

(76)

No.K-14011/23/88-NCRPB
NCR Planning Board

7th Floor, IOC Bldg.
Jan Path, New Delhi

Dated 5th May, 1988

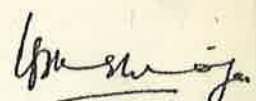
Subject : Eighth meeting of the NCR Planning Board being held
at 11.00 A.M on 17.5.88

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As already intimated the Eighth meeting of the NCR Planning Board will be held at 11.00 A.M on Tuesday, the 17th May, 1988 at Parliament House Annexe, New Delhi. The meeting is likely to continue in the afternoon also. A working lunch shall be served at the venue of the meeting.

2. Kindly make it convenient to attend the meeting and confirm your participation.

3. List of agenda items proposed to be discussed are enclosed. The Agenda items sent for consideration in 7th meeting will be considered in the 8th meeting. The additional material/supplementary item along with the text of the Regional Plan are enclosed.


(K.K. Bhatnagar)
Member Secretary

To

All Members, Co-opted Members
& Special Invitees

**AGENDA ITEMS FOR THE EIGHTH MEETING OF THE
NCR PLANNING BOARD TO BE HELD ON 17.5.88 AT 11.00 A.M
IN PARLIAMENT ANNEXE, NEW DELHI.**

Sl.No.	Item	Page No.
1.	Confirmation of the minutes of the 6th & 7th meeting held on 21.7.88 and 20.1.88.	Minutes of the 6th meeting already sent. Minutes of the 7th meeting enclosed at page 1-2.
2.	Action taken on the decisions of the sixth meeting of the Board.	
3.	Business transacted by the Planning Committee/ Project Sanctioning & Monitoring Group, Personnel Group etc.	
4.	Amendment of Regulations	Already sent as agenda of the 7th meeting. The minutes of meeting of Planning Committee etc. held after 20.1.88 are enclosed as Annexure-III.
5.	Revised Estimates 1987-88 & Budget Estimates 1988-89 in respect of Revenue (Non-Plan) and Capital (Plan) Expenditure.	
6.	Annual Statement of the Accounts for the year 1986-87.	
7.	Annual Statement of Loans & Advances for the year 1986-87.	
8.	Annual Report of the NCR Planning Board for the year 1987-88.	3-15
9.	Regional Plan - Consideration of objections-suggestions, along with comments and recommendations of the Planning Committee on the Draft Regional Plan.	Already sent as agenda item of the 7th meeting.
10.	Approval of Regional Plan	Draft Regional Plan enclosed.
	Any other item with the approval of the Chair.	
	Annexure - III	

AGENDA ITEM NO. 1

CONFIRMATION OF THE MINUTES OF THE SIXTH MEETING OF
THE BOARD HELD ON 21.7.87

The minutes of the sixth meeting of HGR Planning Board held on 21.7.87 (copies alongwith corrigendum issued on 14.9.87 enclosed for ready reference) were circulated on 10.8.87. The Board may kindly confirm the minutes of the meeting.

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MINUTES OF THE SIXTH MEETING OF THE
NCR PLANNING BOARD HELD ON 21.7.1987 IN THE
PARLIAMENT HOUSE ANNEXE, NEW DELHI

(2)

The following were present :

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|-----|---|------------------|
| 1. | Smt. Mohsina Kidwai
Union Minister for
Urban Development | Chairperson |
| 2. | Shri Madhavarao Scindia
Union Minister of State for Railways | Member |
| 3. | Shri Sujan Singh Yadav
Minister for Urban Development
Government of Rajasthan | Member |
| 4. | Shri Sampath Singh,
Minister for Housing & Urban Development
Government of Haryana | Member |
| 5. | Smt. Padma Seth
Minister of State for Urban Development
Government of Uttar Pradesh | Member |
| 6. | AVM H.L. Kapoor
Lt. Governor of Delhi | Member |
| 7. | Shri Jag Parvesh Chandra
Chief Executive Councillor, Delhi | Member |
| 8. | Shri D.M. Sukthankar
Secretary
Ministry of Urban Development | Member |
| 9. | Shri P.P. Nayyar,
Secretary
Ministry of Surface Transport | Member |
| 10. | Shri K.K. Mathur
Chief Secretary
Delhi Administration | Member |
| 11. | Shri E.F.N. Reberio,
Chief Planner
Town & Country Planning Organisation | Member |
| 12. | Dr. Rakesh Mohan
Adviser (HUD)
Planning Commission | Member |
| 13. | Shri K.K. Bhatnagar
NCR Planning Board | Member-Secretary |

The Chairperson, Smt. Mohsina Kidwai, Union Minister for Urban Development, welcomed the Members of the Board, particularly the new Members. She also introduced the new Member-Secretary of the Board. Discussion on Agenda items was then taken up and the following decisions were taken.

Agenda Item No. 1: Confirmation of the Minutes of the Fifth Meeting of the Board held on 17th February, 1987

The minutes of the fifth meeting of the Board were confirmed.

Agenda Item No. 2: Action taken on the Minutes of the Fifth Meeting of the Board

The Member-Secretary explained at length the action taken on the decisions taken in the fifth meeting. Railway Minister enquired whether the Members from the States had received these papers, and thus had had the opportunity to offer comments. Member-Secretary informed that agenda papers were sent through special messengers to all the States well in time.

Agenda Item No. 3: Business transacted by the Planning Committee/Project Sanctioning and Monitoring Group/Personnel Group etc.

Member-Secretary informed the Board about the business transacted by the above bodies since its Fifth meeting. The Members noted the same.

Agenda Item No. 4: Annual Report of the Board for the year 1986-87

The Member-Secretary briefly explained the contents of the Annual Report of the Board. The Board approved the Annual Report.

Agenda Item No. 5: Suggestion for the Co-option of VC DDA as a Member of the Board

The Member-Secretary explained to the Board the necessity of co-opting the VC DDA on the Board. The Board unanimously agreed to the proposal.

Agenda Item No. 6: Amendment to the NCR Planning Board Regulations, 1985

The Member Secretary explained the necessity for amending the Regulation No. 5 regarding House Rent Allowance to the employees of the Board. The Board approved the following proposal to amend the said Regulation.

The Officers and employees of the Board at Delhi shall be entitled to :-

- either twenty percent (20%) of their pay in the pre-revised scale of pay : (for officers who were in service prior to 1.10.1986)
- or the slab rates of HRA as prescribed by the Government on the recommendations of the Fourth Pay Commission, w.e.f. 1.10.1986.

Agenda Item No. 7: Delegation of Financial & Administrative Powers to the Member-Secretary

The Board agreed to the delegation of financial and administrative powers as proposed in the item to the Member-Secretary of the Board.

Agenda Item No. 8: Uniform Fiscal Policy for the National Capital Region

The Member-Secretary explained the proposal contained in the agenda item for setting up of a Committee of Finance Secretaries of the participating States and the Union Territory of Delhi and the representatives of the Central Ministries concerned, under the Chairmanship of Secretary, Ministry of Urban Development, to propose measures to be taken for bringing about a proper coordination in the fiscal policy in the Region. Secretary, U.D. emphasised the necessity for a rational tax structure in the Region and commended the setting up of an institutional arrangements for furthering the NCR objectives and for providing a forum where proposals could be discussed from time to time. Reacting to the proposal, the Lt. Governor of Delhi explained the background and the justification for the

existing sales tax etc. rates in vogue in Delhi. He stated that, historically, Delhi had grown to be an important distributive centre for several commodities because of the fiscal policies which had been followed over a long time. He explained that in spite of that, the trade in Delhi did not really seem to enjoy a large degree of protection as was made out to be. For example, mainly only on 29 items, the rates of sales tax in Delhi were lower whereas on 30 items they were almost at par with the rates in other States and on 28 others, they were even higher. He stated that lately some of the neighbouring States had reduced sales tax on certain items drastically, which had resulted in the shifting of trade in those commodities from Delhi to those States. He supported the idea of having some coordination in the tax structure in the Region but wanted that it should not be at the cost of Delhi and no changes may be made unless the proposed Committee had met and given its proposals.

The Railway Minister stated that while the stand taken by Delhi Union Territory about fiscal policy was understandable from the point of view of safeguarding the local interests of Delhi, it appeared to be in conflict with their keen desire to reduce the pressure of population in Delhi. There was, thus, a dilemma. He further stated that in case the pressure of population is to be reduced, some reduction in the pace of growth of economic activities in Delhi will have to be accepted. It is also likely that this may result in some reduction in the rate of growth of tax revenues in Delhi and some ways and means to compensate Delhi for this will have to be explored. The Lt. Governor said that the policy measures for reducing the pressure of runaway growth of population in Delhi, as provided in the NCR Plan, were quite clear and acceptable in principle. The desired result should, however, be brought about more by a rapid development of infrastructure in the priority towns of the NCR than by

depressing the quality of life in Delhi. UDM observed that the proposed draft Plan of the Region did provide for this, though, due to resource constraints it had not been possible to register much progress in developing the infrastructure in the NCR priority towns. The Board was trying to impress upon the Planning Commission the urgency to release more funds so that the objectives of the NCR could be achieved without adversely affecting the economic activities of Delhi. She further stated that the problems relating to tax structure in the three participating States and in Delhi could be mitigated through discussions and hence the proposal for the setting up of the Committee may be approved.

The Railway Minister intervening in the discussions said that the apparent contradiction in what would be in the interest of development of the NCR and the priority towns vis-a-vis how it would affect Delhi was posing some problems to the Central Ministries as well in deciding inter-se priority of schemes and, therefore, the sooner it is satisfactorily resolved the better.

Shri Sampath Singh, Urban Development Minister, Haryana, stated that this issue of coordinated and harmonised fiscal policy had been discussed in several meetings of the Board and its Committees but till now no conclusions had been arrived at. He did not visualise any contradiction in Delhi trying to curb its population growth and the neighbouring areas of the NCR providing facilities for development. However, in the present situation when infrastructural facilities in the NCR were not of the desired standards and the structure of taxation in Delhi was also favourable to trade and commerce in Delhi, there was a tendency for economic activities to get gravitated towards and get concentrated in Delhi, thereby causing revenue loss to the neighbouring States. This situation was not conducive to meeting the objectives of NCR Plan. He suggested that these activities could easily

be shifted to the peripheral areas of the NCR. The UDM re-iterated that the NCR Plan was an attempt to promote such a situation and again urged that the constitution of the proposed Committee be approved. After some further discussions, it was decided to constitute the proposed Committee and the UDM desired that its recommendations should be placed in the next meeting of the Board.

Agenda Item No. 9: Draft Regional Plan - Policies, Proposals etc.

Secretary, U.D. introduced the item and stated that in accordance with the requirements of the Act, the Board has to give its approval for publishing the draft Plan for inviting comments and suggestions from the public, participating States, local bodies in the National Capital Region and the Central Ministries. The comments received will be analysed and, in the light of those comments, the final draft, with the required modifications and alterations, will be submitted to the Board for its final approval. He requested that if the Members had any comments on the draft at this stage, they could make those comments so that if necessary, the draft could be modified before publication.

The Railway Minister drew the attention of the Board to the proposals contained in Chapter 5 of the Plan relating to Transport. He explained that though it was the accepted policy of the Railways to increase the number of coaches on the long distance trains, they were facing several difficulties due to short length of platforms and non-availability of other infrastructure facilities. Provision of these facilities required large sums of money and hence the Railways may be able to achieve this objective only over a somewhat longer time than as a short term measure. He also suggested that the confusion regarding the utilisation of ring rail in Delhi should be completely cleared. In the scheme of things for the Railways, this was primarily a freight avoiding line for Delhi though it could be used as a passenger avoiding line also, but it was never meant to be a part of the urban transport system of Delhi. In this context, he welcomed the initiative taken by the maharashtra Government for meeting part of the cost of providing the rail link between New Bombay and Bombay and stated that a similar initiative to meet the needs of Delhi was called for. He noted that the response of Delhi Administration in this connection was quite favourable and encouraging. He referred to the Task Force which was going into the question of a suitable mass transit system for Delhi

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and the initiative taken by the Ministry of Railways to propose a consortium approach to solving the Metropolitan transport problems. Regarding the proposed additional line to Punjab and Haryana for rationalisation of freight traffic movement, he stated that this was an on-going exercise and there were other possibilities also under consideration with a similar objective. Regarding the other long term measures suggested, he stated that setting up of another passenger terminal and provision of a 4th line at Tughlakabad were under consideration but the details will have to be worked out and specific views could be formulated only after that. Regarding the proposals mentioned at 3 (a), (b), (c), (d) and (e), he stated that none of these works were in the plans prepared by the Railways and even if they are included in the Draft NCR Regional Plan, it should not be construed that the Railways had agreed to them. He also made it clear that due to financial constraints, the Railways may not be able to provide additional resources for NCR Railway Schemes. On a suggestion from the Chairperson that Railways should make some budget provision in the name of the NCR, he stated that funds for the NCR proposals included in the Railways' own plan would be 'made available but for any other proposals, Railways could implement them only if extra funds specifically earmarked for such proposals are made available.

Intervening, Secretary, U.D. clarified that the draft Regional Plan was an attempt to look at the needs of the Region on a perspective basis upto 2001 and to propose investments necessary to meet them. There could certainly be some variance in the priorities given in the Plan and the priorities as decided by the Ministries. That

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2) certainly did not imply, that the respective Ministries had concurred in the proposals included in the NCR Draft Regional Plan and was going to take up the respective schemes for immediate implementation by providing funds for them.

The Railway Minister wanted to know about the identification of counter-magnet cities/towns. The Member-Secretary clarified that 36 places had been identified in the first round of the study undertaken by the School of Planning & Architecture, which had been indicated in the Plan. The Study was likely to take 3-4 months more for finalisation and its conclusions would be available for inclusion in the final Draft Plan when it is presented to the Board for consideration and approval.

The Vice Chairman, DDA, the Urban Development Minister, Haryana and the Chief Town Planner, TCPO impressed upon the need of retaining the outer ring rail proposal connecting Khurja, Palwal, Rewari and Rohtak. They said that the proposal was included in the Interim Development Plan and was essential not only to cater to the need of diverting freight traffic so that it does not pass through Delhi but also for releasing the available rail facilities for commuter traffic. The VC DDA also suggested that the Plan need not mention the locations of the proposed rail terminals in Delhi since their finalisation would take some time and would be a part of the exercise being undertaken in connection with the modifications to the Delhi Master Plan. The Member-Secretary explained that though the proposal for such a ring rail was included in the Interim Development Plan, the consultants, i.e. M/s. Operations Research Group, Baroda, had not found it economically justifiable and of priority and hence it had to be dropped from the perspective upto 2001. He further explained

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increase in population and the likely growth of economic activities as well as the direction of the growth, before coming to this conclusion. The Railway Minister, quoting from the Plan, supported this view and stated that this link could be considered for a longer perspective beyond 2001, as stated in the Plan. The Secretary, U.D. further explained that in view of the studies conducted by the Consultants there had to be a change in the priorities. The Consultants had found some other proposals to be worthy of being given a higher priority and these have, accordingly been included in the Plan.

