

*Draft for Discussion*

# Delhi Citizen Critique of the City Development Plan

*Facilitating National Urban Renewal Mission  
in Delhi*

Monday, 18<sup>th</sup> June 2007, 10:00 am to 2 pm  
Casuarina Hall, India Habitat Centre  
Lodhi Road, New Delhi 110003

Compiled by



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## TABLE OF CONTENTS

<b>Program Schedule</b>	<b>5</b>
<b>Contributors</b>	<b>7</b>
<b>Preface</b>	<b>9</b>
<b>Chapter 1: Urban Poor and Slum</b>	<b>11</b>
<i>Dr. Renu Khosla (Centre for Urban and Regional Excellence)</i>	11
<i>Ms. Shipra Bhatia and Mr. Dunu Roy (Hazards Centre)</i>	16
<b>Chapter 2: Conservation and Heritage Management</b>	<b>21</b>
<i>Mr. Jagan Shah (Architect and Historian)</i>	21
<i>Prof. Nalini Thakur (School of Planning &amp; Architecture)</i>	26
<i>Mr. Ravi Kaimal (Kaimal Chatterjee &amp; Associates)</i>	28
<b>Chapter 3: Water Supply</b>	<b>31</b>
<i>Prof. Subir Paul (Eco Group)</i>	31
<b>Chapter 4: City Sewerage System</b>	<b>39</b>
<i>Prof. Subir Paul (Eco Group)</i>	39
<b>Chapter 5: Solid Waste Management</b>	<b>47</b>
<i>Ms. Bharati Chaturvedi (Chintan Environmental Research and Action Group)</i>	47
<i>Dr. Satpal Singh (PRLA)</i>	52
<i>Prof. Subir Paul (Eco Group)</i>	53
<b>Chapter 6: Road Network and Transport System</b>	<b>57</b>
<i>Ms. Alpana Kishore (New Delhi People's Alliance)</i>	57
<i>Prof. Dinesh Mohan &amp; Prof. Geetam Tiwari (TRIPP, IIT-Delhi)</i>	60
<b>Chapter 7: Review of Urban Finances</b>	<b>63</b>
<i>Mr. Abhijit Roy (Independent Consultant)</i>	63
<i>Dr. Satpal Singh (PRLA)</i>	75
<b>Chapter 8: Community Consultation</b>	<b>77</b>
<i>Prof. E.F.N. Ribeiro (Partner - Frederick Ribeiro Associates)</i>	77
<i>Mr. Sanjay Kaul (People's Action)</i>	83
<i>Mr. Makarand Bakore (Centre for Civil Society)</i>	84
<i>Dr. Sudeshna Chatterjee (Kaimal Chatterjee &amp; Associates)</i>	86
<b>Chapter 9: Concluding Remarks</b>	<b>89</b>



## PROGRAM SCHEDULE

Monday, 18<sup>th</sup> June 2007, 9:45 am to 2 pm  
Casuarina Hall, India Habitat Centre, Lodhi Road, New Delhi 110003

Chair: Prof. Shreekant Gupta, Delhi School of Economics

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9:45 Registration

10:00 Welcome address Prof. Shreekant Gupta

10:15 **Panel 1: Urban Poor and Slums**

Mr. Dunu Roy Hazards Centre  
Dr. Renu Khosla CURE

11:00 **Panel 2: Water Supply, Sewerage & Drainage, Solid Waste Management**

Prof. Subir Paul Eco Group  
Ms. Lavanya Marla Chintan

11:30 **Panel 3: Urban Transport, Conservation & Heritage Management**

Ms. Anvita Anand TRIPP, IIT-Delhi  
Ms. Shubru Gupta Conservation Architect

12:00 **Panel 4: Urban finances, Institutional Reforms & Community Consultations**

Mr. Abhijit Roy Independent Consultant  
Dr. Satpal Singh PRIA  
Dr. Sudeshna Chatterjee Architect and City Planner

12:30 **Audience discussion**

1:00 **Closing remarks** Prof. Shreekant Gupta

1:10 **Lunch**

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## CONTRIBUTORS

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*Draft Critique of the Delhi CDP for discussion*

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## **PREFACE**

There is no doubt that there is very little participation of the citizens of Delhi in the planning of their city. Be it the Master Plan of Delhi 2021 or the City Development Plan (CDP) under the National Urban Renewal Mission, the story is the same. There is lack of transparency in the plan as well as no institutional space for citizens to have their voices heard.

The Delhi government has held a single consultation with civil society organisations and activists regarding the making of the CDP. This was done before the CDP was made. No consultations have been made on the CDP itself. To bridge the distance between the citizens and the government, the Delhi Citizen Critique of the City Development Plan has brought together the views of some experts and activists on the Delhi CDP. This Critique makes no claims of it reflecting the vision of all the citizens of Delhi. On the contrary, it is the first step towards bringing about effective consultations on the CDP. We hope that the government uses this as a starting point and takes this process forward so as to ensure that the CDP reflects the collective vision of the citizens.

There may be arguments against the suggestions made by the experts in these pages. But that is besides that point. What is important that all voices are heard with sincerity and effort is made to reach consensus and acceptable trade-offs.

After this program of 18<sup>th</sup> June'07, this draft Critique will be updated with the suggestions made by the participants. We welcome comments on the CDP from more experts for the Critique.

We hope that this initiative leads to a more participatory approach from the Delhi government in the months to come.



# CHAPTER 1: URBAN POOR AND SLUM

*A Critique of Chapter 6 and associated sections in other chapters of the City Development Plan*

## **DR. RENU KHOSLA (CENTRE FOR URBAN AND REGIONAL EXCELLENCE)**

Preparing a CDP for Delhi is as challenging as Delhi itself and to find solutions to problems of slum dwellers and poor people on a city wide scale is a complex task. The writers of Delhi CDP have however, over simplified and telescoped concerns of the poor and slum dwellers to primarily lack of housing /shelter with some conventional solutions to address the problem. For an out of the box and futuristic thinking a more focused analysis of vulnerabilities in the context of Delhi would have helped.

### **I. Data inconsistencies; why more precise data would have been important in planning**

Data sources for slums and poverty used in the CDP are old, confusing and not well triangulated. For e.g. Census data on urban poor is a reported 10.02% having declined from nearly 50% in 1973. Income data on page 6-2 suggests nearly 75% in slums to be poor. At 21.4lakh slum population (Table 6.4, and assuming that this data from MCD is accurate), an estimated 16lakh people should be below the poverty line, or nearly 14% of the total Census population in 2001. MCD Slum Wing data puts the population in slums at 30lakhs for 1998-99, which implies 25% people to be slum dwellers and a much higher poverty figure.

Number of slums in 2001 is reportedly declined from 1084 in 1994 (MCD, page 6-6) to 728 due mostly to slum relocation. However, for the same year i.e. 2001, NIUA counted and mapped 1192 slum settlements under its Primary Education Enhancement Project suggesting a108 missing slums in the MCD records.

For investment planning to be on course, it is important for data to be reviewed/ updated to current levels/ reconciled to arrive at a ball park number which should form the basis of investment assumptions. Under counting skews planning and underestimate resources required for the task.

It would have been useful for the CDP consultants to hunt for more accurate data bases available with other institutions such as NIUA, CURE, DJB.

The CDP is hugely biased towards slum redevelopment with little attention to poverty issues, even though these numbers have been crunched upfront in the chapter.

### **II. Sketchy analysis; why this misses vulnerabilities of poor and slum dwellers**

Except for crunching numbers, there is very little qualitative analysis in the CDP on how poor live in slums, in particular vulnerabilities from lack of secure tenure. For e.g., in Para 6.6.4 average users per stand post is reportedly twice the norm of 150. However, the NSDP norm is 50 users to one stand post and DJB norm is 100 users. Using accurate base figures suggests that the vulnerability is much deeper. Further, the CDP fails to analyze quality of supply – duration, timings, pressure, potability, time spent in water collection, burden of water collection on women /children, opportunity losses from water collection especially

children missing schools etc. Also missed in the analysis is the environmental impact of poor waste water drainage or solid waste disposal, or lack of toilets. Table 6.6 indicates just 22% access to piped supply in JJ clusters and 10% for sewerage.

A superficial understanding of vulnerabilities is possibly the reason for maintaining the inequity in service provisions in Delhi, with poor being offered /provided common facilities such as community toilets and PSPs where as the rest of the city gets in the house services. CDP may have liked to use the vulnerability definition developed by NIUA and adopted in the Tenth Five Year Plan to tease out some of the vulnerability issues.

### **III. Revisiting norms or Business as Usual**

JNNURM is an opportunity to change the quality of lives of slum dwellers and poor people. However, we seem to be missing the chance to break the poverty cycle by the very conventional approach adopted in the CDP.

There is no attempt in the CDP to challenge old provisos of common services to the poor that maintain them in poverty conditions and despite the evidence of poverty reduction from slum upgrading projects that have provided in the house services (Khosla et.al). The Economics of Resettlement, SANEI, 2005; [http://www.saneinetwork.net/research/sanei\\_VI/abstract12.asp](http://www.saneinetwork.net/research/sanei_VI/abstract12.asp)), and demand from people for metered services/connections and expressed willingness to pay reasonable amounts for these services.

From the CDP it is not clear, but I presume that slum upgrading investments (in situ upgrading and resettlement) have been based on common services at norms set in the 1980's when the first slum development projects were started on a pilot basis. Besides common services maintaining poverty and slummy conditions of poor settlements, that it will be 'business as usual' is clear from the fact that 44/47<sup>1</sup> resettlement colonies are also included in slum upgrading!

As part of the proposed 24x7 water supply project for Delhi (now shelved), CURE had developed an incremental ladder of services (acceptable to DJB under a study supported by WSP) enabling poor to move up the value chain of services – from common (1:100) to small group, paid, shared connections (1: 5) to individual metered connections. This also included building upon the investments in piping by people themselves to bring water supply closer to homes and reduce the drudgery.

### **IV. The Relocation Story: Fait accompli, mind sets, distancing from livelihoods**

That urban poor /slum dwellers must be relocated seems to be the theme running through the chapter and the section is dotted with instances that reflect that the dialogue has been dominated by service providers (Box 4, analysis by area of land under slum occupation- Tables 6.4 and 6.5; 'Three pronged strategy adopted by GOI for dealing with the problem of slum clusters - 6.9.2; and "it is very difficult to get encroached land pockets completely vacated – page 6-13, so forth).

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<sup>1</sup> Both figures are included in the CDP



Far site relocation is a major economic shock for households who lose access to livelihoods. However, they obviously have no voice in assenting to or selection of sites for relocation (see map at fig 6.2). Bulk of the slums has been moved to the city periphery and to sites that are nearly 30kms from the original location.

Data on migration reported on page 6-2 indicated that 38% families have come to Delhi in search of work. (If we assume the remaining are second and third generation settlers- the numbers could be much larger). Relocation therefore distances people from their livelihoods. Yet the proposals suggest that relocation will be a major strategy followed in slum upgrading. Although the salient feature of Relocation and Resettlement programme (6.9.2) is “to be carried out for only those clusters that are required by the land owning agency for projects of larger public interest”, CURE noted in the SANEI study that most of the evacuated land was converted into public parks.

Other issues vis-à-vis relocation, unaddressed in the CDP are:

- **A plan for livelihoods of the resettled people.** The CURE-Sanei study found that incomes of relocated families decreased in real terms following relocation in Delhi and families would require between 2 and 3 years to recover from the shock and re-establish income levels).
- **Ensuring continuity in education and access to health care.** Once again the study showed that school dropouts increased in the post resettlement households- bulk of who were unlikely to resume schooling. Although the CDP mentions these issues it fails to take note of these in the final recommendations.
- **Un-developed sites with development plans in pipeline at time of relocation.** In their urgency (!) to relocate families are moved as soon as land pooling arrangements have been finalized. There is no preparatory period during which areas are serviced with proper facilities. Temporary services such as tankers for water supply, mobile toilets, limited bus services, are provided and no dispensary, school or PDS shops etc. are set up. This adds to poor people’s hardships and they now have to cope both with lost livelihoods and poor quality facilities.

CURE’s experience of working with relocated slum dwellers in Savda Ghevra under CM’s Bhagidari with slums – The Sanjha Prayas initiative suggests that these areas are already ‘slummifying’ without access to proper drainage or sewerage or SWM facilities.

There is no statement on how this will be addressed.

- **No support for housing reconstruction – credit.** Relocation requires families to rebuild their housing. There is however no technical or financial support planned for this in the CDP.
- **Size of plots offered too small to construct HH toilets:** The size of the plots provided 12.5m square is too small to build a toilet in. There is reference to UNCHR guideline of 40m square. Does the CDP suggest change in plot sizes? If so what is the size recommended? At least a size that allows the poor to construct HH facilities and reduce demand for 1200 community toilet complexes proposed under the CDP.

- **Tenure for 5-10 years:** Relocation has not meant security of tenure for residents “lease period of around 80% dwellers at relocation sites has expired (6.9.3).” This implies that people will hesitate to invest in improvement of their dwellings. There must be clear policy suggestions on this which can be taken up under the Reforms agenda.
- **Families ineligible for relocation:** Nearly half the slum families appear to be ineligible for resettlement. What are plans for these families? Do we allow them to densify other slums? How will these families get serviced? This also indicates that the numbers of slum households whose housing needs require to be addressed may be much larger.
- **Relocation proposals in Chapter 18:** A back of the envelope calculation suggests that there is plan to relocate about 45000 slum households and 13510 (page 18-17, B and D iii). This is the entire (and much more) remaining households as per MCD estimates for 728 clusters. Does that mean in situ upgrading will be just an eye wash in a few pockets?

**Infrastructure investment in 11 existing relocation sites (Page 18-17 D):** Does this mean that relocation has happened sans infrastructure?

#### **V. Livelihoods, health care, education: No place in the CDP**

Even though JNNURM clearly indicates that no livelihoods or that no infrastructure investment in health services or education services will be supported under the Mission, these issues need to be addressed and strategies suggested on how these could be managed through convergence and cooperation with concerned agencies /programmes.

#### **VI. What has worked and why? Review of programmes**

Programmes for slum upgrading /poverty alleviation have been listed with achievements/salient features. The CDP should have done a more in depth analysis of what has not worked and why? Such an analysis would have been useful in redesigning schemes and reengineering processes. Only quantitative analysis of achievements is made, both technical and financial and referred to as performance!

#### **VII. Demolitions without resettlement: what happens to such households**

Another issue that has been left untouched in the CDP and key reason for the densification of slums still to be developed/resettled.

#### **VIII. Legislations**

The CDP has not taken cognizance of the Supreme Court guidelines /legislations that look upon a slum dweller as a ‘thief’ and have restricted the level of interventions for the poor. It is imperative that this issue be examined as this is likely to have serious implications in implementation of the CDP proposals.

#### **IX. Proposals sans Rationale**

Some proposals have no rationale – for e.g. transit camp sites 10 in case of in situ development. Does this mean that the state will be approaching this on a war footing? How many settlements are being planned for in situ upgrading with housing? In any case poor people have cooperated in moving to a small corner of their settlement while upgrading is



underway – MCD should have been able to vouch for this experience from their 3 upgrading projects.

What gives us the confidence to believe that MCD will now undertake in situ upgrading rather than relocation? This policy was part of their existing three pronged strategy but in all these years only 3 projects have been done.

**X. Inflated investments**

Why 1200 community toilets? Are we able to provide more than 1 in a slum area as number of remaining slums are just 728 and many already have toilets? What about these existing toilet complexes and their rehabilitation? What about household toilets? If these will be developed/supported then why so many new toilet complexes? Obviously some of these must be for market complexes. If yes, why include in slum development and inflate level of investment?

**XI. Old resettlement colonies must be treated under mainstream development**

Why include old resettlement colonies under slum development? These are areas that are now networked into the city. Only slums and poor households within these colonies need to be focused upon. These settlements must be 'de notified from the slum list and investments in these areas must not be seen as investments in slum development.

**XII. Night shelters**

Total number of pavement dwellers and homeless people are estimated at 100,000. In addition, large number of male migrants lives on the streets. With an additional 5 night shelters proposed, the total number of shelters will be 15. Is this adequate for the estimated population? What about alternative strategies to address homelessness as part of poverty alleviation?

**XIII. EWS housing: exclude the poor**

EWS housing that takes the larger share of housing investments is not targeted to the slum dwellers or the poorest. This scheme has several qualifying criteria that are exclusionary. Unless the scheme is revamped and made more poor friendly – resources allocated for the poor will leak to the non poor groups.

**XIV. Summary of Costs: Percent share of poor in city resources**

Urban poor and housing proposals make up 16% of the total investments planned in the city. This amount is inadequate because:

- Numbers of poor /slum dwellers is higher
- Upgrading these sites will require more investment as there has been nil investment in these areas to date.

In case upgrading proposals for resettlement colonies (now integrated with the city/no longer deemed as slums) is subtracted then the %share of poor in the city will be much less.

**XV. Missing strategies**

The CDP is about data and proposals – it has overlooked strategies and processes which is what the vision of JNNURM was.



**MS. SHIPRA BHATIA AND MR. DUNU ROY (HAZARDS CENTRE)**

**Delhi – City Development Plan and Master Plan**

**Comparison between private and public sector approaches to the urban poor**

Urban planning is supposed to sub-serve the public good and anticipate future problems, as the city grows, thus incorporating potential solutions into the plan itself. Earlier, in Delhi, city planning was undertaken by the Town and Country Planning Department directly under the urban local body. Subsequently, in the mid-1950s, this function was transferred to the Delhi Development Authority (DDA), that reported to the Central Urban Development Ministry. Currently, there is an attempt to entrust private corporate consultants with the task of developing comprehensive urban plans. Thus DDA has prepared the Master Plan for Delhi 2021 (MPD) spanning a period of 20 years, while the Delhi City Development Plan (CDP) has been prepared by Infrastructure Leasing and Financial Services (IL&FS) Ecosmart for a 7 year period. This paper attempts to compare the decisions and decision-making processes of public and private institutions regarding the development of Delhi, with particular reference to the problems faced by the urban poor.

The MPD is essentially a spatial planning exercise that provides for specific land uses and lays down the development controls for different sectors. On the other hand, under the Jawaharlal Nehru National Urban Renewal Mission (JNNURM), the CDP should be a more comprehensive vision document that subsumes the MPD and lays down the direction in which the city would like to move. Theoretically, therefore, there should be no inconsistency between the MPD and the CDP.

The CDP gives a perspective for the future development of the city. Strategies proposed for the urban poor in the CDP have to be obviously based on assumptions, observations, sample studies, and consequent generalizations. The strategies for the poor should ideally be based on proper facts and figures and supported by case studies. But, in the absence of any studies and surveys, it is difficult to discover the basis for the assumptions and observations underlying the CDP. In fact, a close reading of the document reveals more about the biases of IL&FS Ecosmart.

Thus, the CDP proposes to spend just 18% of the total budget on the poor. When 85% of the poor live in unauthorised settlements, 52% have no access to permanent source of income, and there are 1 lakh homeless people, would an 18% allocation be sufficient for the needs of the poor? The CDP gives no justification for this. The consultants have not even bothered to provide the exact number of poor and migrants in the city. Women fare even worse as they do not manage to find any mention in the CDP, forget about any constructive plan for them.

The CDP mentions migrants as a very important element in the developing economy but at the same time it is alarmed by the large influx of low quality manpower from neighboring states, particularly since 80% of the migrant population is employed as petty



traders or vendors or contractual labour in the manufacturing sector. Are the consultants then concerned only with the skilled migrants who can work in the high tech sector?

According to the CDP, the focus should be on IT, BPO etc. But this is clearly to serve the needs of the international economy rather than teeming multitudes of the workforce, which has to be integrated into Delhi's overall economy. The CDP only wants to focus on the lead sectors of the economy. Why should planners analyze only the lead sectors of the economy? What about the other sectors of the economy? How can any city ignore the vast segment of people who are self employed or in the informal sector? Though there is a passing mention of the informal sector in the CDP, no plan/policy consideration has been proposed.

In a city like Delhi, where there is massive unemployment, focusing just on GDP and not analyzing the impact of this 'high growth sector' on the poor is not a very sensible approach. A city is not just run by the service sector, manufacturing has a more crucial role to play in value addition. The MPD at least suggests that industries that require less energy should be promoted. But it also considers the informal sector as a very important source of employment and services in the economic fabric of the city. Thus, space for hawkers is to be earmarked and weekly markets planned and developed. Informal shops, weekly markets, handicrafts bazaars, used books and furniture units, facilities for building materials are to be developed.

The MPD further proposes to ensure informal trade units at the time of sanction of building plans. New areas for informal trade are to be developed and integrated with housing, commercial, institutional and industrial areas. Provision of common basic services like toilets and water points are also proposed. The MPD mentions that informal trade units and weekly markets are to be made wherever necessary. But the CDP relies mainly on the spin-off effect of the high income generating activities on the unorganized sector, rather than coming out with any concrete plan.

