this strategy will not deter the formation of further slums, in the absence of adequate provisions elsewhere. The plan however, makes a radical break from the approach adopted so far for resettlement, by recommending that this be based on built up, or flatted accommodation, rather than horizontal plotted development. Tenure rights are to be provided through the institution of cooperative



societies. The provision will be based on cost, with “*suitable arrangements for financing*”. In order to attract private sector participation in the development of these tenement blocks, the scheme proposes incentives such as enhanced FAR, part commercial use of land, and transfer of development rights, where possible. It further recommends that these sites be developed in relatively small clusters, with building heights not above five floors.

This seems to be a welcome departure from the earlier sites and services based approach. Tenement blocks have proved a practical housing option in other contexts - most notably as a model for worker’s housing in cities experiencing rapid industrialization and urban growth. The success of the proposed approach, however, would depend upon several factors, such as, locational characteristics of the development to ensure employment opportunities in the vicinity; optimization of densities; the financing arrangement; viability for the private sector in terms of commercial potential, and concessions offered. The model is also appropriate for the creation of rental housing for the poor, particularly new migrants to the city, for whom ease of mobility within housing areas is an important factor. While this will counteract the formation of further slums, the Draft Master Plan, is silent on this issue. It is significant that even the Master Plan for Delhi, 1962, had proposed to earmark “*reasonable areas in several zones for the low income group people who migrate to Delhi throughout the year from rural areas.*” Affordable rental accommodation in tenement blocks, and night shelters with basic amenities, managed by credible NGO’s or charities, on land made available for the purpose at concessional rates would provide appropriate shelter for this group. Supported by financial and other incentives, these could be operated on a marginally profitable basis, in order to make them sustainable, yet affordable³.

Based on the incentives offered for the development of resettlement colonies, proposals have also been invited by public and private agencies for the redevelopment of existing resettlement colonies. It is proposed that a Corporate Body, for slum clearance and urban renewal, be constituted to plan and oversee implementation of redevelopment schemes. The Draft Plan also seeks to ensure new housing for the urban poor by recommending that every new housing scheme, taken up by any agency, reserve at least ten percent of the saleable net residential land for housing targeted at these sections. The cost of acquisition and



development of this land is to be borne by the rest of the project; and it is to be handed over to a designated agency for management. This is to provide for the bulk of the housing stock to be made available, at an affordable price to the lowest income bracket. While this is a much needed regulation, details of how it will be administered, proposed terms of allocation, supporting financial arrangements etc. need to be addressed in order to ensure that the target groups benefit.

In terms of implementation of its housing strategy - provision of new housing stock, densification and renewal - the Draft Master Plan envisages a “multi-pronged” approach, “involving the private sector to a significant extent” as well as public agencies, cooperative societies etc. The realization that public agencies alone are not up to the task, in terms of financial or organizational capacity, is a welcome, step but certainly not a novel one. Much debate has already been undertaken on the roles, and areas of operation appropriate to each stakeholder. It has also been clearly established that the partial withdrawal of public agencies from certain activities in the housing sphere does not imply a reduction in the role of the state, but a redefinition of its responsibilities. The role of the government is critical in providing for certain groups, and in enabling both the private sector, and community groups, NGOs etc. An environment that ensures benefits to both the target group as well as the service provider or investor will have to be created, if these sectors are to be attracted into the development of reasonably priced housing for the lower income groups. As mentioned earlier, this will involve not only addressing issues related to the supply of serviced land, but evaluating viability and bridging the gap through partnership funding; estimating concessions and incentives; clearly demarcating areas of operation; identifying responsibilities and liabilities; interdepartmental coordination, regulation and monitoring of implementation; specification of appropriate standards and so on.

In the absence of a clear modus operandi on these issues, the intention to involve the private and other sectors to a significant extent in the development of affordable housing for the low income groups - which constitutes a major share of the housing requirement - will remain on paper only. And it is in this aspect that the Draft Master Plan remains a statement of intentions alone, rather than a comprehensive action plan for the realization of an economically vibrant, equitable and slum free city. ■



ENDNOTES

¹ This derives from the well-established official perception of low income housing as a social sector issue,

² As much as 260 percent

³ This model, nick-named “Five percent Philanthropy”, was successful in England at the turn of the last century, when that country’s cities were experiencing enormous growth due to migration of low paid labour from farms to the industrial centers.

Vanishing Livelihoods in a 'Global' Metropolis

Lalit Batra

After two years of marriage, my farmer husband and I were on the verge of starvation in Bengal and left for Delhi to find work. My husband used to make murmura, whereas I worked in 5 kothis. We had no money at the time to educate our children, only our older son studied a little in Delhi. However, over the 25 years in Pushta, we were able to save up and make a house with 3 rooms. When finally we were able to afford food and water and a decent life, we were evicted and thrown to the margins of society. Our house was demolished only after a day's notice! The police notified us just the day before that the demolition would begin at 10 in the morning, which hardly gave us any time to empty our house of all the stuff. We lost our pucca house and belongings, all earned with our sweat and toil of 25 years.

- Haleema

(a 45 years old woman living in Bawana resettlement colony)

The city, or what remains of it or what it will become, is better suited than it has ever been for the accumulation of capital; that is, the accumulation, realization, and distribution of surplus value.

- Henry Lefebvre, The Urban Revolution.

Planned Folly

Master Planners by default have a fetish for orderly spaces. They like smooth, homogenous, straight-lined, geometrically aligned cities devoid of internal contradictions and differentiation. That is why despite their best intentions they end up abhorring, or at best being puzzled by, the actually existing city. They try and push hard to force fit the real urban into their technocratic schema but the pulsating socio-spatial geography of the city repeatedly refuses to follow the drumbeats of the planning machine. Over, under, along with, on the margins of, in the heart of every



planned, ‘intended’ city grows an unplanned, ‘unintended’ city, which is, but the other half of the planned city. In fact it is as much a creation of the master plan as the planned city itself. The unplanned city is never legitimized. There are times when it is tolerated, even informally recognised. At other times, it is viciously maligned, criminalised and systematically attacked. What happens when depends crucially on the conditions for the production and reproduction of social existence and balance of forces between social classes.

Ever since the ascendancy of the neo-liberal ‘reform’ agenda in early 90s the capital city of Delhi is witnessing a scenario where not only is the unintended city under siege but the city as intended is also undergoing fundamental transformations. The scope, intensity and pace of this change is so overwhelming that somebody who would have last seen Delhi say, two decades back, would find it difficult to recognize the present city, except perhaps for Lutyen’s grand boulevards! The most visible markers of this transformation are metro, malls, multiplexes, flyovers, expressways, hotels, five-star hospitals, mega religious structures, gated localities etc. From the point of view of the poor and working people of the city, people like Haleema and her husband, the change has so far entailed losing their geographical and occupational spaces in the city.

It is in this context that we try to analyse the trajectory of changes in the economic structure of the city in general and employment patterns in particular over the past half a century or so and then locate the ‘vision’ of the Draft Master Plan for Delhi- 2021 therein.

Before the Planning Era

Delhi has for long been one of the major economic centers of the country. Even before Independence the city had started becoming an important operational base for mercantile capital in North India, with several British as well as Indian trading firms establishing their businesses in Delhi. Most of the wholesale trades generated in North India in the early 20th century found their base in Delhi. The years between 1911 and 1937 also witnessed the establishment of several small and medium scale industries. The resultant increase in employment opportunities in the city coupled with grinding poverty, breakdown of traditional agricultural system and prevalence of severest forms of feudal and colonial oppression in the countryside, ensured a significant increase in the migration to the



city. The 1941 census showed that in 40 years, between 1901-41, the population of the city had more than doubled to 9.17 lakhs. Then came Independence, and along with it, Partition, which resulted in an almost overnight influx of more than 4.5 lakhs refugees into the city from across the newly created border. This massive influx of people had its corollary in further diversification of economic activities on the one hand and severe pressure on civic services on the other hand. As a result, 700 people died in 1955 due to a jaundice epidemic caused by the contamination of domestic water supply. This created a lot of 'concern' in the official circles about the 'haphazard' and 'unplanned' growth of the city.

Delhi Master Plans 1962 and 2001

Concerned about the problem of unregulated growth in the city, the state in the early 60s sought to systematically intervene in the growth process of the city in the form of the Parliament constituting the Delhi Development Authority (DDA) in 1957 in order *“to check the haphazard and unplanned growth of Delhi...with its sprawling residential colonies, without proper layouts and without the conveniences of life, and to promote and secure the development of Delhi according to the plan.”* Eventually, under the guidance of the Ford Foundation experts, the Town Planning Organisation (TPO) prepared the Master Plan of Delhi (MPD-62), which was notified in 1962 for the next 20 years and the DDA became its implementing agency.

The Master Plan envisioned the city as a centre of governance, or of residential and communication needs, and did not take into account the possibility of large-scale commercial and industrial activity in the future. On the pattern of modern European cities, separate areas were allocated to be used for housing (43%), movement (22%), industry (5%) and green belt areas (22%). For achieving this 'vision', the plan aimed at limiting the population to a maximum of 46 lakhs by 1981 which, if unchecked, was projected to go up to 56 lakhs. A complex of strategies were adopted in the plan to achieve this purpose- building a 1.6 km wide green belt around Delhi, diverting the surplus population to seven ring towns in Uttar Pradesh and Haryana, decongestion of the Walled City by relocating the population in New Delhi and Civil Lines, prohibiting a number of heavy and polluting industries etc. There were an estimated 8,000 industrial units located in non-conforming areas in 1961. The plan provided for establishing 48 industrial areas spread over 2,300 hectares for



accommodating these industries. But no provisions whatsoever were made for the informal sector which was quite widespread and active even at that time.

Continuing the tradition of its predecessor, the Master Plan of Delhi-2001 also sought to implicitly establish a link between employment creation, population growth and haphazard development. The focus of the plan was to somehow contain population growth within 'manageable limits'. It continued with the functionally segregated land use system which had proven to be so obviously unsustainable and unproductive. Without giving any explanation as to why the industrial areas proposed in the previous plan were not built, it proposed 18 more industrial areas. The informal sector received recognition in the plan but the provisions made were highly inadequate and oblivious of the economic logic of this sector.