On a query from the Secretary, Ministry of Surface Transport, it was clarified that the traffic needs of Delhi Urban Area would be taken care of in the Delhi Master Plan and hence did not find mention in this Plan. The Urban Development Minister of Uttar Pradesh also impressed upon the need for keeping the long distance trains away from the main Delhi corridor to reduce load on this corridor.

On a suggestion from the Chairperson, there was a general discussion on various proposals contained in the Plan. The Lt. Governor expressed doubts about the population projections given in the Plan and felt that these may prove to be on the lower side. The Chief Planner, TCPO, suggested that a shift in priorities was extremely necessary in the realm of tele-communications, power supply, transport needs, etc., in favour of the peripheral areas, including priority towns of the National Capital Region. The Delhi Metropolitan Area and the Delhi Urban Area should come next in this order of priorities. The Chief Secretary, Delhi Administration wanted to know whether detailed proposals had been prepared for the priority towns of the Region so that decisions could be taken in regard to investment in strengthening the infrastructure of these towns. The Member-

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Secretary stated that detailed proposals, first for 8 priority towns and complexes and later, for 3 priority towns, as desired by the Board in its last meeting, had been prepared and submitted to the Planning Commission for their consideration. The Chief Secretary, Delhi further suggested that availability of power in these priority towns should be of the same order as in Delhi so that increase in economic activities could gravitate there. He also wondered whether having one transport authority for the entire National Capital Region would be a feasible proposition. He suggested that there could be a unified transport authority first for Delhi and a coordinating body for the National Capital Region could come up later. The Member Secretary stated that what was necessary was to ensure linkage between the regional requirements and the needs of Delhi Urban Area and these could be planned together. Clarifying the matter further the Secretary, U.D. stated that the proposed Authority was not intended to take up the total responsibility of administering and running the transport system in the entire Region. It could be a coordinating agency to take an integrated view of the needs of the Region and other responsibilities could be entrusted to this body later on as and when considered necessary.

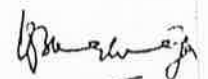
After the discussion as above, the Draft Regional Plan was approved for publication for inviting suggestions and objections as provided in the NCR Planning Board Act, 1985.

The meeting thereafter ended with a vote of thanks to the Chair.

No.K-14011/39/86-NCRPB
NATIONAL CAPITAL REGION PLANNING BOARD
7th Floor, 'B' Wing, IOC Bhawan,
Janpath, New Delhi - 110001.

Dated, the 10th August, 1986

Copy forwarded for information and appropriate action to all the members of the Board.


(K.K. Bhatnagar
Member Secretary

(19)

Corrigendum of the Minutes of the Sixth Meeting
of the National Capital Region Planning Board
held on 21.7.87 in the parliament House Annexe.

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Reference NCR Planning Board communication No.
K-14011/39/86-NCRPB dated 10.8.87.

Agenda Item No.9 : Draft Regional Plan - Policies,
Proposals etc.

para 2 at page 6 of the minutes may be modified to read
as follows :-

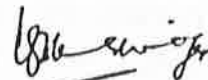
"The Railway Minister drew the attention of the Board to the proposals contained in Chapter 5 of the plan relating to Transport. He explained that though it was the accepted policy of the Railways to increase the number of coaches on the long distance trains, they were facing several difficulties due to short length of platforms and non-availability of other infrastructure facilities. Provision of these facilities required large sums of money and hence the Railways may be able to achieve this objective only over a somewhat longer time than as a short term measure. He also suggested that the confusion regarding the utilisation of ring rail in Delhi should be completely cleared. In the scheme of things for the Railways, this was primarily a freight avoiding line for Delhi though it could be used as a passenger avoiding line also, but originally it was never meant to be a part of the urban transport system of Delhi. In this context, he welcomed the initiative taken by the Maharashtra Government for meeting part of the cost of providing the rail link between New Bombay and Bombay and stated that a similar initiative to meet the needs of Delhi was called for. He noted that the response of Delhi Administration in this connection was quite favourable and encouraging. He referred to the Task Force which was going into the question of a suitable mass transit system for Delhi and the initiative taken by the Ministry of Railways to propose a consortium approach to solving the Metropolitan transport problems. Regarding the proposed rationali-

sation of freight traffic movement to Punjab and Haryana, he stated that this was an on-going exercise and there were other possibilities also under consideration, with a similar objective. Regarding the other long-term measures suggested, he stated that the setting up of another passenger terminal was under consideration, but the details would have to be worked out and specific views could be formulated only after that. Regarding the proposals mentioned at 5.6(b), 1(iii), he stated that none of these works was in the plan prepared by the Railways except the 2 additional lines between Ghaziabad and Sahibabad and even though these are included in the Draft MCR Regional Plan, it should be construed that the Railways had agreed to them. The 2 additional lines between Ghaziabad and Sahibabad were expected to be commissioned by March, 1989, he added. He also made it clear that due to financial constraints, the Railways may not be able to provide additional resources for MCR Railway Schemes. On a suggestion from the Chair person that Railways should make some budget provision in the name of the MCR, he stated that funds for the MCR for the MCR proposals included in the Railways' own plan would be made available but for any other proposals, Railways could implement them only if extra funds specifically earmarked for such proposals are made available.

No. K-14011/39/87-MCRPD
MCR Planning Board,
IOC Building, Janpath,
NEW DELHI - 110 001.

Dated the Sept., 1987.

Copy forwarded for information and appropriate action to all the members of the Board.


(K.K. BHATNAGAR)
Member Secretary.

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MINUTES OF THE SEVENTH BOARD MEETING
OF THE NCR PLANNING BOARD HELD ON
20.1.88 AT VIGYAN BHAWAN

The following members were present:-

1. Shri Dalbir Singh ... Chairman
Minister of State for Urban Development
2. Shri Devi Lal
Chief Minister of Haryana
3. Shri H.L.Kapoor
Lt.Governor, Union Territory of Delhi
4. Smt.Padma Seth
Minister of State (UD)
Government of Uttar Pradesh
5. Shri Virender Singh
Minister for Irrigation & Power
Govt. of Haryana
6. Shri Jag Parvesh Chandra
Chief Executive Councillor
Delhi
7. Shri D.M.Shukthankar
Secretary, Min. of Urban Development
8. Shri P.Abraham
Secretary, Min. of Surface Transport
9. Shri M.N.Prasad
Member (Engg.)
Railway Board
10. Shri E.F.N.Riberio
Chief Planner
Town & Country Planning Organisation
New Delhi
11. Shri K.K.Mathur
Chief Secretary, Delhi Administration
12. Shri S.D.Bagla
Secretary (HUD)
Govt. of Uttar Pradesh
13. Shri L.C.Gupta
Chief Secretary, Govt. of Haryana
14. Shri P.B.Mathur
Secretary (UD), Govt. of Rajasthan
15. Dr.Rakesh Mohan
Adviser (HUD), Planning Commission
16. Shri Om Kumar
Vice Chairman
Delhi Development Authority
- ✓ 17. Shri K.K.Bhatnagar
Member Secretary, NCR Planning Board.

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In the absence of the Chair-person, Minister of State for Urban Development, Govt. of India was requested by the Members to preside over the meeting. The Secretary, Ministry of Urban Development, after taking the consensus of the members and with the permission of the Chairman, read out the following resolution condoling the death of Khan Abdul Ghaffar Khan:

RESOLUTION

"This seventh meeting of the National Capital Region Planning Board places on record its profound sorrow at the passing away of Khan Abdul Ghaffar Khan at Peshawar today.

Badshah Khan's demise marks the end of an era. He was in the forefront in India's struggle for independence. He belonged to that galaxy of eminent men like Jawaharlal Nehru, Vallabh Bhai Patel and others who, under the leadership of Mahatma Gandhi, led India to freedom. He participated in several Satyagraha movements and spent many years in jail.

Badshah Khan was an apostle of non-violence and was rightly, therefore, called Frontier Gandhi. Thanks to his leadership, the brave Pathans of North West Province got converted to non-violence. He founded the organisation known as Khudai Khidmatgar, whose members devoted themselves to rural uplift and social freedom.

After India attained Independence, Badshah Khan continued to work amongst his own people, adhering strictly to the Gandhian principles for which he stood. He suffered imprisonment and exile for his people. More than 30 years of his long life were spent in jail. His spirit, however, was indomitable.

We were privileged to have Badshah Khan in India four times after Independence. During his fourth and final visit to India last year, - BHARAT RATNA - the highest award in our land was conferred on him as the nation's tribute to his services.

Badshah Khan's memory will always provide inspiration to the people of India to uphold his principles and values and follow the path of peace, non-violence, brotherhood and love for freedom.

May his soul rest in peace!"

The resolution was passed unanimously. The meeting concluded after observing two minutes silence in the memory of late Khan Abdul Ghaffar Khan.

No.K-14011/71/87-NCRPB
NCR Planning Board
Jan Path, New Delhi

Dated 1.2.88

Copy forwarded to all the members of the Board.


(K.K.BHATNAGAR)
Member Secretary

AGENDA ITEM NO. 2

ACTION TAKEN ON THE MINUTES OF THE SIXTH MEETING
OF THE BOARD HELD ON 21.7.87

Agenda Item No. 1: Confirmation of the Minutes of the
Fifth meeting of the Board held on 17.2.87

No action called for.

Agenda Item No. 2: Action taken on the Minutes of the Fifth
meeting of the Board

Agenda Item No. 3: Business transacted by the Planning
Committee/Project Sanctioning & Monitoring
Group, Personnel Group etc.

No action called for.

Agenda Item No. 4: Annual Report of the Board for the year
1986-87

This has been laid down on the table of
both the Houses of Parliament during the
last session.

Agenda Item No. 5: Suggestion for the Co-option of VC, DDA
as a Member of the Board

Vice Chairman, Delhi Development Authority
has been informed that he has been
co-opted as member of the Board.

Agenda Item No. 6: Amendment to the NCR Planning Board
Regulations, 1985

The notification amending the regulations
in consultation with the Min. of Law and
Min. of Urban Development has been issued
on 14.12.87.

Agenda Item No. 7: Delegation of Financial & Administrative
Powers to the Member Secretary

A notification delegating the Financial
and Administrative powers to the Member
Secretary for publication in the Gazette
has been issued vide letter No.K-14011/13/
85-NCRPB dated 14.12.87.

Contd..

Agenda Item No. 8: Uniform Fiscal Policy for the National Capital Region

The Committee constituted under the Chairmanship of the Secretary, Urban Development has held two meetings on 29.10.87 and 24.12.87. The Committee has analysed the sales tax structure prevailing in the Delhi Union Territory and the States of Haryana, Uttar Pradesh and Rajasthan. The Committee has also broadly considered various issues arising out of this analysis and having a bearing on the policies approved by the Board. It has, however, not been possible for the Committee to reach any conclusions till now.

Agenda Item No. 9: Draft Regional Plan - Policies, Proposals etc.

The Draft Regional Plan approved by the Board was published on 14.8.1987 inviting public suggestions/objections. The date for filling suggestions/objections was extended till 31.10.1987. A total of 37 objections have been received. A separate agenda item No.8 has been submitted for consideration.

AGENDA ITEM NO. 3

Details of business transacted by the Planning Committee,
Personnel Group & Project Sanctioning & Monitoring Group,
etc.

A copy each of the minutes of the meetings held by the
Planning Committee etc. are given in Annexure - I
for kind perusal.

. . .
A Planning Committee
i. 7.7.87
ii. 19.11.87
iii. 16.12.87

Personnel Group
15.11.87
16.12.87

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Amendment of Regulations

The National Capital Region Regulations, 1986 (Annexure-11) were approved by the Board in its First meeting held on 4.6.85 and these regulations were later notified with the approval of the Central Government 3.3.86. These Regulations inter-alia provide for service conditions of the officers and employees of the Board.

*not govt employees
deputation.*
absorbed Govt

A policy decision has now been taken by the Central Government that its employees on deputation and who are not repatriated to their parent office during or after the sanctioned deputation period in the autonomous bodies on the date of expiry of the deputation period are deemed to have been permanently absorbed in the autonomous bodies with effect from that date. It has thus become necessary to consider the requests of such employees of the Central Government on deputation with the Board for a permanent absorption whom we may like to absorb in the interest of the Board. According to our Regulations, the employees of the Board are eligible to get pensionary benefits and General Provident Fund. However, some of the employees who may thus be permanently absorbed in the NCR Planning Board will not be eligible for pension because their balance period of service may be less than 10 years. According to Govt. rules, such officers will be entitled to the benefit of the Contribution Provident Fund only. But at present no Contributory Provident Fund Scheme is applicable to the employees of the board. Thus, such of the erstwhile employees of the Central Govt. who are absorbed in the Board will neither get CPF facility nor the benefit of pension for the services rendered in the Board. To keep them at par with Government servants, therefore, it is proposed to amend regulations by making the CPF rules of the Govt. of India applicable to them. There are no financial implications in so far as these officers are entitled to 8.3% of pay as contribution from the Board as against 17 to 23% of maximum of the pay scale as pension contribution payable by the Board. It is, therefore, proposed that the Board may adopt the Contributory Provident Fund Rules of the Govt. of India.

(28)

The Board may consider the amendment of NCR Regulation (Annexure-II)- Regulation 6 - Pension, Gratuity & Retirement benefits by including the words or "Contributory Provident Fund Rules," after the words General Provident Fund.

Proposed draft

6. Pension, gratuity, retirement benefits and general provident fund:-

"The officers and employees of the Board shall be entitled to pension, gratuity, other retirement benefits and general provident fund or contributory provident fund at such rates and under such conditions as are applicable to officers and employers of the Central Government in the corresponding grades."

"or contributory provident fund" to be added.

Board may kindly consider and approve the proposal.