The average monthly salary income of poor households ranges from Rs1500 to 2500. Nearly 52% of the poor do not have access to dependable occupations and secure incomes. Yet the CDP expects the poor to "contribute" Rs7000 for relocation to a plot over which they will not hold title. How does this justify the entire logic of beneficiary contribution? The CDP proposes to give subsidies to a limited extent under relocation but why should no subsidy be provided to slum dwellers in case of in-situ development? Also the CDP makes no suggestions or alterations to the government policy that says 'past encroachments (before 1990) would not be removed without providing alternatives'. Where will people who have built their houses after 1990 go? The details of how many people are to be rehabilitated or relocated has also not been given. It is also not clear what strategy is going to be employed to provide decent living conditions for the poor.

The CDP insists that "granting of outright ownership at a price below market value is unsustainable" (Pg 17-16). Is there any study to prove this? The CDP gives primacy to pricing of houses, as demand for houses at a very low price will be infinite. To contain the demand of houses for poor the price should be able to balance demand and supply. At the same time it mentions that housing supply to other segments of the population should be stepped up in order to ensure that the houses for the poor remain with them. This indirectly



amounts to say, 'make more houses for the rich and less for the poor'. The CDP absolves the government of providing safe shelter to all the urban poor, while the MPD proposes mandatory provision of viable and economical EWS housing and/or slum rehabilitation in group housing. It also suggests housing for the urban poor to the extent of 50-55% of the total.

The CDP proposes to use land as a commercial so as to attract private builders. This trading of urban land will lead to reduction of open spaces in the city and will increase commercial areas in the city. This will also lead to a steep hike in property rates and private developers will force slum dwellers to evacuate. Poor people will eventually have to succumb to such powerful market forces. 'Modern' residential and commercial areas, with the displacement of poor from prime real estate by businesses and commercial establishments symbolizes the vision of Delhi in a global hierarchy leaving its poor far behind. In contrast, while the MPD also solicits private sector participation for housing for the poor but it also qualifies that by emphasising the co-operative resettlement model where tenure rights are provided through co-operative societies.

The objective of the CDP, it seems, is to expose the providers of public services to the dynamics of the competitive market. The reform of public services along market lines is based on the notion of changing the present dismal reality of service provision. But the reform is more formal than real when only the face of the organization is changed by de facto privatization, while the real needs and concerns of poor are not addressed. Moreover reforms that are outside this paradigm are neglected, like giving more voice to the poor, accountability of service providers, participation on a sustainable basis, regulating the non-government/private sector etc.

The CDP classifies the usage of water in 3 categories: domestic, non-domestic and non-domestic (hotels, cinema halls etc). Will be poor or those living in squatter settlements be clubbed with residential colonies? The CDP proposes to make the water tariff structure self-sustainable. Who will pay how much? Will everybody get metered water? How will the cost recovery mechanisms be strengthened? Water privatization, by its very market logic, will result mainly in the poor being forced out of the formal supply system. The CDP wants to set up a water tariff commission to make the tariffs acceptable to the people. What does this mean? What strategies will it use to make people toe the line?

With the State retreating from several areas of public service provision, other actors such as NGOs, CBOs, and private sector are being promoted by the CDP to take its place. No justification has been provided by citing the actual performance of these groups in providing better services to citizens, especially poor people. It is not mentioned how much will be charged for these services and whether it is affordable to the poor. Privatization per se without stronger and effective government will not help poor people. In fact it will lead to further deprivation of basic services in the concerned areas, as profit-seeking organizations will abandon those who have no paying capacity. In fact, the CDP goes as far as to state that the future population should be toned down according to the available infrastructure. Does that mean that the poor will be thrown out to make way for a more affluent lifestyle?

The MPD follows a slightly different line from the CDP with regard to basic amenities. It lays emphasis on energy conservation, and exploitation of alternative sources of



energy. It tries to promote low cost sanitation systems, bio-drainage, drainage to be integrated part of road development plans, sub-wells under flyovers to tap rainwater etc. It recommends strict pollution control measures and eco sensitive land use controls and use of alternative and decentralized methods of waste treatment.

There is a provision of safe and efficient public transport in both the CDP and MPD but the CDP gives more emphasis to metro, light rail, monorail, and high capacity buses. Though the number of slow moving vehicles is on the increase, no details have been provided. For smaller distances people in Delhi do travel by cycles and on foot, but the consultants have almost discarded the possibility of cycles (by calling them a menace), and pedestrianization of roads has been given a very low priority. The MPD, on the other hand, lays emphasis on economical commuting with a choice of multimode transport on cost effective technology. It wants to evolve a policy linking registration of new vehicles to availability of owner parking facility in order to discourage private transport. But the CDP comes out with no solution as to how private usage of vehicles is to be dissuaded.

The CDP remains silent on certain important sectors such as health, education, employment etc, without which this document has little relevance for the majority of the citizens. Even if these important components are not admissible for funding under JNNURM, the inclusion of their infrastructural requirements would have led to convergence and a more comprehensive planning for the city. Thus, the CDP is basically a vision document of the private consultants with no relevance to the grassroots realities. With negligible participation by the poor, it does not reflect their real needs and concern. With no adequate representation from labor and poor migrants it clearly reflects a middle class bias. In contrast, the MPD has an element of public interface, with some scope for public suggestions and objections, periodic reviews and close monitoring, and it does reflect some of the concerns of poor, though in a limited manner. DDA has time to time asked for, which made it participatory compared to CDP.

This is not to suggest that the MPD is a great pro-poor document. But it at least manages to provide a semblance of a human face to reforms with some regard to social inequality, whereas the CDP does not even pretend to do so, treating everybody equally as a consumer. But it can be seen that the DDA as a public sector body is catering to the minimal needs of poor, unlike the private consultants IL&FS Ecosmart who prepared the CDP. In conclusion, therefore, it is very strongly urged that the CDP, and the JNNURM on which CDP is anchored, should be rejected outright and replaced with a more democratic and accountable system of planning which addresses the needs of the urban poor in a holistic manner.





## CHAPTER 2: CONSERVATION AND HERITAGE MANAGEMENT

*A Critique of Chapter 7 and associated sections in other chapters of the City Development Plan*

### MR. JAGAN SHAH (ARCHITECT AND HISTORIAN)

#### Summary of the main points:

1. The authors of the CDP display lack of understanding of complexity of heritage conservation & management, resorting instead to jargon and tendentious reasoning.
2. There seems a deliberate attempt to not deal pragmatically and sincerely with issues like capacity building, which are critical to the process of conservation.

The CDP does not recognize that the biggest problem of conservation practice today is the lack of local professionals that can supply the conservation practice with requisite manpower. A significant reason for this is that the only institution that offers a post-graduate degree in this field in India is the School of Planning & Architecture in New Delhi, which has a department of ‘architectural conservation’ and **not** of heritage conservation ‘management’ or ‘planning’. I teach in that department, and I am aware that it would be Delhi’s good fortune if even two out of the 6-7 graduates of the programme annually will work in Delhi. That gives us, over fifteen years, about 30 trained professionals. And I withhold comment on the **quality** of those graduates.

I have looked at relevant portions of the following chapters: 5, 7, 14, 17, 18, 19 and 20. My comments are of a preliminary nature, as it has not been possible to review the entire document in detail. However, these chapters are crucial to the CDP, and the shoddiness that marks the sections relevant to Heritage Conservation might pervade the whole document.

From reading the parts relevant to the subject, it seems that the CDP for Delhi is an effort to garb an unexplained, almost covert, plan for capital expenditure and development-as-usual in the language of reform that has been engendered by the JNNURM as yet another jargon. There seems no real commitment to reform, but there is a song and dance about it. In this regard, it is shocking that a document that can have a profound effect on the future of the city should assume that the 74<sup>th</sup> Amendment will **not** be implemented in Delhi till the year 2021. This seems to be a tacit assumption in the document, and as such has a negative bearing on the future of heritage management in the city, subject as it is to the control or influence of 14 government departments and agencies and 6 civil society organizations. The 74<sup>th</sup> Amendment is the only tenable reform of the system, where the existing management framework “is characterized by administrative and technical sectorisation of responsibilities.” The listing of INTACH as a civil society organization that is crucial to the task at hand is evidence of how the ethos of free and fair competition still refuses to find footing in our governance. If INTACH is indeed an authority that must be consulted on such matters—whereas INTACH, it should be noted, is essentially an organization that networks local heritage activists, and it co-opts outside professionals to do the little thinking that it actually performs—then it must be by **law**, not because it is enshrined by prevailing **practice**. Who

will explain to the authors of the CDP, supposedly knowledgeable about reform, the difference between such basic concepts?

The importance of Conservation & Heritage Management in the future of the city has been undermined by the clear lack of understanding of the authors of the report about the complexity of conservation practice and the ways in which this activity is related to all the systems of the city. For example, while acknowledging the need to enhance the tourism potential of the built and natural heritage and the need to build capacity, the authors of the CDP do not display any real appreciation of how this can be done.

The conservation areas of Delhi occupy a sizeable chunk of the city—and would cover more if the conception of what constitutes heritage is brought in line with contemporary world understanding; specifically with respect to modern heritage, of which Delhi has world-class examples in large numbers. In general, the document suffers from the artifice of all such reports, which are not investigative—as they should be, considering they are ‘living documents’—but are verbose smokescreens for intentions or procedures that are difficult to justify.

Despite the number of pages expended on the subject, Heritage Conservation & Management really amounts to only 2 percent of the overall CDP budget. Of 1263 crores over the next fifteen years, a sizeable part will be expended on two extremely contentious projects—the ‘revitalization of surroundings of Jama Masjid’ (234 crores) and ‘revitalization of inner (old) city area’ (440 crores)—for which cash flows have already commenced. The fact that a sizeable part of these budgets hide the high amount of fees paid to consultants—about 334 crores on ‘management plans’ and ‘strategies’—is itself hidden from public scrutiny. The fact that devising the management plan for the project is a significant component of such projects, where the expenditure is virtual, is also hidden from the public, which is instead told that the government is looking at options for community participation and so on, the feel-good components of the heritage racket. If examined for such ‘community friendly’ and ‘public-private participation’ components, these projects will come out poor, for they eventually amount to consultancies paid to ‘conservation architects’, a new breed that has suddenly mushroomed in India, with very little actual experience but plenty of urban development funds and conservation projects—mostly feel-good largesse from the government—to sustain their practices.

Needless to say, ‘capacity building’, which is the most important component of heritage conservation and management, is given short shrift in the document. Of total 1263 to be spent till 2021, 49 crores will be spent on ‘capacity building’ programmes (and this estimation is based on my understanding of what constitutes ‘capacity building’; the CDP itself spends 14 crores on ‘capacity building’). A negligible amount is to be spent on it till 2021, whereas it is the cornerstone of the city-level heritage management that is required and envisaged. ‘Capacity building’ is still being seen as essentially training masons to do traditional brickwork and carvers to carve jalis, which is a far sight from the actual understanding of this. It is **the city itself**, and all its systems, that need to build capacity for managing its built heritage, and this has implications for its policies on transportation, public space management, private-sector participation, urban legislation and policing (to name a



few). In typical textbook fashion, the CDP is able only to mention natural features (like forests) as **contexts** for built heritage. This is a result of planners imagining the city only in the form of two-dimensional maps, not as economic entities.

The capacity building aspect is very critical because even in the best case scenarios, the city must invest a large amount in building capacity and in simply managing heritage sites, whereas the returns from that investment take time coming and can never match the investment, except when the private sector is strategically brought into the equation. This needs to be a transparent part of the plan, but isn't in this case; mainly because the authors are spewing the logic of economic planning—because it is a smokescreen—but not applying their minds to it. Thus, even though sustainability and Operations & Maintenance are trumpeted as concerns, the returns from such investment are not even worked out, even though there are numerous models around the world that can yield figures about the immense revenues that can be generated from heritage management. Singapore is a very close example, a city economy that runs on its 'modern heritage', and all the world cities like London, Paris and New York are other models. Heritage management is no longer rocket science, but it needs a knowledge of and appreciation of complexity—social, cultural, economic and political.

Thus it seems a joke when the CDP mentions providing trained professionals to help the owners of heritage properties to retrofit their properties. Laudable goals, but noses dug into the ground as usual. When it is being recognized throughout the country that we are increasingly short of trained professionals that can do a good job, the CDP claims that about 14 crores over 15 years will do the trick. This is a ridiculous misreading of the needs and constraints of the situation.

### **In Chapter 5, 'Land Management and Urban Growth' of the CDP:**

Fig 5.1 shows zones D and F and recommends 're-densification of the zones with low density and high land value', which include R K Puram, Lodi Colony, Laxmibai Nagar and Moti Bagh as 'low density areas' meant for densification (Listed in Section 5.4). The CDP recommends raising the FAR according to MPD 2021, but it does not acknowledge that in effect, this would mean the replacement of the entire housing stock built by the central government during the 1950's and 60's. It is critical to note that simply because INTACH is yet to recognize 'modern heritage' as a component of its agenda, although UNESCO has done so worldwide, such areas do not attract the attention of the so-called conservationists of Delhi. From an architectural heritage point of view, these areas contain some gems of modern architecture in India, but due to such oversight, we are likely to lose it all.

This is not surprising, because the understanding of what constitutes Delhi's heritage is itself so shallow, as evident in the very first section, where the sole exception to antiquity (which is supposedly post 13th century!) in the heritage of Delhi is the 'Garden City of New Delhi'. Thus, understandably, the buildings of Zones D and F will be lost, by design. Similar ambiguity is displayed with respect to the entire Chanakypuri area, where control over land and development is severely cramped by the laissez faire attitude towards the diplomatic quarter. But no heritage regulations.



**In Chapter 14, ‘Review of Urban Finances’ of the CDP:**

It is nowhere noted that tax breaks to owners of heritage properties are one of the most effective and essential incentives given by a city government. Given that heritage conservation areas are also areas where there is a large collection of taxes, and should be affected by the JNNURM reform agenda of increasing tax collection to 80%, it can be expected that the authors of the CDP should take it into consideration. It would seem that they are unaware that double-entry book-keeping is an mandatory reform under the JNNURM. But the CDP’s client, the GNCTD, doesn’t seem to care either.

**In Chapter 17, ‘Vision gap analysis [whatever that means: the difference between the nose and what is under it??] and development strategy’ of the CDP:**

The overall vision for heritage management in the city is stated as follows:

‘To reintegrate the natural and cultural heritage of Delhi within the overall development planning process for Delhi, and to ensure environmental up-gradation, enhancement of heritage significance and improvement of the quality of life within the historic areas in a defined time frame.’

This is to be achieved through supporting the development of sustainable heritage management systems and frameworks which ensure a synergy between the activities and responsibilities of various agencies entrusted with the heritage; initiating comprehensive and mutually supportive processes of conservation, restoration, adaptive reuse, environmental up-gradation, heritage tourism and awareness generation, heritage information management and capacity building which will result in the utilization of the latent potential of the heritage resources of Delhi.”

Even the common man will appreciate that such an ambition would cost a lot of money. But the city does not intend to spend the amount required, and as mentioned, will spend half of it on just two projects.

It is not easy to understand why such shallowness is being displayed here. In a document that presumes that Delhi has world-class conservation practitioners and planners, the leading consultant appointed by the Government of the National Capital Region of Delhi for drafting the CDP does not seem to have had adequate know-how. Surprising.

**In Chapter 19 of the CDP, ‘Project and Capital Investment’**

We also have gaffes—I would term it such, although the government likes to say these are trivialities—like the mention of ‘revenue generation’ only once and innocuously in the fourth ‘main strategy’ that the CDP proposes for ‘project and capital investment’ in Chapter 19:

“iv. Strategies for heritage tourism, **enhanced visitor experience and revenue generation**, and awareness generation activities.” [Stresses added]

Unfortunately, like already mentioned, the document uses the jargon of heritage



conservation profusely, without giving us cause to feel confident that there is **real** planning and thought invested in it. For example, only one who knows the practice of conservation, on ground, would understand that all the highlighted portions of the first three strategies mentioned in Chapter 19—

“i. Development of a **Heritage Resource Information Management System** for integration of heritage concerns within the development plans – Master Plan, Zonal, Sub-Zonal, Area Level and **assisting implementation and monitoring processes** [of MPD 2021]

ii. Capacity Building & **Provision of Technical Support** for Conservation & Heritage Management

iii. Area Level Conservation, revitalisation and Regeneration strategies which include **supportive and linked sub-strategies for adaptive reuse**, heritage sensitive infrastructure **up-gradation**, provision of essential community facilities, housing **rehabilitation**, commercial areas, **guidelines for new development in historic areas**, **strengthening of linkages** with surrounding contemporary development”

require a caliber of professional inputs that the city, and even the country, cannot offer at the moment. And it seems unlikely, given the shape of the professional education system in this field, that in the next fifteen years we will have the capacity to have enough professionals to do the kind of micro-level planning and public interface that is required, not to mention the aesthetic and historical and liberal arts education that anybody working in the conservation field must have.

## CONCLUSION

Ultimately, as I had the chance to notice during the Peer Review project at NIUA, the government is actually breaching trust by **not putting its cards on the table**, as indeed is required by the JNNURM process. With documents such as these, it eventually withholds information from the public about what are the real issues, where is the money really being spent and so on. This is more objectionable because when they want to—perhaps, when they **can**—the authors of the document can be more lucid. Contrast the strategies and provisions that have been proposed for ‘Environmental Management’—real, achievable plans and strategies—with the pervasive vagueness of the chapter on heritage conservation, where the two biggest projects are unlikely to meet the criteria of sustainable heritage conservation and management.

It is misleading that the CDP should place the cart before the horse:

“The CDP puts forward a set of inter-related strategies for **ensuring** the integration of these invaluable cultural assets within the **sustainable development process** for Delhi, based on **appropriate, participatory conservation programmes** and **comprehensive heritage management frameworks and plans.**” It is assumed that there are clear criteria for evaluating ‘sustainable’, ‘appropriate’ and ‘participatory’ conservation practices. The correct order of doing things would ensure that conservation management planning precedes or is integral to the planning of the whole city. It may even dictate other planning decisions. But, as we have found recently, the **only** solution that our transport planners could come up with to link the Ring Road and Lodi Road was a tunnel that passes **under** Humayun’s Tomb! Two hurrahs for capacity building!!



**PROF. NALINI THAKUR (SCHOOL OF PLANNING & ARCHITECTURE)**

**JNNURM is a mission under the Ministry of Urban Development and Poverty Alleviation, Government of India that focuses on development of physical and social infrastructure, civic amenities and other utilities, strengthening local governance and bringing in transparency and accountability.**

We accept that JNNURM has tremendous potential for the city and the chapter is examined to see if it meets the objectives of the JNNURM. The critique is done with the understanding that Delhi's heritage is irreplaceable and the projects recommended should be able to be translated on ground in a way it maintains the values and significance of our World Heritage City. The contents will be measured with respect to the impact each aspect will have on the heritage resources when proposals / projects are taken through within the existing administrative context. The chapter is well written and readable. However raises many questions and concerns outlined below.

The Delhi City Development Plan is a wonderful chance for experts and technical professionals in the field of Heritage Management to integrate heritage processes and projects adding value to the city management through innovative, sustainable and meaningful ways that will safeguard its heritage values and integrity. Having been part of the heritage movement of the city in the past, there are great expectations from this chapter.

Will this chapter proactively help to take Historic Delhi World Heritage City into the future with the dignity she deserves?

The disappointment about the chapter is that it consistently tries to maintain the status quo to the point it defeats the purpose of the chapter. Instead of adding value through technical knowledge, insights and inputs it relies and accepts the contents of the various establishments commissioned documents of listing and inventories. It is well known that these lists are problematic and not up to the standard required for effective heritage management and safeguard of conservation areas. There has been a lot of discourse and dialogue over the last two decades in which we have all participated and grown. Through this experience we have learnt and found answers to work meaningfully. Direction has been derived from these experiences that has informed and educated us - through campaigns, court cases, teaching, building knowledge and learning from mistakes. The chapter seems to give an impression of starting from scratch and does not reflect the progress made in the academic and professional domains over the last two decades...focus back on individual buildings based on a limited listing. It is very disappointing to see that the author is so untouched by all this learning and reverts back to the starting point. ***This seems to be a methodological and cultural problem and could have been avoided if a rigorous and in depth study and analysis of the context and situation had been done. This essential obligatory task is not reflected in the contents of the chapter. Here the heritage professional has added responsibility and ability to overcome the present hurdles and give the right direction.***



We all know the potential Delhi has as a heritage city and comparable to Rome. The JNNURM has to be seen as the opportunity to realize this potential. The lists, inventories and other information related to heritage is grossly inadequate to implement and execute any of the projects mentioned to achieve quality that is essential for irreplaceable resources. This aspect has to be built into the CDP.