Economic Growth, Migration and Population

Ever since Independence, the city of Delhi has been growing quite rapidly, especially the informal sector. Industrialisation has advanced, commercial activities have increased and a great deal of infrastructure building has taken place in the past 50 years. The effective rates of tax and tariff have been substantially lower in Delhi as compared to the neighbouring states. These differences in tax rates with added advantages of better social and physical infrastructure in Delhi have greatly influenced the decision-making regarding location of industry and trade. The commodities where the margin of profit is low and transport costs are not so high, such variations result in attracting buyers from far off places. Thus, industrial investment has increased from Rs. 388 crores in 1971 to Rs. 6,310 crores in 1996. The number of industrial units rose from 26,000 in 1971 to 1,37,000 in 1999, providing jobs to more than 14 lakh workers. Only 25,000 units out of a total of 1.37 lakhs are functioning in the conforming industrial zones. Rest are in the non-conforming areas (NCRPB, 1999). Thus the number of industries situated in non-conforming areas has increased from 8,000 in 1962 (when the first Master Plan for Delhi was notified) to 1,10,000 in 1999. There has also been substantial growth in distributive trades. The city today has wholesale markets for 9 types of goods including fruits and vegetables, automotive parts, textiles etc. Apart from being the biggest consumption centre in whole of North India, the city also has strategic location with respect to transportation facilities, lower tax rates, lower Central Sales Tax on re-



export of goods, lower wholesales prices etc. The area of procurement and distribution covers a wide region and extends not only to the North India but for some commodities even to the whole of India. Thus the number of registered wholesale dealers has increased from 69,469 in 1971 to 2,63,259 and the number of workforce employed in the sector has increased from 1.17 lakhs in 1951 to 6.73 lakhs in 1997 (NCRPB, 1999). Apart from these, construction, transport, communications, and administrative sectors have also expanded quite substantially over the years. The growth of production and trade can be seen from the fact that joint stock companies increased from 4,464 in 1974-75 to 2,91,447 in 1998-99 while receipts jumped from a paltry Rs. 155 crores to Rs. 2113.76 in the same period. Per capita gross state domestic product rose from Rs. 19,246 crores in 1993-94 to Rs. 32,407 crores in 1999-2000. Per capita annual income in Delhi is Rs. 51,664 which is more than double the per capita income of the country as a whole. (Delhi Science Forum, 2001).

Along with this tremendous economic growth, the population of the city has also increased dramatically. From a small town of 4.1 lakhs people in 1911, Delhi has today become a giant metropolis of over 13 million people. After 1951 the population of the city has grown by over 50% per decade! Migration accounts for much of this growth in population. For example, between 1981-91 almost 50% of the population growth was contributed by migrants. The migration has taken place mainly from the neighbouring states of Uttar Pradesh (49.91%), Haryana (11.82%), Rajasthan (6.17%), Punjab (5.43%) and far off backward states like Bihar (10.99%) (NCRPB, 1999).

Even the NCRPB admits that the phenomenal surge of physical and economic growth of Delhi and the under development of the areas outside Delhi, or, to be more specific, outside the Delhi Metropolitan Area (consisting of, apart from Delhi, cities like Faridabad, Gurgaon, Sonapat etc. in Haryana and Ghaziabad, Noida etc. in U.P.) is primarily a problem of relationship rather than a problem of scarcity. The entire region outside the Delhi Metropolitan Region is registering a relatively slow growth rate leading to a lop-sided development of the region characterised by the 'Metropolis-Satellite' syndrome, where part of the economic surplus of the periphery is extracted by the core and whatever development takes place in the periphery, mostly reflects the expanding needs of the core. Under this phenomenon, the region rather than adding or accelerating



its own growth goes on supporting the growth and prosperity of Delhi thereby setting an uneven system tied up by a chain of 'Centre-Periphery' relationship.

Employment Structure

Delhi had a workforce of 45.27 lakh in 2001 which is 32.84% of the total population. Out of this 5.7 lakh were unemployed. It is significant that between 1992 and 2000 the percentage of unemployed workers shot up from 5.67% to 12.73%. The sectoral division of the workforce shows some interesting trends. In 1981 the share of primary, secondary and tertiary sectors in employment was 3.81%, 34.87% and 64.72% respectively which by 2001 became 1.74%, 28.68% and 69.58% respectively. Among the tertiary sector also the services which have shown most growth between 1992 and 1999 are Trade, hotel and restaurant (21.01% to 29.05%) and Financial and commercial activities (4.69% to 6.40%). On the other hand the percentage of workforce employed in manufacturing, civic administration, health and educational activities has shown a steep downward trend. The share of organized sector in employment is also going down quite rapidly. There has been an absolute decline in the number of workers employed in organized sector from 8.5 lakh in 1994 to 8.41 lakh in 2001. Thus, whereas, in 1994, 78% workers were working in unorganized sector, the figure rose to 82% by 2001. This clearly shows the direction the city is moving in.

MPD-2021

The avowed aim of the Master Plan for Delhi-2021 is to make Delhi a "global metropolis and a world class city". What will be the defining characteristics of this world class city is discussed at length in the Draft Regional Plan-2021 prepared by the National Capital Region Planning Board in December 2004. Some of the key recommendations of the said plan are as follows:

- 1. Emphasis on investment for the growth of modern infrastructure and services to make the city eventually an e-governed, e-citizen and e-services city so that Delhi becomes the model e-city of India and a destination of foreign investment.*

2. *The information revolution is simultaneously transforming many city activities in many ways: changing in some cases non-tradable services into tradable, for example, health, cultural, higher educational services. This necessitates investments in the appropriate sectors.*

3. *Since retail shopping becomes a key sector relating to the junction and distributional role of cities, to hotels and restaurants and to tourism, strategies to expansion of these facilities, as done in Singapore and Hong Kong should be evolved to make it an important export industry.*

4. *Development/ delivery of cultural services like museums, histories sites, antiques, theatres, film making, cinemas etc., as part of the activities underpinning tourism and other international travel.*

5. *Relating to Delhi's emergence as a leading global city is its role in hosting international conferences and sports events, amongst others, which will necessitate an infrastructure of global standards.*

6. *Although Delhi may lose manufacturing activity, but will attract services like accountancy, law, advertising, finance, research and development, consultancy etc. for the factories located/relocated in the green field sites in the neighbouring areas.*

This is a complete package in itself which lays down in threadbare detail all the ingredients which would go into the creation of the 'world class' city. And the key to building this city would be once again, restriction on employment generation; this time stated much more explicitly than the earlier plans. "No new major economic activities, which may result in the generation of large scale employment (should be permitted in Delhi)", sternly warns the Master Plan. Another panacea that has been added this time around is the wholesale privatization of everything- from land and power generation to health and educational facilities. All these above mentioned measures suggest a close connection with the 'opening up' of Indian economy. Coupled with the 'failures' of the planning process as laid out in the Master Plan, it has created a volatile situation for the working people of Delhi.

Compliance and Violation

If we dig out the ideological underpinnings of Master Planning we find that the modernist vision of the city enshrined in it was completely out of sync with the profound rumblings of the economy, society and polity of a



postcolonial Third World country. Thus while the Master Plan sought to fashion Delhi in the image of an orderly bourgeois city with strict spatial segregation of various functions, the exigencies of building a domestic capital base with an emphasis on import substitution ensured that violations of the Plan were not only tolerated but also actively encouraged by the political and administrative elite. Whether it is squatter settlements, unauthorised colonies, small scale industries or informal sector services—the existential necessities of the poor coupled with the requisites of electoral democracy produced an urban space which was, in some senses, a complete subversion of what the Plan stood for. While this process did not guarantee constitutional rights based legal existence for the working class in the city it nevertheless created a gray zone between legality and illegality where they could, at least as a collective, negotiate their lives in the city.

But in the past two decades the situation has changed. This has a lot to do with the policies of liberalisation, privatisation and globalisation initiated in the early 90s. The politics of globalisation depends, among other things, on refashioning and ‘re-forming’ cities in order to lure foreign investment. Major cities of the Third World are thus sought to be de linked from real domestic priorities and positioned as nodes in the circulation of global finance capital. This puts a heavy strain on urban land and other resources which are increasingly freed from less productive uses such as small scale manufacturing or housing for the poor and deployed for high tech modes of accumulation and consumption, whether material or symbolic, of the affluent. The entire urban space, in this process, becomes a market place where distribution and consumption of global brands takes place in the form of a series of spectacles.

The change in governmental and administrative priorities has been brought about by pressures on the one hand from global finance capital and on the other an increasingly vocal and assertive middle class. Both these forces have attacked the affirmative activities of the welfare state as the root cause of corruption, lawlessness and pollution of city life. The argument goes like this: It is the politicians who have over the years actively encouraged the growth of illegal industries and encroachment on public lands by slum clusters in order to create a captive vote bank and a ready source of income. This has resulted in the law-abiding, tax paying citizens being denied their legitimate rights in the city. So the idea of the reclamation of the rights of citizenry has been directly linked to the

further dispossession of the already disposed. This has serious implications for the rights of the working class for a better life as the consolidation of the middle classes around the vision of a 'Clean and Green Delhi' creates a social force necessary for further delegitimization of their existence in the city.

Draft Master Plan for Delhi 2021 is both a codification as well as legitimization of the process, already under way for some time, of securing the city, along with all its resources- be it land or water or power- for the international as well as the domestic elite.

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Trading in a World Class City

Dunu Roy

The two chapters on Trade & Commerce and Wholesale Trade in the Draft Master Plan for Delhi 2021 spell out the perspective of the planners with respect to the growth of the commercial sector and the provisions made to accommodate this growth. For instance, the Economic Survey of Delhi in 2001-2002 found 2.3 lakh retail shops with 5.4 lakh employees (at the rate of 2.38 ppe or persons per enterprise). The planners have made a linear projection that this number will go up to 4.15 lakh shops and 9.63 workers (2.32 ppe) in 2021. They also speculate that this sector will be allied with the growth in services such as restaurants, hotels, finance and infrastructure, real estate and business, along with entertainment, work, education etc. because of the impact of liberalisation, the entry of multi-national corporations, information technology, and the increase in purchasing power of the population. However, the Plan does not detail the interconnections between these different activities or cite any studies in this regard.

Similarly, the number of wholesale establishments in 2001-2002 was 37,000 with 1.6 lakh employees (4.32 ppe) and there were 6,500 storage and warehousing units with 27,000 workers (4.15 ppe). 20% of these were in the Walled City alone. At the same rate, the planners expect that there will be 66,000 wholesale establishments with 2.85 lakh employees in 2021. These establishments cover a range of products including textiles, food items, automobile parts, machinery, hardware, building materials, paper and stationery, fruits and vegetables, and iron and steel. Clearly they are intrinsically connected to the physical needs of a growing urban metropolis. Furthermore, while the Plan does not dwell on this aspect at all, there has to be an organic connection between the wholesale markets and the retail shops in building the chain from the producer to the consumer. This connection is not only implicit in the manner in which transport is organised, but also the related flows of money, credit, energy and information.



However, none of these connections finds a mention in the Plan. All it does is to provide for a five-tier arrangement of shopping centres where the retail trade can take place and the planning norms required for those. There are discrepancies here too, because while 46 District Centres will be needed by 2021, and 10 exist currently, the Plan provides for only 23 more. Similarly, if one computes the requirements as per the norms, then the total land on which all the shopping centres, markets, and bazaars will be built by 2021, amounts to a little under 5500 hectares. On the other hand, in direct contrast, the land actually to be set aside, at 3-4% of the urban land, will not exceed 3700 hectares. This shortfall of 1800 hectares, even if one ignores the land required for circulation and infrastructure, clearly spells trouble for the future of “unauthorised” shops, particularly in the informal sector. The Plan has apparently already anticipated this because there are a series of provisions for controlling “encroachments”, “no hawking” zones, and maintenance of “law and order” (by NGOs).