AGENDA ITEM NO.5

Revised Estimates 1987-88 and Budget Estimates
1988-89 in respect of Revenue (Non-Plan)
and Capital (Plan) expenditure

Revised Estimates 1987-88 and Budget Estimates 1988-89 in respect of both Revenue (Non-Plan) and Capital (Plan) were submitted to the Ministry of Urban Development in the prescribed formats and in accordance with their instructions by the due dates. Briefly, these estimates were as under:-

(Rupees in lakhs)

	Non-Plan (Revenue exp.)	Plan (Capital exp.)	Remarks
Actual expenditure 1986-87	21.64	360.14	
Sanctioned Budget grant 1987-88	22.23	600.00	
Proposed Revised Estimates 1987-88	26.06	600.00	
Accepted Revised Estimates 1987-88	22.41	600.00	
Budget Estimates 1988-89	29.47	2895.00	

Detailed statements of Revenue and Capital expenditure Budget are enclosed.
These Budget statements are submitted for consideration an approval of the Board.

* * * * *

Statement showing the revised estimates 1987-88 and
Budget Estimates 1988-89 vis-a-vis the actual
expenditure

NON-PLAN

Grant No. 73-Housing Urban
Development.
DI-NOR Plc. Board-DI(1)-
Direction & Admin.

(In thousands of Rs.)
Actuals 1986-87 B.E. 1987-88 Actuals of 1st six months 10/36 to 3/37 Actuals 4/37 to 9/37 Anticipated 10/37 to 3/28 B.E. 1987-88 B.E. 1988-89

ris	9,92	-	5,24	6,99	7,77	14,76	16,48
5	20	-	11	13	12	25	30
21 Expenditure	22	-	8	31	19	50	50
ce Expenditure	8,74	-	4,22	2,45	4,13	6,53	8,22
Rates							
Taxes	2,55	-	2,55	39	2,96	3,95	3,95
	1	-	1	-	2	2	2
Total	21,64	22,23	12,21	10,27	13,19	23,06	29,47
unsent nce of last	-	-	-	-	(+)	92	-
Misc. pts			(-)	4	(-)	6	(-)
						10	12
Total	21,64	22,23	12,21	10,23	14,21	25,04	29,35

Finance & Accounts Officer
NOR Planning Board.

PLAN

STATEMENT SHOWING THE REVISED ESTIMATES 1967-68 VS. A-VIS THE ACTUAL EXPENDITURE

B. 11 1-68

Actuals for
the year 1966-67 Budget Grant
1967-68

Last 5 months actuals 1966-67
First 6 months actuals 1967-68
Anticipated Exp. for the remaining 6 months of 1967-68

Reasons for variations between the budgeted and actuals
3 & 7

	2	3	4	5	6	7	8	9
AS TO State Government Expenditure	400.00		400.00	175.00	1275.00	1453.00		
Eds & Surveys	9.27		7.58	6.43	9.00	15.48		
Operation of Non Plan Eds	1.15		1.52	0.32	1.20	2.58		
Eds & Surveys for Non Plan Office	-		-	-	-	-		
Total	410.79	600.00	408.10	182.30	1282.20	1470.50		

Extra funds to the extent of Rs. 725 lakhs are required for providing assistance to the participating state governments for development works in the non-plan. In this connection a copy of d.o. letter dt. 24.9.87 addressed to planning commission is enclosed.

(2) Dispend balance last year 6/7	112.53							
(2) Int. on loans	(-) 36.52			(-) 64.86		(-) 64.86		
(2) Other receipts (Bank Int.)	(-) 1.30			(-) 0.52	(-) 75.00	(-) 75.52		
Total Receipts	(-) 50.65			(-) 67.63	(-) 77.67	(-) 145.50		
Total Net	360.14	600.00	409.10	114.67	1210.33	1325.00	725.00	

K. L. SACHAR
Finance & Accounts Officer

(24)

AGENDA ITEM NO. 6

ANNUAL STATEMENT OF ACCOUNTS FOR THE YEAR
1986 - 87

According to Clause - 25 of the NCR Planning Board Act, 1985 the accounts of the Board for the year 1986-87 were maintained in the form prescribed by the Government in consultation with the Comptroller & Auditor General of India. Detailed accounts as well as Annual Statement of the Accounts were audited by the Director of Audit, Commerce, Works & Miscellaneous, New Delhi on behalf of Comptroller & Auditor General of India. The Audit certificate along with the Statement of Annual Accounts has been submitted to the Ministry of Urban Development who have since placed these on the Table of both the Houses of Parliament.

The Statement of Annual Accounts with the Audit Certificate is submitted to the Board for adoption.

. . . .

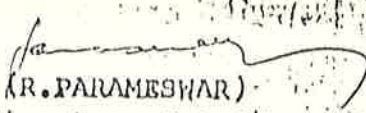
AUDIT CERTIFICATE

23

I have examined the accounts and the Balance Sheet of the National Capital Region Planning Board, New Delhi for the year ending 31st March 1987. I have obtained all the information and explanations that I have required and I certify as a result of my audit that in my opinion, these accounts and Balance Sheet are properly drawn up so as to exhibit a true and fair view of the state of affairs of the National Capital Region Planning Board according to the best of my information and explanations given to me and as shown by the books of the Board.

Place: New Delhi

Dated: 15.10.1987


(R. PARAMESWAR)
Director of Audit
Commerce Works & Misc., -I,
New Delhi.

**STATEMENT OF RECEIPT AND PAYMENT ACCOUNT OF THE REVENUE
AND CAPITAL GRANT FOR THE YEAR 1966-67**

RECEIPTS

No.	Head of Account	Amount
1	Unsettled balance b/f	Rs. 60,980.41
2	Revenue Grant	12,82,671.06
3	Capital Grant	13,75,651.50
	Total	27,19,302.97
	Grant in aid received from the H/o Union	4,46,39,000.00
	Total	31,65,692.97
	Receipt of deposits on loans to State	7,21,130.25
	Total	38,86,823.22
	Receipt of deposits on loans to State	10,55,250.00
	Total	49,42,073.22
	Receipt of deposits on loans to State	15,75,770.84
	Total	65,17,844.06
	Receipt of deposits on loans to State	26,59,150.59
	Total	91,76,994.65
	Receipt of deposits on loans to State	2,79,705.80
	Total	94,56,700.45
	Receipt of deposits on loans to State	4,132.48
	Total	94,60,832.93
	Receipt of deposits on loans to State	100.00
	Total	94,60,932.93
	Receipt of deposits on loans to State	20,000.00
	Total	94,80,932.93
	Receipt of deposits on loans to State	2,000.00
	Total	94,82,932.93
	Receipt of deposits on loans to State	5,320.00
	Total	94,88,252.93
	Receipt of deposits on loans to State	800.00
	Total	94,89,052.93

PAYMENTS

No.	Head of Account	Amount
1	Salaries	Rs. 8,56,667.32
2	Wages	19,544.35
3	Travel Expenses	22,054.40
4	Office Expenses	8,50,134.28
5	Fees & Honorarium	257.85
6	Payment for professional & special services	3,500.00
7	Rent, rate and taxes	2,54,798.70
8	License fee paid to Dte. of Estate in respect of Govt. residences	42,577.45
9	Loan to State Govt. Transporting Agencies	36,50,000.00
10	Loan to State Govt. Transporting Agencies	2,75,000.00
11	Loan to State Govt. Transporting Agencies	1,53,200.00
	Total	4,70,00,000.00
12	Foreign Service Contribution	82,398.70
13	Study of Informal Sector	3,19,350.00
14	Land use analysis	1,12,000.00
15	Modeling for Urban Dev.	3,42,468.00
16	Transportation Studies	75,000.00
	Total	9,57,816.00
17	Expenditure of Govt. Plan	1,52,376.00
18	Hospitality Expenses	24,556.05
19	Short term advances to staff:	3,000.00
20	(a) Festival advance	400.00
21	(b) Cycle advance	1,005.00
22	Deposits with Dte. of Estates	1,005.00
23	Income tax	8,074.35
24	Income tax	6,525.00
25	Income tax	1,48,957.00
26	Income tax	1,32,002.00
27	Income tax	1,156.00
28	Income tax	3,960.00
29	Income tax	500.00
30	Income tax	199.65
31	Income tax	430.00
	Total	2,73,053.00
	Income tax received from suppliers	4,950.00

Suspense

(A) Receipt and Recovery from salary bill

(a) Income Tax	17,310.00
(b) Licence fee	8,074.25
(c) CGEETIS	6,923.00
(d) GPF subscription and advances	1,48,997.00
(e) HSA	32,002.00
(f) scooter advance	1,156.00
(g) Car advance	3,060.00
(h) Festival	900.00
(i) Cycle advance	159.45
(j) LIC advance	150.15
(k) Impact	2,03,403.00
(l) Temporary contingent advances	98.00
(m) Income Tax paid from employees	1,540.57
	4,902.00
	5,10,36,663.12

5,10,36,663.12

17. Interest on G.P.F.

19. Closing Balance

(a) Revenue Grant	1,25,999.71
(b) Capital Grant	64,86,064.08

Total

Detail of closing balance

Cash in hand	473.08
Cash in Current A/c	7,783.44
Cash in Saving A/c	66,03,707.26
	66,11,963.78

Handwritten signature

Checked and accounted for

Handwritten signature

**STATEMENT OF RECEIPT AND PAYMENT OF
CAPITAL GRANT FOR THE YEAR 1986-87**

RECEIPTS

<u>Head of Account</u>	<u>Amount</u>
ent balance brought over	12,52,671.09
tribution received from Govt.	4,25,00,000.00
upt of interest on loans from e Govt./Implementing agencies	
Urban Improvement Trust, Alwar	7,21,130.15
Pawas Arora Vikas Ashad, Lucknow	13,56,250.00
aryana Urban Dev. nocity, Chandigarh	15,75,770.54
Interest:	
ate Bank of India,	30,293.10
man Shavhan	
ate Bank of iala	98,842.40
	1,29,735.50
Total:-	4,75,65,537.28

(K.L. Sacha)
Finance and Accounts Officer

PAYMENTS

<u>S.No.</u>	<u>Head of Account</u>	<u>Amount</u>
17	Loans to State Govt./Implementing agencies	
	1) Urban Improvement Trust Alwar	36,50,000
	ii) Uttar Pradesh, Lucknow	2,25,00,000
	iii) Haryana Urban Dev. Authority, Chandigarh	1,38,50,000
		4,00,00,000
27	Studies & Surveys	
	1) Migration studies in the context of NCR	2,18,530.00
	ii) Study of Informal sector	1,22,000.00
	iii) Landuse Analysis	3,42,465.00
	iv) Computer Modelling for Urban Development	75,000.00
	v) Traffic & Transporta- tion studies	1,68,300.00
		9,27,115.00
3.	Preparation of NCR Plan	
	Closing balance	1,52,378.28
		64,86,064.08
		4,75,65,537.28

(K.K. Shastri)
Member Secretary

STATEMENT OF RECEIPT AND PAYMENT ACCOUNT OF THE REVENUE GRANT FOR THE YEAR 1986-87

RECEIPTS

Head of Account	Amount
1. Balance brought forward	60,530.41
2. In aid received from W/o Urban Development	21,09,000.00
Receipts	
Interest on L.T.C. advances	122.35
Interest on cycle advances	8.35
Life Insurance	3,058.00
Private use of staff car	109.00
Life contribution	800.50
Discretionary receipts	61.03
Total	700.00
Security deposit with Director of Estate	700.00
Excess amount transferred in Savings W/o State Bank of India, Madras branch to the Bank of Baroda	50,000.00
The consolidation of regular staff of the Board	2,133.00
Total Advances to staff	3,100.00
Interest advance	500.00
Total	23,21,105.36

PAYMENTS

Head of Account	Amount
1. Salary	3,94,008.44
(11) Allowances	4,62,658.98
2. Trages	8,56,667.32
3. Travel expenses	19,544.35
4. Office expenses	22,054.40
5. Fees and honorarium	8,50,134.28
6. Payment for professional & special services	257.95
7. Rent, Rates and Taxes	3,500.00
8. Licence fee paid to Dte. of Estates in respect of Govt. residences	2,54,798.70
9. Foreign service contribution	42,577.45
10. Hospitality expenses	63,338.70
11. Short term advances to staff:	24,336.09
(a) Recycled advances	3,200.00
(b) Cycle advances	400.00
12. Discretionary:	
Security deposits to Director of Estate	1,225.00
13. Suggests:	
(a) Receipt & recoveries from salary bills:	
(1) Income tax	17,810.00
(11) Licence fee	8,074.35
(111) CGST	9,525.00
(1111) GPF subscription and advances	1,48,997.00
(11111) HRA including interest	32,002.00
(111111) Secord advance	1,156.00
(1111111) Car advance	3,960.00
(11111111) Fastival advance	900.00
(111111111) Cycle advance	198.65
(1111111111) L.T.C. advance	430.00
(b) Income tax recovered from suppliers' bill	2,23,053.00
(c) Interest on GPF	4,962.00
Closing balance	1,25,899.72
Total	23,21,105.36

(K.K. Sathar)
Finance & Accounts Officer

(K.K. Sathar)
Member Secretary

EXPENDITURE

INCOME

AMOUNT

Particulars	Rs.	P.	Rs.	P.
Pay	3,24,000.44			
Allowances	4,62,650.00		0,56,667.32	
Grants			19,544.35	
Travel Expenses			22,054.40	
Office Expenses				
Postage	3,102.00			
Hot & cold water charges	62.10			
Telephone	53,940.57			
Stationery				
(a) Ordinary	53,694.90			
(b) Drawing & Materials	36,200.53			
Printing	21,356.50			
Running & maintenance of staff car & other vehicle	31,208.05			
Conveyance charges	1,047.25			
Other items				
(a) Meeting expenses	6,513.90			
(b) Grant in aid to Magazine Club	1,045.00			
(c) Sweeper charges	451.60			
(d) Maintenance of:				
(i) Office machines	40,812.60			
(ii) Furniture & Furnishing	1,992.00			
(e) Miscellaneous	10,284.35			
	<u>2,70,500.13</u>			
Office Expenses			2,70,500.13	
Grants & Honorarium			257.85	
Grant for professional and social services			3,500.00	
Rate and Taxes			2,54,790.70	
Utility Expenses			24,336.02	
Charges				
Licence fee paid to Directorate of Estates for Govt. residences allotted to officer and staff of the Board			42,677.45	
Leave salary and pension contributions			80,339.70	
Interest on GPF of regular employees of the Board			57.00	
Surplus of income over expenditure transferred to Balance Sheet			30,822.34	

GRAND TOTAL

16,11,554.33

1. Grant in Aid (Revenue) received from the Govt. Urban Development for Establishment & Administrative Expenditure (Recurring) i.e. total Grant less expenditure therefrom on assets.