It must be noted that most of the information cited in the chapter have been commissioned officially by the mandated agencies to external consultants and others generated within the organizations. The lack of capacity within the organization in house staff and their well meaning advisers resulted in these efforts of the last decade being limited and in need of improvement. These lists cannot be the basis for any projects funding as there is no vision or understanding regarding the qualitative expectations.

Neither does it make sense to ask for another “data base “Information Management System as project. The optimistic data base as the answer once again and funding requested is dangerous. . In the last decade we have only developed data bases outside the Government system and empowered NGOs and individuals. There are many complex issues to be understood. It will be more sustainable if this is seen as a process and not a project. Critical information has to be valued. It rained today and the road is flooded. The basic information required to inform the engineering action has never been learnt.

Many of the projects listed have already been identified in these earlier efforts that have been questioned above. Because the chapter is largely based on the official efforts which are basically “monument centred “it excludes the living heritage areas which should have been the thrust here. Living heritage should have been the foundation for the projects would have been more appropriate to the goals of JNNURM.

Heritage management is a distinct sector under Culture and a greater responsibility. It has many other aspects to it apart from its link with development. There is a disconnect between development and heritage sector. The Tourism flag it holds is very dangerous in the absence of a mutual understanding for between the sectors- the co-existence and intrinsic relationship between the two sectors is yet to be developed. Too much focus and priority is on tourism and its promotion for community level economic regeneration. This is rhetorical; no framework or model has been developed towards this. This becomes very critical when planning is distorted to meet tourism ends. Heritage management is not tourism.

The thrust of the points outlined below tries to show the concerns and problems that may arise with the chapter which will destroy our irreplaceable heritage and therefore financially a wasteful to implement the projects.

The present CDP does not do justice either to the objectives of JNNURM or to the purposes of heritage management.



**MR. RAVI KAIMAL (KAIMAL CHATTERJEE & ASSOCIATES)**

As for my comments, they are basically about the anti-people approach of the Heritage listings, regulations, and the small group of people who are the most visible and vocal proponents of Heritage issues in Delhi.

Here are some points (not in any particular order or numbering) about the Heritage regulations in Delhi, especially with regard to clause 23 in the building byelaws incorporated in 2004:

1. What needs to be preserved objectively must be preserved, but not on the basis of a list which has not been independently verified or reviewed. The listing should be on the basis of objective laid-down merits and criteria, not on any individual's personal likes or dislikes. If a listing is to be the legal basis for decisions which affect people's property, lifestyle and choices then the basis has to be foolproof, transparent and logical. As the Heritage lists are becoming bigger, an increasing number of the properties on the list happen to be privately owned. This listing of privately owned properties seems to be based on casual street side observation, without detailed knowledge or data. The owners/ occupants of these properties are not informed about the possibility or fact of their property being put on the list. In addition, no incentive or benefit (like tax breaks, TDRs, etc.) is given to the owner/occupant for the burden of maintaining or preserving the Heritage property. If Heritage is supposed to be preserved for the nation and the world at large, why should the entire burden be on the owner/occupant? Should the owner/occupant not be informed and his consent obtained? Is he not the primary stake holder? Should someone walking along the street be allowed to determine the future and legal status of a property without any due process, fact checking, protection against abuse of power, and a redressal mechanism against mistakes and mala fide intents??? If the Heritage value of the property is transparently important then the people in charge of Heritage Conservation, society at large, and the government must share the legal and financial implications of the listing.
2. In the current situation, the people who make the listings, the people who prepare the regulations, and the people who sit in judgement on Heritage related issues have powers to impose their arbitrary views on owners (rich or poor) of supposedly Heritage properties, without any responsibility for their decisions-- but with the powers to dictate people lives- legal, social and financial. This might be the norm in a totalitarian dictatorship, but in a democracy this is outrageous, and goes against the basics of natural justice in a democratic society.
3. In other countries with more mature Heritage regulations, if a heritage building is sold, the prospective buyer is informed about its heritage character. When a heritage property is purchased in India, no authority informs the owner.
4. As described in the notification for the heritage committee- delisting and demolition are within the heritage committee's ambit. The idea that the listing is perfect and immaculate- especially when considered in the way the listing was prepared- is anathema



to the spirit of a democracy. This is also against the letter and spirit of good heritage and conservation practice worldwide.

5. Even the Constitution of India has a mechanism for review and amendment. The Heritage listings definitely needs to be reviewed, as there has been no independent verification or fact checking of the initial list, and the same group that prepared the list, approves it and then sits on committees that adopt it as the basis for laws and regulations that affect peoples properties, lives and options.
6. To protect against cronyism, and a cartelisation of Heritage related projects, there should be complete transparency in the process. The evaluation, permission and review of the projects should be done by independent professionals who are not part of the same clique or group.
7. The process should be even more vigilant in cases where poor people's shelter, livelihood, and society are in danger from Heritage projects where the "beautification" of "Heritage" monuments to look good in publications, might be given higher priority by the Heritage consultants. In India many settlements, societies, and precincts are richer culturally, socially and historically than the buildings alone. The removal or disruption of the people who constitute the living Heritage should be highly avoided, and not bulldozed by those whose idea of "Heritage" as objectified beauty ignores the very people, culture and society that nurtured and created those Heritage buildings.

**Some comments from an international perspective (from Donald Elliott, Planner):**

Section 23.4. It is not normal for penalties for unauthorized demolition to include a ban on all future construction on the site. While this sounds like an effective deterrent, and some cities include it in their list of penalties that might be used, few make it automatic.

1. Section 23.5 and 23.16 terms of reference. The use of the word "supplemented" to refer to changes in the list of properties seems unusual. Most regulations provide that the list can be revised from time to time – and that is understood to mean that properties can be added to or deleted from the list. The word "supplement" suggests that properties can only be added, never removed. While it is common for drafters to want to make it hard to remove properties from the list, the use of a more neutral word enables it to happen without shining a light on it. What happens if it is found that the factual basis of a listing was incorrect? What happens if the building is destroyed by fire or natural causes – most regimes would provide a way for the property to be "de-listed" or for the adoption of a revised list that did not include it.
2. Section 23.10. In a 'historic precinct' – i.e. an area where the entire context is being preserved – it is not unusual for the controls to apply to all buildings, because they all contribute to the context. However, if only one building is listed, it is not common for that listing to carry with it controls on other buildings that can be seen from the listed property. At least that is true in the U.S. Russia used to have provisions like these – once you list a building then



everything that can be seen from the building and from which the building can be seen also get controls on them – but I think they have moved away from that (or not enforced it) because it is onerous on the owners of "normal" buildings. Basically, in the U.S. you have a choice – list the entire precinct if you want controls on all the buildings, or list the buildings individually if you cannot make the case that the entire precinct is historic. If the normal buildings are not in a historic precinct, then they don't get historic controls.



## CHAPTER 3: WATER SUPPLY

*A Critique of Chapter 8 and associated sections in other chapters of the City Development Plan*

### **PROF. SUBIR PAUL (ECO GROUP)**

#### **KEY OBJECTIVES OF MASTER PLAN (At its face value):**

Housing Strategy: Multi-pronged HOUSING STRATEGY for creation of housing stock and delivery of serviced land - significant role for private sector, cooperative sectors and public agencies with overall responsibility with the DDA – in view of limited availability of land and increased demand for housing plotted development is discouraged and encouraging group housing for new residential complexes – to be achieved through optimum utilization of land and space with a view to increasing net residential density - special attention to make healthy high density residential environment – land pooling and land consolidation shall allow large projects/estates – high density development/redevelopment (enhancement of density and FAR) of existing settlements with higher density – differential densities (higher residential density for smaller dwelling units – density, FAR and building controls for housing is modified as under:

<b>Dwelling Unit size</b>	<b>Area (in Sq.M.)</b>	<b>Density (DUs/Ha)</b>
Slum/EWS housing	upto 30	600
Category I	30 to 40	500
Category II	40 to 80	250
Category III	above 80	175

The above norms have been formulated with the objective of the density and FAR in Ground plus 3 or 4 storied walk-up buildings (not high rise structures), without lifts - a fixed density could lead to over population or under population which in turn represent over or under utilization of land – non-optimal utilization of physical infrastructure.

Thrust on HOUSING FOR THE URBAN POOR: Through in-situ slum rehabilitation – using land as a resource for private sector participation – to prevent growth of slums mandatory provision of EWS housing/slum rehabilitation in all group housing to the extent of 15% of permissible FAR or 35% of dwelling units on plots, whichever is higher – housing for urban poor to the extent of 50-55% of all new dwelling units - re-categorisation of housing types, development control norms and differential densities to make EWS/ LIG housing viable and economical.

Unauthorized Colonies: 1500 odd unauthorized colonies are to be regularized as per government policy – to be effectively incorporated in the main stream urban development – provision of (physical) infrastructural services and facilities for differential development control norms – need to devise procedures.

**Delivery of aforesaid housing strategy shall depend largely on evolving appropriate concepts on infrastructure (drainage, water supply, sewerage and solid waste)**

**ensuring its IMPROVED PERFORMANCE as well as SPEEDY DELIVERY** – it is possible to achieve these twin objectives only through a **PROACTIVE STRATEGY** involving introduction of **ECO-SANITATION** techniques for **SUPPORTING DECENTRALIZED SOLUTIONS**.

Present form of Physical Infrastructure – its performance in respect of resource conservation, pollution remediation and cost recovery has been dismally deficient as well as speed of delivery of trunk services grossly unsatisfactory – if the present trend continues it shall hold to ransom planning of metro-city – examples among others Dwarka sub-city, Patparganj residential complex, Rohini etc. – need for **PROACTIVE STRATEGY** – cost recovery – MD Goals.

The proposed MPD 2021 also identifies the following innovations in respect of Urban Infrastructure:

- Rain water recharge (Only high capacity recharge is relevant in the context of a metro-city)
- Wastewater Recycling & Dual Pipe system -
- Segregated Waste Disposal & Decentralized Sewage
- Bio-drainage – bio-degradation of contaminated water in Open Drain
- Strategy for protection of water resources - conservation of Water bodies (lakes & ponds)
- Strategy for conservation of Greenery
- Design of project complexes with zero/minimal discharge

**What is the relevant KNOWLEDGE BASE for Physical Infrastructure of Delhi in 2021?**

**Does DDA have the appropriate human resource to deliver Urban Infrastructure?**

**Does DJB & MCD have the human resource to deliver Urban Infrastructure?**

**How to develop appropriate human resource for successful Urban Infrastructure?**

Key DEFICIENCIES FOUND IN EXISTING INFRASTRUCTURE – DRAINAGE, WATER SUPPLY, SEWERAGE & SOLID WASTE MANAGEMENT: its growth must accompany simultaneous corrections – need for dealing the components in **CONCERT** instead of being dealt in isolation (due to administrative boundaries or other reasons) by the local bodies and parastatal agencies each of whom need to learn interdisciplinary and multi-task working – **SPEEDY DELIVERY OF URBAN INFRASTRUCTURE** like Storm Water Drainage, Water Supply, Wastewater and Solid Waste Management etc. are linked to one another and can not be dealt independent of the other.

**KEY ISSUES:**

**Water Supply < Dealing Agency : Delhi Jal Board >** Acute crisis of water sources (surface & ground water) - need to conserve all water resources in metro-region - High Capacity Rain Water Recharge Programme for replenishing Ground Water as well as improvement of Ground Water Quality - increasing access to water while conserving water – advanced management of water demand – per capita water supply norms need to be evolved based on water resource position, cost recovery etc. 135 or 225 lpcd of treated water free of cost can not be right – Water Supply and Waste Water are two (inseparable) faces of the same coin – Engineering solutions only are dismally inadequate to address the problems



– the production cost of water (also in most other metro-cities) is due to rise appreciably with increasing distance of water sources and deterioration of raw water quality - the water tariff is bound to increase at an alarming rate and make it increasingly difficult for the urban poor to access water except with subsidy.

**Current Water tariff (DJB) applicable w.e.f. 01.04.2005:**

Category-I (Domestic)		Category-II (Non-domestic)		Category-III (Non-domestic)	
Consumption Tariff		Consumption Tariff		Consumption Tariff	
KL/month	Rs./KL*	KL/month	Rs./KL*	KL/month	Rs./KL*
Up to 6	0.00	up to 25	10.00	up to 25	15.00
7 - 20	2.00	25 – 50	20.00	25 – 50	25.00
21 – 30	7.00	above 50	30.00	50 – 100	35.00
above 30	10.00	-	-	above 100	50.00

\* 50% water consumption charges is collected towards sewerage maintenance.

**Sewage < Dealing Agency : Delhi Jal Board >** at present more emphasis is laid to underground sewer lines compared to treatment and safe disposal of sewage – lack of matching treatment capacity – poor performance of city (Physico-chemical treatment based) STPs creating point sources of pollution - any sewage that does not reach STPs through sewerage lead to open drains creating contamination of soil or water – – sludge being toxic disposal is a problem - STPs demand uninterrupted power for operation of treatment plants – instead of Physico-chemical based treatment, bio-degradation techniques through Constructed Wetlands (Advanced Waste Stabilization Ponds & Polishing Lagoons) – more efficient in respect of heavy metals and Fecal Coliform.

**Effluent < Dealing Agency : DSIDC >** Industrial effluent contains acid/alkali, salts, chemicals and heavy metals - Physico-chemical treatment based CETPs are expensive and also failure stories - sludge is more toxic and its safe disposal (as hazardous waste) is a problem - even though subsidized, industries need cost effective treatment of effluent - Sewage and Effluent treatment has not been viewed from the point of resource recovery leading to safe reuse of water at various scales.

**Drainage < Dealing Agency : Municipal Corporation of Delhi >** natural topography, primary drainage channels, secondary drainage network and presence of low lying areas (including lakes/ponds etc.) are key determinants in drainage of a site in addition to top soil characteristics – protection of natural drainage channels and their contamination by discharge of deficiently treated sewage or effluent - High Capacity Rain Water Recharge besides replenishing depleting ground water also benefits storm water drainage of an area - complementary drainage solution for low-lying or depressed areas and alternative to pumping - need to keep storm water drains free from contaminations through improved wastewater management

**Solid Waste Management < Dealing Agency : Municipal Corporation of Delhi >** Currently MAJOR EXPENSES INCURRED IN TRANSPORTATION of collected garbage from dhalao to dump site - no sanitary landfill exists but actually it is simple



dumping of garbage – results in increased SPM around dump, contamination of ground water in large area around dump – long after stoppage of garbage dumping contamination of soil and ground water persists - cities can not afford land for garbage dumping – sanitary landfill is very expensive compared to bio-degradation – attempts for new dumping sites at more far flung areas shall further INCREASE AVERAGE TRAVEL DISTANCE (trip length) and COST PER TRIP - municipal body does not want decentralized composting to succeed as this shall make transporting of garbage redundant – corruption earnings are generated primarily from transportation of garbage – in spite of several efforts, selected NGOs working on UNDP-NIUA-NCT Delhi Government supported community based projects were not given the sites by the MCD to take up decentralized composting of organic solid waste at local level upon sorting of garbage as per 'The Municipal Solid Wastes (Management & Handling) Rules 2000' – organic solid waste has a very high resource value for horticulture/farming/landscape greenery but only an insignificant part of the organic solid waste is converted into manure/humus.

## **PROPOSED CDP (under JNNURM) FOR DELHI**

Speed of Delivery of Physical Infrastructure – decentralization is the key – CDPs do not address the issue

Required speed of delivery of urban infrastructure based on (MPD 2021 – page 19-20) :

Built-up area as on 1999	70,162 HA
<b>Actual land available for urbanisation</b>	<b>27,628 HA</b>

Average housing stock addition (including replacement) of 1,25,000 D.U.s per annum

Supply of 75,000 new D.U.s per annum

**Supply of developed land for housing @ 450 to 500 HA/annum**

Developed land for housing and other urban activities imply access to roads, physical infrastructure

## **WATER SUPPLY**

### **Water Demand Management Strategy: Why it is relevant ?**

Delhi has highly limited water sources – as brought out in chapter of the CDP, Delhi is living on borrowed water from surface water sources (rivers, dams etc.) located in neighbouring states and also far beyond NCR boundary – (except the Brahmaputra, it is an international river and from any international river water can not be transferred easily, no other river basin has surplus water) no other river basin has surplus water – due to excess withdrawal ground water is depleting – no state in India has surplus water nor any city region has surplus water. Therefore, it is necessary to realize that need of the hour is in devising appropriate 'Water Demand Management Strategy'

Water demand in large cities have grown at an rapid pace due to combination of two key factors (i) increase in population and (ii) increase in per capita rate of water demand. The **combined impact of these two factors with no corrective action over a century** are responsible for creation of severe stress on water resources of metro-cities. In spite of DJB being specialized dedicated agency (with over 5000 person strong organization) for



supply/distribution of water as well as wastewater management in Delhi; with all its statutory empowerments that the government has provided to it, should have the comprehension and vision in the long term context on following grounds :

- water resource assessment,
- protection of local water sources,
- formulation of water policy, norms, pricing etc.

Instead, the agency has been party to abatement of

- ◆ depletion of local water resources
- ◆ increasing water consumption without relating to the capacity of water sources
- ◆ pollution of local water bodies through discharge of deficiently treated wastes
- ◆ search for new water sources located at increased distance increasing cost of raw water & its transportation

Instead of developing/assisting local initiative for development and protection of water resources, and developing innovative approaches to water conservation and management, the agencies have preferred to tap distant water sources through mega projects. Being involved in water distribution, the dealing agencies are party to over-exploitation of water resources.

These agencies need to be responsible for formulation of water policy, norms, pricing etc. to ensure development of local water resources and protect them by (i) applying water harvesting, (ii) water conservation through reduction in demand for potable grade water by developing secondary water sources based on local potential, (iii) effective treatment of sewage and effluent before its discharge in order to ensure protection of water quality of all surface and underground water resources, iv) device strategy and methods for protection of water resource, v) cost recovery and (vi) development of appropriate human resources. A role that such agencies have failed.

Therefore, in view of impending severe shortage water resources, the city needs to initiate appropriate **Water Demand Management Strategy** comprising of the following:

- shortage lies in potable grade of water (or raw water) – all activities in the city does not require drinking grade of water - quality based water allocation for various activities
- multiple use of water through safe reuse/recycle of treated wastewater/sewage – models for cost effective wastewater treatment for reuse at various scales need to be demonstrated – as in the case of Chennai (introduced in early 1990s, potable water by city supply agency to industries is denied – instead treated sewage is supplied at an affordable cost so that industry itself can treat this processed wastewater to run the industry – industry should also include **power generation units**, construction units (including concrete mixing).
- all large commercial establishments (including industries – this is working in Chennai since 1992) must necessarily recycle treated sewage/ wastewater within their own premises/project level to cut down their demand for potable grade of water – hotels (liters/guest), hospitals (300 to 550 liters/bed), transport terminals (bus, rail, air) – and make water audit compulsory for getting water supply from city agency – at the prevailing water charges of Rs.30/KL plus Rs.15/KL (sewerage maintenance charge) a whole gamut of wastewater management for substantial reuse becomes economically viable at project level – the DJB fails to take initiative in this direction.



- right of the urban poor in terms of access to water and sanitation is a must – but this right can not be an unlimited right ie. 150 lpcd or more for a population of nearly 40% of urban population is heavy economic burden on the city agency – the example of South Africa (after dismantling of apartheid) is relevant, where this right has been defined in terms of free supply of 40 lpcd of potable grade of water at distance not exceeding 200M – but the DJB needs to facilitate appropriate secondary grade of water for non-potable requirements
- large housing projects/estates would have a demand for water at a rate of 135 lpcd making a payment @ Rs.6/KL for water plus Rs.3/KL for sewerage maintenance charge – the reuse potential for treated sewage/wastewater for horticulture, toilet flushing, car washing, cleaning of common areas, fire fighting etc. which can lead to a saving of water upto 70 lpcd and thereby reducing demand for potable grade of water to 65 to 70 lpcd - in most cities such large housing estates have successfully demonstrated their capacity for management of water distribution and other essential utilities within their premises – this is also the objective of EIA for all large new projects
- the city land use planning must be support/facilitate water reuse regime – evolve planning norms – to optimize transportation of treated sewage/wastewater
- the Water Cess Act should be enforced immediately for all bulk water users – and provide incentives for reuse of treated sewage/wastewater – well devised incentives are very important to implement such innovative measures

We need to understand that, (i) water resources in a region is limited, and (ii) it is not feasible for a city to keep increasing (indefinitely) gross amount of supplied water by creating water stress all around its hinterland and by depriving water to other sectors. Introduction of safe reuse of treated sewage/wastewater at appropriate scales is absolutely inevitable for most large cities in Asia. Many African cities facing acute water problems have evolved appropriate Water Demand Management Strategies based on their specific situation.