In the case of the wholesale markets, the Plan desires to shift them out of the centre of the city to the periphery on the grounds of congestion. Thus, while planned markets already exist at Azadpur, Naraina, Ophla, and Keshopur, the Draft Plan 2021 wants to move them further afield to near the State border at Ghazipur, Madanpur Khadar, Samaipur Badli, Narela, Dwarka, Tikri Kalan, Najafgarh, and Loni. These locations are supposed to link up both with the proposed Integrated Freight Complexes, as well as the MRTS. This may facilitate the mass loading and unloading of goods from facilities provided by the railways, but how they will eventually reach the consumer in different parts of the city is left unsaid. Furthermore, what will be the economic impact of this relocation on the trade and the eventual consumer is not analysed at all.

Evidently, therefore, the “world-class” city is only conceived as a visual delight, not a viable economic and social entity.



Planning For the Health Sector

Problems and Limitations of the Draft Master Plan for Delhi 2021

Prof. Imrana Qadeer

Health is an outcome of medical care and non-medical services and the latter is actually much more crucial than realised compared to the former. The non-medical inputs into health are clean drinking water supply, sanitation, housing, transport, work availability and wages etc. Only medical care does not ensure health. The Master Plan for Delhi's (MPD) vision for health sector planning lacks an interlinked, integrated approach to health sector and the focus is merely on medical services. Scarcity of welfare services in some parts and over crowding in others does not appear to be of any concern to the master planners. Unfortunately, health cannot be achieved without a balanced, equitable and comprehensive development of all parts of the city.

The key issue then is the very vision of the future metropolis. Must it ape the imperialist vision of a 'world class city' that is essentially parasitic in nature and dependent on global financing for economic sustenance through tourism, commercial, cultural and welfare services? Must the city protect only its elite who thrive on share markets, commerce, trade and business and keep out of its boundaries, the increasing tide of migrants being forced to leave their land under the pressure of a shrinking agricultural economy? Should it be a city choked with flyovers and speeding cars where there is no space for pedestrians, where slum dwellers are either forced to move out or to live in ill maintained high rise buildings in commercialised zones earlier meant for residential purposes? Can a city survive for long without a productive life of its own? On what basis the de-industrialisation of the city initiated by previous governments has been accepted by UPA government that claims commitment to employment generation and right of citizens to work where ever it is available? Why does the MPD not envision a more plural Delhi with its variety both economic and cultural intact and its vitality derived from the inner capabilities of its citizens rather than the seekers of services, entertainment, business and new markets? If the promise of good



governance, steady economic growth, and faith in people's wisdom (reflected not only in the way they vote) is genuine, then, Delhi's master planners should be planning for a uniquely plural Indian city that is open to the world on the basis of its strengths and economic stability and not out of its weakness – the dependence on foreign capital flow.

The very vision of the Master Plan for Delhi as a city of the future is therefore flawed, unimaginative and a-historical. All that the plan does is to attempt and fit the city in the space that is allocated to the metropolises in the so called less developed countries by the global powers without challenging or questioning the model that has failed the west itself.

Planning for health requires careful assessment of database on resources such as land, water, technology, infrastructure, manpower etc. A quick look at the database of the MPD shows that often the data used and the assumptions are not valid. For example:

a) The shortage of land for residential purposes is a constant refrain despite the fact that the land available for this purpose according to the DDA's own assessment has not actually been used for housing the poor. While for them only 35 % of the targets could be met, for the rich three times more than the planned houses were built (*Dilli Kiski Hai*, 2004). This reveals the intent behind planning.

b) Similarly, the exaggerated emphasis on population pressure due to migration is misplaced. Despite the rising population of Delhi that in 2001 was 137.8 lakh, the decadal growth has come down from 53.0 to 46.3 over the decades of 1961-71 to 1991-2001 (NCPRB, 1999). In addition there has been a shift away from industrialisation in the National Capital Territory (NCT) in the past one decade. Yet, the MPD- 2021 document projects consistent high rise of population, from 137.8 lakhs in 2001 to 230.0 lakh in 2021. It thus falsely projects a high population growth for NCT for a casual reader without mentioning the logic of these projections.

c) In the sector wise plans, for the health sector the document refers to the 2002 database prepared by the Government of Delhi, however, in actual planning;

1. It neither takes into account the range of institutions existing in Delhi that are recorded in that particular document nor the iniquitous distribution of these institutions. The document accepts the WHO



norms of beds and hospitals but calculates requirements only on the basis of averages without actually considering the unequal distribution that has actually been mapped to show the differential distribution of facilities.

2. There is no mention of the primary care institutions in the MPD except for the accepted norms for Maternity Homes and Family welfare centres along with mostly privately run diagnostic and geriatric and Paediatric institutions on which the state has no control nor does it express any need for it.
3. The infrastructures for running National disease control programmes or the existing *Anganwadis* are completely ignored.

With such indifference to critical data what kind of planning exercise is possible is more than obvious.

When the vision itself is limited, the data requirements are equally narrow. Therefore, the problems with the database are not the only inadequacy. The very methodology used for planning calls for a revision of the planning exercise. Even if it is assumed that the sector plans are only broad guidelines and not the actually detailed plans, certain key lacunae cannot be ignored. For example:

~~✍~~ The essential links between water supply, sanitation, housing and transport in supply and access to health facilities is not even mentioned what to talk about planning in areas according to specific needs.

~~✍~~ There are at least four main players MCD, NDMC, Delhi Government and the DGHS other than the smaller players (ESIC, SBI, Delhi Jal Board, Delhi Cantonment Board, Northern Railways), each with their own jurisdiction and objectives. There is no mention in the MPD as to how these organisations will improve their co-ordination and planning which has always been the bone of contention due to overlapping domains and responsibilities.

~~✍~~ The sketchy health sector plan is heavily biased in favour of the bio-medical model where only medical care gets the central space and all necessary supportive, preventive and primary level health care is ignored. It is evident from the emphasis on hospital care that the planners do not conceptualise health sector planning as a part of socio- economic



planning. It is the secondary and tertiary medical care on which the plan focuses.

✍✍ As a consequence of this hi-tech perspective of health care, the MPD takes no note of the epidemiological specificities of this city where diseases such as Diarrhoea, Hepatitis, Cholera, Encephalitis, and Dengue fever are commonplace and require broader strategies for control. They are rooted in its iniquitous and haphazard growth that is being handled by restricting growth but not actually correcting the structures. In other words, there is no concern about the epidemiological patterns of disease prevalence and morbidity- a primary requirement for problem definition- for which planning is being done. Hospitals occupying 0.25 or 2.5 hectares of land can increase revenues but are not necessarily the answer to the above problems that have acquired epidemic proportions since the late 80s.

✍✍ Even within medical care, a system of service provisioning, closely linked, co-ordinated and responsive to all levels of medical needs is necessary. In MPD however, there is no clarity about these. Even the public sector institutions are not visualised as regional systems built on referral links.

✍✍ The general thrust is that the public private partnership would solve the health problems of the city as well as of other sectors. There is a huge private sector in the city ranging from single practitioner of all systems and untrained providers to the corporate medical sector. There is no clarity that in this wide range, where the public private partnership will focus and what principles will guide it. As of today it is the tertiary level corporate hospitals that get all the concessions and not the primary providers of medical care. It is obvious that corporate sector must not be given any state subsidy.

✍✍ The MPD refuses to confront the reality that private sector's prime motive is profits and not service to all. That it is not accountable to the society but to its clients and that the present state machinery cannot control or monitor it. Private sector is not interested in primary health care for the poor. Without evaluating any successful partnerships and identifying the necessary conditions of that success, PPP is offered as a panacea of the ills of the health sector. The total indifference to the concept of Primary Health care in the private sector is reflected in its focus on



tertiary care. An example is the Apollo Hospital Enterprises network from Chennai which is reported to have made a profit of Rs 49.20 crores in twelve months, a 33 % net increase over the previous year. This has increased the company's revenues to 596 crores (The Hindu May 24th, pp18, 2005). The group's investment initiatives are focused on super specialities in health care services where it dominates the market. The MPD document reinforces this trend at the cost of all other levels of care and those who cannot pay the high costs even though it claims to be concerned about the 'weaker sections'.

✍✍ Except for the three grades of hospitals, Family Welfare Centres, Maternity and Paediatric Centres, some private allopathic institutions, the non-allopathic providers, the not fully trained providers and the traditional providers such as TBAs (who are very much a part of the health service system), are not even mentioned. Do we assume then that these have no place in the future planning of Delhi?

✍✍ No strategy is spelt out in allocating land to the private and public sector. Since land is now being offered at commercial rates and the tertiary sector is growing fast, will there be a policy for ensuring minimum numbers of public sector primary, secondary and tertiary institutions in all districts of NCT?

✍✍ The Qureshi Committee Report of the Govt of NCT of Delhi, 2001, has shown that hospitals started as charity institutions and given conditional land lease (to provide free services to the poor through 25% indoor beds and 40% outpatients) are being captured by business class to run commercial money minting machines. Mool Chand hospital, for example, which started as an Ayurvedic hospital is now a full-fledged corporate hospital with Ayurvedic services completely marginalized. The Committee recommended strict compliance with penalisation for non compliance and a separate organisation within the health department to monitor all such hospitals and to ensure compliance but nothing came of it.

These lacunae highlight the fact that the pro people perspective claimed, a hard factual analysis and all other elements of planning are missing from the MPD-2021. The health sector planning of the MPD is an irrational exercise to rationalise the unhealthy trend of fitting into the global agenda of Structural Adjustment and creating parasitic cities that poison their hinterland. It certainly is not an exercise in the direction of enabling its citizens which calls for addressing all the issues outlined above.

School Education and the Master Plan for Delhi - 2021

Janaki Rajan

The Draft Master Plan-2021, under its section on education, states:

The literacy rate in Delhi has increased from 75.3% in the year 1991 to 81.82% in the year 2001. In overall terms Delhi has a fairly good network of educational institutions from the pre-primary/primary to higher education and professional education levels. At present there are 2416 primary schools, 755 middle schools and 1576 secondary/senior secondary schools. At the higher and professional education levels, there are 114 colleges for general education, 8 engineering colleges, 4 universities, 7 deemed universities and 1 open university (p 115).

However, the picture of Delhi's educational needs as per its demographic profile is in fact far more complex.

Total population	138,03,085
Male	75,79,849
Female	62,23,236
% of population in 0-6 age group	8.50 %
% of population in 6-11 age group	13.79 %
% of population in 11-14 age group	6.26 %
% of population in 14-16 age group	4.28 %
% of population in 16-18 age group	7.05 %
% of population in 18-21 age group	7.19 %



These figures show that the 3-21 age groups, which fall under the educational years, comprise 47.07% of Delhi's population. In other words, about 65 lakh children/youth are in need of educational facilities.¹ Out of these about 20% children/youth belong to families who are part of economically marginalized sections of the workforce. The ILO estimate of child labour in Delhi is 12.69%. This effectively means that over one third of the child/youth population in the age group of 3-21 years would require public support for education.