16,09,365.05

Rs. 21,82,000.00
Rs. 5,72,634.15
Rs. 16,09,365.85

2. Other Receipts

- (i) Interest on Leave Travel concession advances Rs. 122.35
- (ii) Interest on cycle advances Rs. 0.35
- (iii) Private use of staff car Rs. 105.00
- (iv) Group Insurance Scheme returns Rs. 2050.00
- (v) Central Govt. Health Services contributions Rs. 830.50
- (vi) Miscellaneous Receipts Rs. 64.20

Rs. 3100.40

Total other Receipts

4,180.40

16,11,554.33

(Sd/-) Accounts Officer

(Sd/-) (P.L. Sachar)
Fin. Secy and Accounts Officer

(Sd/-) (P.L. Mahanar)
Member Secretary

N.C.R. PLANTING BOARD
BALANCE SHEET AS ON 31ST MARCH, 1987

Particulars	Amount as on 31.3.1987	Amount as on 31.3.1986	Amount as on 31.3.1987
P. Funds and Liabilities	Rs. P.	Rs. P.	Rs. P.
1. National Capital Region Planning Board Fund Account		7,27,414.66	13,85,063.81
(i) Revenue Grant for Non-Recurring Expenditure	13,09,797.79		7,75,00,000.00
(ii) Capital Grant	8,15,00,000.00	3,75,00,000.00	
(iii) Bank Interest	2,82,286.74	4,92,500.00	
(iv) Interest on Loan	37,75,770.54		
Total Fund	3,68,67,855.06	1,120.00	760.00
2. GPF subscriptions of Regular employees of the Board	2,233.00	1,628.97	525.00
3. Surplus of the Board			
(a) Excess amount received on subscription of Regular employees		12,32,571.05	66,03,707.28
(b) Excess amount received on subscription of Regular employees		50,000.00	7,753.44
(c) Excess amount received on subscription of Regular employees			473.00
(d) Excess amount received on subscription of Regular employees			66,11,963.80
4. Surplus of Income Tax Expenditure			
E/T Surplus	10,000.41		
Current Year	30,000.34		
Total Fund	6,05,92,290.81	1,00,00,000.00	8,05,52,290.81

(For L & Madam's Account 1987)

(For L & Madam's Account 1987)

(For L & Madam's Account 1987)

SUMMARY OF ASSETS 1986-87

(32)

No.	Name of Asset	Expenditure incurred up- to 3/86	Expenditure incurred during 1986-87	Total	Ref. to page No. of S/R
	Furniture	Rs. 144255.15	Rs. 83546.55	Rs. 227801.70	12
	Furnishing	-	Rs. 64645.00	Rs. 64645.00	92
	Motor Car	Rs. 94537.51	-	Rs. 94537.51	50
	Motor Van	Rs. 105500.00	-	Rs. 105500.00	50
	Type Writer	Rs. 45430.65	-	Rs. 45430.65	32
	Electronic T.W.	Rs. 57327.10	-	Rs. 57327.10	50
	Duplicating Machine	Rs. 18540.25	-	Rs. 18540.25	66
	Photocopier	Rs. 118552.60	-	Rs. 118552.60	68
	Calculator	Rs. 308.00	-	Rs. 308.00	54
0.	Cycle/Postal Machine	Rs. 839.20	Rs. 628.90	Rs. 1468.80	54
1.	Tape Recorder	Rs. 1073.20	-	Rs. 1073.20	64
2.	Air Conditioners	Rs. 34345.00	Rs. 42841.40	Rs. 77186.40	70
3.	Elect. Appliances	Rs. 2120.55	Rs. 34645.40	Rs. 36765.95	62
4.	Pedestal Fans	-	Rs. 2896.55	Rs. 2896.55	84
5.	Water Cooler	-	Rs. 8370.00	Rs. 8370.00	94
6.	Wall Clock	Rs. 837.50	-	Rs. 837.50	62
7.	Auto Dialler	-	Rs. 4290.00	Rs. 4290.00	82
8.	Installation of addl. power points by CPWD	-	Rs. 22985.00	Rs. 22985.00	86
9.	PVC Partitions	-	Rs. 248108.00	Rs. 248108.00	88
0.	False Ceiling Tube fitting	-	Rs. 18216.00	Rs. 18216.00	90
1.	Ferro Printing Machine	Rs. 58146.00	-	Rs. 58146.00	15
2.	Drawing materials & equipment	Rs. 42450.15	Rs. 42659.40	Rs. 85109.55	15
3.	Books/Maps	Rs. 3151.10	Rs. 5011.95	Rs. 8163.05	74
4.	Misc	-	Rs. 790.00	Rs. 790.00	96
		Rs. 727414.66	Rs. 579634.15	Rs. 1307048.81	

DETAILS OF OUTSTANDING LOANS

To whom given	Amount out- standing as on 31.3.86 Rs.	Loan given during 1986-87 Rs.	Amount out- standing as on 31.3.1987 Rs.	
Govt. of Uttar Pradesh, Lucknow	1,75,00,000	2,25,00,000	4,00,00,000	/
Haryana Urban Development Authority, Chandigarh	1,25,00,000	1,38,50,000	2,63,50,000	
Urban Improvement Trust, Alwar (Rajasthan)	75,00,000	36,50,000	1,11,50,000	
Total:-	3,75,00,000	4,00,00,000	7,75,00,000	

DETAILS OF EXPENDITURE ON STUDIES AND SURVEYS

No.	Name of Study and survey	Estimated cost of study/survey	Expenditure incurred upto 31.3.86	Expenditure incurred during 1986-87	Expenditure incurred upto 31.3.87
2		3	4	5	6
	Migration studies in the context of NCR Plan	4,50,000	2,25,000	2,18,850	4,43,850
	Study of Informal Sector in NCR	3,05,000	1,52,500	1,22,000	2,74,500
	Fiscal Policy for NCR	2,30,000	1,15,000	-	1,15,000
	Landuse analysis based on land-sat Imageries and Aerial Photography	3,42,465	-	3,42,465	3,42,465
	Computer modelling for Urban Development	1,85,000	-	75,000	75,000
	Traffic and Transportation studies/surveys	8,80,000	-	1,68,000	1,68,000
	Total:-	23,92,465	4,92,000	9,27,115	14,19,615

35

DETAILS OF EXPENDITURE INCURRED
ON PREPARATION OF HCR PLAN

1. Audiovisual presentation	Rs. 28,678.20
2. Printing of Interim Development Plan	Rs. 1,23,700.00
Total :-	<u>Rs. 1,52,378.20</u>

ANNEXURE V

DETAILS OF OUTSTANDING SHORT
TERM ADVANCES TO STAFF

1. Festival advance	Rs. 600.00
2. Cycle advance	Rs. 160.00
Total :-	<u>Rs. 760.00</u>

(36)

AGENDA ITEM NO. 7

ANNUAL STATEMENT OF LOANS & ADVANCES FOR THE
YEAR 1986-87

According to Rule-47 of the NCR Planning Board Rules, 1985, the officer in charge of the accounts of the Board is required to submit to the Board Annual Statement showing details of outstanding loans in respect of the following heads in form 'G' & 'H':-

- (a) Loans and advances by the Board in form 'G'.
- (b). Loans and advances received by the Board in form 'H'.

The Annual statements of loan for the year 1986-87 in the prescribed forms are submitted for information of the Board. In regard to loans sanctioned by the Board to the participating States/implementing agencies, the repayment of instalments of principal has not become due so far, There is no outstanding default in payment of interest. The statements of loans/advances received by the Board (Form 'H') may be treated as 'NIL'.

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FORM H

NATIONAL CAPITAL REGION PLANNING BOARD

Statement of loans/advances received by the Board—Financial year 191966-67

[See Rule 47(2)]

Name of person/ body giving loan/ advance	Amount of loan/ ad- vance recei- ved	Rate of interest	No and date of orders autho- rising loan/the advances	Balance from last year	Amount rece- ived during the year	Total	Repayment of principal			Payment of interest			
							Instal- ments of repay- ment during the year and arrears of instal- ments due relating to earlier years if any (figures to be shown year-wise)	Amount of princi- pal re- paid during the year	Amount of de- faults in repay- ments of prin- cipal (Cols-8-9) (figures to be shown year-wise)	Balance of loans/ advances at the close of the year (Col. 7- Col. 9)	Amount of in- terest due for and up to the year under review	Amount of interest paid and credited to re- venue during the year	Balance of interest un- paid
1	2	3	4	5	6	7	8	9	10	11	12	13	14

FORM G

NATIONAL CAPITAL REGION PLANNING BOARD

State ment of Loan/Advances sanctioned by the Board

Financial year 1986-87.

(See Rule 47 (1))

of Rate va- of c- inte- rest	No. and date of orders autho- rising the loan/ advances	Balance from last year	Amount vanded this year	Total	Repayment of Principal				Payment of Interest			
					Instalments of repay- ment during the year & arrears of instalments due relating to earlier years, if any (figures to be shown year-wise)	Amount of Prin- cipal re- paid during the year	Amount of Prin- cipal re- paid during the year	Balance of loans/ advances at the close of the year (C64.3.6 C61.7.7 C64.9)	Amount of interest due for and upto the year under review	Amount of interest received and credited to revenue during the year	Balance of interest unpaid	

3	4	5	6	7	8	9	10	11	12	13	14
118	11-11-87	Rs. 75.00 lakhs	Rs. 36.50 lakhs	Rs. 111.50 lakhs	-	-	-	Rs. 111.50 lakhs	7.21,130/- lakhs	Rs. 7.21,130/-	Rs. 1

3.75	11-11-86	Rs. 175.00 lakhs	Rs. 225.00 lakhs	Rs. 400.00 lakhs	-	-	-	Rs. 400.00 lakhs	Rs. 24,15,123/-	Rs. 24,15,123/-	Rs. 61,573/-
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118	11-11-87	Rs. 125.00 lakhs	Rs. 138.50 lakhs	Rs. 263.50 lakhs	-	-	-	Rs. 263.50 lakhs	Rs. 15,75,771/-	Rs. 15,75,771/-	Rs. 1
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Interest
lance
was recd
from the
State Go
during
7/57 E
balance
date is
Nil.

AGENDA ITEM NO. 8

According to Sec.24 of the NCR Planning Board Act, 1985 the Board is required to prepare its Annual Report in each financial year giving full account of its activities during the preceding financial year and forward copies thereof to the Central Government, the participating States and Union Territory of Delhi. The National Capital Region Planning Board Rules, 1985 provide that the Annual Report for each year should be submitted to the Government by the 15th of May. As the Board's first meeting during the year 1988-89 is being held only on 17.5.88, the report could not be submitted earlier.

During the period of this Report 1987-88, the Board met twice and in the meeting held on 21.7.87, the Board approved the Draft Regional Plan-2001 for publication for inviting suggestions/objections as provided in the NCR Planning Board Act, 1985. The details of grant-in-aid received from the Government and its utilisation have also been given in this report. However, the Accounts Audit Report for the year 1987-88 will be placed before the Board after the accounts are audited by the Auditors.

The Annual Report containing material as prescribed in the Rules is enclosed for consideration and approval of the Board.

ANNUAL REPORT
OF THE
NATIONAL CAPITAL REGION PLANNING BOARD
FOR THE YEAR
1987-88

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NATIONAL CAPITAL REGION PLANNING BOARD

1. Introduction

The enactment of the National Capital Region Planning Board Act by the Parliament in February, 1985, with the consent of the Legislative Assemblies of the participating States of the Region, viz Haryana, Rajasthan and Uttar Pradesh, was a landmark in the history of regional development in the country. This was also the culmination of the series of efforts which were underway since the sixties to give statutory shape to the concept of the National Capital Region to alleviate the gravity of the problems of Delhi. Expectedly, the setting of the Board has raised hopes all around about containing the population of Delhi and solving some of its chronic problems arising out of the increasing congestion. The press, the representatives of the people, organisations of industries, commerce and traders and others connected with the problems of the National Capital Region, responded enthusiastically to the Draft Regional Plan which was published for inviting objections/suggestions in August, 1987. There is now a growing awareness that solutions to the problems of Delhi and its planned development can be ensured only in the regional context and that requires a considerably larger attention on the development of the National Capital Region.

In order to provide a sound, planned and statutory backing to its plans and programmes, it was incumbent on the Board to prepare its Regional Plan on priority basis and also to initiate action on the preparation of Sub Regional Plans for the respective Sub Regions. During the year under review, maximum attention of the Board was concentrated on this important aspect. Simultaneously, around efforts were also made to ensure additional allocation of funds from the Planning Commission and the Central Ministries for financing the projects in the Region. In spite of the fact that the need for additional resources has been widely appreciated, due to the resources crunch being felt by the Central Government, the efforts for getting additional allocations have not been successful. However, they are still being continued at various levels. A heartening feature has been that the participating States and Union Territory, along with their planning authorities, have wholeheartedly responded to the various efforts being made towards preparation of plans and projects. It appears that with some more efforts and with a little more time, there would be a still wider appreciation of the policies being evolved by the National Capital Region Planning Board and it would then be possible to get the cooperation of all concerned in their implementation.

2. a) Composition of the NCR Planning Board

The composition of the Board is given in Annexure-I.

b) Meetings of the Board held during the Year

During the year under reference, the Board met twice :

- i) 21.7.87 - Sixth meeting of the Board presided over by Smt. Mohsina Kidwai, Urban Development Minister
- ii) 20.1.88 - Seventh meeting under the Chairmanship of Minister of State for Urban Development Shri Dalbir Singh

The gist of the important items on which the Board deliberated during these meetings and decided upon is given below-

- (1) Co-option of Vice-Chairman, DDA as Member of the Board.
- (2) Approval of the amendment of regulation number 5 regarding house rent allowance to the employees of the Board.
- (3) Delegation of financial and administrative powers to the Member Secretary, NCR Planning Board.
- (4) Constitution of a Committee for rationalisation of tax structure in the NCR comprising the Finance Secretaries of the participating States and the Union Territory of Delhi and the respective Central Ministries under the Chairmanship of the Secretary, Ministry of Urban Development was constituted.
- (5) The Draft Regional Plan-2001 for the NCR was prepared in accordance with the provisions contained under Section 10 of the NCRPB Act 1985, after taking into consideration the decisions taken in the various meetings of Planning Committee and the Board. The Draft Regional Plan was approved by the Board in its 6th meeting held on 21.7.87. The Draft Regional Plan (DRP) was published on the 14th August, 1987 both in English and Hindi for inviting objections and suggestions in accordance with Section 13 of the NCRPB Act, 1985. Its publication was announced through leading Daily newspapers in all the participating States of the NCR and the UT of Delhi. Copies of the DRP were sent to all local authorities within the National Capital Region to facilitate their representation if any, with respect to the proposals of the DRP. On several requests, the last date for receiving such objections and suggestions was extended upto 31th October 1987. In all, 33 objections and suggestions were received. After obtaining the comments and recommendations of the Planning Committee

on these objections/suggestions, the same were placed for consideration before the Board in its 7th meeting. Due to the sad demise of the Frontier Gandhi Khan Abdul Ghaffar Khan, the meeting was adjourned and, the objections and suggestions could not be considered by the Board. The same will be considered in the next meeting of the Board.