### **High capacity Rain Water Harvesting or Recharge:**

Rapid fall in ground water levels due to excessive withdrawal and reduced recharge – though the matter has been brought into lime light for nearly two decades, people are advised to adopt roof water harvesting at individual building levels – subsequently it has been made mandatory in many areas but has its impact been studied? It is not the intention to question validity of Rain Water Harvesting itself but to drive home that for the purpose of sustaining ground water sources adoption of rain water harvesting at a larger area level is more appropriate its adoption at individual property level. The author of this appraisal, by virtue of his having undertaken various challenging assignments in rain water harvesting as well as his associations in academic exercises is of the considered opinion that rain water harvesting proposals planned at a larger area level (termed as high capacity rain water recharge programme) is significantly more relevant in the context of water shortages faced by large cities. This is due to the following reasons:

- can harvest increased quantity of runoff both from roof top as well as open area
  - effective recharge of runoff depends on capacity of the subsoil strata to receive water (rate of recharge)
  - undertake appropriate geo-hydraulic study of the subsoil strata based on which rain water can be delivered at the predetermined subsoil strata at the appropriate rate
- rain water harvesting shall be cost effective and performance monitored



scientifically

- it has the potential for improving ground water quality over a period of time
  - an alternative approach to draining a low lying area through lift pump - provided contamination of runoff water can be eliminated to protect the quality of ground water

**If this is so, the DJB as an agency seeking statutory (passed in the state assembly) empowerment for control of ground water in Delhi should be the responsible agency to take the INITIATIVE FOR HIGH CAPACITY RAINWATER RECHARGE programme covering large stretches of area and not limit RAIN WATER RECHARGE in individual buildings only.**

**Instead the CDP identified projects are:**

- ◆ 24 x 7 water supply – conceived by DJB an organization with over 5,000 persons could not stand the criticism of an NGO of less than 5 persons – if this project is implemented, Delhi shall require substantially increased quantity of water whereas water source is the key issue in water supply.
- ◆ Seeking raw water (either non-existent or high competition) from more distant surface water sources





## CHAPTER 4: CITY SEWERAGE SYSTEM

*A Critique of Chapter 9 and associated sections in other chapters of the City Development Plan*

### **PROF. SUBIR PAUL (ECO GROUP)**

The speed of delivery of underground sewerage system has been dismally inadequate and has caused prolonged delay in completion of various projects. Over and above regular cleaning of underground sewer lines and replacing of frequently leaking/damaged large diameter deep RCC sewer pipes are also problems.

**Table 9.1 (page 9-1 of the CDP) Sewerage system – it has delivered during the period**

	prior to 1999	1999 to 2006
Head		
Trunk sewer	130 km	20.54 km
Branch sewer	4693 km	1377 km
Unauthorized/regularized colonies	366	140
then out of 567		
Urban villages	82	23
then out of 135		

The undermentioned table depicts area wise cost recovery in water supply and sewage in Delhi.

	Av. Quantity of water supply (ML) 2000 to 02	Cost (av.) recovery per Cu.M of water supply	Quantity	2000-01	2001-02	2002-02	Average	Cost (av.) recovery per Cu.M of sewage
			Value					
MCD Area	1010183	<b>3.55</b>	Quantity (ML)	779729	817206	827507	808146	<b>2.22</b>
			Value (million)	1366	1835	2175	1792	
NDMC	44080	<b>3.50</b>	Quantity (ML)	35704	35640	34447	35264	<b>2.92</b>
			Value (million)	84	101	122	103	
DCB	12978	<b>3.51</b>	Quantity (ML)	10467	10432	10246	10382	<b>2.88</b>
			Value (million)	24	29	36	30	
Total	1067241	<b>3.54</b>	Quantity (ML)	825898	863280	872200	853793	<b>2.25</b>
			Value (million)	1475	1967	2334	1925	

Source : Cost recovery on WS and Sewage by DJB (Tables 8.3 & 9.5 page 8-6 & 9-7 Respectively)

**Average COST RECOVERY on water supply and sewage is about Rs. 3.54/Cu.M. and Rs. 2.25/Cu.M. respectively. Whereas cost of treated water is about 5.5/Cu.M. and over Rs.45/Cu.M respectively.**

The CPCB (MOEF, GOI) in its publication titled 'Status of Sewage Treatment in India' (Series – CUPS/61/ 2005-06 – Control of Urban Pollution) has dealt with status of Sewage Treatment Plants of Delhi as under:

“It was found that Waste Stabilization Pond (WSP) and UASB + Polishing Ponds technologies provided fecal coliform reduction to a level of > 99%. From field studies it is observed that there is further scope of increasing coliform removal efficiency in the Waste Stabilization Pond (WSP) and 'UASB + Polishing Ponds Technologies' by way of improved outlet structures and modifications in flow regimes of Polishing Ponds. Efficiency of ponds in terms of effluent TSS and, as a result, effluent coliform can be improved by providing adequate effluent structures with sufficient weir length and baffle preceding the effluent weir to arrest floating matter”.

**“CPCB observed that less than 50% of the entire sewage of Delhi is being collected and treated. Therefore, to achieve the maximum removal of pollution load with the funds available, it was recommended to make arrangements for treatment of the entire sewage up to secondary level to achieve BOD < 20mg/l and TSS <30mg/l on priority basis rather than treating part of sewage to tertiary level to achieve BOD <10mg/l, TSS <15mg/l and FC <2500 MPN/100 ml while leaving significant part of sewage untreated. Afterwards, when secondary treatment of at least 90% of sewage is installed, all STPs need to be augmented with tertiary treatment facilities for removal of FC to a standard 2500 MPN/100 ml so that the main objective of maintaining quality of Yamuna River may be fulfilled”.**

**From the above CPCB assessment it is evident that, key concerns (for the objective of improving/maintaining quality of Yamuna River) in performance of STPs are BOD, TSS & Fecal Coliform.**

It is well established fact that discharges from Delhi is the key pollutants to the Yamuna River. There are nearly 20 STP locations in Delhi, out these locations only 3 have effluent irrigation facility within the STP premises – but none of the STPs are provided with either Waste Stabilization Pond (WSP) or Polishing Ponds. In spite of clear CPCB recommendation and land being available at several sites the CDP proposal does not cover creation of waste stabilization ponds or polishing ponds.

It is observed recently that, there are several smaller new STPs in Delhi of the capacity of 5MGD and less – these smaller STPs require reduced catchment area and eliminate need for sewage pumping stations (required to lift sewage when depth of sewer line is very high that are operated intermittently and leading to storage of sewage in sumps) - the sewage pumping stations cost (also costly to operate and maintain) nearly one fourth to half the cost of an STP when not operated continuously, storage of sewage results in turning substantial part of sewage septic (about 6 hours under tropical condition) before reaching STP. By having smaller STPs the sewage pumping stations should be eliminated.

CPCB funded study indicates that only 950 Mld (60% of installed capacity of STPs) reach the various STPs. The report states that it may be largely due to diversion of sewage to the drains along with possible other factors such as water supply being less than design stipulation, blocked sewers and incomplete ancillary works like sewer line or pumping station. Gross deficiency in wastewater treatment has also been brought out by repeated CAG reports – deficiently treated wastewater discharged on large number of water bodies and water channels pollute such water bodies. This brings to light not only deficiency in wastewater treatment but also severe limitations of existing strategy of wastewater management. Delhi and other Metro-cities are yet to evolve a strategy for dealing with the enormous quantity of mixed effluent discharged through open drains into the river.

The existing capacity and utilisation of STPs in Delhi are found as under:

- Planned capacity 2,258 Mld
- Installed capacity of STPs 1572.54 Mld
- Current level utilization of STPs 1331.90 Mld
- CPCB assessed performance level of STPs 950 Mld – most STPs are operating below capacity
- Interception of sewage is only  $950/2,258 \times 100$  or 42%
- Qualitative performance level of STPs are highly deficient
- Land and Power Requirements of STPs of Delhi is furnished in Annexure

The declared objectives of sewerage system is to reduce pollution impact by efficient collection of sewage from domestic sources and various parts of the city, and its discharge after ensuring satisfactory treatment. The afore - is an indication of complete failure of strategy of sewage/wastewater management and it fails to generate confidence that

- upon increasing treatment capacity to 100% it shall result in effective treatment of wastewater generated in Delhi to the extent that health of water bodies including Yamuna river shall improve substantially
- other cities upon adoption of similar strategy shall deliver satisfactory result in treatment of wastewater

**Therefore, it is evident that, MERE ADDITION OF TRUNK SEWER LINES and STPs can not solve the problem of pollution caused by deficient wastewater management strategy. A well worked out strategy dealing with wastewater management is missing.**

**CDP identified projects :**

- Construction of more STPs
- Construction of Intercepting Trunk Sewers along open drains to transfer wastewater to STPs for treatment prior to disposal

To illustrate the performance of '**Intercepting Trunk Sewers**' along open drains in the context of improving city environment – **in the case of open drains in Delhi, the dry season flow is contributed by UNINTERCEPTED SEWAGE AND WASTEWATER (from deficiently sewerred areas) plus deficiently treated (by STPs) sewage and Effluent (ETP/CETP) and surreptitious discharge of (toxic) sludge – how this deficiently treated sewage by the STPs plus toxic can be treated again by the STPs ?** The scheme shall also require extensive pumping to lift the wastewater to STPs at elevated



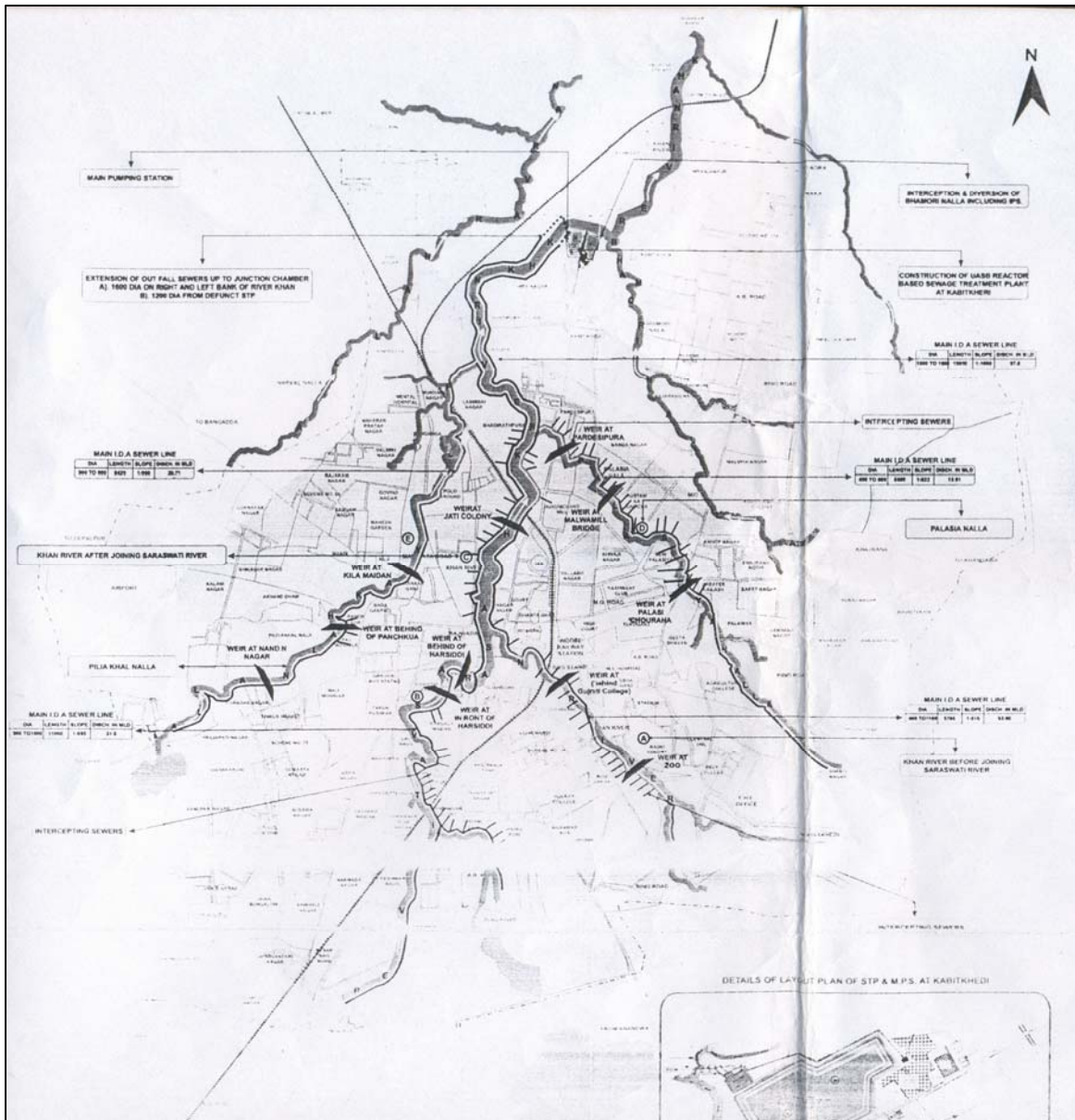
level or STPs shall get flooded during monsoon season as it is happening in the case of several recently constructed CETPs in Delhi - '**Intercepting Trunk Sewers**' is a convenient 'catchword' coined by city agencies dealing with wastewater management that has failed to deliver in many cities in India – the case of Indore example is presented briefly below:

#### **CASE STUDY: WASTE WATER MANAGEMENT THROUGH INTERCEPTOR TRUNK SEWERS IN INDORE CITY**

- The sewerage system cover **about 35 percent** of the city area and 40% of the city's population - 148 slums of the city discharging sewage directly to open drains.
- The colonies developed by IDA and private colonizers having about 7.2 lacs population have common septic tanks - overflow from these septic tanks is discharged into the IMC sewer (if available) or the nearest watercourse.
- The sewage and industrial effluent of the city was being disposed without treatment into **river Khan and its tributaries** flowing through the city. The river has been practically converted to an open drain.

The works of Interception of drains, construction of main sewer lines and construction of sewage treatment plant (STP) has been implemented as shown in the Map below:





The Khan river, originates near Umaria village about 11 km south of Indore and flows through the heart of the city. It has been dammed near the Navlakha Garden, where it passes under the Agra-Bombay Highway (NH-3). The domestic sewage and industrial wastewater discharged from Indore city, is the major source of pollution to the holy river Kshipra passing through city of Ujjain, an important pilgrimage center in India. It has been identified that River Khan as one of the severely polluted rivers in the country, the most critical portion of the river passing through Indore city, where the water quality is 'class E' which also continued downstream of the Indore city. The desired water quality of a river in the city area and the downstream area is 'class B and D' respectively.

Recently implemented works involved collection of sewage/ polluted water through its interception by construction of a series of masonry weirs or barrages in open channels in

each tributary of Khan river (system of open drains) to generate adequate hydraulic pressure for diverting water flow to a network of new sewer lines (along the open channel) leading to a new STP (at Kabithkeri) for treatment of collected polluted water and its disposal after treatment. The works were planned based on the guide lines laid down by the National River Conservation Directorate and executed by the Public Health Engineering Department (PHED). The total cost estimates are to the tune of Rs. 40 crores, out of which Rs.29 crores is for an UASB type STP with lagoons.

The impact of water pollution in the open channels are enumerated as under:

**a. Human Exposure:** There are about 4.5 lacs of population residing in about 150 slum colonies along riverbanks. The slum dwellers use river water for domestic use and children are found playing on the riverbed. Such activities increase the risk of spread of water borne diseases. The risk increases to a great extent in rainy season.

As the stretch of open drain carrying/holding sewage/wastewater remains same and extend over the entire city, the vector (mosquito, fly etc.) breeding continues exposing the residents of the city to health risks. The proposed interceptor drain fails to reduce any health risk and smell on this account.

**b. Soil Contamination:** The pollutants in the river settles down on the riverbed, while the river dries up. The soil of the riverbed has been tested and found contaminated with heavy metals and other chemical contaminations.

The first rain-wash carries the soluble pollutants from the land surface/soil and increases the pollution load in the river water. About 26,000 Ha of land is irrigated by the river water. Tests for electric conductance, N, P, K, on sub-surface soil have been conducted by Agricultural College, Indore. Test results have established that sewage water has increased the salinity in the soil.

**c. Impacts on Surface Water Ecosystem:** Pollution in the river water severely affects the aquatic life - its flora and fauna. The water quality analysis shows that in dry weather flow, the DO level in the river water and its tributaries within the city limits is nil (anaerobic state), which indicates that river cannot sustain aquatic life.

**d. Ground Water Pollution:** Pollution in river water is potential source of contamination in ground water aquifers. In 1998; 272 private and 417 public wells adjoining the open channels were tested for MPN/100 ml and fecal coliform content. More than 70% of samples were found contaminated. The tests also showed that contamination is high during monsoon months.

**e. Impacts on Down Stream:** River Khan is a major source of pollution in the holy River Kshipra. Ujjain, being an important pilgrimage center in India has millions of people coming from all over to take holy dip in the River. It is also raw water source for drinking water to Ujjain City, supplying water to almost one-third of its population.

Impacts stated under items `a', `b', `c' and `d' are not addressed by the scheme of interceptor drain carrying sewage to STP but impact under item `e' shall be addressed so long as (i) the



treatment offered by STP is qualitatively effective and (ii) capacity of the STP is matching the quantity of wastewater generated in the city.

**ALTERNATIVE TO PROPOSED INTERCEPTING TRUNK SEWERS: TREATMENT THROUGH CONSTRUCTED WETLAND generally within the right-of-way of the existing open drains.**

As recommended by the CPCB (MoEF Govt. of India) in their various reports and publications on remediation of water pollution, advocated by leading environmentalists in India and abroad; constructed wetland system '**Waste Stabilization Ponds (WSP) and/or Faculative Ponds and/or Polishing Ponds**' etc. have the proven ability of simultaneously reducing BOD, COD, TDS, TSS and Fecal Coliform levels (also heavy metals and several pesticides) in sewage/mixed effluent without using either using any chemical dosing or electrically powered aeration or other equipments. This Ecological Engineering Approach integrates traditional knowledge in cultivation of aquatic vegetations such as macrophytes and fish culture etc. and help generate livelihood for the urban poor.

By making appropriately designed interventions, it is now possible to ensure that generally this TREATMENT CAN BE PROVIDED WITHIN THE RIGHT-OF-WAY OF THE OPEN DRAINS except small stretches of widened right of way at appropriate intervals. Such widened right of way is required for increasing water spread to reduce speed of flow of water to less than self-cleaning when the 'Waste Stabilization Ponds (WSP) and/or Faculative Ponds' perform. Additional space is also required for safe storage of appropriate quantity of macrophytes and fish population during rainy season (and subsequent release in the wetland) for its protection against wash out during high discharge of storm water during periods of heavy down pour.

Human Exposure, Soil Contamination, Impacts on Surface Water Ecosystem, Ground Water Pollution and Impacts on Down Stream etc. can/shall be simultaneously minimized under this concept.

**CETP PROJECTS IN DELHI:**

There are 15 CEPTs implemented and performance of about 10 plants are furnished in brief.

CETP Name	Process	Effluent Volume		Special Parameters in Treated Effluent			
		Planned	Actual	Na	SO4	Zinc	Ni
GTK Road	Physico Chemical	6	3-4	ND	ND	0.27	0.43
Mangolpuri	Biological	2.4	1-1.6	54.40%	1136	0.08	0.22
Lawrence Rd	Physico Chemical	12	2-3	63.70%	464	BDL	0.1



CETP Name	Process	Effluent Volume		Special Parameters in Treated Effluent			
		Planned	Actual	Na	SO4	Zinc	Ni
Mayapuri	Physico Chemical	12	4-6	54.90%	272	BDL	BDL
Nangloi	Physico Chemical	12	2-5	52.40%	228	0.06	BDL
Badli	Physico Chemical	12	1.5-3.0	N.A.	N.A.	N.A.	N.A.
SMA	Physico Chemical	12	2-3	28.80%	1134	BDL	0.69
Okhla Ind Area	Physico Chemical	24	2-4	65.90%	253	0.08	BDL
Jhilmil	Physico Chemical	16.8	2-4	ND	ND	0.03	0.06
Wazirpur	Physico Chemical	24	4-16	ND	ND	0.27	0.43

Source: Table 9.6 (page 9-9) CETPs of CDP

Physico-chemical Treatment in CETP involves :

- Chemical Dosing for Fixation/Adjustment of pH Value of Effluent – Compounds Used for Chemical Dosing is responsible for Increasing Na, SO4 Contents in Treated Effluent and/or Sludge
- Aerobic Decomposition of Effluent Require Supply of Oxygen – This Involves High Energy Consumption
- Sludge is Mostly Toxic Requiring it to be Disposed as Hazardous Waste
- These Make CETP operation a Costly Proposition for Small & Medium Industries who are key stakeholders of CETP.