Pre-schooling

The draft Plan document states that provision for pre-primary education exists in Delhi. The exact number of pre-primary schools already in existence has not been indicated. However, around 30-35 pre-primary schools do exist as part of primary schools with the MCD. In the private sector, there are no documented figures for pre-primary schools. This is because this stage of education is completely unregulated by the Government of Delhi or the DSEA. It is well known that the private unaided schools begin with pre-primary stage. But there is no regulation of either the fees charged or number of children. Besides, the social composition of the children these schools cater to is obviously middle and upper middle class. In recent years a large number of playschools have come up in existing residential homes, again not regulated in any manner.

However, recently, the DDA indicated that there were around 800 plots of land earmarked for pre-primary schools under the Plan and urged education department to start pre-primary schools. The Directorate of Education felt that primary education was the responsibility of the MCD. The MCD, in turn has not shown any interest in starting pre-schools. These plots are now nearly wholly being taken over by private societies. Children from lower socio-economic strata are left completely bereft of pre-school education, gravely hampering their readiness for formal schooling, leading to dropping out of schooling later. Lack of government-funded pre-schools also means that elder siblings are deprived of schooling because they are forced to look after the younger ones.

The proposed Master Plan 2021 does not appear to have taken these aspects into consideration. Uncritically accepting private players' highly one-sided, profit motivated logic, the document now proposes to make these pre-primary plots open to multiple use by allowing coaching centres

etc., completely ignoring the primary needs of the young child population of Delhi, especially the marginalized. There is urgent need to immediately freeze these plots for government-funded pre-schools.

Elementary Schools

Given the 86th Constitutional Amendment making education for 6-14 years age group compulsory and free, it is important that the Master Plan looks at the schooling requirements Delhi would need to meet this obligation. The availability and the type of schooling facility for this age group is given in Table 2.

Table 2: Number of Schools by type of funding and management available in Delhi at the elementary stage (classes I-VIII)		
School by type of management	Actual nos.	% of total
Govt/local body Primary schools	1933	34.21
Aided	127	2.24
Unaided Recognized	924	16.35
Unrecognized	837	14.81
Govt/local body Middle schools	853	15.1
Aided	184	3.25
Unaided Recognized	782	13.84
Unrecognised	9	0.159
Total	5649	

Government supported primary schools are 36.46% and privately supported and recognized schools are 30.19%. This leaves 33.35% of schools unregulated and unrecognized, providing primary education without proper facilities.² It is easy to imagine which socio-economic strata of society would be paying fees to send their children to an unrecognised school. Taken together with the 20% of children from marginal worker households, a total of 53.35% of Delhi's children critically require government funded and recognized education. As can be seen, government funding reaches only upto 36.46% of schools. The gap of

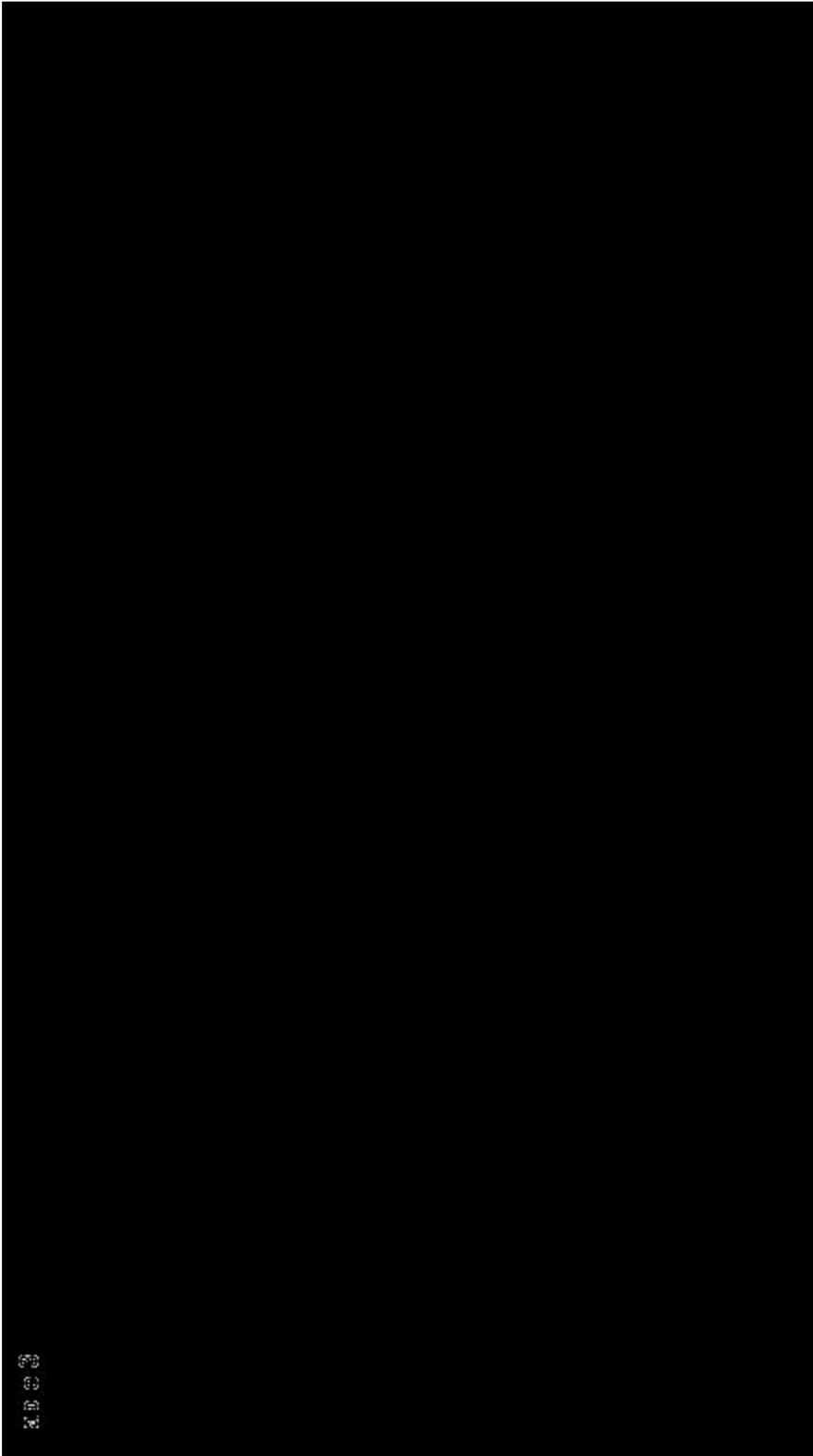


16.89% of government schooling requirement for already school going children needs to be urgently attended to.³

In addition, around 6.7 lakh children are out of school and the figure is growing.⁴ At present some attempts are being made to educate around 1.93 lakh of these children through Sarva Shiksha Abhiyan's Alternative Schools Scheme. However, this Scheme has no provision for building or infrastructure. In any event, SSA is envisaged as a transitory measure, and it is expected that all children will be mainstreamed into regular formal schools in a period of 2-3 years. There is at present no prospective planning as to how many classrooms and schools would be required and where these schools have to be situated to educate all children upto 14 years of age. Even more important, the ratio of government funded and private fee funded schools needs to be fixed urgently. Otherwise, we will have a situation where the requisite number of schools may exist, but the facilities are cornered by those who can afford to pay high fees, while those who cannot are left without infrastructural facilities.⁵

Secondary and Senior Secondary Education

Although the ratio of government - private schools in the secondary stage is nearly 1:1, the quality of schooling in the private fee paying and government schools is markedly different, to the detriment of the children of the marginalized who are forced to come to government schools. This quality gap is reflected, among others, in allotment, the design, delays in getting approvals etc. and needs to be addressed on a priority basis. The Directorate of Education administers and arbitrates the Delhi School Education Act which includes both government and private schools. The maintenance of government/MCD schools is very poor.⁶



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Key issues emerging from the above table are: What is the ratio between government and private schools in each district? What percentage of children by age group in each district would not be able to afford fee paying schools, and hence would need government schools? Are that many government schools available in each district? How can the free and compulsory education be provided otherwise?

The second issue is with respect to allotment of land in areas where government schools are most needed. The general observation of policy makers is that in areas where population density is high land for building schools is not available. It is pertinent to point out here, that the land constraint issue is so strongly embedded in the policy makers in the Department of Education that rather than build new schools, for the last 10-20 years, the Department has been opening afternoon shift schools in the same premises. The poor examination results and school participation in these schools, meant for boys, clearly show how ineffective these timings are for schooling. If, in all these years, new government schools had been built, the current pressure could have been avoided. Instead, precious plots were given to private schools who are ferrying children from elite neighborhoods of UP and Haryana to study in these schools.

One cannot help but be struck by the ways in which Delhi Metro and highways manage to obtain land in highly congested places, where seemingly, no space could possibly exist. The same ingenuity for finding space for government schools would be needed if children in Delhi were to be educated.

In conclusion, it must be remembered, that public spaces are the nearest equivalent of the Common Property Resources of the villages. They are not just spaces for particular use, or revenue; they constitute the soul of the city. Equitable use of these spaces by all citizens builds civic sense, ownership, and ultimately, better, contributing citizens.

In the light of these issues, the recommendations of the Delhi Master Plan (p115) may be modified as follows:

No.	Recommendation as per Draft Plan	Suggested amendment to the recommendation
13.2 i)	Differential norms for educational institutions as per norms of controlling authorities such as UGC, AICTE, CBSE	Subject to a minimum acceptable norm to be prescribed in Master Plan. For e.g., if SSA, a controlling authority, permits no schooling infrastructure under its Education Guarantee Scheme, there nevertheless needs to be regulations to ensure safe, sufficient space where learning takes place. This needs to be spelt out in the Plan
13.2 ii)	Other educational activities may be permitted in school plots after school hours	Subject to the condition that the educational activities are extended to benefit and made affordable for all socio-economic classes of society for whom the school was originally built. In case of private schools, a percentage of children must be from weaker sections. Educational activities must not be for profit motive or commercial purpose. Educational, philanthropic and altruistic ethic must prevail even while classes are made sustainable and economically viable.
13.2 iii)	Educational institutions may be permitted to function in two shifts	Subject to the condition that private schools run at least one shift as per norms for the weaker sections
13.2 iv)	Nursery schools may be part of primary schools and senior secondary schools etc may be permitted in nursery plots as part of mixed land use plots	Provided that the plot is used for purposes of nursery for prescribed time and number of days as determined by the competent authorities for the prescribed number of children for whom the plot has been allotted-that the pre-school children shall have rights of first use of all facilities and only when they do not need it shall it be considered for any other purpose.
13.2 v)	Coaching Centres, computer-training institutes may be permitted in residential plots.	No comment
13.2 vi)	Requirements of schools and training centres for physically and mentally challenged are separately proposed	This must be expanded to provide for teacher training institutions for pre-school, primary, secondary teachers. At present they do not feature in the Master Plan.