- (5) Review of the business transacted by the Planning Committee/Project Sanctioning and Monitoring Group, Personnel Group etc. during the year.
- (6) Approval of the annual report of the Board for the year 1986-87.

3. Planning Committee

The NCRPB Act, 1985 provides for setting up of a Planning Committee consisting of officers and town planners of the participating States, the Delhi UT and the concerned Ministries of the Central Government to assist the Board in the discharge of its functions.

a) Composition of the Planning Committee

The Constitution of the Planning Committee is given in Annexure - II.

(b) Functions of the Committee

(1) The functions of the Committee as provided in the Act are to assist the Board in :

- a) The preparation and co-ordinated implementation of the Regional Plan and Functional Plans; and
- b) Scrutinising the Sub-Regional Plans and all Project Plans to ensure that the same are in conformity with the Regional Plan.

(2) The Committee may also make such recommendations to the Board as it may think necessary to amend or modify any Sub-Regional Plan or any Project Plan.

(3) The Committee shall perform such other functions as may be entrusted to it by the Board.

4. Meetings of the Planning Committee held during the Year

The Planning Committee met four times :

- 1) 8.6.87 - 9th meeting
- 2) 7.7.87 - 10th meeting
- 3) 19.11.87 - 11th meeting
- 4) 16.12.87 - 12th meeting

Important business transacted by the Committee during the year under reference is as follows :

1) The Planning Committee, having taken into consideration various recommendations of the Study Groups and the results obtained from various studies undertaken, finalised the Draft Regional Plan - 2001 for the National Capital Region for submission to the Board, containing policies relating to :

- i. Demographic Profile
- ii. Settlement System
- iii. Economic Profile
- iv. Transport
- v. Telecommunications
- vi. Power Development
- vii. Water Supply and Sanitation
- viii. Education and Health
- ix. Counter Magnet Areas
- x. Regional Landuse
- xi. Environment and Eco-development
- xii. Management Structure for Plan Implementation
- xiii. Strategies and Priority Areas for Development

(2) Consideration of objections/suggestions received on the Draft Regional Plan - 2001 :

The Draft Regional Plan - 2001 for the National Capital Region was published for inviting objections/suggestions after obtaining the NCR Planning Boards approval in its meeting held on the 21st July, 1987. The Planning Committee considered all the 33 objections/suggestions received in two meetings and offered its comments/suggestions there on for consideration by the NCR Planning Board.

(3) Finalised a time frame for the preparation of the Sub-regional plans by participating State Governments/UT.

(4) Finalised the staffing pattern for the Planning Cells in the Sub-regions.

(5) Deliberated on the identification of counter-magnet areas.

(6) Approved the proposal of undertaking studies on the following aspects through professional consultants:

- i. Location of distributive trades in the NCR
- ii. Resource mobilisation by the local bodies of NCR.
- iii. Investment Plan and Resource mobilisation for the NCR Plan implementation.

(7) Prepared guidelines for the location of industries in the Delhi Metropolitan Area.

5. Finance, Accounts and Audit

Under Section 21(1) of the NCR Planning Board Act, 1985, a fund has been constituted to be called National Capital Region Planning Board Fund. During the year 1987-88 amounts credited into the fund and the expenditure therefrom was as under:

i) An amount of Rs.22.41 lakhs was received from the Ministry of Urban Development as grants-in-aid out of their Non-Plan Funds for meeting the expenditure towards salaries, allowances and remuneration of Member Secretary, Officers and other employees of the Board as also administrative expenses of the Board. In addition, un-spent balance of previous year amounting to Rs.0.92 lakh was available for expenditure for this purpose. The miscellaneous receipts for the year were Rs.0.24 lakh. The total expenditure during the year on pay and allowances and administrative expenses amounted to Rs.23.55 lakhs, leaving an unspent balance of Rs.0.02 lakh which has been carried forward to the year 1988-89.

ii) An amount of Rs.1.50 lakhs was received from the Ministry of Urban Development in March, 1988 as grants-in-aid for the purchase of equipment required for preparation of audio-visual programmes. The purchase of equipment could not be finalised by the end of March, 1988 and as such the amount has been carried forward to 1988-89.

iii) An amount of Rs.6.00 crores was received from the Ministry of Urban Development as contribution out of their Plan Funds for (a) providing financial assistance to the participating States/their implementing agencies for the implementation of on-going and new NCR schemes and, (b) conducting surveys, preliminary studies and drawing up plans for the NCR. In addition the Board had an amount of Rs.64.86 lakhs, as the unspent balance of the previous year and, it realised an amount of Rs.86.56 lakhs as interest on loans and Bank deposits.

The Board released the following financial assistance in the shape of interest-bearing loan to the participating States/their implementing agencies during 1987-88.

(a) Govt. of Uttar Pradesh	Rs. 376.00 lakhs
(b) Haryana Urban Dev. Authority, Chandigarh	Rs. 279.00 lakhs
(c) Urban Improvement Trust, Alwar (Rajasthan)	Rs. 68.20 lakhs
Total	Rs. 723.20 lakhs

The expenditure on studies/surveys and preparation of the NCR Plan amounted to Rs.11.40 lakhs and Rs.1.50 lakhs respectively. Further, an amount of Rs.0.24 lakh was spent on long term advances to the employees of the Board out of capital funds.

The unspent balance of interest receipts on loan etc. aggregating to Rs.15.08 lakhs, has been transferred to the accounts for the year 1988-89 to be released for the NCR schemes.

The annual accounts for the year 1986-87 have since been audited by the Director of Audit, Commerce, Works & Miscellaneous on behalf of the Comptroller and Auditor General of India and adopted by the Board. The same along with the Audit Report have been laid on the Table of both the Houses of the Parliament by the Ministry of Urban Development.

6. Other Activities

- 1) Preparation of integrated plan for the infrastructure network for the Delhi Metropolitan Area.

In order to prepare an infrastructure network plan for the Delhi Metropolitan Area, a study group consisting of the Planning Authorities of the NCR States was constituted. The study group met twice during the year. Some of the items which are under consideration of the study group are: finalisation of the administrative boundaries of DMA, land use plan and integrated plan for infrastructure and, interfacing of transport.

- 2) Preparation of an integrated plan - for Rewari, Dharuhera, Bhiwadi complex.

Rewari - Dharuhera - Bhiwadi complex has been identified as town complex for priority development in the Draft Regional Plan - 2001. Since the Plan of this complex will require collaborative efforts by the Haryana and Rajasthan States, the issue was taken up in a joint meeting of the concerned authorities of the States held on the 26th February, 1988. Various aspects relating to the preparation of the integrated plan for the complex like integrated transport linkages, provision of facilities, integrated landuse plan etc were considered in the meeting. The States will prepare an integrated plan for development of the complex as a joint collaborative effort.

- 3) Training programme on interpretation of satellite imageries and aerial photographs.

The Board has acquired land-sat imageries and the aerial photographs for the preparation of the Regional Plan. With a view to utilise these as inputs in the preparation of base maps for the sub-regions by the participating States, an orientation training for the officers of States Town & Country Planning Departments was held during 25-27th August 1987 in collaboration with Defence Terrain Research Laboratory (DTRL), Ministry of Defence in the Office of the NCR Planning Board.

7. In the first meeting of the Board held on 4.6.85, the Board constituted 2 groups namely, Project Sanctioning & Monitoring Group and Personnel Group under Sub-section (2) of the Section 22 of the NCR Planning Board Act, 1985. These groups met five times during the year on the following dates:

Project Sanctioning & Monitoring Group

4th Meeting	-	28.4.87
5th Meeting	-	7.7.87
6th Meeting	-	19.11.87
7th Meeting	-	16.12.87
8th Meeting	-	17.3.87

Personnel Group

3rd Meeting	-	28.4.87
4th Meeting	-	7.7.87
5th Meeting	-	19.11.87
6th Meeting	-	16.12.87
7th Meeting	-	17.3.87

The important decisions taken in these meetings include sanctioning of two projects namely, commercial complex at Alwar at the total cost of Rs.29.37 lakhs and transport nagar complex at Panipat at the total cost of Rs.128.85 lakhs and carrying out the studies on the following subjects:

- i. Study on Resource mobilisation for local bodies
- ii. Study on Distributive trades in the NCR
- iii. Study on Investment Plan and Resource Mobilisation for NCR Plan implementation.

8. Details of activities in Urban Areas outside NCR selected under Section 8 (f)

The study for identification of counter-magnet areas outside the Region has been entrusted to the School of Planning and Architecture, New Delhi. The criteria for identification has been finalised in consultation with the representatives of the participating States and initial listing, followed by short listing of towns has also been done. The final list is likely to be included in the Regional Plan to be published during 1988-89.

ANNEXURE I

Composition of the NCR Planning Board

The NCR Planning Board, under the Chairmanship of the Union Minister of Urban Development has 21 members besides 6 co-opted members. The composition is as under :

1. Union Minister of Urban Development	Chairman
2. Chief Minister of Haryana	Member
3. Chief Minister of Rajasthan	Member
4. Chief Minister of Uttar Pradesh	Member
5. Lt. Governor of Delhi	Member
6. Chief Executive Councillor Delhi Metropolitan Council	Member
7. Union Minister of Industry	Member
8. Union Minister of State for Railway	Member
9. Union Minister of State for Surface Transport	Member
10. Member (Urban Development), Planning Commission	Member
11. Secretary, Ministry of Urban Development	Member
12. Secretary, Department of Expenditure, Ministry of Finance	Member
13. Chief Planner, Town & Country Planning Organisation	Member
14. Minister of Town & Country Planning, Government of Haryana	Member
15. Minister of Urban Development, Government of Rajasthan	Member
16. Minister of State in-charge of Urban Development, Uttar Pradesh	Member
17. Chief Secretary, Government of Rajasthan	Member
18. Chief Secretary, Government of Haryana	Member
19. Secretary, Housing and Urban Development, Government of Uttar Pradesh	Member
20. Chief Secretary, Delhi Administration	Member
21. Member Secretary, National Capital Region Planning Board	Member

Co-opted Members

1. Chief Minister of Madhya Pradesh
2. Secretary, Ministry of Industrial Development,
Government of India
3. Secretary, Ministry of Surface Transport, Government
of India
4. Chairman, Railway Board, Government of India
5. Adviser (HUD), Planning Commission, Government of India
6. The Vice Chairman, DDA, New Delhi.

ANNEXURE - II

(a) Composition of the Planning Committee

According to the provisions of the NCRPB Act, 1985, the Board has constituted the Planning Committee. It has 19 members under the Chairmanship of the Member-Secretary as under :

- | | | |
|-----|---|----------|
| 1) | Member Secretary, NCR Planning Board | Chairman |
| 2) | Joint Secretary in the Min. of Urban Development dealing with the work relating to the National Capital Region. | Member |
| 3) | Secretary in charge of National Capital Region work in the State of Haryana. | Member |
| 4) | Secretary in charge of National Capital Region work in the State of Rajasthan. | Member |
| 5) | Secretary in charge of National Capital Region work in the State of Uttar Pradesh. | Member |
| 6) | Secretary in charge of National Capital Region work in the Delhi Union Territory. | Member |
| 7) | Vice Chairman, Delhi Development Authority. | Member |
| 8) | Chief Planner, Town & Country Planning Organisation, Ministry of Urban Development. | Member |
| 9) | Director, Town Planning Department, Government of Haryana. | Member |
| 10) | Chief Town Planner, Government of Rajasthan. | Member |
| 11) | Chief Town Planner, Government of Uttar Pradesh | Member |

Co-opted Members :

A representative each from the Ministries of :

- | | | |
|----|--------------------------|-----------------|
| 1) | Surface Transport | Co-opted Member |
| 2) | Energy (Deptt. of Power) | Co-opted Member |

- | | | |
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| 3) | Communications | Co-opted Member |
| 4) | Railways | Co-opted Member |
| 5) | Planning Commission | Co-opted Member |
| 6) | Deptt. of Environment | Co-opted Member |
| 7) | Chairman-cum-Managing
Director, Housing & Urban
Development Corporation. | Co-opted Member |
| 8) | Chief Regional Planner,
NCR Planning Board. | Member-Convenor |

AGENDA ITEM NO. 9DRAFT REGIONAL PLAN - CONSIDERATION OF OBJECTIONS/
SUGGESTIONS ALONG WITH COMMENTS AND
RECOMMENDATIONS OF THE PLANNING COMMITTEE

1. The National Capital Region Planning Board in its meeting held on the 21st July, 1987 approved the Draft Regional Plan (DRP) prepared under Section 10 of National Capital Region Planning Board Act, 1985, for publication for inviting objections/suggestions. A notice in regard to the Draft Regional Plan was published in daily newspapers in all the three participating States and Delhi UT of the National Capital Region on August 14, 1987. A copy of the Draft Regional Plan was also sent to all the Local Authorities within the National Capital Region ^{enabling them} to make any representation with regard to the Draft Regional Plan. The objections/suggestions were initially received for a period of 30 days. However, several requests were received for extending the date for submission of objections/suggestions. The last date of receipt of objections/suggestions was accordingly extended to October 31, 1987.

2. Till October 31, 1987, 33 objections/suggestions were received. In addition, four more objections/suggestions were received thereafter, out of which one was from a Central Ministry, two from State Governments and another one from a voluntary organisation, thus, totalling in all to 37. The Planning Committee in its meetings

held on the 19th November, 1987 and the 16th December, 1987 considered all the objections/ and made recommendations suggestions/ which are annexed for consideration by the Board. The objections received on the Draft Regional Plan will be placed in the meeting for reference.

3. While considering the objections/suggestions on the Draft Regional Plan, the Planning Committee decided to recommend modifications in respect of the following proposals contained in the DRP :

- i) Population Assignment for Rajasthan Sub-region.
- ii) Inclusion of a Section on Rural Development and a Chapter on Shelter in the Final Regional Plan.
- iii) Policy on Small Scale Industries in Delhi UT.
- (iv) Provision of Regional bypass connecting Meerut-Hapur-Bulandshahr-Khurja-Palwal-Sohna-Rewari-Jhajjar-Rohtak-Panipat.
- v) Provision of Green Buffer along Highways/ Expressways.