The CETPs capacities are highly underutilized and performance highly deficient – there is ample scope for improving performance these CETPs by adding organic nutrient ie. sewage in order to facilitate bio-degradation through addition of constructed wetlands (Waste Stabilization Ponds & Polishing Ponds).

**Engineering > Ecological Engineering based Treatments are key to Cost effective solutions – Both Waste Stabilization Pond (WSP) or Polishing Ponds recommended by the CPCB are dealt extensively under what is termed as 'Constructed Wetlands' under Ecological Engineering based Treatments in ECO-SANITATION. Unless more cost effective options are given preference cost recovery is not possible when 40 to 50 % of urban households are poor and can not pay for wastewater treatment – cost reduction is key to increasing access for the urban poor.**



## **CHAPTER 5: SOLID WASTE MANAGEMENT**

*A Critique of Chapter 12 and associated sections in other chapters of the City Development Plan*

### **MS. BHARATI CHATURVEDI (CHINTAN ENVIRONMENTAL RESEARCH AND ACTION GROUP)**

#### **General Comments:**

The Solid Waste component of the CDP is only an old re-hash of municipality based information. No new data or perspective has been added onto it. There is also no concrete plan proposed here, so it is not clear what the centre will release the funds for. It seems plausible that the plans are to fund the existing MCD plans, under the Masterplan 2021. However, the MCD has not been made public and does not meet the needs of this city.

Under the 74<sup>th</sup> Amendment, it is essential that plans are made in close and democratic consultation with local communities. Based on the note presented here, it is clear that this has not been the case, as many interests remain unrepresented. These sectors include the local ward communities and Residents' Welfare Associations, informal sector recyclers and various other local associations. Hence, the process of making this plan is flawed. If, as it appears, it has derived from the MCD plan, this is magnified on account of the lack of public participation in creating that plan.

Hence, the process of the plan making is flawed.

Nevertheless, the Plan contains some ideas that can be built upon for improved SW Handling:

- Composting
- Reducing (landfill) space
- Working with the informal sector of wastepickers
- Handling e-waste

Chintan's comments on the note will therefore focus on these stated foci, also reflected in the IL&FS note, to offer optimal synergy to create a plan.

#### **Specific comments on possible plan**

It has already been pointed out that the Chapter 12 on Solid waste Management is not a plan, but a summary of the existing situation taking into consideration only some narrow aspects. This note will offer suggestions for a plan to be made in the future bearing in mind the 2 main needs and available resources strategies articulated by IL&FS.

*Process of the SWM Plan*

Following the 74<sup>th</sup> Amendment and dovetailing this with the Right to Information, the plan must be made through an extensive consultation process. This includes

- Multiple consultative events
- Provision for the outcomes of these consultations to be reflected in the plans
- Special focus on groups that are not dominant in the literature and documentation, such as marginal, resettlement communities (a large population), those generating special kinds of waste (slaughterhouse waste and hazardous waste)
- Special focus on non-municipal service providers, such as the components of the waste recyclers and those representing them
- Widely publicizing consultative events
- Process of comments and transparent planning processes

### *Conceptualizing the SWM Plan*

The SWM plan must be developed around the following principles, not currently reflected in the plan:

#### *I. Waste Reduction*

- It is clear that estimating waste is not an easy task. However, this report does not examine all the sources and uses only information from government websites and papers. One of the flaws that results from this is the percentage of recyclable waste. The data of various other studies-Chintan (2004), Srishti-TERI (1996) shows that the recyclable waste is much higher than projected in this report. This is a critical observation as it can drive strategies to reduce land used to dump waste, one of the stated urgencies required for Delhi.
- Reduction of waste that is required to be landfilled through diversion of waste to local level handling
- Diversion of waste to recycling and composting facilities at ward level or lower, to handle the surplus from the existing centralized composting capacity listed in the note
- Making available small, decentralized land for this and any infrastructure required. This can be operationalized along the Barangaya system in the Philippines and can even be run by organizations of the informal sector
- Recycling to be undertaken via the informal sector only. Such legislation exists in Columbia. This has to be fortified with forward linkages in place. These include space for segregation and storage (on the lines of existing kaabri shops today), use of non-motorized transport for carrying waste, allocation of licenses for such vehicles being used to carry recyclable waste, clearly planning for re-processing units and building their capacity for minimal pollution
- To recognize the various sections of the informal recycling sector through a number of systems that feed into other government agencies and allow them to access the required facilities (loans and health clinics) and formal recognition (such as through the police)



- It should be taken into account that the informal sector both increases the value of waste (a unit of plastic waste increases by 750% through the trade alone, prior to reprocessing) and saves considerable costs for the formal systems. One estimate is that the sector saves Rs. 600,000 daily for the city of Delhi through its labour alone
- In the interests of minimizing waste, a packaging tax on one time use packaging and one use products (such as sachets) is critical as disincentive
- Ban green waste (leaves, horticulture waste) in landfills, thus encouraging recycling

## *II. Global Warming*

Waste in landfills produces green house gases. Left lying in open dumps, it has a similar deleterious impact. The State of the World, 2007, emphasizes the importance of composting in cities of today and the plan's own inclusion of this is welcomed.

- Funds from the plan are required to underwrite the cost of composting, as well as develop a market for it. A link between government procurement and city-wide composting is a possibility
- To minimize the health risks from waste handling by increasing door to door collection of waste to serve universal coverage and reduce open dumping and putrefaction of waste
- Minimizing motorized transportation of waste, thereby implementing decentralized systems for collection, create local transportation to local areas for composting.
- Decentralized composting will require local municipal and government procurement to create long term sustainability for this system
- The note is also silent about the many local initiatives being undertaken for decentralized waste handling and segregation and optimal recycling. These are critical for waste handling. Since they use non motorized transportation, local recycling and composting they are also excellent means to minimize green house gases. Plans should create space and infrastructure as well as capacity for such systems in both low income areas and middle class neighborhoods.
- Phased reduction over 5 years of organic waste in landfills will incentivize composting and reduce the greenhouse gases from landfills

## *III. Millennium Development Goals and Public Health*

The MDG Goals 1, 7 and 8 are particularly emphasized here. Waste has been seen to be able to play a role in creating livelihoods. This is the single most important step to alleviate poverty. In the case of Delhi, it is clear that livelihoods are most importantly required in the case of the informal sector, because of their marginal status as well as for the importance of their work. However, there are other considerations, such as public health that are dependant on well managed waste.

This note points out that wastepickers work under poor conditions. However, it is silent on the rest of the chain and their free contribution to the city of Delhi.



- To emphasize of the informal sector as a whole, from wastepickers to waste reprocessors and to create the required infrastructure (space, formal recognition and performance standards) for them to improve waste reduction and recycling. This not only creates livelihoods and thereby combats urban poverty, but has other obvious public benefits. The plan mentions pilot projects with wastepickers in selected zones. However, the NDMC etc have initiated this already. Hence, such initiatives must now be enhanced and replicated in all zones
- Privatization has been mentioned in the note. It is important to be note that the informal sector is also private. They also depend solely on their livelihood on recycling. Hence, privatization in its current form, where right of ownership of the recyclable waste and dhalaos space is given to the operator, result in enhanced poverty and loss of livelihoods in the private sector and amongst those who have made smaller capital investment. This must be reversed and replaced by smaller contracts, requiring small capital investments (and if required, the infrastructure may be underwritten/subsidized by the Delhi Government) with multiple smaller players, minimizing waste to be transported to landfills
- Increasing door to door collection of waste to reduce occupation health risk to waste recyclers as well as allow relocated communities a system of waste disposal that can serve their needs. (Such areas have very few dhalaos and hence are forced to dispose waste in open dumps)
- In communities that have been relocated, a comprehensive local waste recycling system on site is probably the best solution, since these areas do not receive the same quality of services as other, more affluent areas
- The plan must allow for pilot projects here and incremental learnings, which require small funds, and their replication
- To create clear handling pathways of waste not recycled, but of high health risk, such as slaughterhouse waste
- In view of its link with avian influenza, to pay special attention to local, safe disposal of poultry waste and dropping. Local training of poultry breeders is critical here
- To invest in a facility that can handle e-waste with the highest pollution and safety standards. This can absorb the waste locally produced. It will procure waste via the exiting informal sector that trades in such waste currently
- Plastic recycling is not being undertaken in a safe and environmentally sound manner. Many types of plastic cannot be safely recycled. But those that can, such as PEs and PPs, should be considered. The informal plastic recycling sector must be recognized and its capacity built for improved recycling.

#### *IV. The Stockholm Convention and Toxics Reduction*

- No waste to be diverted to Refuse Derived Fuel facilities or other burn technologies shown to emit dioxins or furans as these are in contravention of the Stockholm Convention. There is now adequate knowledge to show that RDF is harmful to human health and hence, a project like this will also lower the quality of life in



- There is mention of e-waste recycling. This is essential and should use the informal sector as suppliers of e-waste procured by them so as to create disincentives to recycle informally and to ensure a steady supply.
- Extended Producer Responsibilities for toxic products, such as electronics and paints, extending to batteries, over an 8 year period. Other items to be included such that manufactures are responsible for their disposal and these do not reach landfills

*V. Incremental Learning and Flexibility*

Solid waste handling depends on several external factors, ranging from the changing nature of waste to land availability and new technologies. In the last decade itself, solid waste handling has been changing dramatically, as old technologies are adapted and innovative initiatives being adapted globally. Hence, the plans should not detail the waste handling processes but the principles and outcomes, allowing for incremental changes and adaptation. Plans should focus on spending funds on waste handling driven by such principles instead of presenting detailed concrete plans for Delhi, or adopt a branch approach instead of a root approach. Hence, the plan must be based on extensive consultations on a continuous basis.



**DR. SATPAL SINGH (PRIA)**

After careful reading of Chapter 12 on Solid Waste Management of the City Development Plan for Delhi, I have observed the following points that should be incorporated in the plan.

- There is need to discuss the SWM in areas other than MCD in terms of generation, collection, transportation, processing and disposal.
- Waste generation should come first and then waste collection.
- Organizational Structure of the departments responsible for SWM within the local bodies in the city should be discussed.
- Information on Staffing Pattern and their responsibilities and duties should be included.
- Discussion on initiatives taken by local bodies to improve the socio-economic conditions of the waste collectors/rag pickers should be included as many initiatives in this regard has been taken by the NDMC.
- There is need to discuss in detail some more areas of CDP with regard to solid waste management i.e. waste transportation, processing and disposal of waste, for example, the present scenario of existing landfill sites, composting plants, and problems relating to (i) marketing of compost and land requirement for more disposal sites etc.
- This CDP is missing very important aspect of SWM i.e. financing part. Finances of SWM in Delhi should also be discussed in this plan.
- At last, cosmetic editing, grammatical correction and expansion of abbreviation used in this plan are to be done. Some more information on privatization of solid waste management is also required.



**PROF. SUBIR PAUL (ECO GROUP)**

At present, most of the operational expenditure by MCD is incurred on transportation of MSW from the intermediate collection dump to dumping site. As the city is growing in size and dumping sites are at the periphery, average trip length for dumping of garbage and cost of transportation is increasing – it shall further rise if and when new dumping sites (in further outline areas) are operational.

**Status of MSW Disposal in major Metro cities in India**

Sl. No	Name of city	Waste Qty. TPD	Transfer Station	Staff Strength (in thousand)	SW Processing (TPD)					Landfill Disposal				
					Composting	Vermi-compost	Pelletisation	Bio-methanation	% of SW Biodegraded	Uncontrolled Dump	Sanitary Landfill	Biogas Recovery	Remaining Life	Landfill Area (Ha)
1	Gr Mumbai	5320	Y	35.0	Nil	Nil	Nil	Nil	Nil	Y	N	N	N	140
2	Kolkata	2653	N	11.9	700	Nil	Nil	Nil	26.38	Y	N	N	N	24.7
3	Delhi	5922	Y	50.1	Nil	53	Nil	Nil	0.89	Y	N	N	N	66.4
4	Chennai	3036	Y	10.3	N.A	Nil	Nil	Nil	Nil	Y	N	N	3	465
5	Bangalore	1669	N	10.8	300	Nil	Nil	Nil	17.97	Y	N	N	N	40.7
6	Hyderabad	2187	Y	5.2	700	Nil	Nil	Nil	32.00	Y	N	N	20	121
7	Ahmedabad	1302	N	7.5	500	Nil	Nil	Nil	38.40	Y	N	N	10	84

Source > Compiled from Table-3: Status of Cities & State Capitals in Implementation of MSW (Management & Handling) Rules, 2000; plus Annex-I & II.

**Ground Water Contamination Around Garbage Dumps**

Sample No.	pH	TDS	SO <sub>4</sub>	NO <sub>3</sub>	Cd	Cr	Mn	Zn	Fe	Ni	Pb
GD 1	7.35	578	33.8	19	BDL	0.005	BDL	BDL	9.80	BDL	BDL
GD 2	7.95	950	11.40	43	BDL	0.983	BDL	0.959	2.90	BDL	BDL
OD 1	7.68	632	36.4	28	BDL	BDL	BDL	BDL	0.51	BDL	BDL
OD 2	7.67	802	26	35	BDL	BDL	0.11	BDL	BDL	BDL	BDL
BD 1	6.81	731	41.70	24	BDL	BDL	0.11	BDL	57.75	BDL	0.06
BD 2	7.56	696	47	22	BDL	BDL	0.48	BDL	61.83	BDL	BDL

GD – Gazipur dumping site    OD – Okhla dumping site    BD – Bhalswa dumping site

All parameters except pH are in mg/l BDL – Below detectable limit

Chloride contamination data (which is very common around dump sites) is not monitored



Source > Table-5: Ground Water Quality Assessment Around Landfill Sites, Delhi

In total disregard to MSW (Management & Handling) Rules, 2000; by the MNEF (GOI) the MCD is trying to build up a case as if dumping garbage on low lying land is the only viable option. On the one hand land is increasingly scarce and land cost is increasing at a rapid pace. Garbage dump are found to create air pollution (increased SPM) in and around dump area and also pollute ground water. Large stretches around garbage dump area, the ground water is highly contaminated rendering it fit for human consumption. In the context of increasing water shortage in metro-cities, such garbage dumping can not be allowed to contaminate ground water. Even after closure of dumping sites it takes decades for dumped garbage to decompose and land can not be used for any purpose except for greenery or open space. The above rule clearly stipulates that, sanitary landfill as a means of disposal of organic wastes must be stopped and replaced with one of the recommended bio-degradation techniques. Upon separation of bio-degradables and inert matters, only the balance matter may be disposed in a sanitary landfill. Whereas, the MCD is trying to build up a case for disposal of biodegradable items through landfill sites. **It is well established that, land fill sites are responsible for carbon emission through release of methane and therefore disposal of any organic matter through landfill must be banned completely.**

#### **CDP identified projects :**

The MCD has proposed (under the CDP) establishment of 3 new “Sanitary Land Fill” (SLF) Sites in Delhi with a total area of 152.6 Ha as under:

◆ Jaitpur	24.6 Ha	stated average depth 25 M deep
◆ Naraina Bawana	60 Ha	flat land
◆ Bhatti Mines	68 ha	deep pits – 4 pits average 20 M deep

However, several NGOs working on community based composting/vermi-composting at local levels under the GOI-NCT Delhi-UNDP sponsored project (through NIUA) wanted small (unutilized) pockets of land within residential colonies for experimental project for bio-degradation but the MCD by remaining silent on the subject has prevented working on such projects of great potential. No worthwhile attempts have been made by the MCD to put in practice the various alternative options for Solid Waste processing as prescribed under the MSW (Management & Handling) Rules, 2000.

4 mechanized composting plants exist in Delhi (150 TPD Okhla plant of MCD – currently closed, 200 TPD Okhla plant of NDMC – operating below capacity, 500 TPD Bhalswa plant of a private party operating at 50% capacity, 125 TPD plant of APMC at Tikri Khurd working on market wastes). Thus out of installed capacity of 975 TPD operating capacity is only at about 425 TPD may be working at best.

**Existing key components for processing Solid Waste through uncontrolled Garbage dumping** (make no mistakes no sanitary land fill)



Sl. No.	Name of Site	Location	Year of start	Area (HA)	Waste Process Capacity – received (TPD)	Remarks
1	Bhalsawa	North Delhi	1993	21.06	2200	Grossly unsatisfactory – highly cost ineffective & corrupt
2	Ghazipur	East Delhi	1984	29.16	2000	
3	Okhla	South Delhi	1994	16.20	1200	
4	Informal sector – over 1 lakh rag pickers recycling	Entire Delhi		No land area	1500	Grossly unsatisfactory – need support in management of health risk,

**Limited Success of Delhi initiatives in Composting of organic wastes ?**

Sl. No.	Name of Facility	Year of start	Area (HA)	Waste Process Capacity – received (TPD)	Processing Details
1	Okhla (MCD) not operational now	1981	3.2	150	Anaerobic windrow composting – to be upgraded to 200 TPD
2	Okhla (NDMC)	1985	3.4	200	Operated below capacity
3	Bhalswa (Private Sector)	1999	4.9	500	Operating at 50% capacity
4	Tikri Khurd (APMC and pvt. sector)	2001	2.6	125	Dedicated Waste Stream for APMC
5	Pvt. Sectors		14.1	975	On behalf of APMC

The CDP aims at (i) “well developed and sufficient landfill sites” for disposal of Solid Waste, (ii) revival through re-engineering of 4 existing compost plants gross capacity of 975 TPD and (iii) new compost plants of 1500 TPD capacity, (iv) waste processing plant of 1000 TPD capacity and (vi) 1400 TPD waste to energy plant. In the matter of bio-degradation or composting of garbage, recent APMC initiative has shown some promise of delivery. DMC initiatives are all failure.

**Land Requirement for domestic garbage - As per Master Plan 2021:**

At City Level > 1600 acres



- Land Fill Sites – total of 1500 acres in suitable sites of each in take capacity of 2000 MT/day – cites recent supreme court order for 10 garbage processing facilities but MCD converts these garbage processing facilities conveniently into Land Fill Sites.
- Processing facilities for specialized wastes like Slaughter House wastes, cow dung – seeking 10 sites of 10 acres each – a total of 100 acres.

At Zonal Level > 23.64 acres.

- ◆ Workshop and parking facility for vehicles @ 3,000 Sq.M. (0.74 acres) each – currently there are 5 zones to be increased to 12 zones by year 2021 > 8.88 acres
- ◆ Transfer Stations @ 5,000 Sq.M. (1.23 acres) each – in 12 zones > 14.76 acres
- ◆ Total land demanded = 8.88 + 14.76 or 23.64 acres.

At the Colony/micro level > additional land of 12.35 acres

On the basis for a population of 8,000 to 10,000 persons @ 400 Sq.M.

- Storage space @ 100 Sq.M. - this is totally inadequate for storage and handling of 400 to 500 TPD of garbage by heavy equipments
- Segregation of garbage @ 200 Sq.M. - this is also totally inadequate for segregation of 400 to 500 TPD of garbage
- Office of Asst. Sanitary Inspector @ 100 Sq.M.
- Total additional land demanded for increased population of 1 crore = 1,000 x 500 or 50,000 Sq.M. ie. 12.35 acres

Thus total land of 1640 acres or 664 Ha demanded for Solid Waste Management by MCD in Delhi. Can the city afford this land ? What is the worth this land?

EWS housing that can be provided on a site of 664 Ha at a gross density of 300 Du/Ha (equivalent of net residential density of 600 Du/Ha = 1,99,200 dwelling units to house about 9,96,000 persons.

Therefore, the concept of “RECYCLE-REDUCE-REUSE” (3Rs) concept to reduce quantity of wastes needs to be applied – example 30% reduction in quantity of Solid Waste at Inchon, Korea. At Curca, Goa – an existing depression left by an abandoned quarry is used to process 20 to 30 TPD of solid waste through Vermi-composting after segregation of waste and it is being carried out at the existing landfill site. Why bio-degradation through vermi-composting or enzyme composting is not tried out ?

Livelihood potential - in MANAGEMENT OF SOLID WASTE AND WASTEWATER (including sewage) there are ENORMOUS LIVELIHOOD POTENTIAL for the urban poor while ensuring their health safety.