No.	Recommendation as per Draft Plan	Suggested amendment to the recommendation
13.2 vi)	Requirements of schools and training centres for physically and mentally challenged are separately proposed	This must be expanded to provide for teacher training institutions for pre-school, primary, secondary teachers. At present they do not feature in the Master Plan.

Differential norms for educational institutions may be applicable in the light of norms of controlling authorities.



ENDNOTES

¹ Although 3 years has been used here to indicate beginning of pre-primary stage, it is well acknowledged that early childhood care and education needs begin with pre-natal care and from birth. At this stage, health and care issues are not separable from education and cognitive development. The cruciality of this stage has been accepted by Delhi government, whose Social Welfare Department has Creche and day care schemes. Space planning for these units does not feature in either education or social welfare. Neglect at early years will prove costly for the child in later years.

² DISE, Delhi, 2004

³ Is it a coincidence that the drop out rate from I-VIII is 52%. Source: GOI

⁴ Satyapal Anand case in Supreme Court, 2000

⁵ In 2002, it is learnt that the LAC for schools received 72 applications for procuring plots of land for starting schools in Mayur Vihar Phase III. 13 applications were for government schools and the remaining from private societies. When eventually land was allotted, only one plot of land was allotted to government school and remaining 11 plots went to private schools. Even then the school could not be built as it was discovered that the plot was situated on a piece of land was in land prone to waterlogging. Since private schools mean high fees, schooling facilities for the marginalized groups become lesser and lesser. Recently, a suggestion has been made that 40% of plots must be kept for government run schools. The Master Plan needs to clearly articulate its strategies to fulfill Constitutional obligations and the CMP.

⁶ An interesting example of public-private maintenance sharing: DPS RK Puram and a government school stand side by side. The DPS management requested the Education department to hand over part of the government school grounds to DPS which will develop the land and both sets of children, from government and DPS may benefit. The government agreed. Today, there is a swimming pool and playground in that plot, for use only of DPS students, where government school children are not allowed in. A wall has been built to ensure this! This experience also has implications whenever mixed land use and land sharing is being advocated.

Criminalising Electricity Supply in Delhi

Rajiv Kumar

On the 8th of April 2005 the DDA released the Draft Master Plan 2021 (MPD-21) for Delhi. It states that Delhi's requirement of power in the year 2021 as tentatively estimated by Delhi TRANSCO Limited (DTL) would be 8800MW. The estimate is based on the 16th Electricity Power Survey of India, Central Electricity Authority (CEA). However, the National Capital Region Planning Board (NCRPB) anticipated that the demand will be 14211 MW. The Ex-Chairman and MD of Delhi TRANSCO Ltd. Shri Jagdish Sagar opines that the basics of the demand projected by the NCRPB are not known and it seems wildly unrealistic although he admits that in recent years the actual requirement has not necessarily kept pace even with the CEA's projections.

The MPD-21 mentions that the additional power requirement would be met through local generation and the allocated share from the grid system. The concerned agencies need to augment the power supply and improve the transmission and distribution system. At present only 40 per cent of Delhi's demand is met from local and dedicated generation sources, while the rest is met by the Northern electricity grid. The state-run Rajghat Power House, Indraprastha Power Station, Gas Turbine Station, Pragati Power Plant and Badarpur Thermal Power Station together produce 1,400 to 1,500 MW for Delhi, while the rest is supplied by four 400/220 KV grids each at Mandola, Bamnauli, Bawana and Samai Pur. Of the two page write up on power in the draft MPD more than half is devoted to emphasize the use of low energy consuming gadgets and non-conventional energy sources like recovering energy from sewerage, solar energy for street lighting, lighting at public places, open areas, traffic signals, hoardings etc. and the designing of buildings that reduce the demand for power to the point where it becomes economically viable to use energy from renewable sources.

The Draft MPD suggests that power generation be privatized with the Delhi Electricity Regulatory Commission (DERC) in a regulatory role to control tariff structures and other aspects. Nothing seems to have changed after two years of privatisation of the Delhi Vidyut Board (DVB) and little



has been learnt from this experience. Things were expected to improve after private players were given the task of manning Delhi's power utilities. According to a report in the August 2004 issue of The Frontline private distributors had surplus power to draw from. So, why then is the city without electricity? The inhabitants of the National Capital Territory of Delhi have reeled under power cuts every summer for decades. *"Of late, we have been under drawing power from the northern grid for the city's consumption as we have sufficient power on our plate. Barring occasional disruptions at the grid end, plenty of power is available for Delhi throughout the year, but if it still fails to reach the consumers then it is largely the fault of the distribution companies,"* said S.R. Sethi, Director for Operations, TRANSCO. It has also been observed that in the event of energy shortage the distribution companies/DISCOMS shed the loads of the lower tariff consumer and maintain the supply to the higher paying consumer.

In the reform process for the power sector in Delhi, the DVB was unbundled into three private distribution companies (NDPL & BSES Yamuna & BSES Rajdhani), one generation company (GENCO), one transmission company (TRANSCO) and the holding company i.e. Delhi Power Company Ltd. (DPCL). This happened in the year 2002. 51% of the shares of the NDPL and BSES are with the private partners i.e. TATA in case of NDPL and Reliance in case of BSES and the remaining 49% is with the DPCL of the GNCT of Delhi. At present there is no documentation regarding the details of the various commitments made by the Delhi Government. and the distribution companies. Hardly anything is available in the public domain and neither does the MPD throw any light on the various burning issues related to the privatization process. This information is crucial for understanding the performance of private companies and its implications for the consumers especially those on the lower end. TATA and Reliance had initially bid below the minimum reserve price so their bidding was rejected. Later on instead of holding fresh bids, the involved parties entered into negotiations. After six weeks of bargaining they agreed on modified loss reduction targets. The requirement for reduction of AT and C (aggregate technical and commercial) losses was diluted to 17% over a period of five years. The Comptroller and Auditor General (CAG) in its report for the year ending March 2003 observed that significant modifications and additions were made in the transfer scheme. The audit said that changes were not submitted to the competent authority i.e. the Lieutenant Governor (LG) of Delhi for approval. The

modifications should have been re-submitted to L.G for approval. The CAG report suggested that the government might obtain post-facto approval of the L.G. to the modifications made in the transfer scheme. So how can this deal be valid without the sanction of the L.G? According to the CAG, the dilution of loss reduction targets has caused a loss of Rs 3,928.70 crores to the TRANSCO. The Government privatized DVB on the grounds that it was making huge AT and C losses and then pays crores as commission to the private companies for recovering arrears from it. The DISCOMS are given a commission of 20% for recovery of past DVB receivables in addition to covering the cost of recovery. The accumulated receivables from the DVB period were estimated to be Rs. 3740 crores. Out of this a substantial amount is direct payment due from the Government of Delhi.

DVB in a petition in Feb. 2001 to DERC admitted that it does not have accounts (audited or unaudited) for 1998-99 and beyond and further that there is no fixed assets register. Hence the basis of arriving at the final figure of Rs.3,160 crores could not be verified. So, isn't it a serious matter that the regulator/DERC abdicated its responsibility. On what grounds did the DERC waive the requirement of audited accounts and fixed assets register?

A loan of more than Rs.3450 crores was given by the Government to DTL to provide subsidy during the transition period of 5 years. At present the DTL buys electricity at the rate of Rs.3.60 per unit and supplies it to NDPL for Rs.211.56, BSES Rajdhani for Rs.207.78 and BSES Yamuna for Rs.156.47 per unit. By this rate the citizens of Delhi, through taxes, subsidize the DISCOMS by more than Rs. 1 crore every four days. The question here is how will the DTL repay the loan? What would happen after the transition period? Would there be a tariff shock? The tariff has already been hiked thrice after privatisation. The tariff hike last year, after taking into account the withdrawal of subsidies, was of the order of 25 percent and not 10 percent as claimed by the DERC. DERC also clubbed the lowest category of 100 units with the next highest one. This in effect has increased the tariff by 33 percent for this group.

The manpower strength of BSES has come down to 6000 from 13000 at the time of privatisation. The ostensible purpose was to reduce the wage bill that was allegedly high due to excess manpower under the DVB. But then why is the company reemploying the retired employees, making fresh recruitment and outsourcing works?



As far as the electrification problems of slums, JJ colonies and the unauthorized colonies are concerned, the MPD-21 mentions it in just one sentence saying that they will be provided electricity through single point connections. DERC in an order dated 26th March 2004 outlined the following scheme for electrification of JJ clusters.

- (1) The consumers' share for the cost of electrification, including HT lines, distribution transformers, other equipment and service line charges shall be Rs.1200/- per consumer.
- (2) The consumer will pay 50% of these charges, i.e. Rs.600/- at the time of connection and the balance 50% shall be payable in 24 monthly installments of Rs.25/- each.
- (3) In addition to the cost borne by the consumer for the infrastructure, for the energy consumed, every consumer will pay Rs.175/- per month or any other sum as may be determined by the Commission from time to time.
- (4) The consumer shall also deposit Rs. 350 per connection towards Security Deposit (generally known as Advance Consumption Deposit) which shall be refundable.
- (5) Initially, the service line will be laid by the licensee. In case, the service line is burnt/damaged, the same shall be replaced at the consumer's cost.
- (6) Electricity to the consumer would be controlled through a 2 amp MCB, installed at the distribution transformer.
- (7) The licensee shall also provide a master MCB at LT side of the transformer to save it from overloading/burning. This master MCB shall remain in the control of the licensee.

All this raises the question that till when shall the 30 lakhs residents/citizens of Delhi living in slums be discriminated against? Why does the DERC want to leave them with a criminal system of electricity supply through the *thekedars*. The contractors often run away after collecting money from the colony. The residents have to live without power in such cases because the DISCOMS ask them to repay the installation charges. Why these recurring charges for the poorest of the poor? Why is the Draft Master Plan silent on this?

(with inputs from K. Ashok Rao)

Planning for Water in the Draft MPD-2021

Mrinalini Goswami

In a recent survey of 27 million plus Asian cities Delhi was ranked as one of the worst performing metropolis in terms of hours of water availability per day. According to some estimates, over 13% of households in Delhi do not receive water every day.

Delhi receives 23000 lakh litres of water from the Yamuna, the Western Yamuna Canal, the Ganga and rainfall. 42% of the total water supply is from ground water. The chief source of water in Delhi is the river Yamuna on which a dam was constructed in Wazirabad to supply water to the entire city. A lesser amount of water is also arranged from ranney wells and bore wells. DJB serves a total population of nearly 14 million through 1.47 million water connections. DJB's water resources consist of both surface and ground water. Unfortunately, all the water thus supplied from various sources is able to meet only 45% of Delhi's total demand. The shortage of water was 85.5 crore litres in 1990-91 and 148.5 crore litres in 1999-2000.

Government agencies put the onus of water scarcity in Delhi on high levels of non-revenue water consumption and technical and commercial losses – estimates of which range between 40-50%. Some blame rapid increase in population. Some say there is scarcity of resources while others focus on iniquity in distribution.

How much water do we need?