Brief notes indicating the views of the Planning Committee in respect of the above proposed modifications are placed for consideration and approval of the Board.

9/3/87 (59)
Answer
(i) Population Assignment for Rajasthan Sub-region

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The Draft Regional Plan had assigned a population of 14 lakhs in 2001 AD for the Rajasthan Sub-region with 5 lakh urban and 9 lakhs rural against 10.64 lakhs of total population in 1981 with 1.74 lakhs urban and 8.90 lakhs rural.

The Rajasthan Govt. has pointed out that the assignment of 5 lakhs as urban and 9 lakhs as rural would not be justified in the context of assignment of 5 lakhs urban population to Alwar town and 1.15 lakhs to Bhiwadi. In addition, there are two towns already existing and a few more are likely to be added by 2001 AD and as such the urban proportion should be higher than the 36% as envisaged in the DRP.

The Planning Committee in its 12th meeting held on 16th December, 1987, deliberated on this aspect and decided that in the light of enhanced urban population assignments made to Alwar and Bhiwadi, the assignment of urban population may be increased to 7 lakhs of the total population of 14 lakhs, i.e., an urban component of 50% by 2001 AD.

The Board may kindly consider approving this modification for inclusion in the Final Regional Plan.

(ii) Inclusion of a Section on Rural Development and a Chapter on Shelter in the Final Regional Plan

The Draft Regional Plan contained a chapter on 'Settlement System 1981-2001', which primarily dealt the urban settlement pattern of the region with special emphasis on identification of Regional Centres in NCR.

The Planning Committee in its 11th meeting held on the 19th November, 1987, suggested that even though rural development is to be dealt in detail in the Sub-regional Plans, there should be a section on rural development in the chapter on Settlement System providing strategies for rural development in the NCR. The members also suggested that there should be a separate chapter on 'Shelter' in the Final Regional Plan, which would focus on the shelter requirements of the Region.

The Board may kindly consider approving the proposed addition of a section on Rural Development in the chapter on Settlement System and a new chapter on 'Shelter' in the Final Regional Plan.

(iii) Policy on Small Scale Industries in Delhi UT

With the policy of strict control on growth of industries within the Union Territory of Delhi, the Draft Regional Plan proposed that while continuing the present policy of not promoting location of medium and large scale industries within Delhi, location of even small scale industries is to be restricted to those which employ 20 or less persons and, are required either for providing or servicing the consumer needs of Delhi's population.

However, the Delhi Development Authority has suggested that it may not be possible to restrict the number of persons to 20 or less per unit in a few selected small scale industries.

Considering the suggestion made by D.D.A., the Planning Committee in its 12th meeting, held on 16th December, 1987 felt that it might be necessary to relax the criterion of number of persons in selected cases of small scale industries allowing up to 50 persons for certain specific small scale industries which need to be identified and listed out in the Delhi Master Plan by the D.D.A.

The Board may kindly consider the above suggestion for approval.

(iv) Provision of Regional bypass connecting Meerut - Hapur - Bulandshahr - Khurja - Palwal-Sohna-Rewari-Jhajjar-Rohtak-Panipat

The Draft Regional Plan for NCR had recommended an outer regional railway bypass of 208 km additional length to be developed beyond 2001 AD, in a longer perspective with alignment of Meerut-Hapur-Bulandshahr-Khurja-Palwal-Sohna-Rewari-Jhajjar-Rohtak-Panipat by utilising existing sections of Meerut-Hapur-Bulandshahr-Khurja and Rohtak-Panipat. This is based on a transport study for the NCR which concluded that there was no adequate justification in terms of intra regional traffic requirements within NCR for developing this additional length atleast upto 2001 AD. However, the study also pointed out that evaluation of this bypass should necessarily take into account the national traffic into consideration as well, rather than only NCR traffic requirements. However, two objections/suggestions from (i) D.D.A., and (ii) Haryana State Government have been received urging taking up this Rail Bypass by 2001 AD itself. The objections point out that the present traffic movement, both goods and passengers, has already reached saturation limits and physical thresholds for any further improvement of facilities in Delhi. In addition,

substantial volume of traffic in the year 2001 AD would primarily depend on Rail and, this new Rail Bypass, if taken up by 2001 AD, could serve the basic purpose of opening up of a vast backward area of the Region for economic development. As such, a decision should be taken about this proposal immediately so that reservation of land for the rail bypass and terminals be provided in the Region by 2001 AD.

Considering these facts, the Planning Committee in its 12th Meeting, held on the 16th December, 1987 agreed to incorporate the provision of this outer ring rail bypass linking Meerut-Hapur-Bulandshahr-Khurja-Palwal-Sohna-Rewari-Jhajjar-Rohtak-Panipat, utilising the existing sections of Meerut-Hapur-Bulandshahr-Khurja and Rohtak-Panipat in the Final Regional Plan.

The Board may kindly consider the above suggestion for approval.

(v) Provision of Green Buffer along Highways

The Draft Regional Plan contains a proposal for provision of green buffer of 300 metres width on both sides of National Highway and Expressways and 200 metres width in the case of State highways to prevent ribbon development along the highways. The matter was considered by the Planning Committee in its meeting held on 16th December, 1987 in the context of objections/suggestions, received on the Draft Plan. The Committee felt that it would be difficult to maintain the green buffer of the width suggested in the Draft Regional Plan unless the same is acquired and frozen. Since it was not intended to acquire the land falling within the green buffer, and it was proposed to maintain the same through regulation and control of landuses, the Planning Committee felt that 100 metres width on either side of right-of-way of the National Highways and proposed Expressways and, 60 metres on either side of the right-of-way of the State Highways would be appropriate and practicable.

The Board may kindly consider the above suggestion for approval.

4. There was a lack of consensus among the members about the following proposals contained in the D.R.P. They have recommended reconsideration of these proposals by the Board. Brief notes indicating the proposals to be reconsidered are given below :

(A) Industrial Policy for Delhi Metropolitan Area(DMA)

The Draft Regional Plan 2001 envisages the following policy guidelines for industrial development :

- (a) Strict control within the Union Territory of Delhi : While continuing the present policy of not promoting location of medium and large scale industries within Delhi, location of even small scale industries is to be restricted to those which employ 20 or less persons and, are required either for providing or servicing the consumer needs of Delhi's population. The NCR Planning Board should be represented in the Statutory Licensing Committee for new industries in the UT, so that strict compliance of these policies is ensured.
- (b) Control outside Delhi but within the DMA : No large scale or medium scale industries should be permitted to be set up in the DMA. Only small scale units should be permitted.
- (c) Incentives for industries outside the DMA but within the National Capital Region : The towns selected for priority development should have a strong industrial content, and incentives should be given for location of large, medium and small scale industries by developing industrial estates in these towns. In addition to these towns, there should be no restrictions on the growth of industries in the Region except in the areas reserved for conservation.

However, the Government of Haryana has requested for a reconsideration of the policy relating to Delhi Metropolitan Area (DMA). The views of the Government of Haryana on the industrial policy relating to Delhi Metropolitan Area (DMA) towns were presented in the Planning Committee meeting held on 19.11.1987 and they are as follows :-

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- i) Delhi UT and Delhi Metropolitan Area (DMA) should not be equated so far as disincentives are concerned for location of industries.
- ii) If the industrial growth is discouraged by not allowing large and medium scale industries in DMA at this stage, the infrastructure already created in DMA towns will not be fully utilised.
- iii) Haryana should be granted 10 years moratorium period to continue its existing policies of locating all types of industries in DMA towns.
- iv) Due to the recommendations of the Baijal Committee, the areas falling in NCR will not qualify for Central Government incentives and thus it would not be possible to boost industrial growth in the rest of the NCR area as suggested in the Draft Regional Plan.

Similar views have been expressed on behalf of the Government of Uttar Pradesh also.

There was considerable discussion by the Committee on the views expressed by the representatives of Haryana and Uttar Pradesh. The representatives of Rajasthan and Delhi Union Territory, however, argued against any change in the policy already included in the Draft Regional Plan. They were of the view that the past policy of unrestricted industrialisation has only helped in increasing congestion in Delhi. Generally, industrial workers and executives have preferred to stay in Delhi, even continued their earlier plants in Delhi and, mostly, created additional units in the DMA towns. They both stated that if this policy was not changed, Delhi would soon develop into a large megalopolis further increasing its problems.

It is a fact that the development of DMA towns was taken up in pursuance of the policies envisaged in the first Master Plan for Delhi approved in 1962, but the accelerated industrial growth has not been accompanied.

by the requisite growth of infrastructure, particularly, in the fields of transport, telecommunications, health and educational facilities. The required residential facilities also have not come up in these areas. As a result, rather than decreasing congestion and load on the services in Delhi, the pressure has increased. Modification in the suggested industrial policy in the DMA could be considered in case the State Governments and Central Ministries undertake to remove the large deficiencies in infrastructural development in DMA towns.

* * * * *

MINUTES OF THE 10TH MEETING OF THE PLANNING
COMMITTEE OF THE NCR PLANNING BOARD HELD AT
11 AM ON 7TH JULY, 1987 IN THE OFFICE OF THE
NCR PLANNING BOARD, NEW DELHI.

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Annexure I

The following members were present:

Members of the Planning Committee:

1. Shri K.K. Bhatnagar, Member-Secretary, NCR Planning Board - Chairman.
2. Shri R.S. Malik, Special Secretary, Town & Country Planning, Government of Haryana.
3. Shri P.B. Mathur, Commissioner & Secretary (Urban Development), Government of Rajasthan.
4. Shri N.C. Vasishtha, Director, Town & Country Planning, Government of Haryana.
5. Shri H.S. Mathur, Chief Town Planner, Government of Rajasthan.
6. Shri N.S. Johri, Chief Town & Country Planner, Government of Uttar Pradesh.
7. Shri D.P. Gupta, Chief Engineer (Planning), Ministry of Surface Transport, New Delhi.
8. Shri Om Kumar, Vice Chairman, Delhi Development Authority.
9. Shri B.N. Singh, Chief Regional Planner, NCR Planning Board - Member Convenor.

Other participants

1. Shri P.K. Sinha, Deputy Secretary, Deptt. of Power, Government of India.
2. Dr. H.D. Goyal, Deputy Adviser (HUD), Planning Commission,
3. Shri K.T. Gurumukhi, Town & Country Planner, Town and Country Planning Organisation, New Delhi.
4. Shri J.C. Gambhir, Director (PPW), Delhi Development Authority.
5. Shri Satya Swarup, Asstt. Director General(TP.V), Telecom Directorate, New Delhi.
6. Shri V.P. Maheswari, Regional Chief, HUDCO, New Delhi.
7. Shri Shankar Aggarwal, Jt. Secretary, Housing & Urban Development, Uttar Pradesh.
8. Shri J.C. Chopra, Chief Town Planner, Haryana.
9. Shri R.C. Aggarwal, District Town Planner, Karnal.
10. Shri Prakash Narain, Deputy Director(PPW), D.D.A.

Officers of the Board

1. Shri S. Arunachalam, Sr. Planning Engineer.
2. Shri R.P. Rastogi, Associate Planner.
3. Shri V.K. Thakore, Sr. Research Officer.
4. Shri Pran Nath, Deputy Director.
5. Shri K.L. Sachar, Finance & Accounts Officer.
6. Shri P. Jayapal, Asstt. Town & Country Planner.
7. Shri J.N. Burman, Asstt. Town & Country Planner.
8. Shri Madhu Babu, Asstt. Town & Country Planner.

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The meeting was preceded by an Audio-Visual Presentation of the Interim Development Plan of the NCR.

The Chairman welcomed the new members, namely, Special Secretary, Housing & Urban Development and Director, Town & Country Planning, Haryana to the Meeting.

AGENDA ITEM NO.1

CONFIRMATION OF THE MINUTES OF THE LAST MEETING
OF THE PLANNING COMMITTEE HELD ON 8.6.1987

The minutes of the meeting held on 8.6.1987 were confirmed.

AGENDA ITEM NO.2

REVIEW OF THE ACTION TAKEN ON THE AGENDA ITEMS
OF THE 9TH MEETING OF THE PLANNING COMMITTEE

(v) Referring to the proposals for power development, Shri P.K. Sinha, Deputy Secretary, Department of Power, Government of India, stated that the proposal for setting up NCR Electricity Authority for NCR suggested by the NCR Planning Board is under examination by his Department. However, he suggested that the Authority may not be named as NCR Electricity Authority but instead as NCR Electricity Agency.

(vi) The Chairman drew the attention of the members that in view of no definite consensus having been arrived at the proposed management structure for the NCR in the last meeting, the views of the State Governments, if now available could be reported in the meeting by the representative of the State Governments. Shri R.S. Malik, Special Secretary Haryana said that the views of the Haryana Government would be sent later. However, he felt that in view of the existence of Haryana Urban Development Authority, Town & Country Planning Department and Panchayats, there may be a problem for creation of a separate Sub-region Area Development Authority. The representative of the Uttar Pradesh Government said that creation of a Planning Cell at the State Government level is being vigorously pursued. He further stated that another authority for the entire Sub-region may not be created.

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in Uttar Pradesh in view of development authorities existing in Meerut, Ghaziabad and Noida and also in view of the proposal to create development authorities for Bulandshahr-Khurja Complex. On a query from Member-Secretary as to how the development of the rural areas will be ensured in the absence of an unified agency at the sub-regional level, Shri Shankar Aggarwal, Joint Secretary stated that comments on this aspect would be made available to the Planning Committee by the State Government as soon as possible. Shri P.B. Mathur, Secretary, Housing & Urban Development, Rajasthan agreed with the proposal of the creation of a Sub-regional Area Development Authority for the Rajasthan Sub-region. Summing up the discussion, the Chairman stated that the Draft Regional Plan would contain the proposals as approved by the Board in its meeting held on 17th February, 1987 and the State Governments can give their suggestions when the Draft Regional Plan would be published for inviting objections/suggestions.

AGENDA ITEM NO.3

POLICIES FOR DEVELOPMENT OF ECONOMIC ACTIVITIES -
THE ROLE OF INFORMAL SECTOR

Reacting on the findings of the Study, Shri P.B.Mathur Secretary, Housing and Urban Development said that the recommendations made in the Study did not contain the definition of the informal sector and also the study does not establish the growth of informal sector as linked with the formal sector activities. Shri Om Kumar, Vice Chairman, Delhi Development Authority felt that the major focus of the Study should concern itself in identifying the percentage of migrants who are involved in various informal sector economic activities. There was a need for quantification of the migrants who get absorbed in various economic activities both formal and informal and the extent which remain without job. Such a quantification will lead to policy options for absorption of migrants in various economic activities. The Chairman said that efforts would be made to finalise this report in the light of the observations made by the members.