## **CHAPTER 6: ROAD NETWORK AND TRANSPORT SYSTEM**

*A Critique of Chapter 11 and associated sections in other chapters of the City Development Plan*

**MS. ALPANA KISHORE (NEW DELHI PEOPLE'S ALLIANCE)**

### **The Transport Corridor**

Changing Delhi for the next 100 years

The concept of the 'transport corridor' is barely touched upon in the MPD 2021 or the CDP yet it will be the single biggest instrument of change for better or worse in the city's urban landscape for the next 100 years. It will affect the average citizen's life in drastic ways that he is yet unaware of. It will alter Delhi's USP and its invaluable brand equity as the pivotal core of a 5000 year old civilisation emerging as a world power. This is on par with the Taj case that wanted to sacrifice a wonder of the world at the altar of the shopping mall. A crucial partner in this is the MPD 2021 that imposes a drastic commercialisation along the city on the entire transport corridor (500 sq mts on either side, by law). The purpose of this is to make the service profitable. Together they will instead, place the city alongside others like Cairo, Shanghai and Bangkok whose short term Third World reasoning has endangered, degraded or practically ruined their unique urban assets.

These cities have destroyed their ancient, organic forms to accommodate transport corridors for miles snaking across their central precincts, their homes, their priceless heritage and environment. The priority is the accommodation of cars and the MRTS. Elevated Highways with literally thousands of cars hurtle through Cairo's residential apartments, they surround its monumental statues of ancient kings so that no full view is available – a battle New Delhi had to fight hard and long with Metro authorities to prevent the Qutub from going the same way. The first view of Bangkok after the airport is the concrete pillars of the Sky Train and Elevated Expressway that carry on for miles - a foreigner can have no indication of Thailand's architecture, trees and environment or built heritage nor any hint of Bangkok's own organic form emerging from around the Chao Praya river. Shanghai's Elevated road network through the city on top of pivotal city arteries has lopped off whole sections of its neighbourhoods for its development. It reached its capacity in nine months. Authorities are contemplating building a second one on top of the first. Locals joke darkly about the third, fourth and fifth.

These examples should serve as warnings to Delhi's planners. Unfortunately they serve as inspirations. Cities like Boston and San Francisco are spending \$14 billion to pull down their Elevated highways and rebuild them underground – thereby restoring the waterfront to the city. Seoul has completed a massive project to tear down a fifties style Elevated expressway to recover the ancient waterway through the city that had been cemented over for the expressway. Greenery, water and birds have replaced concrete and traffic. As a city rejuvenation project, it now attracts thousands of tourists and city residents for its restful, environmentally rich habitat through the city's main artery – somewhat like a Lodi garden all through Ring Road. The key to this development was organising resistance from traders

along the old Expressway and providing them reassurance by carefully planned alternatives and a time-bound shift in to new quarters.

Yet while the developed world itself is spending billions to junk this mindless ‘western style progress’ of giant highways through the city or Elevated metros they initiated in the fifties; the developing world is cranking up the same arguments of “modern necessities”, ‘progress”, “world class cities”, “accommodation of the needs of the rising middle class” etc. In the Build-Now-Think-Later reasoning, the short term convenience and cheap costs of Elevated corridors for Metro and/or Elevated roads seem to perfectly fit the bill. However the hidden costs are far, far higher than anyone is currently anticipating. They will far outrun the higher spending on a quality underground Metro or the costs of preserving residential, environmental or heritage assets in the best parts of the city. Consider.

The first and most unique economic aspect of Delhi’s future transport corridors is that the corridors do not service the city. Instead the *city services the corridors* i.e. the city *pays* for the development of the corridors so that they can finance the Metro. How does this happen? As is well known, the Metro does not make profits anywhere in the world. The only way it can make them is to develop land. The MPD 2021 clause 3214 states that 500 sq mts of land on either side of any Elevated Metro corridor will be declared commercial. Clause 2355 further states that if a commercial development scheme (like a mall) lies even 70% within this 500 sq mts on either side (and 30% outside); it will be granted permission. These corridors extend through several residential areas like Defence Colony, Lajpat Nagar, Kailash Colony, Safdarjung Enclave, Pusa Road etc

What is the effect of this corridor-commercialisation partnership? There are **three** major destructive results. **Firstly** it automatically shoots up land prices, prompts forcible selling, invites the builder mafia and transforms all residential colonies by drastic and full scale *legal* commercialisation that the resident has no legal recourse to oppose. It brings in all the horrible follies of drastic commercialisation without planning – massive parking issues, noise pollution, environmental degradation, lack of security, strangers in the neighbourhood etc. Though it markets itself as an asset for the city, its progress occurs only by the annihilation of the *established* assets of the city – whether environmental, residential, heritage. An example is the Qutub case – one that should have been self evident to the designers of the Metro. Another is the HCBS corridors where old and historic trees are being cut in a massive exercise.

**Secondly** it smashes through the ancient, organic form of the city that is spatially built in radials and rings around multiple nodes and centres. Delhi is not built in a gridlocked linear pattern like Manhattan – it has a different and ancient sense of space and form that is brutally disrupted by these transport corridors that impose an alien linear pattern over the city – *forcing it to develop where the Metro goes rather than choosing the best places for redevelopment and extending the Metro there* – again, the city servicing the infrastructure rather than the infrastructure serving the city.

Yet it also makes the Metro profitable. It allows authorities to chart out several *more* routes and extensions that were never part of the initial Four Phase Metro plan that has now extended far beyond its original scope. These are economically feasible only due to the transport corridor concept of land development. **Thirdly** therefore, it invites large scale



migration. As the corridors develop, the number of people using the routes increases too. They come for entertainment and work. In a vicious cycle, these complexes are built *for them to come to*. In time, the Metro routes are full of people who come in because places have been developed for them to go to. Metro's development therefore is not really focussing on serving the basic needs of the city for rapid transport from one part to another but creating new zones of over development to pull in people who may never have come otherwise, and therefore make new routes profitable. The city becomes a mechanism to be used for this purpose.

The profligacy of routes – necessary or unnecessary - is the *first* reason why money is spent on *quantity* rather than quality. If the costs of new routes are used instead to make underground routes, the number of lines will come down to those *absolutely* necessary and retain the city's sustainability, its ability to provide services to its residents without strain. The *second* reason is time. A question to be asked is, do we really need so many routes and why do they all have to be finished immediately? Why cannot we add to the basic Four Phase network a few years later? Doing everything in one go, increasing routes randomly as we go along, connecting every last bit of Delhi in the shortest possible time makes for worst practice. The key aspect in this mad rush to increase routes under brutal time pressure is the Commonwealth Games. Routes developed may benefit the athletes who will go home in 15 days but may be of no use to city residents later on. Yet they will *have to live with them for the next 100 years*. To prevent such routes from going empty later on, the commercialised transport corridor is the only answer.

It leaves no time for urban planning, for analysing whether the route is really needed or not, for investigating its profitability and for integrating future visions of transport like roads, flyovers, bus routes in to the Metro. Neither can we make it like other cities a giant urban rejuvenation effort that imaginatively integrates residential, heritage and environmental sites like trees and parks. **It is this lack of address to the residents of the city that is at the heart of the objection to the transport corridor.** The ordinary resident is aware of the Metro coming near him only at the implementation stage when contracts have been awarded. His neighbourhood, lifestyle and children's security may be completely compromised but he has no input in the exercise nor any right to legal recourse. A house on the main road of Defence Colony cannot object even though a shopping mall can come up next door, its customers will park their cars at his door, trains will look into his first floor every three minutes and a station will disgorge passengers seeking work and entertainment in his newly commercialised road 'notified' by the MPD 2021

The CDP fails to recognise or enumerate these key issues i.e. the wholesale bypassing of urban planning so critical for city mega projects. While it identifies the obvious bugs in the system, multiplicity of agencies, inadequate commercial development, parking, non integrated public transport etc, it fails to anticipate the coming consequences of this inadequate planning. Therefore it does not suggest solutions to address these immense changes that will cause vast dislocation and squeeze the city's services beyond repair. It is the absence of the 'vision' part of its mission that renders it incomplete and ultimately, ineffective.



**PROF. DINESH MOHAN & PROF. GEETAM TIWARI (TRIPP, IIT-DELHI)**

- A. The transportation plan has no logic or consistency.
- B. It is not explained how the proposed investments will achieve any of the stated objectives, eg. Ensuring 80% of the trips are by public transport. There is no city in the world that has achieved this!
- C. There are no explanations regarding the viability of the PPP investments.
- D. We should also question the competence of the Consultant and find out how much they got paid for repeating material from government files.

**Comments on the New Proposed Metro Link to the Airport**

The newspapers report that DMRC is proposing yet another alignment for the CP - Airport Metro link. According to this report the new route goes from CP to Wellington Crescent, to Dhaula Kuan (where there will be a station), and then on to the airport.

This raises a few issues regarding professional ethics and competence:

A. Ethics:

Since a new alignment is being proposed there are three possibilities -

1. The new alignment is "better" than the old one in efficiency and load carrying capacity. If this is so, then how come it was missed when the original proposal was made?
2. The new alignment is the "same" as the old one. In this case these two proposals should have been put up together so that an informed choice could have been made.
3. The new alignment is "worse". If this is so, do the new financial calculations reflect the same?

Consultants making Feasibility Reports of large projects must be asked tough questions. Consultants should not be able get away when they change their stands or make projections that do not come true. It is time we set up a monitoring mechanism to have a score card for companies regarding the accuracy of their cost estimates and projected benefits.

B. Competence:

Building a modern airport and providing for comfort of passengers cannot be based on which technologies get employed. This discussion has to be based on objective functions which centre around the passenger or freight to be transferred.



In the present case, the issue is passenger transport between the airport and the destination of the passenger. This involves four variables:

1. Minimising travel distance between the airport and origin/destination of each passenger. Simple theory will tell you that this cannot be achieved if you take passengers to one location in the heart of the city. Ideally this is achieved if each passenger optimises his/her trip by personal transport. But if this puts too much car/taxi load on the airport, and we want to reduce fuel use, then we would have to think of taking people out in groups to many locations in the city from where they fan out to their destinations. The metro link will certainly not do this.
2. Minimising time spent on the journey: Minimising distance travel reduces time spent if there is no congestion. So solutions have to be found for areas that have congestion. Bringing people to a congested part of the city and then asking them take a taxi or personal transport does not get rid of the congestion problem. In addition, time spent waiting for the train, traversing stations/platforms, escalators, etc. at two stations has to be factored in also. Generally, this adds up to about 20 minutes. This is a significant proportion of actual travel time.
3. Minimising discomfort for the traveller: The main discomfort the traveller faces is lifting and carrying luggage. Using underground or over ground stations and long platforms adds a great deal of discomfort to passengers carrying more than 10kg of baggage.
4. Subsidy to air travellers: If the provision of a facility for air travellers has to come through a subsidy provided by the state, then it is important to examine whether this comes from resources generated from citizens who are unlikely to use the system.

So we see that the proponents of the CP-Airport Metro Link are likely to be on a weak ground on all four counts. This is particularly true for the new proposed alignment. What is noteworthy is that within a few months we will have an expressway between the airport and Dhaula Kuan. Buses can travel at 80 km/h from the airport to Dhaulan Kuan. This means that there will be no time saved by using a metro between Dhaulan Kuan and the airport. One may as well build a bus terminal at Dhaula Kuan with efficient car/ taxi transfer designed into the system. A saving of a few thousand crores.

So it appears, that if there will be any time benefit of the metro, it will be for the distance between Dhaulan Kuan and Connaught Place, hardly 4-5 km. This can't be more than a few minutes, and that only for those living on the northern side of Connaught Place.

Purely as a transport efficiency issue, one cannot see how the investment proposed can be justified.

In the above analysis, we have not factored in aesthetics and other issues. An elevated concrete track running in the vicinity of Wellington Crescent or along Sardar Patel Marg certainly does not improve the aesthetics or beauty of New Delhi!





## **CHAPTER 7: REVIEW OF URBAN FINANCES**

*A Critique of Chapter 14 and associated sections in other chapters of the City Development Plan*

### **MR. ABHIJIT ROY (INDEPENDENT CONSULTANT)**

As JNNURM does not include areas like power, education and health, these have not been included in the CDP. However, investments in the social sector are critical, and their non-inclusion makes an important vision document like the CDP incomplete.

#### **Project and Capital Investment Plan**

The project identification and capital investment plan have been prepared for sectors as per the sub-missions of JNNURM. Sub-Mission-1: Urban Infrastructure and Governance; Sub-Mission-2: Basic Services to Urban Poor

The shares of major sectors are water supply (7%); sewerage ( 11.5%); road network & transportation (56%); and urban poor and slums (18%) respectively. The CDP proposes total investments worth a substantial Rs.24,140 crores consisting of Rs.19,470 crores under Urban Infrastructure and Governance, and Rs.4,400 crores for the Basic Services and Poor. Only Rs.535 crores has been proposed for PPP projects. Out of the total cost of Rs.24,140 crores, a huge amount of Rs.13,487 crores is proposed to be spent in the road network and transport sector alone. This includes around Rs.6,500 crores in light rail, monorail and high capacity bus system projects. Metro Rail outlays are of course separate.

#### **Financial Sustenance Plan**

The Financial Operating Plan (FOP) is essentially a multi-year forecast of municipal finances for a term of 15 years. It has been used to forecast the revenue income and operating expenditures for the period between FY 2005-06 and FY 2019-20. At least 5% of the investment requirements of ULB's (minimum) are proposed to be mobilized through the private sector. Beneficiary contributions will also account for a part (small) of this investment requirement.

The cumulative O&M cost (over 5years – 2007 – 2012) of various projects is Rs 4,974 Crore. In order to meet the O&M cost, due to new investments, it has been proposed to revise the unit area value, water tax (normal revision of water tax as per DJB norms are proposed), sewerage tax and other revenue sources.

By instituting prudent fiscal measures and reforms, the MCD is expected to enhance its revenue from the current level (2005-06) of Rs. 2,019 Crore to Rs. 5, 098.7 Crore in 2011-12. A large part of this is anticipated to accrue from property tax revenues (Rs. 486.4 cr to Rs.1747.3 cr). The ULB is undertaking reform measures in this area, including instituting on-line filing of taxes from 01-04-2007; and digitization and computerization of property tax records, which is due to be completed by 2008-09. This is expected to enhance efficiencies in both coverage and collection.

Similarly, in the case of Delhi Jal Board, water revenues are expected to increase from Rs.663.20 crores during 2005-06 to Rs.1969.29 crores in 2011-12, with water charges rising from Rs.425.0 cr to Rs.1415.59 cr. during the above period. In spite of this substantial projected rise in water charges, the DJB will continue to be in deficit.

GSDP of Delhi is growing at a high growth rate of around 15% (CAGR at current prices-2002-03), with the service/tertiary sector contributing more than 76 per cent towards the economy of the state. There is high per capita income at Rs 47,477 (current prices, 2002-03). This implies that Delhi 's population is in a position to pay for the higher recoveries required for enhanced O&M charges. However, will it be politically feasible to increase recoveries at the suggested levels? The past record of elected representatives is not encouraging in this regard.

*To summarise:*

- Multiplicity of authorities will continue to place hurdles in properly managing Delhi's affairs
- It needs to be debated whether the present administrative system with its lack of core competence and accountability is really in a position to implement large projects and deliver adequate urban services on a sustained basis. However, this is a problem of not only Delhi but most parts of India.
- There is a good possibility that because of the availability of funds from the Centre as well as the resources available with the State Government (as Delhi is a city state and able to retain the taxes collected), resources for capital investments can be found. However, there may be political problems associated with increasing user and other charges as projected over the next few years.

## **OVERVIEW OF MCD FINANCES**

Revenue income of MCD has grown to a level of Rs. 2258.47 crores in the FY 2004-05 from Rs. 1372.85 crores in FY 2000-01; the revenue income had registered an average annual growth rate of 11.47 percent whereas the revenue expenditure increased at an average annual rate of 7.68 percent, thus indicating a surplus position during this period.

Capital income of MCD comprises of loans and grants, in the form of loan for infrastructure development and grants for improvement of basic services. A major share of capital income is in the form of grants. During FY 2004-05, capital expenditure had increased to Rs. 727.11 crore from Rs. 596.29 crore in the FY 2000-01. The highest percentage of expenditure was on providing infrastructure for colonies.



### Financial Status of MCD (in Rs. crore)

Item	2000-01	2001-02	2002-03	2003-04	2004-05
<b>A. Revenue Account</b>					
Opening balance	0.12	0.16	0.17	35.60	9.98
Income	1372.85	1570.66	1659.50	1652.11	2258.48
Expenditure	1372.80	1570.65	1624.07	1677.73	1950.47
Surplus	0.16	0.17	35.60	9.98	317.99
<b>B. Capital Account</b>					
Opening balance	139.50	121.15	127.87	168.86	105.64
Income	577.94	619.35	734.24	713.21	803.29
Expenditure	596.29	612.62	693.26	776.42	727.11
Surplus	121.15	127.88	168.86	105.65	181.83

### Revenue Income

Own sources comprises 68 percent of the income whereas, external source contributes 32 percent of the revenue income. Own-source income includes income from resource mobilisation activities of MCD in the form of taxes, user fees, fines, trade licences, etc. Own revenue sources are further classified as tax and non-tax sources that are generated by various sections of the MCD.

**Tax Sources:** About 56 percent of the revenue is contributed by tax sources, which includes Property Tax, Tax on Consumption and Sale of Electricity and Animal & Toll Tax. Major items of own-source income, contributing towards revenue income, include property tax (41%) and other income (6%) which includes income from commercial ventures, development charges etc.

Income from property tax is the single largest and most elastic source of revenue, contributing about 40-45 percent to the total revenue. Income through Property Tax up till 31-3-2004 was based on the Annual Rental Value of the property. From 1-4-2004 a new system for assessing properties has been introduced called the Unit Area Method of property tax.

### Major head-wise break-up of Revenue Income (in Rs. Crore)

S. No.	Item	2000-01	2001-02	2002-03	2003-04	2004-05
1	Municipal Taxes and Rates	803.56	900.41	958.52	1080.25	1074.13
2	Rents and Fees	21.62	20.57	27.71	31.74	60.53
3	Others	146.16	240.23	199.30	125.10	108.39
4	Global Sharing of Taxes- Assigned	227.55	247.94	296.80	295.29	347.01
5	Education Grant- Reimbursement Grant	93.95	101.51	117.17	119.73	358.42
6	Ways and Means Advance	80.00	60.00	60.00	0.00	310.00
	<b>Total Revenue Income</b>	<b>1372.85</b>	<b>1570.66</b>	<b>1659.50</b>	<b>1652.11</b>	<b>2258.48</b>

### **Revenue Account Status**

The revenue account of MCD from the year 2002-03 has shown a healthy surplus. The operating ratio over the period of analysis has hovered around unity indicating that revenue income is being wholly utilized to meet revenue expenditure.

### **Revenue Income**

MCD has generated over 68 percent of its revenue through its own sources. Dependency on the grants is to the extent of 15 percent. Though Property tax is the largest own source revenue income, there is still a scope for improvement by expanding the base by way of covering un-assessed properties. The average collection on current demand is around 55 percent.

### **Revenue Expenditure**

It is observed that about 60-65% of the total revenue income is being spent on the salaries and other related costs which is well above the average when compared to other local bodies – the range being 30-40 percent of revenue income.

### **Capital Account status**

The capital account has consistently given a surplus indicating that there is an under-utilization of funds available for carrying out the development work.

## **OVERVIEW OF NDMC FINANCES**

NDMC performs the same functions as MCD. The difference being, NDMC covers a much smaller area. NDMC generates its revenue mostly through provision of electricity; water supply etc.

### **Final Status of NDMC (in Rs. Crores)**

Item	2000-01	2001-02	2002-03	2003-04	2004-05
<b>A. Revenue Account</b>					
Income	749.52	770.87	883.38	863.35	1078.98
Expenditure	747.22	743.68	775.72	801.48	954.84
Surplus	2.3	27.19	107.66	61.87	124.14
<b>B. Capital Account</b>					
Income	11.21	11.71	10.18	15.08	13.74
Expenditure	14.99	19.61	9.8	15.8	11.64

## **OVERVIEW OF DJB FINANCES**

On carrying out the analysis from the limited data made available, it can be seen that DJB finances are not in good condition, since, in five years under review, there was a deficient balance on revenue account on year to year basis without considering previous year balances. On the other hand the capital account has consistently shown a surplus thereby implying that capital income is being utilized to fund revenue expenditure.

### Revenue Account status of DJB (in Rs. Crore)

Items	2000-01	2001-02	2002-03	2003-04	2004-05
<b>A. Revenue Account</b>					
Income	286.18	403.84	841.45	542.87	530.20
Expenditure (inclusive of Loan & Interest repayment)	700.77	891.64	1071.28	1025.26	1344.05
Surplus/(Deficit)	(414.59)	(487.80)	(229.83)	(482.39)	(813.85)

Revenue Income is primarily categorized into two sources – internal sources and non-plan assistance.