As per the Government of Delhi, every individual should be supplied 315 litres of water everyday. But how much water is actually needed and how much is being provided? A survey conducted by Sajha Manch in 1998 in 15 sub-standard settlements across the city revealed that the residents of these settlements were satisfied with 90 litres of water per capita per day. Another study by TRIPP - Hazards Centre among 3000 DDA flats' residents showed that the middle class families living in these flats were satisfied with a per capita daily water supply of 110. The moot point is that if the available water is distributed equally, every person in Delhi will get more than 250 litres of water per day. But the problem is that posh

areas like Defense Colony, Greater Kailash, Delhi Cantt. and Golf Links etc. are provided with a daily supply of more than 450 litres per person. On the other hand, the Trans-Yamuna region with 25% of Delhi's population gets only 2% of total water supply in Delhi. Out of 593 unauthorized colonies only 316 are covered with water supply lines. There is no specific time and duration of water supply in these areas. Public taps provide about 15-18 litres (1-1.5 buckets) of water per person in J.J Colonies. Two thirds of the population in the city receives less than 37 litres (2-3 buckets) of water everyday. The residents of J.J. clusters, resettlement colonies and unauthorized colonies meet their requirements from hand pumps and bore wells.

Water and Delhi Master Plan

In the Delhi Master Plan 1962, the target for water supply was 160 million gallon per day (MGD) and the actual supply in the year 1962 was 90 MGD. But in 1981, the actual supply (253 MGD) exceeded the target (250 MGD). Again in 2001, the supply of water was 650 MGD while the target was 1024 MGD. In MPD-2021, the target supply for the year 2001 has been kept at 919 MGD. The requirement of water according to the norm of 70 gallon per capita per day has been and will be as follows:

Year	Required water supply as per the norm of 70 gpcd	Actual Supply
1962	230	39%
1981	496	51%
2001	1096	59%
2021 (projected)	1840	???

✍ The goal of water supply for the year 2021 should be 1840 MGD; but the Draft MPD-2021 plans to increase the supply from the present 650 MGD to 919 MGD in 2021. This will be done through augmentation of the existing treatment plants. There is no provision for setting up a new plant. In this case, how will we get the extra 921 MGD of water?

✍ The MPD-2021 continues with the norm of 360 lpcd water supply but puts the minimum entitlement at 135 lpcd. Even with this reduced norm it will not be possible to supply adequate water to everybody if the posh colonies continue to get over 450 lpcd water supply.

✍ The draft MPD-2021 states that half of the supplied water at public expense is not accounted for. It further states that unrecorded usage, or illegal taps and water connections will be checked to reduce losses. But it does not identify the reasons for water theft. Nor does it say anything about the rich illegally drawing huge quantities of water for their so-called farm houses.

✍ The Yamuna riverbed should be zoned as water portals, so that these will be flanked with greenery, farmlands and forests. What could possibly be achieved by removing slums and allowing Akshardham and Commonwealth Sports Complex on the riverbed.

✍ The draft MPD-2021 has stated many alternative methods of water conservation and management but there is no specific plan to harness the benefits of any of these.

Problems with Water Supply in Delhi

✍✍ The actual water supply available to the residents of sub-standard settlements is meagre sporadic and discriminatory.

✍✍ No new water treatment plant to meet the required quantity of water.

✍✍ Leakages in the existing water supply pipes which make the way for the contaminants to enter supply lines.

✍✍ Public services should always be demand oriented; but in Delhi, water supply is supply oriented.

✍✍ The force at which water is supplied is so low that sewage ingress from the neighbouring sewer line takes place very often.

✍✍ The supply of water doesn't follow specific timings.

✍✍ The water distributed from DJB bore wells and tankers is of poor quality.



~~✍~~ The quality of the water supplied does not conform to the drinking water standards.

~~✍~~ Inadequate supply of treated water compels people to use the untreated contaminated groundwater, which makes them vulnerable to various health hazards.

~~✍~~ The privatization of the service will increase the cost, which will force the poor to use the untreated water available to them.

~~✍~~ The falling ground water level in Delhi has become a matter of serious concern due to which quality of ground water is deteriorating falling in many places.

TRANSPORTATION IN THE DRAFT MASTER PLAN FOR DELHI 2021

Dinesh Mohan

Overall approach

The transportation policy presented in this document is largely based on the possibilities of increasing supply of mechanised transport without any empirical or theoretical analysis of the present situation. For any logical plan formulation the following data should be available:

- a. Time series of the travelling patterns of citizens of Delhi.
- b. Distribution of government expenditure on different transportation infrastructure projects over the past twenty years.
- c. Changes in vehicle composition and use.
- d. Provision of public transport services in Delhi.
- e. An understanding of the people's ability to pay for transport based on household income.
- f. The proportion of Delhi Government budget that can be/should be spent on provision of transportation services in Delhi.
- g. A summary of successes and failures of different transportation policies in the different megacities of the world.
- h. Modal distribution of trips including the following details
 - i. Different income segments of the population
 - ii. Length of trip
 - iii. Purpose of trip
 - iv. Sex and age
 - v. Trip chain characteristics
 - vi. Cost per trip

The document at hand does not present any of these data nor does it give any indication that the policies presented are based on an in-depth analysis of such facts available to the policy makers. Therefore, we are



left with an impression that the policies presented are based on hunches of a few people preparing the document. It is a piecemeal approach giving more of the same without any analysis or justification. Because of this the policies presented are disjointed and at times in contradiction with each other. Since there is no attempt at a financial or economic justification of projects proposed, there is no guarantee that the plan is practical or viable.

The plan proposals or statements are frequently preceded or followed by phrases such as:

- ...may be considered
- ...may be explored
- ...may be examined
- ...designs geared to maximum usage considering past experience will need to be developed...
- ...wherever possible/feasible...
- ...authorities should take appropriate measures...

Use of such language is a clear indicator that the authors of this document really do not know the way ahead and resort to fuzzy and ambiguous statements. In this sense this document is hardly a “policy” or a “plan”.

SPECIFIC ISSUES

Data

Wherever data are presented in the report no references are given, and so it is difficult to check the accuracy or the authenticity. The report mentions that Delhi had 32.38 lakh vehicles in 2001 and many calculations seem to be based on these numbers. However, a recent Government of India report by a committee chaired by Dr. R.A. Mashelkar has questioned the authenticity of the vehicle registration numbers in Delhi and estimated the number of in-use vehicles to be 19.2 lakh.¹ This indicates that the vehicle population is overestimated in this report by about 69%. This is a huge discrepancy and any plan made on unreliable numbers cannot be very useful.



Based on the increase in number of trips between 1981 and 2001 it is estimated that the total trips will rise to 280 lakhs by 2021 of which 257 lakh will be motorised and 23 lakh non-motorised.² No rationale or justification is given regarding this projection. Nor is it indicated what these numbers have been used for in preparing the transportation plan.

PEDESTRIANS, CYCLISTS AND RICKSHAWS

Pedestrians

The section preceding the one on transportation is on Urban Design. In this section on urban design special mention is made regarding discouraging private vehicle use and provision of pedestrian facilities:

- ? “Delhi with huge intra trip lengths and increasing number of personalised vehicles few imperatives cannot be ignored for its sustainable and healthy growth. Such as more dependency on efficient, convenient and safe modes of public transport, linking large number of work centres with residential areas and overall disincentives for private vehicle ownership (emphasis added).”³
- ? “Pedestrian friendly city...Pedestrian networks affect spaces in a very distinctive way. Establishment of pedestrian networks in any area reveals its vitality.”⁴

Further, the report states that in addition to a desirable increase in public transport use there will be “pedestrianisation and properly planned (*sic*) use non-mechanised transport systems in specific areas”.⁵

However, the main thrust of the report is toward provision of a large MRTS system, expressways, tunnel roads, grade separated junctions and elevated roads. It is clear that the needs of pedestrians are not taken seriously and any mention of facilities for them is for cosmetic purposes only. The authors do not seem to understand the very basic concept that 100% of the citizens of Delhi are pedestrians at sometime or another and that every single neighbourhood and road of the city needs pedestrian facilities, whereas every location may not need facilities for motorised transport.



The plan is silent on the problems faced by the pedestrians today and inadequate road designs in use today. The plan must include principles that need to be established for pedestrian facilities on all kinds of roads and minimum space that needs to be allocated for the same along with guidelines for minimum budgetary provisions.

Bicycle and Rickshaw facilities

The authors of this report have taken the approach that “Bicycle/Cycle Rickshaw could be an important mode of travel, particularly with reference to short and medium trip lengths. To the extent that it meets individual or public transport requirements, it is a non-energy consuming and non-polluting mode of transport”. But then they go on to say that:⁶

- ? “With mixed type of fast moving traffic on the roads, safe travel by bicycle could be risky for the rider and use of rickshaws not feasible or desirable”
- ? “...unlimited and unrestricted use of this mode (rickshaw) has a direct relationship with migration into the city and the phenomenon of JJ Cluster/Slums”

Based on these assumptions they propose that:

- ? “Wherever feasible fully segregated cycle tracks should be provided along selected traffic corridors...”
- ? “...cycle tracks should be provided at the sub-arterial and local level roads and streets”.
- ? “Cycle rickshaws should ply within the residential areas only and not on major roads”.
- ? In general no cycle tracks on arterial roads
- ? “...wherever possible a separate cycle track should be provided” on primary collector roads.⁷
- ? “As far as possible segregated pedestrian/cycle movement should be planned ... by providing exclusive pedestrian pathways/cycle tracks” on local streets.⁸



The comments and policies enunciated above are ample proof that the authors of the report:

- ? Have very negative attitudes toward non-motorised transport.
- ? Consider the migration to Delhi of rickshaw drivers undesirable but do not discuss the consequences of migrants who will come to build all the flyovers and expressways.
- ? Do not accept that bicycle and *thela* / rickshaw use is common on all roads of Delhi
- ? Do not realise that as far as road design is concerned the bicycle trip length is irrelevant as bicycle facilities have to be provided continuously along the entire length of the road.
- ? Do not understand that in general rickshaws can operate wherever cycle facilities are provided and do not need to be restricted to residential areas.
- ? Seem to be completely ignorant of the internationally accepted guidelines regarding norms for provision of bicycle facilities. They have got their policies upside down:
- ? We don't need segregated bicycle tracks on local streets. Bicycles are expected to mix with other traffic on local streets with proper provision of traffic calming.
- ? It is not a question of "wherever possible". Bicycle facilities need to be provided on all roads where vehicular traffic is expected to have speeds greater than 30 km/h. In particular, it is essential that segregated bicycle tracks be provided on all arterial roads where speeds are likely to be 50 km/h or higher.

The provisions for pedestrian, bicycle and rickshaw facilities in the current draft are unscientific and unacceptable. The Plan should be revised to include pedestrian and bicycle facilities on all roads according to internationally accepted criteria for the same. A time frame with budgetary allocation must be included.