AGENDA ITEM NO.4POLICIES FOR DEVELOPMENT OF ECONOMIC ACTIVITIES
IN THE NATIONAL CAPITAL REGION

Shri N.C. Vasishtha, Director, Town & Country Planning, Haryana referred to the policies approved in the Interim Development Plan and that proposed to be incorporated in the Draft Regional Plan specifically to industries. He said that in the DMA towns, large and medium scale industries should also be allowed since DMA towns in Haryana have still not been saturated. He suggested that the embargo on medium and large scale industries should be deferred for a period of 10 years in DMA towns. He also stated that similar policies relating to Government Offices be applied to DMA towns. Shri R.S. Malik, Special Secretary, Urban Development, Haryana stated that the DMA towns deserved location of large and medium scale industries and the embargo proposed for location of such industries in DMA towns was not justified. He also referred to the problems of availability of power in Haryana. He said that power was available only for 6 hours in Haryana while Delhi enjoyed uninterrupted supply and therefore, the dispersal of economic activities from Delhi, particularly industries would not be possible unless availability of uninterrupted power supply is ensured in the constituent areas of the NCR. Shri Om Kumar, Vice Chairman, DDA said that with a view to curbing the growth of Delhi, the policy of strict control regarding location of industries need to be adopted not only within the Delhi UT, where only small scale industries employing 20 or less persons are being permitted but also in DMA towns equally. Member-Secretary referred to the policies relating to economic activities in the Interim Development Plan for NCR as approved by the Board. He stated that the policies of economic activities as approved by the Board are being incorporated in the Draft Regional Plan. In case Haryana wishes to raise this issue, that could certainly be done at the meeting of the NCR Planning Board.

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With regard to trade and commerce, it was decided to remove the words "and develop" in the last line of the recommendations under 'disincentives within Delhi'.

AGENDA ITEM NO. 5

FISCAL MEASURES TO BE INCORPORATED IN THE
DRAFT NATIONAL CAPITAL REGION PLAN

Member-Secretary informed the members that an expert study was commissioned by the Board through the auspices of the National Institute of Public Finance Policy (NIPFP) whose report has now been received. The annexure enclosed with the Agenda item gives comparative statement of the policies approved in the IDP and the policies as proposed in the study by the Institute. The Planning Committee in their meeting held on 7th July, 1987 had reiterated the broad policies as indicated in the IDP that uniformity of tax structure was absolutely necessary to remove certain anomalies in the tax structure of trade and industry in the Region.

Shri Malik of Haryana stated that as already mentioned by him, it would be difficult to curb the growth of Delhi in view of better power supply situation in Delhi and also concessional taxation structure as compared to other constituent areas of the NCR. It was generally felt that the tax structure for the entire region need to be rationalised.

After discussions on the policies suggested by NIPFP, the Committee felt that to work out the exact mechanism for rationalisation of tax structure and existing anomalies in trade and commerce, a Committee of the Finance Secretaries of the three participating States and Delhi UT and the representatives from the Ministry of Finance, Home Affairs and Planning Commission under the Chairmanship of Union Secretary for Urban Development may be constituted. This committee would take into consideration all the relevant factors and make suitable recommendations for the approval of the Board.

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SETTLEMENT SYSTEM 2001

The Member-Secretary stated that a study was entrusted to Physical Research Laboratory, Ahmedabad to suggest a suitable settlement system for NCR based on computer aided model. He also referred to the CBRI, Roorkee's studies commissioned to evolve a suitable urban development model for the region. Shri B.N. Singh explained the findings of the study and stated that the proposals contained in the IDP more or less conforms to the findings of the Physical Research Laboratory. Shri Singh also explained the various alternative models developed by CBRI to suggest a suitable pattern of settlement system which would be efficient, objective and cost effective. He explained that the 8 towns/complexes identified as regional centres in the IDP conform to the findings of both the studies and are accordingly proposed to be incorporated in the Draft Regional Plan. Special Secretary, Haryana stated that according to the study, Sonapat falls within the first higher order of settlement and as such this should be included in the list of priority. Shri Singh^{while} explaining the rationale for not including Sonapat, Modinagar, Shikaripur and Mawana which fall in the first order of settlement of the Study said that in each of the transport corridors, only one town has been identified for inclusion in the first order settlements on consideration of selectivity, whereas the other towns in view of their close proximity to Delhi have been deliberately omitted. However, Shri Singh explained that these towns would be developed as second order Sub-regional centres. Special Secretary, Haryana agreed with the findings of the report.

AGENDA ITEM NO.7POLICIES AND PROPOSALS FOR PROVISION
OF WATER SUPPLY AND SANITATION FACILITIES

The Chairman explained the recommendations, policies and proposals for provision of water supply and sanitation both for urban and rural areas in the NCR. The recommendations were approved by the Committee to be incorporated in the Draft Regional Plan.

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AGENDA ITEM NO.8STRATEGY FOR DEVELOPMENT OF EDUCATION AND HEALTH FACILITIES IN THE NATIONAL CAPITAL REGION

The norms and standards for education and health facilities included with the Agenda item were considered and approved by the Committee. The Member-Secretary, however, informed the members that the State Governments who normally give concessions in the shape of developed land at nominal prices to educational institutions could extend such concessions to a large number of institutions who have applied for such facility in Delhi. If details on concessions as approved by the State Governments are made available to the Board, the matter could be taken up with the Delhi Administration for locating such institutions in various Sub-regions. The members also suggested that effort could be made for setting up Navodaya-vidyalayas in the various towns by the NCR.

AGENDA ITEM NO.9TRAFFIC AND TRANSPORT PLAN FOR NCR

The Chairman stated that M/s. Operations Research Group had been entrusted with the study who have conducted the various types of surveys in the NCR. On the basis of surveys and data, an analysis has been done regarding traffic generation and attraction characteristics of the area. Based on the data, future passenger and goods flow have been projected and calibrations made using suitable models in the development of alternative network under 2 scenarios. The Consultants have made available an interim report. He further stated that their final recommendations may not be much different than what has been circulated in the meeting today. The Chairman requested the representative of the ORG to explain the salient features of the transport proposals. Shri Ramchand of ORG presented the main findings of the study. Shri J.C. Chopra, Chief Town Planner, Haryana, reacting on the proposals of the Consultants stated that the proposal of an outer goods avoiding rail line had been there since

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1973 Plan and should not be dispensed with. He further added that this line was conceived on the hope that it will lead and open up vast areas for development and as such it should not be evaluated in terms of economic viability. Shri Prakash Narain, DDA also stated that the present Delhi avoiding line runs right through the city and it should be exclusively reserved for intra-urban passenger movement and as such the outer rail grid should be developed by 2001. Member-Secretary reacting to the suggestions made clarified that the projections made by the Consultants indicate that with improvement of the terminals and augmentation of capacity of the existing rail network and increasing the number of coaches of passenger trains, the increased goods and passenger traffic could be easily handled without such a lengthy new line. Shri Shankar Aggarwal, Joint Secretary, U.P. stated that in addition to the four terminals, Ghaziabad could also be made another terminal. Shri P.B. Mathur, Secretary, Rajasthan stated that Rewari - Dharuhera need to be connected by rail. After discussions at length, it was felt that the interim findings of the report may be incorporated in the Draft Regional Plan and the Committee felt that the reports of all the studies and surveys be circulated to the State Governments, who would consider the findings of the Consultants and make their comments available to the NCR Planning Board. These could then be considered along with the final report of the ORG for the final net-work.

AGENDA ITEM NO.10

STRATEGIES AND PRIORITY AREAS FOR DEVELOPMENT

The proposals contained in the Agenda item were considered and approved.

AGENDA ITEM NO.11

COUNTER MAGNET AREAS

The paper suggesting the concept and approach to counter magnet areas were considered and approved.

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AGENDA ITEM NO.12

POLICIES AND PROPOSALS ON ENVIRONMENT AND ECOLOGY


The paper circulated on the above aspect was considered and approved.

The meeting ended with a vote of thanks to the Chair.

NO. R-14011/2/87-NCRPB
NATIONAL CAPITAL REGION PLANNING BOARD
7th Floor, B -Wing, IOC Bhawan,
Janpath, New Delhi -110001

Dated, the 16th July, 1987.

Copy forwarded to all Members of the Planning Committee and all the participants in the meeting for appropriate action.


(B.N. Singh)
Chief Regional Planner
&
Member - Convenor

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AGENDA ITEM NO.12

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The meeting ended with a vote of thanks to the Chair.

NO. K-14011/2/87-NCRPB
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(B.N. Singh)
Chief Regional Planner
&
Member - Convenor

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MINUTES OF THE 11TH MEETING OF THE PLANNING
COMMITTEE OF THE NCR PLANNING BOARD HELD AT
11 A.M. ON THE 19TH NOV., 1987 IN THE OFFICE
OF N.C.R. PLANNING BOARD, NEW DELHI.

The following members were present :

Members of Planning Committee :

1. Shri K.K. Bhatnagar, Member Secretary, NCR Planning Board - Chairman.
2. Shri R.L. Pardeep, Jt. Secretary (UD), Ministry of Urban Development.
3. Shri Om Kumar, Vice Chairman, Delhi Development Authority.
4. Shri S.M. Mittal, Executive Director (MTP), Railway Board.
5. Shri D.P. Gupta, Chief Engineer (Planning), Ministry of Surface Transport.
6. Shri P.B. Mathur, Commissioner & Secretary, Urban Development, Housing and LSG Deptt., Government of Rajasthan.
7. Shri Prasanna Kumar, Director, Town & Country Planning Department, Government of Haryana.
8. Shri J.P. Bhargava, Chief Town and Country Planner, Government of Uttar Pradesh.
9. Shri C.S. Mehta, Chief Town Planner, Government of Rajasthan.
10. Shri B.N. Singh, Chief Regional Planner, NCR Planning Board - Member Convenor.

Other Participants :

1. Shri Shankar Aggarwal, Jt. Secretary, Housing & Urban Development, Government of Uttar Pradesh.
2. Shri S. Shiva Kumar, Scientist S.E., Ministry of Environment and Forest.
3. Dr. H.D. Goyal, Deputy Adviser (HUD), Planning Commission.
4. Shri R.K. Gupta, Director (Telecom. Planning), Telecom Board, Ministry of Communication.
5. Shri B.D. Gulati, Chief Coordinator Planner - NCR, Government of Haryana.
6. Shri G. Kumar, Jt. Director (MTP), Railway Board.
7. Shri Ashok Singhvi, Project Director - NCR & Secretary, Urban Improvement Trust, Alwar.
8. Shri V. Mehrotra, Director (Industries), Government of Haryana.
9. Shri J.C. Gambhir, Director (Planning), Delhi Development Authority.
10. Shri D.K. Khanna, Deputy Director, Land and Building Department, Delhi Administration.

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11. Shri K.T. Gurmukhi, Town and Country Planner, TCPO, Ministry of Urban Development.
 12. Shri Prakash Narayan, Jt. Director (PPW), Delhi Development Authority.
 13. Shri H.K. Sharma, Senior Planner, Town and Country Planning Department, Government of Uttar Pradesh.

Officers of the Board :

1. Shri S. Arunachalam, Senior Planning Engineer.
2. Shri R.P. Rastogi, Regional Planner,
3. Shri S.B. Verma, Associate Planner.
4. Shri V.K. Thakore, Senior Research Officer.
5. Shri Pran Nath, Deputy Director (Adm.).
6. Shri K.L. Sachar, Finance & Accounts Officer.
7. Shri J.N. Barman, Assistant Town Planner.
8. Shri P. Jayapal, Assistant Town Planner.
9. Shri Madhu Babu, Assistant Town Planner.
10. Shri Manmohan Singh, Research Officer.

AGENDA ITEM NO. 1

CONFIRMATION OF THE MINUTES OF THE LAST MEETING
OF THE PLANNING COMMITTEE HELD ON 7.7.87.

The Committee considered the amendments in the minutes on item No. 2(V) - review of the action taken on the Agenda item of the 9th meeting of Planning Committee. It was felt that the minutes reflected the discussions that took place in the 9th meeting on this Agenda item and no amendments were felt necessary.

Shri P.B. Mathur, Secretary Rajasthan stated that in addition to the rail link from Rewari to Dharuhera and Bhiwadi, he had also suggested the following :

- i) Conversion of Metre Gauge to Broad Gauge from Delhi to Alwar.
- ii) Upgradation of NH-8 upto Behror to M I standard.
- iii) Additional road of M II level from Rewari to Alwar via Harsauli and Khairthal parallel to existing railway line.

It was decided to incorporate the above suggestions in the minutes of the last meeting held on 7th July, 1987. The minutes of the meeting held on 7.7.1987 were thereafter confirmed.

AGENDA ITEM NO. 2

REVIEW OF THE ACTION TAKEN ON THE AGENDA ITEMS
OF THE 10TH MEETING OF THE PLANNING COMMITTEE.

1. Agenda Item No. 2(V)

Consideration of the letter No. 21/6/85 - DA(P) dated the 1.9.1987 received from the Department of Power, Ministry of Energy regarding creation of NCR Electricity Authority and allocation of additional power to NCR. The Committee discussed the communication of the Ministry of Energy regarding non-feasibility of the creation of a separate Electricity Authority for the NCR and also difficulties in allocation of additional power to NCR.

Shri P.B. Mathur, Secretary, Rajasthan felt that a paper should be prepared indicating the need for such an authority clearly spelling out how the proposed authority could help in increasing the power supply to participating States. He stated that this paper should be sent to State Governments for their comments which can then be forwarded to the Department of Power, Ministry of Energy for further consideration. This proposal was accepted.

2. Agenda Item No. 2(G)

Management Structure of NCR

Member Secretary stated that except Haryana, response from other states was still awaited. He agreed with the contention of Haryana Government that Haryana Urban Development Authority was an appropriate agency for this purpose. Shri Mathur stated that their state accepts the stipulation in the D.R.P. for creation of a separate authority and informed that suitable legal provisions would be made in their proposed Town and Country Planning Act. Pending that, it was proposed to delegate enough powers to the U.I.T., Alwar to play the required role. Shri J.P. Bhargava felt there was no need for creation of any other authority in addition to the existing four development authorities in the U.P. Sub-region. Shri Shankar Aggarwal stated that a Steering Committee has already been set up under the Chairmanship of Chief Secretary while another Committee at the Sub-regional level under the Chairmanship of Commissioner Meerut Division is contemplated. Member Secretary clarified that the regional planning and development encompasses both urban and rural areas and there was a need for an unified organisation to integrate and coordinate the development of urban and rural areas. It was decided that this matter may be pursued further with the State Government after information was received about the functions proposed to be allotted to the Committee at the Divisional level.