### Source wise break-up of Revenue income

Item	2000-01	2001-02	2002-03	2003-04	2004-05	Average
Internal Sources	211.18	213.84	230.82	241.87	280.20	235.58
Non plan assistance	75.00	190.00	610.63	301.00	250.00	285.33
<b>Total</b>	<b>286.18</b>	<b>403.84</b>	<b>841.45</b>	<b>542.87</b>	<b>530.20</b>	<b>520.91</b>

### Capital Account

**Capital Income:** The capital income comprises of grants & loans received from Government of NCT of Delhi. It is paid to DJB on submission of request to Delhi Government. The grants are primarily utilized for providing water supply to weaker sections supply of water through tankers to unauthorized colonies.

### Source-wise Breakup of Capital Receipts

Item	2000-01	2001-02	2002-03	2003-04	2004-05
Grants	64.1	60.02	58.15	7.50	7.80
Loans	381.43	439.45	570.45	601.23	686.96
<b>Total</b>	<b>445.53</b>	<b>499.47</b>	<b>628.60</b>	<b>608.73</b>	<b>694.76</b>

### Key Issues & Conclusions

The revenue and capital balances indicate that DJB is not quite able to meet its recurrent expenditure out of its own sources. As explained above the capital receipts generate maximum revenues. The operating ratio has been more than unity indicating a trend of going beyond means. The authority has been servicing its debts by utilizing capital receipts thus implying that instead of asset creation the capital receipts are being diverted towards meeting recurring expenses.

### Extracts from Chapter 18 of the CDP – Investment Framework

#### SUMMARY OF COSTS

The total investment under JNNURM is Rs 24140 Crore. The investment for Sub- Mission-1 is Rs 19740 Crore and Sub-Mission-2 is Rs 4400 Crore. The details of sector wise investment are presented below.

Strategy/Project	Short Term Investments (2007-12)	Medium Term Investments (2012-2017)	Long Term Investments (2017-21)	Grand Total
	RS IN CRORE			
<b>SUB-MISSION-1: URBAN INFRASTRUCTURE AND GOVERNANCE</b>				
Water Supply	1632	130	122	1884
Sewerage System	2755	1435	1435	5625
Road Network and Transport	13487	10629	9190	33306
Storm Water Drainage	231	203	125	559
Solid Waste Management	593	289	440	1322
Urban Heritage	582	482	199	1263
Urban Environment	431	127	48	606
Urban Governance	9	0	0	9
Other Projects	20	0	0	20
<b>Sub-Total</b>	<b>19740</b>	<b>13295</b>	<b>11559</b>	<b>44594</b>
<b>SUB-MISSION-2: BASIC SERVICES AND POOR</b>				
Urban Poor, Slum and Housing	4400	2426	1746	8572
<b>Total</b>	<b>24140</b>	<b>15721</b>	<b>13305</b>	<b>53166</b>

## Extracts from Chapter 20 of the CDP – Financial Sustenance Plan

### INTRODUCTION

In order to assess the investment sustaining capacity of MCD, NDMC and DJB, the municipal fiscal situation has been simulated, based on a Financial Operating Plan (FOP). The FOP is essentially a multi-year forecast of municipal finances for a term of 15 years. It has been used to forecast the revenue income and operating expenditures for the period between FY 2005-06 and FY 2019-20. In order to gauge the sector-specific fiscal situation and determine options for project structuring, the FOP has been generated for the following three major accounts: (a) MCD Accounts (b); NDMC Accounts and (c): DJB Accounts for water & sewerage.

### DEPARTMENT-WISE EXPENSES

The department wise capital investments are presented in the table below. Some of the projects that are under the ambit of the MCD & parastatal departments, but can be taken up with private sector participation, have been segregated and it is assumed that for these projects 50% of the funding would be from the GoI & the State Government and some part of the balance 50% would come from the private sector as equity. In this case part of the operation and maintenance would be the responsibility of the private sector, who would also agree on a revenue sharing arrangement with the MCD & parastatal departments.

In case of projects relating to urban slums and poor, it is assumed that 15% of the project cost would be borne by the beneficiaries. Taking into account the above assumptions, the proposed means of financing for the Rs 24,140 crores investment is given in the table below.

Department wise Investment	Rs Crore	2007-08	2008-09	2009-10	2010-11	2011-12
ODA	1199	312	385	250	143	109
DIMTS	6505	1305	1300	1850	1025	1025
DJB	4385	1139	1174	935	662	475
DJB & NGO	16	8	8			
OSIDC	587	195	221	105	66	
Forest Department	7.7	3.7	3	1		
Govt/Pvt.	23	23				
MCD	2780.87	730.2	819.13	735.44	270.4	225.7
NDMC	88	13	18	22	20	15
Private	1033	274	345	227	137.5	49.5
PWD	4988.5	1275.5	1683	1535	297.5	197.5
Revenue Deptt	5	2.5	2.5			

Slum Department	2111	445	450	598	335	283
STA	13	2	2	3	3	3
TRAFFIC POLICE	3	1	1	1		
UDD	24	6.5	8.5	9		
Intsch	4	0.5	0.5	1	1	1
GNCTD - State Archeology	228	20	60	120	10	18
DTTDC	80	7	25	35	13	
ASI	43.13	23.3	16.37	2.56	0.6	0.3
<b>GRAND TOTAL</b>	<b>24140</b>	<b>5795</b>	<b>6529</b>	<b>6430</b>	<b>2984</b>	<b>2402</b>

### O&M COST OF INVESTMENT

The O&M cost of various projects is Rs. 4972 Crore. In order to meet the O&M cost, due to new investments, it has been proposed to revise the unit area value, water tax (the normal revision of water tax as per DJB norms are proposed), sewerage tax and other revenue sources as discussed in the following sections.

Strategy/Project	Total Cost	Government	Private	Beneficiary	Total O&M	% age
	Rs in Crore					
<b>SUB-MISSION-1: URBAN INFRASTRUCTURE AND GOVERNANCE</b>						
Water Supply	1632	446.7	0.0	0.0	446.7	10%
Sewerage	2755	615.0	0.0	0.0	615.0	10%
Road Network and Transportation System	13487	1954.7	1218.5	0.0	3172.2	10%
Storm Water Drainage	231	37.4	0.0	0.0	37.4	5%
Solid Waste Management	593	50.8	0.0	0.0	50.8	3%
Heritage and Conservation	582	32.0	19.2	0.0	51.1	3%
City Environment	431	5.6	34.0	0.0	39.6	3%
Urban Governance	9	0.2	0.0	0.0	0.2	2%
Other Projects	20	0.6	0.0	0.0	0.6	3%
<b>SUB-TOTAL</b>	<b>19740</b>	<b>3143</b>	<b>1272</b>	<b>0</b>	<b>4414</b>	
<b>SUB-MISSION-2: BASIC SERVICES AND POOR</b>						
Urban Poor, Slum and Housing	4400	229	110	220	558	5%

### **Key assumptions for FOP**

The income and expenditure for all three major revenue earning departments namely Municipal Corporation of Delhi (MCD), New Delhi Municipal Council (NDMC) and Delhi Jal Board (DJB) accounts (water, drainage and general) were forecast and assessed as the basis for the investment sustenance analysis. The limits for the growth rates of various revenue streams have been fixed between 3% and 15%. For those heads with growth rate less than 3%, it is assumed that it will be brought up to 3%; and for those more than 15%, it is assumed that it will be sustained at 15% at least. The guiding assumptions for forecasting income and expenditure items were:

### **Assumptions for Forecasting Income and Expenditure - MCD**

No.	Item	Assumption for Forecast	Basis (Current Rate - 2005-06)
<b>1. MCD ACCOUNTS-TAX AND NON-TAX REVENUE SOURCES</b>			
<b>A</b>	<b>TAX REVENUE SOURCES</b>		
<b>1</b>	<b>PROPERTY TAX</b>		
a	Persons per assessment	10	13 (2003-04) - indicating under-assessment of properties
b	Unit Area Value	15 % every three years (FY 2007-08 and 2010-11)	UAM was adopted in FY 2004-05. The MVC revises the rates every 3 years
c	Growth in Number of Properties Assessed	3 %	Annual Growth rate of population (1991-2001): 3.85 %
d	Coverage	Will increase from 66% (2006-07) to 85% (2009-10)	Digitisation and Computerisation of property tax records will be completed by 2008-09.



No.	Item	Assumption for Forecast	Basis (Current Rate - 2005-06)
			enabling efficiencies in coverage to be effected
e	Collection Efficiency	Against Arrear Demand: 7 % in 2005-06 to 20 % in 2012 - 13 Against Current Demand: 36 % (2005-06) to 90 % in 2010-2011	--Consultations with the Property Tax Department, MCD
f	Realisation of Property Tax	MCD's revenue from property tax, before 2004-05 (year in which UAM was implemented) was approx. 775 cr. In 2004-05, it fell to 575 cr., due to the UAM values assigned. It is the aim of the ULB to return its tax revenue to pre-2004 levels by 2007-08. It has been assumed that this will be achieved by 2008-09, at the latest (the MVC is currently reviewing the values assigned in order to achieve this)	Consultations with the Property Tax Department, MCD
2	Taxes on Vehicles and Animals	15.0%	23.3%
3	Theater Tax	3.0%	-9.4%
4	Tax on Advertisement	15.0%	21.3%
5	Tax on Building Permission	15.0%	113.2%
6	Toll tax	11.5%	11.5%
7	Duty on Transfer of Property	15.0%	21.7%
8	Tax on consumption and Sale of Electricity	15.0%	27.7%
<b>B</b>	<b>TAX REVENUE SOURCES</b>		
<b>I</b>	<b>RENTS AND FEES</b>		
1	Fines and Process Fee	15.0 %	26.4 %
2	Education Fee	14.1 %	14.2 %
3	Fines for Cattle Pounds	3.0 %	-12.8 %
4	Fees from Hospitals	4.6 %	4.6 %
5	Fees from Vehicles Licenses	3.0 %	-5.3 %
6	Tehbazari fee etc	15.0 %	320.8 %
7	Rents on Land, Buildings and Car	15.0 %	28.7 %

No.	Item	Assumption for Forecast	Basis (Current Rate - 2005-06)
	Parking		
8	Special Registration for Trades	3.0 %	2.6 %
9	Public Health and Conservancy and Street Cleaning	14.1 %	14.2 %
10	Miscellaneous	3.0 %	-11.9 %
<b>II</b>	<b>OTHERS</b>		
1	Development Charges	3.0 %	-2.3 %
2	Road Restoration Charges	3.0 %	-19.8 %
3	Reimbursement of Cost from diff schemes	15.0 %	252.2 %
4	Others	15.0 %	23.8 %
<b>III</b>	<b>EXTERNAL REVENUE SOURCES</b>		
1	Global Sharing of Taxes- Assigned	13.08 %	13.08 %
2	Education Grant-Reimbursement Grant	15.00 %	43.19 %
3	Ways and Means Advance	0 %	-45.14 %
<b>IV</b>	<b>CAPITAL INCOME</b>		
1	Existing General Grants	3.54 %	3.54 %
2	Existing Loans	15.00 %	17.68 %

### Assumptions for Forecasting Income and Expenditure - DJB

No.	Item	Assumption for Forecast	Basis (CAGR 2001-05)
<b>A</b>	<b>INCOME FROM REVENUE ACCOUNT</b>		
1	Water charges	15.00 %, EVERY 3 RD YEAR	8.68%
2	NDMC	3.00 %	9.35%
3	MES	15.00 %	9.93%
4	Non-Plan Assistance	The non-Plan assistance has been worked out with a view to meeting the deficit between the Revenue Income and Revenue Expenditure.	14.34%
5	Misc. Income	3.00 %	113.15 %
<b>B</b>	<b>INCOME FROM CAPITAL ACCOUNT</b>		
1	Grant	3.00 %	-49.35 %
2	Loan	15.00 %	16.06 %

### PROPOSED CASH FLOW OF THE MUNICIPAL CORPORATION OF DELHI

Based on the above FOP assumptions and financial reforms the cash flow for MCD in Rs Crore, based on actuals for FY 2005-06 and projected for the period starting in FY 2006-07 to FY 2011-12 is presented in tabular form below.

### Proposed Income and Expenditure Pattern of MCD

Description	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12
Opening Balance	499.8	1,532.2	4,069.8	6,348.3	8,666.5	11,103.7	13,965.0
<b>A. TAX REVENUE</b>							
Property Tax	486.4	558.8	798.9	1030.0	1354.2	1724.3	1747.3
Other Tax Revenue	481.8	550.1	628.2	717.5	819.4	935.5	1,067.7
Sub-Total	968.2	1,108.9	1,427.1	1,747.4	2,173.6	2,669.8	2,815.0
<b>B. NON-TAX REVENUE</b>							
Rent and Fees	68.8	78.2	89.1	101.5	115.8	132.1	150.9
Other Charges	177.4	198.5	222.6	250.2	281.6	317.7	358.9
External Revenue	804.6	917.7	1,046.9	1,194.3	1,362.6	1,554.6	1,773.9
Sub-Total	1050.8	1194.4	1358.6	1546.0	1760.0	2004.4	2283.7
<b>REVENUE INCOME</b>	<b>2,019.0</b>	<b>2,303.4</b>	<b>2,785.7</b>	<b>3,293.4</b>	<b>3,933.6</b>	<b>4,674.3</b>	<b>5,098.7</b>
<b>REVENUE EXPENDITURE</b>							
General Supervision and collection of revenues	58.6	65.5	73.3	81.9	91.6	102.4	114.5
Other administrative expenses	1,676.4	1,826.8	1,992.8	2,176.1	2,378.8	2,603.2	2,851.6
Debt Servicing	63.0	63.0	63.0	63.0	63.0	63.0	63.0
New O&M		0.0	0.0	45.9	101.1	155.4	175.9
<b>REVENUE EXPENDITURE</b>	<b>1,798.0</b>	<b>1,955.3</b>	<b>2,129.0</b>	<b>2,367.0</b>	<b>2,634.5</b>	<b>2,924.0</b>	<b>3,205.0</b>
<b>SURPLUS/DEFICIT</b>	<b>221.0</b>	<b>348.1</b>	<b>656.7</b>	<b>926.4</b>	<b>1,299.0</b>	<b>1,740.3</b>	<b>1,893.7</b>
<b>CAPITAL INCOME</b>							
Existing General Grants	674.5	698.4	723.1	748.7	775.2	802.6	831.0
Sub-Total	674.5	698.4	723.1	748.7	775.2	802.6	831.0
<b>CAPITAL EXPENDITURE</b>							
General Capital Works	748.9	771.4	794.5	818.4	842.9	868.2	894.2
JNNURM Works			370.9	427.8	373.8	141.0	118.6
Sub-Total	748.9	771.4	1,165.4	1,246.1	1,216.7	1,009.2	1,012.8
<b>SURPLUS / DEFICIT</b>	<b>-74.4</b>	<b>-73.0</b>	<b>-442.3</b>	<b>-497.4</b>	<b>-441.5</b>	<b>-206.5</b>	<b>-181.8</b>
<b>Overall Surplus/Deficit</b>	<b>146.6</b>	<b>275.1</b>	<b>214.4</b>	<b>429.0</b>	<b>857.5</b>	<b>1,533.8</b>	<b>1,711.9</b>
<b>Closing Balance</b>	<b>676</b>	<b>851</b>	<b>1,066</b>	<b>1,495</b>	<b>2,352</b>	<b>3,886</b>	<b>5,598</b>

### PROPOSED CASH FLOW OF DELHI JAL BOARD

Based on the assumption for water and sewerage accounts the cash flow of DJB has been projected for 2006-07 to 2011-12. The DJB cash flow shows a positive closing balance with improvement in collection efficiency and enhancement of user charges. The revenue income is 73 % of the total revenue account in FY 2011-12. The revenue income has increased from Rs 663 Crore in FY 2005-06 to Rs 1969 Crore in FY 2011-12.

The key issue in water supply in Delhi currently is the inordinately high level of "Unaccounted for Water". While the per capita availability of water is sufficient to meet the requirements of the present day population, its management and distribution are such that

up to 42 % of the water produced goes unaccounted for as much as 40% due to losses in transmission and distribution. Moreover, distribution is skewed, both within and between zones - from a bare minimum of 29 LPCD to a maximum of over 500 LPCD.

### Proposed Income and Expenditure Pattern of DJB

Description	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12
Opening Balance	-4846.70	-5373.15	-5840.92	-6827.82	-7799.04	-8580.61	-9114.90
<b>A. WATER ACCOUNT</b>							
Water charges	425.00	488.75	562.06	775.65	891.99	1025.79	1415.59
NDMC	37.86	41.40	45.27	59.41	64.97	71.05	93.23
MES	11.25	12.37	13.59	17.93	19.71	21.67	26.58
Misc. Income	32.09	36.90	42.44	56.57	67.35	77.45	106.89
Non-Plan Assistance	157.00	162.00	167.00	179.00	300.00	400.00	325.00
<b>REVENUE INCOME</b>	<b>663.20</b>	<b>741.42</b>	<b>830.37</b>	<b>1090.56</b>	<b>1344.03</b>	<b>1595.96</b>	<b>1969.29</b>
<b>REVENUE EXPENDITURE</b>							
General Administration	682.94	726.12	797.32	877.64	966.34	1070.87	1186.87
Additional O&M	0.00	0.00	0.00	117.42	238.45	334.75	402.94
Debt Servicing Existing	614.22	644.78	700.91	819.34	935.86	1029.67	1093.79
<b>REVENUE EXPENDITURE</b>	<b>1277.16</b>	<b>1370.90</b>	<b>1498.23</b>	<b>1814.40</b>	<b>2142.67</b>	<b>2435.29</b>	<b>2683.59</b>
<b>SURPLUS/DEFICIT</b>	<b>-613.96</b>	<b>-629.48</b>	<b>-667.86</b>	<b>-723.85</b>	<b>-798.65</b>	<b>-839.33</b>	<b>-714.30</b>
<b>CAPITAL INCOME</b>							
General Receipts	805.30	925.14	1062.91	1221.33	1403.47	1612.91	1853.73
<b>SUB-TOTAL</b>	<b>805.30</b>	<b>925.14</b>	<b>1062.91</b>	<b>1221.33</b>	<b>1403.47</b>	<b>1612.91</b>	<b>1853.73</b>
<b>CAPITAL EXPENDITURE</b>							
General Works	717.79	763.42	811.96	863.57	918.47	976.86	1036.96
Water Supply-inNURM			267.50	257.50	165.15	83.50	50.00
<b>SEWERAGE ACCOUNT</b>							
Description	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12
Sewerage-inNURM			302.50	347.63	302.77	247.51	187.50
<b>SUB-TOTAL</b>	<b>717.79</b>	<b>763.42</b>	<b>1381.96</b>	<b>1468.70</b>	<b>1386.39</b>	<b>1307.87</b>	<b>1276.46</b>
<b>SURPLUS/DEFICIT</b>	<b>-526.45</b>	<b>-467.77</b>	<b>-986.91</b>	<b>-971.22</b>	<b>-781.57</b>	<b>-534.29</b>	<b>-137.03</b>
Closing Balance	-5373.15	-5840.92	-6827.82	-7799.04	-8580.61	-9114.90	-9251.94

### CONCLUSION

By undertaking prudent fiscal measures and reforms the MCD is able to enhance its revenue from the current level of Rs. 2,019 Crore to Rs. 5,099 Crore in 2011- 12, out of which income from tax sources amounts to 34 %. In this scenario, it is able to meet the O&M cost of the assets created under NURM.



**DR. SATPAL SINGH (PRIA)**

After careful review of Chapter 14 on Review of Urban Finance of the Delhi CDP, I have noticed the following points that should be incorporating in the CDP.

- No key issues related to Municipal Finance of the three local bodies have been presented in the plan.
- No reasons for changing the method for calculation of Property Tax in Delhi i.e. from Annual Rental Value to Unit Area method have been mentioned in the plan.
- Since the low collection of revenue from property tax i.e. 40-45 percent, discussion on another possible source of revenue income i.e. user charges should be included.
- Discussion on the key financial issues related to the water sector of the Delhi Jal Board should be presented in the plan.
- Break up of income and expenditure of the Delhi Cantonment Board should have been provided for a clear understanding of financial issues. No analysis related to the municipal finance of the Delhi Cantonment Board has been presented in the plan.