Public Transport

The Draft Plan assumes that provision of MRTS will solve all problems of Delhi and seem to be ignorant of all the international literature on experiences of different cities in provision and use of public transport. They state that the MRTS system will be 250 km in length by 2021 and will carry 108 lakh passengers per day.⁹ They go on to propose more corridors and state that “It is expected about 60% of the urban area will be within 15-minute walking distance from the proposed MRTS stations after its full development.” They also relegate the bus system to serve mainly as a feeder system to the MRTS. The following data seems to have missed their attention:

- ? Mexico City (population 10 million) already has 201 km of metro rail and it is the cheapest in the world, but it carries only 14% of all trips, whereas buses and minibuses carry 66%.¹⁰
- ? Research studies show that proximity was perhaps the strongest determinant of a resident’s likelihood of riding rail transit. Distance has a strong effect on the likelihood of rail commuting at the worksite-end of a trip. Research allows for some generalized conclusions about pedestrian access to transit. Between a distance of 0.8 and 2.4 km, the proportion of transit riders who walk to or from transit steadily decreases and rail’s modal share falls about 1.1 percentage point for every 30 m increase in walking distance to stations up to a distance of 1.6 km.¹¹ Data from Netherlands suggests that the ridership starts declining from a distance of 150m and 500m should be considered a reasonable catchment radius for a walking trip to the station.¹² For the bus, tram and metro, mean access and egress times have been found to be 5.9 min for walking, which translates to an average distance of 393 m to the rail or bus station.¹³

Quite obviously, the policies proposed are not based on any hard data or experience and the projections unrealistic. With walking times of 15 minutes at each end for only 60% of Delhi’s population, it is clear that after spending thousands of crores and waiting for another 15 years, the MRTS will not be used by a majority of Delhi’s population.

The Draft Plan is even more ignorant about the concept of High Capacity Bus Systems (HCBS). It is stated that “Wherever possible, within the existing right of way of arterial/primary roads, dedicated bus ways should



be developed which may be used for high capacity buses.”¹⁴ The authors seem to be unaware that the concept of HCBS, also called Bus Rapid Transit, has little to do with bus size. HCBS is a very modern transit system using dedicated lanes for buses with efficiencies of computer optimisation, IT systems, signal synchronisation, and specially designed bus stations that gives super efficiency and increased throughput matching metro systems at 1/10 to 1/20 of the cost.¹⁵

This section is so weak that the only comment we can make is that it needs to be rejected outright and rewritten giving a more logical place to bus transport.

Roads

The section on roads proposes a massive building programme:¹⁶

- ? “Vehicular routes carrying heavy volumes of traffic will generally have free flow conditions”.
- ? Extra “Urban relief roads” to be built along drains or other sections as elevated roads or with grade separators. This after saying that “roads already occupy 21 percent of the total area of the city, which clearly limits the potential for increase in road length.” They recognise that despite all the road building congestion has increased in Delhi. However, they contradict themselves and propose more roads.
- ? It is proposed that under ground roads need to be built to “reduce congestion and level of pollution”! This is one of the more outlandish suggestions. It is not explained where they intend to take the emissions from cars in tunnels underground. Neither is there any discussion on cost implications.
- ? Grade separators, clover leafs and left slip roads are proposed on major roads.

The section on roads treats road building as an end in itself to provide uninterrupted flow for cars. The authors don’t explain why it is necessary to provide all these facilities if their objective is to discourage use of private transport. Neither do they consider the effect of such development on city character, life style and city budgets.

Summary

The Draft Master Plan section on Transportation has been written without any vision for what Delhi needs and is very anti public transport, walking and bicycling. It is very weak on evidence, logic and ignores all Indian and international experience on how cities function. The whole section must be rejected and rewritten with following guidelines:

- ??The plan must include principles that need to be established for pedestrian facilities on all kinds of roads and minimum space that needs to be allocated for the same along with guidelines for minimum budgetary provisions.
- ??The provisions for pedestrian bicycle and rickshaw facilities in the current draft are unscientific and unacceptable. The Plan should be revised to include pedestrian and bicycle facilities on all roads according to internationally accepted criteria for the same. A time frame with budgetary allocation must be included.
- ??This section on Public Transport must take into account current international experience and rewritten with realistic budget framework giving a more logical place to bus transport.
- ??Road construction and improvement must be proposed such that public transport users, pedestrians and bicyclists are given the importance they deserve.
- ??All proposals must be justified with available scientific evidence.
- ??It must be demonstrated technically that the proposed transport plan will benefit children, the elderly and women. It must be shown that the proposals will end up reducing pollution, accidents and carbon emissions.



ENDNOTES

- ¹ Expert committee on auto fuel policy. *Urban road traffic and air pollution in major cities: Volume 1*. 1-395. 2002. New Delhi, Government of India.
- ² Section 12.0
- ³ Section 11.4
- ⁴ Section 11.7
- ⁵ Section 12.0
- ⁶ Section 12.6
- ⁷ Section 12.3.3
- ⁸ Section 12.3.4
- ⁹ Section 2.4
- ¹⁰ Schipper, L. Sustainable Urban Transport: Progress in Mexico City and Potentials for China. International Mayors Forum on Sustainable Urban Energy Development, Kunming, P.R. China, 2004.
- ¹¹ *Transit, Urban Form, and The Built Environment: A Summary of Knowledge (Volume 1, Part I)*. TCRP Report 16, Transportation Research Board, National Research Council, National Academy Press, Washington, D.C. 1996.
- ¹² Pettinga, A. Design Criteria and Model Split in Dutch Residential Areas. De Bilt, The Netherlands, Grontmij Consulting Engineers, 1992.
- ¹³ Krygsmana, S., Dijsta, M. and Arentzeb, T. Multimodal public transport: an analysis of travel time elements and the interconnectivity ratio. *Transport Policy*, 11, 265–275, 2004.
- ¹⁴ Section 12.5.v
- ¹⁵ Fulton, L., Hardy, J., Schipper, L. and Golub, A. *Bus Systems For The Future: Achieving Sustainable Transport Worldwide*, International Energy Agency, Paris, 2002.
- ¹⁶ Section 12.3



Space for Waste

Comments on the Draft Master Plan for Delhi 2021

Bharati Chaturvedi

The Draft Master Plan for Delhi 2021, prepared by the DDA, covers a range of issues, including aspects of Solid Waste Management and Recycling. It has particularly suggested recycling as a way to handle waste and stated that ragpickers/wastepickers be included in the local level segregation (point 14.6.2). Chintan has examined the plan from the perspective of the Municipal Solid Waste (Management and Handling) Rules 2000 and from the Zero Waste Perspective, an understanding that is increasingly gaining ground internationally, apart from the perspective of the recycling sector that drives recycling in India, comprising ragpickers, *kabaris*, *thiawalas* and others. Additionally, we have used the approach of Reduction, Reuse and Recycling in our analysis. We have also placed the issue within the framework of recycling, undertaken by the informal sector. This is particularly significant for Delhi, where every one in a hundred persons earn a livelihood through recycling in some way or the other.

General Comments

????The Draft MPD 2021 lays out waste generation as an exponentially increasing inevitability. In fact, it projects that in 2021 the infrastructure must be able to handle 15750 Metric Tonnes (MT) of solid waste daily. It is now well known and appreciated that waste must be handled as follows:

- i Through the reduction of waste by encouraging and mandating strategies such as composting (which would have taken care of at least 60% of the waste generated),
- ii Through the recycling of such items that can be recycled (such as paper, glass, some plastics, metals etc.). This is expected to be as high as 24% during the Master Plan period.
- iii The rest, which is approx. 15% of the waste, mostly inert, may be disposed in landfills.

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The Draft MPD approach to waste overall has clearly recommended recycling as preferred to disposing waste in landfills. This is clear from point 14.6.5, which mentions this explicitly. Hence, it is important to remember that recycling must be read as synonymous with the ragpicker and the *kabaris* or waste buyer, since that is the chain operative in India.

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The *dhalos* and segregation spaces should be converted into Integrated Waste Management Units/Zero Waste Units, comprising the *dhalao*, space for segregation and the *kabaris*. Since the Draft MPD specifically mentions recycling, ragpickers, *kabaris* and segregation as desirable elements in various chapters, this must be actively reflected in the space allocated to them. There is an urgent need to allow for their work and create their forward and backward linkages in the Master Plan. This can be done through the provisions provided in the Draft MPD 2021 as follows:

- i Table 4.2 Infrastructural Requirement for Layout at Residential Neighbourhood level : In Section (e) on utilities, item 15, '*dhalao* including segregation' must include space for *kabaris* as essential linkages in recycling. The *dhalao* in fact should be designed as integrated Waste Management Units. This already fits into the mandate of the Draft MPD as it says, in the notes below table 4.2, that space for *dhalao*s, including facility for segregation of biodegradable and recyclable waste should be provided. (point iv). See recycling section below for more suggestions and details.)
- ii Table 5.8.1 Norms for Service Markets and Organized Informal Bazaars : The *kabaris* are mentioned as part of the Informal Bazaar. However, they will be more appropriately placed in the Service Market as they are permanent in nature since waste is generated daily and must be recycled daily. Hence, *kabaris* must be seen in that manner. The number required for 5-lakh population and 10,000 population is given in the recycling section below.
- iii In the same, a crucial element has been omitted. These are the *thiawalas*, who operate during office hours and collect paper etc. from offices, assisting in massive recycling and remaining self-employed. They too must be allocated space of 1 person per 100 offices/establishments, requiring a non-constructed space in commercial and office areas.

- iv In the note accompanying Table 5.10, it is mentioned that utility centres are to be provided within the plot. These should include space for segregation.
- v In Table 13.2.3, educational facilities are mentioned. These must also contain the Waste Management Unit, as educational facilities are significant generators of waste and pressurize the surrounding facilities.

? There is frequent mention of incinerators as one way of waste handling. Incinerators are in contravention of several international conventions, including the Stockholm Convention. Incinerators are also known to be the biggest pollutants in multiple ways. They are the single largest source of dioxins, which is one of the deadliest chemicals known to mankind.

? Various chapters, such as those on Plan Monitoring (Chapter 18), in Table 18.1 mention monitoring the framework for development. In the sub Table II for Physical Infrastructure, there is no detail of what Municipal Solid Waste comprises. It should include the complex described above.

Reduction

There is only a single mention of the term 'reduction' of waste, in the end of Chapter 14, point 14.6. Reduction is vital to waste handling. This is urgently required because according to the projections of the Draft MPD the amount of waste generated will go upto 15759 tons/day by 2021. The Draft MPD also says that disposing this in landfills is also difficult on account of pressure on land. These are just some pointers towards the crisis of waste, as expressed in the Draft MPD.

In order to reduce waste, composting by any means must be encouraged. This requires the allocation of land for secondary segregation and composting and allied activities, such as sieving and storage. The draft MPD 2021 has made available a number of spaces for centralized composting, to the tune of 17.3 ha. However, there is the need for space to be made available locally, to enable recycling at the community level and save centralized transportation etc.

Such space must be made available near parks, *dhalaos* and within



existing colonies and must be reflected in the Master Plan. This will also reduce the pressure on landfills as the need for centralized land for dumping will reduce. For this to happen decentralized land for composting is required.