## CHAPTER 8: COMMUNITY CONSULTATION

*A Critique of Chapter 15 of the Delhi City Development Plan*

**PROF. E.F.N. RIBEIRO (PARTNER - FREDERICK RIBEIRO ASSOCIATES)**

### **The Achievable Participatory Canvas for the Sustainable Development of the National Capital Territory of Delhi**

*(This paper is an update of 16th December 2006 presentation by the author at the roundtable by the PHD Chamber of Commerce and Industries on “Planned Development of Delhi – a challenge”)*

#### **A EMERGING KEY ISSUES**

1. The 1,483 Sq.Km. National Capital Territory of Delhi (NCTD) and which got back its national capital status in 1911, was **the first urban area in India to have a comprehensive Master Plan** (Sept.'62). It thus ushered in the era of **“Spatial frameworks for integrated land use, transport and basic services”**. A holistic sustainable planned development canvas was not yet on the developmental agenda of India at that time.
2. The Master Plan was legalized through the **Delhi Development Act-57** (DD Act'57). Its initial perspective was upto 1981 (20 years). This perspective has since been updated to 2001 and now to 2021. In the process, **the city which had around 2.0 million people in 1961 as a metropole with governance and the distributive trade as prime functions has since become a multi-functional megapole for over 12.0 million people by 2001. It is now emerging as a 23.0 million core of a global mega-region by 2021. However, its geographic area is static at 1483 Sq.Km.**
3. **This mega core of mutually supportive formal and informal activities has in less than 50 years transited into the global urban arena** through competitive informatics, facilities and skills resulting from a continually upgraded technology. Multi modal urban transit, escalating ownership of personalized vehicles, a rapidly upgraded airport, work centers, conference, health, education, recreational and tourism infrastructure are manifest in its fast transforming built space. **This is around Delhi's eternal heritage as also its urbanized villages (largely with historic cores) and spontaneous shelter and work spaces of growing but generative support populace.**
4. Today, the NCTD has truly emerged as an all inclusive city of a wide economic strata at the core of a large NCR or National Capital Region (in three neighbouring states). If the geographic area of the NCTD cannot expand, its region can; but only if suitable or beneficial to the participating states. **THUS THE NCTD AND THE NCR IN**

**PARTNERSHIP OR IN CONFLICT IS THE NEW MAJOR CHALLENGE BY 2021 AND BEYOND.**

5. **Of all unanswered challenges of this yet one of the world's great metropolises is governance and its intrinsic relation to development. In the NCTD it continues as an enigma.** For one, the DD Act '57 is in the central list. As a corollary, the control of scarce NCTD land (each parcel now with prospects of multiple uses) is with the central government, answerable to parliament. **In effect, the Delhi Development Authority (DDA) is a monopoly land acquisition, development and disposal agency of the central government.** For another to facilitate the process of centralization, **Urban Local Bodies (ULBs) in the NCTD were amalgamated in 1957 into a monolithic Municipal Corporation of Delhi (MCD) under the MCD Act '57.** Only the New Delhi Municipal Council (NDMC) has its own identity as a nominated local body. The Cantonment Planning Board (CPB) also has its special mandate. Like the NDMC it is engulfed by the MCD all around. **In this scenario, the Government of the NCTD provides the major line development departments and its parastatals as an Union Territory with a legislature. The NCTD thus presents a skewed CENTRE-STATE-ULB equation. As currently structured, it lacks scope for a transparent public participatory process (PPP) and for which there is no alternative to a down-top neighborhood process, whereby Municipal councillors are accountable to their electoral wards.**
6. Regretably, the process of centralization has been precipitated in the NCTD with the 74<sup>th</sup> Constitutional Amendment Act (74<sup>th</sup> CAA) of 1992, largely kept in abeyance. **Thus planned development FOR the people prevails in the NCTD rather than planned development THROUGH the people as envisaged in the 74<sup>th</sup> CAA.** Among other actions this is spearheaded through an institutionalised statutory objections/suggestions process for changes/update to the statutory plan and which governs access to land and its programmed development. In 44 years, over 200 updates have taken place inclusive of a comprehensive update in 1990 (for Delhi MPD-01) and again in 2006 (for Delhi MPD-21). These processes are legal and perhaps increasing transparent but certainly not participatory.
7. In transition, the overall density of the NCTD marched approximately from a low 5 persons per hectare (pph) in 1941, to a comfortable 10 pph in 1961, to a medium density of 40 pph in 1981, to a high density of 80 pph in 2001. It is now to be planned for a very high density of over 1500 pph by 2021 (about 40 pph in oft-quoted Shanghai) **In the process, segregated neighbourhoods have incorporated compatible mixes and are now required to stretch such mixes where neighbourhoods are to collectively accept the least disturbing of compatible choices.**



## B THE CHALLENGES OF SUSTAINABLE DEVELOPMENT

1. Delhi 2021 thus offers a very challenging canvas. In fact the whole of India is a challenge. Land is truly a scarce resource in India, the world's seventh largest land mass and where its wrong usage adversely impacts the environment, particularly the gated communities. Between 2001 and 2051, Urban India would grow from 300 million to a mind boggling 800 million persons despite intensive rural investments to prevent the rural push. Economics point towards urban densification and guarded urban expansion – vertical and horizontal rather than new urban centres. **Thus in the new millennium urban India is destined for escalating in-migration with Delhi and Mumbai as the favoured reception centres. This implies that about one in every five persons in the NCTD would for a long time ekk out a living with a rural mind set and inadequate resources. In the process they would be priced out of all “cities without slums programmes”. How does one integrate them in the expanding inclusive city other than in-situ sanitization prescriptions.**
2. **MPD-21 and beyond has to address this challenge. Referred to legally as a Master Plan it is in reality an Environment Management Plan (EMP).** It retains forested lands; it earmarks a one revenue village depth of a green belt on the border and where farm houses are allowed; it seeks the cleansing of the river (chanellised or otherwise) and the seventeen drains that flow into it; conservation of natural and manmade heritage buildings and sites is high on its pro-environment agenda. **It is round this, that urban services, transport and land-use are to be organized for 23.0 million persons by 2021.** A total reversal of what was attempted in 1962. **MPD-21 thus is to promote an all inclusive society and where sanitization of environs is a major priority.**
3. **The crucial missing link is the participatory process and where transparency and a down-top canvas are crucial ingredients.** The 74<sup>th</sup> CAA was introduced to make this possible. Geographically the whole of India is covered by two parallel canvases for investments:
  - a) The institutionalized Center-State top-down canvas of a national boundary, disaggregated into states and then into districts, taluks / tehsils and other lower disaggregations – all appropriately operationalised through the District Collector and Block Development Officers.
  - b) A down-top LSG-State canvas of rural panchayats, urban panchayats, municipalities and municipal corporations as the 3<sup>rd</sup> tier of governance within the state and national boundaries.

About 3.0 million elected persons are now active at the 3<sup>rd</sup> tier. They cannot be superceded and therefore have to be kept accountable especially as the bulk of ground level citizen issues in urban and rural settlements is not in the operational mandate of parliament (1<sup>st</sup> tier) and its assemblies (2<sup>nd</sup> tier) but in that of urban and rural local bodies.

4. **Despite this, the NCTD has been largely kept out of this participatory down-top mandate. Worse still, the crucial subject of land – its ownership**



and usages is the preserve of the federal government. Governance is thus truly an anomaly in the NCTD. This stands out sharply as the bulk of plan funds in India today entail a commitment to down-top participatory processes in governance and programmed investments through spatial plans that are environmentally least destructive and implementable.

## **C SOME FEASIBLE ACTIONS FOR PARTICIPATORY PLANNING AND DEVELOPMENT**

1. With 15 million inhabitants, the management of the MCD is perforce chaotic. It would be unwieldy as a monolith of 23.0 million people by 2021. Through the State Delimitation Committee, MCD wards have more or less doubled to 276 at approximately 50,000 persons per ward. The 74<sup>th</sup> CAA expects that no ward has more than 30,000 persons. This would imply an unwieldy 766 wards for 23.00 million people. **It would therefore appear inevitable that the NCTD comprises of several ULB's orchestrated by a State level body and for which the 74<sup>th</sup> CCA prescribes a Metropolitan Planning Committee (MPC) composed of at least two-third of its members from all three tiers of elected governance. In such an event, the ULB's as municipal corporation in the NCTD could be restructured in synergy with the Master Plan and its Zonal Development Plan (ZDPs) as follows:**

Zones A,B,C,H & O (river bed) – Central Delhi M.C.

Zone D-New Delhi Municipal Council (NDMC) a Central Government nominated body.

Zone E – Delhi Shahadara M.C.

Zones F & J – Delhi Mehrauli M.C.

Zones G,K & L – Delhi Najafgarh M.C.

Zone G (part) – Delhi Cantonment Board (DCB) – partly elected body

Zones M,N & P – Delhi Narela M.C.

The above is a variation of the pre 1957 scenario in the UT of Delhi and which had known several ULB's.

2. **Apart from the special status to the NDMC and DCB, the NCTD could thus have five manageable Municipal Corporations of between 3 to 6 million people each. Within these Corporations, the Municipal Wards could be restructured through about 150 wards of around 30,000 people each, with wards grouped into zones.**
3. **For participatory planned development, the synergy between the DDA and the ULB is of paramount importance. For this geographic convergence is essential.** The fact that Delhi is disaggregated into nine revenue Districts and that a majority of line agencies like Delhi Jal Board have their own disaggregations, need not be considered at this stage, however desirable. Perhaps their geographic convergence would follow, including that of Parliamentary and Assembly constituencies, once participatory planning and development converge at the level of the two key players – the ULB's and the DDA.



4. **The entire stress in the new millennium in India is on ward planning and development.** The Administrative Reforms Commission (ARC) talks of disaggregating wards into Area Sabhas composed of polling booths of 1000 voters each. They recommend that the **ward committee comprises of the ward councillor and one representative from each Area Sabha** rather than the councillor selecting his own committee. At present there appears to be too much stress on Resident Welfare Associations (RWAs) and the like – each with their own protective agendas-rather than all inclusive neighbourhoods of a wide social base.
5. The synergy between Master Plan Zones and ULB wards has emerged in several cities notably Kolkata, Bangalore and Ahmedabad. Transparency and the participatory process is emerging in these and several other ULBs. More importantly Ward Councillors are being made accountable. (In Gujarat, the electorate returns three councilors per ward of whom at least one is a woman).
6. **If the above are longer term issues, a few actions are now feasible in the NCTD at the level of the Master Plan and which needs to loosen its centralized hat.** These briefly are:-
  - a) The DD Act '57 was amended in the early sixties to enable change as and when required rather than just once in five years. **In spirit and in reality, the Act caters for only ONE PLAN IN PERPETUITY as a rolling plan. The plan requires continuity through an update every five years. Thus the current perspective for 2001-21 has to be soon followed up with a perspective for 2006-26 and then 2011-31 and so on, in addition to change as and when required.** The current practice of a plan update every 20-years is proving to be unwieldy in crisis planning (MPD-21 is a case in point).
  - b) Thus the highly skilled Planning department of DDA could be having their hands full in providing a continual updated perspective at Master Plan and disaggregated ZDP levels in synergy with the NCR Plan and in coordination with all governmental development and conservation line agencies. The DD Act, 57 promotes such a canvas. The NCR Planning Board Act' 85 (NCRPB Act' 85) supports it.
  - c) Assuming that the MP Zonal boundaries cannot change, DDA ZDP's could be the ULB Master Plans in the fullness of time. (ULB wards of upto 30,000 people can be adjusted for this geographic convergence). This would enable the ULBs to prepare their ward plans and local area plans for participatory action. In a down-top sequence we could thus have:

area sabha plans/ layout plans ↓ ↑	(participatory)	ULB (or DDA in development areas)
ULB ward plans ↓ ↑	(participatory)	ULB
DDA ZDP's ↓ ↑	(consultative)	DDA
DDA Master Plan for NCTD	(consultative)	GOI-DDA-NCTD Govt.

In the above, the fact has to be underlined that the NCTD has no rural panchayat. It is thus an exclusive Urban State/ UT but with urban agriculture and other such uses integrated.

- d) The above restructuring would facilitate the NCTD having a Metropolitan Planning Committee (MPC) as directed by the 74<sup>th</sup> CAA (and as in Kolkata where 40 of the 60 members are from elected representatives i.e. Parliament, Assembly, ULB). The chairman could be the State Lt. Governor or Chief Minister and the DDA could be the technical secretariat to the MPC with all major line agencies represented on the MPC.
  - e) Restructuring on the above lines would help in making planned development transparent and participatory through a down-top process via accountable elected ward councillors.
7. **However as an immediate platform for transparency and participatory planning, the MPD can be fleshed out on the basis of Municipal Wards with ward councillors accountable for ground level planning and development processes. In addition a plan update every five years would help in integrated development.**



**MR. SANJAY KAUL (PEOPLE'S ACTION)**

Isn't this always the case - pay lip service to public consultation and then express absolute wonderment at why such proposals do not fetch public support.

The irresistible urge to force through at pre determined speeds the progress of proposals as complex as this is a sure sign that the momentum will falter at some later, crucial stage.

We have known public consultation to be an organic activity which differs in each case, sometimes at different interludes within the same progression and we have learnt that this is an end in itself - it must be allowed to run its course before we even begin to start actualising the proposals.

Clearly half a dozen focus group discussions are merely a formality for a project that looks aimed once again at pleasing its creators than its beneficiaries.

Ideally, as I have said, the public consultation should have been the program - and carried over a year or more until we had penetrated through to a very wide body of Resident representation - ideally through RWAs all over the city - and there are close to 1000 of them in Delhi who we work with.



**MR. MAKARAND BAKORE (CENTRE FOR CIVIL SOCIETY)**

The Delhi Government was a late-starter in the race to obtain funds under the National Urban Renewal Mission (NURM). There were doubts and there still are as to whether Delhi needs the funds from the NURM program, as it will avail huge funds for the Commonwealth Games of 2010 anyway.

Be that as it may, the Delhi government hired a private consultant called Infrastructure Leasing and Financial Services Ltd. (IL & FS) to draft the City Development Plan for a fee of 18 lakhs (plus taxes).<sup>2</sup> The government held a two-day consultation on 8<sup>th</sup> and 9<sup>th</sup> September, 2006 at Kautilya Hall, Samrat Hotel, Chanakya Puri. On the first day, it met government officials and the second day saw interactions with civil society organisations. It is important to note that these consultations were held before the City Development Plan (CDP) was made. The objective of this consultation was ‘to obtain the views for the development of the city’.

The astonishing fact is that after IL & FS drafted the CDP, the Delhi government sent it to the Central Government for approval without any consultations with the citizens of Delhi! To make matters worse, it refused to provide a copy of it under the RTI Act. This gives rise to the following questions:

- 1) Why wasn't the CDP made public after it was drafted by a consultant?
- 2) How can the CDP be a shared and collective vision of the city if citizens are not able to access it, let alone understand and comment on?
- 3) Do the Delhi government's actions reflect a true spirit of participation of the citizens?

The copy of the CDP was provided after an appeal was filed against the earlier RTI response. The government made no efforts to invite people's suggestions on the CDP. It uploaded it on its website in late April'07, when the CDP was already on its way to being approved by the Central government. It was too little to late. The government may reflect on whether effective participation can be expected by uploading the CDP on the website only more so without a copy in Hindi?

In the CDP, IL & FS claims to have carried out the following consultations (these are consultations conducted by IL & FS and not the Delhi government):

**With Primary Stakeholders:**

A total of sixteen primary consultations have been carried out in different areas of the National Capital Territory of Delhi (NCTD). This consists of six focus groups and four individual interviews.<sup>3</sup>

The commonsensical question arises as to how can six focus groups and four interviews be representative of the 14 million citizens of Delhi?

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<sup>2</sup> Response to RTI Application by the Govt. of Delhi dated 24.1.2007

<sup>3</sup> Delhi City Development Plan, Pg. 15-1



### **With Secondary Stakeholders**

The CDP claims to have conducted workshops, interviews, meetings, presentations and site visits and consulted elected representatives, government officials, and institutions. According to the CDP fortnightly meetings were held with MCD, DJB, NDMC, DDA, Slum & JJ, PWD, Transport, Urban Development and Planning.<sup>4</sup> Meetings were held with civil society organizations and NGOs.

No document of the above meetings is available in the CDP. These consultations were not mentioned by the Delhi government in response to an RTI application seeking details of the consultations on the Delhi CDP.

**Distinction needs to be drawn between consultations held by the Delhi government with the people and the consultations held by the private consultant. The former is the official process while the latter is to the discretion of the private consultant. The consultations held by the private consultant are no substitute for consultations held by the government.**

### **The CDP as a Living Document**

The CDP is said to be a living document that can be updated from time-to-time. It seems that the Delhi government has stretched this otherwise worthy idea a little too far. In a rush to get the funds, it has kept the CDP as top-secret until lately, and sent it for approval, under the excuse that the people's views can be accommodated in the CDP later. The people's right use public funds as per their needs, has been converted into a charity by the government. A similar situation has arisen in Ahmedabad. The city signed its Memorandum of Agreement (MoA) on 24<sup>th</sup> March 2006 and availed the first tranche of funds. The National Technical Advisory Group held its first city interaction on 29<sup>th</sup> and 30<sup>th</sup> of January 2007. i.e. almost a year later. As an outcome of the program, various sub-groups were formed for further review.

**On 15<sup>th</sup> June 2007, NURM will complete one-fourth of its tenure. If the consultations are not held now, what use will they be of later?**

The **Delhi State Technical Advisory Group** has not been formed yet, which would have created institutional space for consultations with civil society organizations, resident welfare associations and citizens. The government should consider this top priority.

To conclude, a culture of secrecy in the government and the hurry for funds has left the voices of the Delhi citizens unheard and uncared for in the planning of their own city.

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<sup>4</sup> Delhi City Development Plan, pg. 15-3



**DR. SUDESHNA CHATTERJEE (KAIMAL CHATTERJEE & ASSOCIATES)**

Toolkit II of JNNURM clearly outlines involvement of citizens in visioning the city through consultations. This is in keeping with the growing emphasis on citizen participation in the planning process to achieve a consensually created portrait of the community, which is not a fantasy, but rather an optimistic picture of what might be achieved within a municipality or region given available capacities and resources. If visioning is to be effective, the creative and collaborative aspects of the visioning process must be balanced by indepth understanding of existing conditions, feasibility projections and grounding in action scenarios. In the absence of strategies for achieving goals and the authority to implement them, visions risk devolving into inconsequential and expensive wish lists for the future.

The first stage of CDP preparation as outlined in the Toolkit II is indepth analysis of existing situations in the city with regard to its state of development, systems, procedures, institutional and financial context. However, the second stage, the consultative stage was reduced to a mere tokenist participatory process where Delhi government had only one consultation with civil society organizations on their views of the city. Only 66 people were consulted as primary stakeholders. The views of these 66 are considered representative of the 14 million citizens of Delhi.

This is problematic on several accounts. The idea of a shared vision is firmly rooted in the concept of true representation of all citizens who inhabit the city space. This involves, casting a large sampling frame (the sampling frame could be all the wards of the city) which has the ability to adequately represent the population composition of the city, and adopting a process of randomization for sample selection such that every one within the sampling frame (or ward) has an equal opportunity for being represented or chosen for participation. Delhi has lots to learn from the CDP process of Vadodara where the sampling frame achieved a wide spatial spread by including all wards and zones of Vadodara.

How can Delhi achieve better citizen participation in the CDP process?

Tools that have proven to be successful in engaging the public in planning processes globally, include:

- Broad media coverage to advise the public about opportunities to participate in City initiatives
- Distribution of factual information about existing conditions, policies, trends, issues, and choices
- Translation of materials into several languages to engage a wider cross-section of the multi-lingual population
- A wide variety of events – workshops, surveys, displays – providing many opportunities to participate



- School and college programs to engage tomorrow's citizens
- Surveys sent to homes and community centers through RWAs and educational institutes
- Interactive ULB websites for citizens to take online surveys and access information at their convenience

As a result of public consultation:

- The city hears from many perspectives helping to minimize unintended consequences of new policies.
- Citizens learn about the city and understand difficult funding and land use choices.

“Tell me, I forget.  
Show me, I remember.  
Involve me, I understand”

Above all, we need to introduce a practice of incremental participatory planning that will inculcate a habit of planning among citizens, make them familiar with planning processes, issues and terminologies. Only through a gradual and persistent culture of planning that permeates civic discourse in appropriate forums and becomes a staple of local news, can citizen participation in planning and visioning be successful as citizens will be regularly informed and engaged in thinking about their city. Planning will then be part of normal civic activities of citizens and not be reduced to one time feel-good events.





## **CHAPTER 9: CONCLUDING REMARKS**

The Critique indicates that there are areas of improvement in the Delhi CDP. Some experts and activists have provided their views but this by no means is the final word on the CDP; in fact it is only a beginning towards people's consultations on the Delhi CDP.

We invite more experts to give their views on the CDP to be included in this Critique. We hope to take this to the Delhi government and submit that the suggestions made in this Critique be incorporated in the Delhi CDP.