The prepared compost will have to be picked up and used by the various agencies, such as the MCD, NDMC and DDA in their parks. Manure from other sources may be procured only if required to supplement this compost or if the compost falls short of requirement. There is clearly a market available since the Draft MPD says there is a 19% green cover.

Landfills

It is significant to note the citing of the 12 new landfills proposed, of approx. 265 hectares and the 4 additional new ones listed. All of them are very close to dense human settlements. In fact, with the exception of Jaitpur, the rest are being proposed in the same locations where slums are being proposed to be relocated or have already been relocated. This points to forcing a double burden on the residents, who are known to be both very poor and vulnerable. The first is the shift out of their homes, far away from their work to inhospitable and underdeveloped areas. Secondly, the burden is one of contamination and pollution from landfills. As is widely accepted, landfills severely contaminate the ground water, which is also an important source of water in these resettlement areas. Moreover, they also cause air pollution and severe odours, which can impact health. Hence, citing landfills here amounts to consciously putting human health at stake.

It is also noteworthy that by applying the draft MPD's own calculations, only 38% of the total waste, i.e., 5985 MT will comprise silt and will require to be landfilled. The remaining can be composted or recycled. Hence, the large spaces allocated for landfills may be in excess.

Recycling

Both the MSW Rules 2000, as well as provisions of Zero Waste clearly advocate recycling. In the Draft MPD, there is inadequate provision for segregation and recycling. It has been mentioned in the Draft MPD that segregation must be carried out in the dhalaos or in earmarked spaces near them. In this case, it is suggested that the space for the *kabaris* is

also located nearby, since the wastepicker must sell segregated waste to a close by dealer, without waste being transported after segregation, for fear of being mixed up again.

Since, in India, recycling is almost exclusively carried out by the informal sector of wastepickers and *kabaris*, it is imperative that they be provided for. *Kabaris* are provided for in sections related to informal markets. This means that the provisions for the sector has been made only in the commercial centre, whereas their services are required in other areas as well.

However, the informal bazaar format is inadequate since it does not provide for daily workspace, as required by the *kabaris* or junk dealers. Besides, the space provided is 0.1 ha for the various operators in this informal bazaar. The *kabaris* sector requires 0.03 ha for every 100,000 population. The overall requirement of the sector is as follows:

Category	Norm per 100,000 population	Guidelines
Waste pickers	215	Each waste picker handles 60 kg of waste per day and requires 60 sq ft of space near the dhalao for segregation.
Other workers	90	Each worker requires 125 sq ft of space near the kabari godown for segregation as well as road space for transportation.
Small kabaris	6	3000 sq ft has to be allotted in a shopping centre to each small kabari for segregation and storage of about 1500 kg of waste, and shelter for workers.
Thiawalas	33	Thiawalas are located near markets and commercial centres and each thiawala collects waste from 100 shops and establishments daily.
Big kabaris	1.5	The big kabaris need storage space of 60,000 sq ft for roughly 60,000 kg of waste which they collect weekly from the small kabaris.



In Chapter 3, Section 3.3.2, point 7, it is suggested that public and semi-public uses and services must be either retained or additional sites be indicated for these. The list may include space for the work of wastepickers and *kabaris* through segregation and recycling.

Transportation

There is no provision for non-motorized forms of transportation for the waste recyclers. A study reveals that :

??The waste pickers who operate on foot are largely able to carry less than 40 kg of waste on one trip, operate within a range of 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 same percentage of rickshaw operators load between 40 to 100 kg in one trip, but travel 10-15 km.

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. The ability to enhance earnings is also, therefore, dependent on the mode of transport that the waste picker is able to use.

Hence, it is clear that provisions for non-motorized vehicles from the point of primary collection to the *kabaris*' shops are essential. From the point of the *kabaris*' shops, motorized vehicles are used due to the volumes involved.



MPD- 2021 on Environment Commodifying Common Resources of the City

Dunu Roy

The Chapter on Environment in the Draft Delhi Master Plan 2021 is a peculiar mixture of incomplete fact and unverifiable fiction. It begins by attributing the degradation of the environment to rampant urbanisation, but does not make the relationship explicit. So, without any analytical basis, it normatively specifies that the natural and built environment will be managed for optimisation, the resources will be conserved, and green areas and open spaces will be developed. But why has this not been possible in the earlier period of “urbanisation”? What will be the factors that will facilitate this rational management in the future? How will the future pattern of urban growth be any different? These are questions that are left begging for an answer.

Thus, the environmental problems with water are attributed to iniquitous distribution, river pollution, deficiency in treatment capacity, encroachment on traditional water bodies, and ground water overuse. But why these occur in the present pattern of urban growth and why the Yamuna Action Plan has failed miserably is not explained. Similarly, air pollution is mainly attributed to vehicular emissions, the growth in personalised transport, and the fact that only 30% of transportation is catered to by 93% of the vehicles, but there is no reference to why the use of CNG and Euro II norms has not brought down pollution levels. Even the declaration of the entire Ridge as a Regional Park has not been able to save it from encroachment, but there is no valid reason given as to why most of the encroachment is by government and elite agencies. In the 2001 Master Plan, as well as the 1962 Master Plan, the urban area was supposed to be surrounded by a 1 km wide green belt, but there is not a word on why it has now disappeared so much that it does not even warrant a mention in the 2021 Plan.

Without going into these details behind the facts, the Plan engages in a series of fictions about how matters may be set right. Thus, the water shortage will be overcome by water harvesting, particularly in the riverbed,



and water, sewerage, and drainage will be “integrated” – whatever that might mean. In fact, the Plan recommends the wholesale “development” of the entire riverbed and riverfront, as part of the vision to build a “world class” city. Air pollution will be reduced by improving the “quality” of public transport, particularly buses, relocating non-conforming industries (even though they are largely non-polluting), controlling pollution from power generating units, and providing for mixed land use. Noise will be reduced by providing “buffers” of public, semi-public, and commercial zones between arterial roads and residential areas, and improving the surface materials of roads – a fairly transparent excuse for commercialising large tracts of real estate. There is not a word about reducing critical factors like domestic sewage and private vehicles, and promoting non-polluting uses.

15% of the urban area (excluding the Ridge) will be set aside for parks and recreation. Since it has been found that commercial use “fouls” such formal green areas, a separate set of “multi-purpose” parks will be constructed for this purpose in every community. What will happen to the subsequent “fouling” of air water and noise has been left unsaid. Perhaps as part of the strategic perspective of the “world class” city, sports facilities have now been removed from the category of “green” uses. This may sound good to nature lovers (particularly of the car-driving, dog-walking, and fat-reducing kind) but, in fact, it marks out a larger commercial agenda of converting the entire city into an arena for international sports and tourism – including events such as the Commonwealth Games and, perhaps, the Olympics.

In sum, the chapter on environment has little to do with protecting and conserving nature’s bounties while providing a decent life for the city’s inhabitants. It has even less to say on how the environmental issue has been used in the recent past to inflict a series of miseries on those same inhabitants – from the uprooting of livelihoods and homes to the dislocation of public transport and commodities. It, in fact, surreptitiously puts forward an agenda for transferring huge amounts of public money and resources into private pockets.



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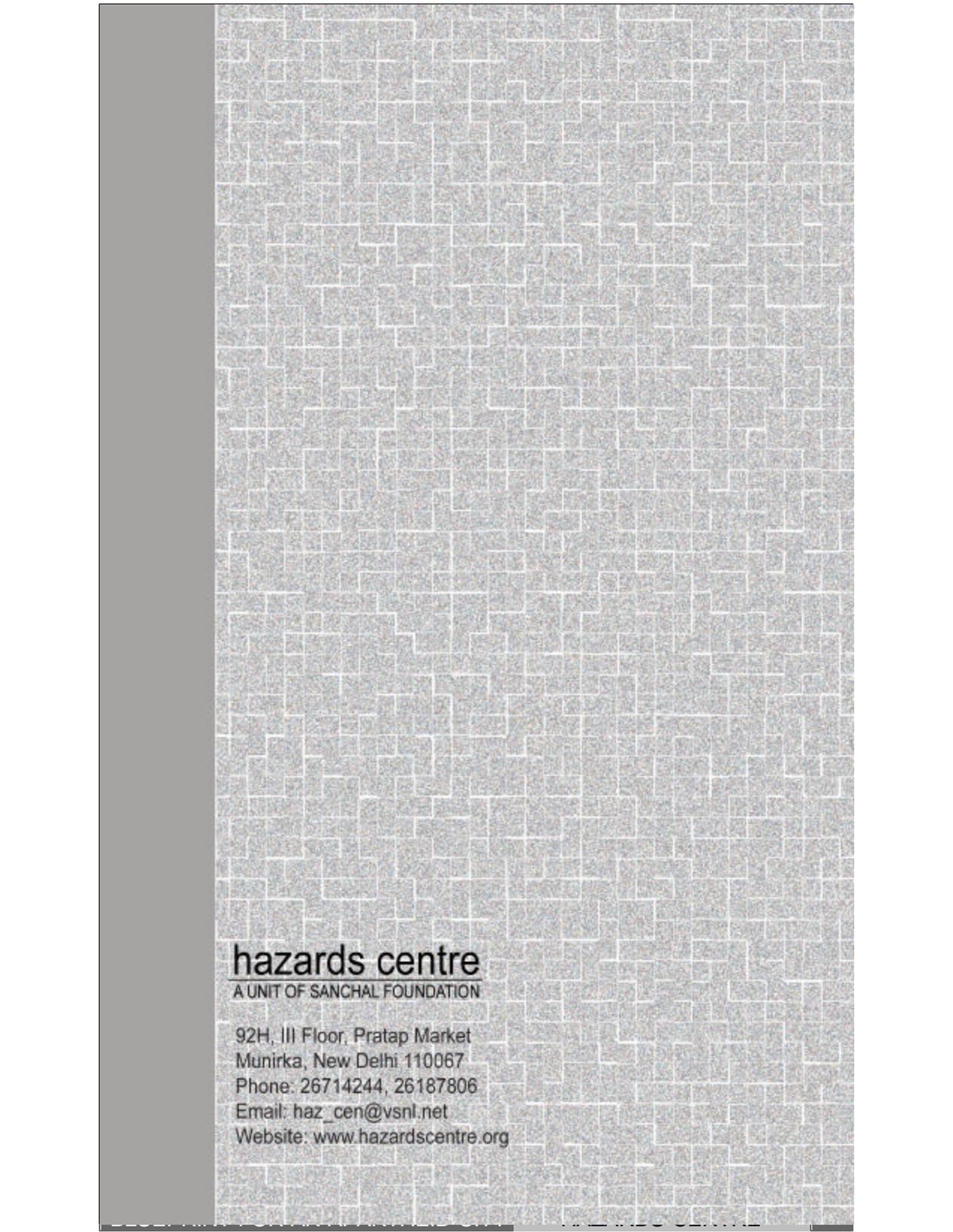
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