AGENDA ITEM NO. 3

LOCATION OF THE OFFICE OF THE NCR
PLANNING BOARD OUTSIDE DELHI.

Shri P.B. Mathur, Secretary, Urban Development, Government of Rajasthan stressed that for effective coordination between the Ministry of Urban Development, various Central Ministries, Delhi Administration, Delhi Development Authority and also the participating State Governments and for their frequent meetings, the ideal location for the NCR Planning Board's office was Delhi. He stated that the location of the office which has 30 to 40 staff strength, outside Delhi would not, in any case, have any impact in reducing the congestion in Delhi.

Shri Om Kumar, Vice-Chairman, DDA was also of the opinion that the NCR Planning Board's office should continue in Delhi because DDA, Delhi Administration and NCR Planning Board would have to work together to achieve the NCR objectives, requiring close and frequent interactions.

Shri Prasanna Kumar, Director, Town Planning, Government of Haryana, stressed that the NCR Planning Board's office should continue in Delhi which is centrally located and is connected by all modes of transport. This view was generally endorsed by other members also. At the same time, representatives of the participating states assured all cooperation in making land and other facilities available in their respective states, if it was decided to locate the office outside Delhi.

AGENDA ITEM NO. 4

PREPARATION OF SUB-REGIONAL PLAN.

The time-frame for the preparation of the Sub-regional Plan to be completed by August, 1988, was agreed to both by Haryana and Rajasthan while the Chief Town Planner, Uttar Pradesh suggested that it should be extended by another three months ending mid November, 1988. Regarding the creation of the Planning Cells in the Sub-regional areas of the NCR States, it was suggested that the staffing pattern, depending upon the work-load, vis-a-vis the size of the sub-region, should be prepared by the NCR Planning Board and circulated to the concerned State Governments for further necessary action.

AGENDA ITEM NO. 5

TRANSPORT SECTOR PLAN FOR NCR
AND M.R.T.S. FOR DELHI.

A brief presentation of the transport sector plan for NCR through the computer graphics was made highlighting the main

recommendations emerging out of the transport studies for NCR by the Operations Research Group (ORG) vis-a-vis the proposals made on the basis of the preliminary studies and findings by the ORG in the Draft Regional Plan NCR - 2001. The Vice-Chairman, Delhi Development Authority reacting on the proposals, particularly on road network in the regional context, was of the view that the radials in the form of express-ways and the National Highways, with the improvements and additions will serve to bring more and more people to Delhi instead of syphoning of excess population of Delhi to outside areas. Emphasising the importance of the railway bypass, the Vice-Chairman added that if the bypass was to come after 2001, enough damage in the form of over-congestion, traffic chaos in the city would have been done by then. He reiterated that the railway bypass as contemplated in the NCR Plan-1973 and also in the Interim Development Plan, 1986 would be a best solution to decongest the over growing city core. It was agreed, at the instance of the Member Secretary that a write up explaining the need and importance of the said railway bypass to Delhi in the immediate future should be made available by the Delhi Development Authority to the Board for further consideration.

Shri Bhargava was of the view that in view of the fast development taking place and the likely traffic generation that would follow in the course of time, the Delhi-NOIDA-Surajpur-Dadri road should be strengthened to improve it to National Highway standards. The Member Secretary felt that this being a sub-regional link should be considered in the Sub-regional Plan.

Shri Prasanna Kumar observed that the transport network of NCR consisted basically of the road network, and in fact, preference should be accorded to railway lines which would serve better with more passenger capacity. He suggested the Faridabad-Gurgaon road to be of National Highway Standard.

Shri Gupta, Ministry of Surface Transport, suggested that in addition to the proposals made in the Draft Regional Plan, Palwal-Khurja and Ballabgarh-Bulandshahr links should be included to facilitate smooth flow of traffic in the outer and inner grids and this should form part of the regional road network. Shri Gupta also expressed reservation on the number of lanes and PCUs ratio suggested by ORG.

The Member Secretary, drawing the attention of the Members to the proposed MRTS, felt that this should be extended for a few kilometres away from Vivek Vihar towards Ghaziabad which would serve the trans-Hindon urban areas having a very high rate of daily commuter traffic with Delhi. Shri Shankar Aggarwal agreeing to the proposal said that the State Government would be willing to examine the funding on similar lines. Some of the Members were of the view that both planning and operation of transport should be undertaken by the proposed UMTA for effective coordination and successful implementation of the programmes. Other members felt that, as the experience showed, the operation should be by a separate body which could be a wing of the UMTA.

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Regarding the railway network, Shri Mittal highlighting the capacity, suggested additional dedicated lines in the regional context connecting Delhi to regional towns and beyond. Except for the high capital cost, railway, as a mode of traffic, is superior in terms of energy saving, space requirement and noise level. He reiterated the view that the terminal proposed at Safdarjung and Patel Nagar would not suit for want of adequate land besides its adding to the congestion already being faced in these areas. Shri Gambhir suggested that Papan Kalan, a new township of 11 lakhs population, South West of Delhi would be more suitable for the new terminal and also for new railway station which would adequately serve the West and South-West areas of Delhi. On the suggestion for an additional line in the regional railway network made by Shri Mittal, Shri Gambhir was of the view that it would add and aggravate increasing congestion of Delhi which was sought to be deflected and avoided through Plan efforts by the DDA and the NCR Planning Board. He added that the sub-urban areas could be served by an additional line, if required, but the regional rail network with the additional lines should terminate at the periphery of Delhi from where they could be diverted to other directions. Shri Mittal explained that nearly 80% of the passenger and freight traffic through long distance trains were meant for Delhi and, therefore, it would be essential to take the long distance regional rail traffic through Delhi. He also added that the funds for the sub-urban movement for their improvements and additions should be outside the railway plan allocations. The Delhi Master Plan suggested 4 terminals at the periphery which would serve to deflect the traffic meant for outside areas which would ease the congestion of Delhi to a great extent. The Vice-Chairman, Delhi Development Authority, emphasised consideration of these terminals in the transport network of the National Capital Region which was agreed to. Shri P.B. Mathur, Secretary, Rajasthan reiterated for inclusion in the report his earlier suggestions in regard to :

- i) conversion of the stretch between Delhi and Alwar from Metre gauge to Broad gauge;
- ii) upgradation of National Highway 8 upto Behror from Delhi to M-1 standard, i.e., with 100 metres right of way;
- iii) provision of additional road of National Highway standard from Rewari to Alwar via Harsoli and Khairtal parallel to the existing railway line.

The Member Secretary mentioned that this would be looked into before finalising the report.

AGENDA ITEM NO. 6

STUDY OF COUNTER MAGNET AREAS

The Member Secretary informed the Committee that the study on identification of counter magnets for Delhi had entered its second stage. In the course of the study, on the basis

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of the methodology and criteria adopted, the consultants had short-listed the number of towns from 36 to 12 for further intensive analysis and verification. Shri Bhargava, however, expressed his reservation on the exclusion of Aligarh in the final list. Views were also expressed about some other towns in the list such as Bhatinda, Patiala, Allahabad. An official communication from Rajasthan suggesting inclusion of Jaipur, Bharatpur, Ajmer was also mentioned by the Member Secretary. The Vice-Chairman, Delhi Development Authority suggested a much higher proportion of towns to be identified looking to D.P.'s large contribution to the migrant population. Shri B.N. Singh explaining the process of identification of the counter-magnets said that the towns which on their own were likely to become metropolis in the near future, existing metropolises and State Capitals were not considered for development as counter magnets, as they would otherwise also act as such without extra development inputs. However, on the suggestion of the members for a meeting of the Chief Town Planners of the NCR States with the Consultants to discuss the methodology followed and the criteria adopted, the Member Secretary agreed to hold a meeting with the Consultants and the Chief Town Planners.

AGENDA ITEM NO. 7

LOCATION OF THE DISTRIBUTIVE TRADES IN NCR

The Member Secretary drew the attention of the Members to the objections and suggestions made by traders' associations and informed that traders were not totally averse to shifting but would agree to shifting provided adequate incentives for such relocations were made. The associations were by and large agreeable to the proposals made in the Draft Regional Plan and extended their cooperation and assistance in conducting surveys in identifying such establishments which required relocation. In this context, the provision in Delhi Master Plan for earmarking a huge area for relocation of the existing trade establishments in the congested part of Old Delhi was observed to counter the objectives of the Delhi Master Plan as well as the NCR Plan in the sense that it would further add to the economic activities with the creation of much employment opportunities and thus congestion to Delhi. It was suggested that the provision in the Master Plan should be relooked into and modified to effectively meet the objectives of containing Delhi's growth which was the goal of both the Delhi Master Plan as well as NCR Plan.

For carrying out surveys, commodity-wise for the wholesale trades listed in the agenda, one more item of fuel oil (petrochemicals) was suggested for inclusion. Agreeing to the proposal for conducting surveys of the wholesale trades, the Planning Committee emphasised the need for participative and cooperative efforts of the various agencies like State Governments, the Delhi Administration and the Delhi Development Authority and other trade agencies for a meaningful and realistic surveys and findings.

AGENDA ITEM NO. 8

RESOURCE MOBILISATION FOR NCR PLAN

The proposal for the need of an in-depth study on the various aspects of the resource mobilisation for successful implementation of the NCR Plan was appreciated and approved by the Planning Committee.

AGENDA ITEM NO. 9

INTEGRATED PLAN FOR PHYSICAL INFRASTRUCTURE
FOR DELHI METROPOLITAN AREA

Referring to the proposal, Shri B.N. Singh, Chief Regional Planner, highlighted the importance and need for an integrated and coordinated approach for the provision of infrastructural facilities and services in the Delhi Metropolitan Area towns as they are contiguous for all practical purposes and formed one urban agglomeration. He added that the Plans for drainage, sewerage and flood control have to be worked out for the Delhi Metropolitan Area as a whole having due regard to the pollution of the Yamuna river and the drainage pattern.

The Planning Committee considered the proposal and approved to undertake an in-depth study of these aspects through a professional consultant. The members were requested to make available to the Board, if any studies, on these aspects have already been conducted in their areas.

AGENDA ITEM NO. 10

RELEASE OF FINANCIAL ASSISTANCE DURING
1987-88 TO THE PARTICIPATING STATE
GOVERNMENTS/IMPLEMENTING AGENCIES FOR
EXECUTION OF NCR SCHEMES

The projects sanctioned in the meeting held on 20th April, 1987 and 7th July, 1987 by the Project Sanctioning and Monitoring Group (PSMG), the financial sanction, and the various issues relating to release of funds were brought to the notice of the Planning Committee by the Member Secretary for their information. He said that so far during 1987-88, the Project Sanctioning and Monitoring Group had sanctioned a loan assistance of Rs. 589.70 lakhs to the three NCR participating States. This included the 40th Anniversary of the Independence Commemoration Projects in Rajasthan and Haryana. He also stated that the commemoration project for Uttar Pradesh was to be considered by the Project Sanctioning and Monitoring Group in another meeting of the PSMG. He requested the States to draw the sanctioned amounts immediately.

AGENDA ITEM NO. 11

CONSIDERATION OF OBJECTIONS / SUGGESTIONS
RECEIVED ON THE DRAFT REGIONAL PLAN 2001-NCR

The Planning Committee considered the objections received on the Draft Regional Plan and generally approved the comments given in the agenda note relating to (i) National Capital Region and Policies for Development, (ii) Demographic Profile, (iii) Settlement System, (iv) Economic Profile (upto page iv/20) with the following additional objections. It was decided that the remaining objections would be considered in the next meeting of the Planning Committee.

(i) National Capital Region and Policies for Development :

On the suggestion made by the Delhi Regional Chapter ITPI, regarding Economic Profile, Director Town & Country Planning Department, suggested that it would be appropriate to identify settlements which would act as rural growth centres and capable of arresting migration flow to Delhi within the region instead of identifying counter-magnet for development outside the National Capital Region. Member Secretary clarified that in the National Capital Region Planning Board Act, 1985, counter-magnets outside NCR have to be identified for development and the same suitably incorporated in the NCR Plan. It was also agreed that suitable proposals for development of rural areas should be included in the final plan.

(ii) Demographic Profile :

The comments were approved by the Planning Committee.

(iii) Settlement System :

The comments were approved by the Planning Committee.

(iv) Economic Profile :

The Vice-Chairman, D.D.A., was of the view that while planning for the services, the floating working population should also be considered.

On the issue of incentives and disincentives for different policy zones, Shri Gambhir stated that the disincentives in Delhi are not practicable, because of the various implementation problems. Shri P.B. Mathur felt a mix policy for incentives and disincentives would be necessary for dispersal of economic activities.

Commenting upon the industrial location policy as envisaged in NCR Draft Plan, the Director of Industries, Haryana, was of the view that so far as proposed disincentives are concerned, Delhi Urban Area and Delhi Metropolitan Area should not be treated at par because both areas have vastly different - physical development as well as socio-economic character. He explained that the towns falling in Haryana portion of Delhi Metropolitan Area are independent and self-contained units and the Haryana Government has created excellent industrial infrastructure at considerable cost in these towns. If, therefore, at this stage, large and medium sized units were not allowed to be located there, the

existing infrastructure will not be fully utilised. Moreover, since the National Capital Region Planning Board is basically concerned with the employment generation capacity of a unit, a blanket ban on large and medium sized industries would not be proper because industrial classifications are based on investment limits and not on employment capacity. He added that as per the NCR Plan policies, incentives have to be given for location of all types of industries in NCR area beyond DMA. However, this may not be possible because, as per the recommendations of the Baijal Committee, any area upto 100 kms. around Delhi shall not be eligible for grant of incentives and, almost the entire area of Haryana portion of the NCR falls within this limit. Therefore, effectively, Haryana will not be able to encourage large and medium sized units in the NCR area due to the Industrial Policy enunciated in the NCR Plan.

The Director continued that a moratorium period of at least 10 years should be granted to Haryana so that it continues to follow the present industrial policies and, the infrastructure in the DMA are fully utilised. This period shall also be utilised towards developing new infrastructure in the rest of the NCR areas so that in second phase, industries could be located there. Shri Aggarwal also stated that the available facilities in the D.M.A. towns falling in U.P. should be fully utilised.

The meeting ended with a vote of thanks to the Chair.


* * * * *

No.: K-14011/2/87-NCRPB
NATIONAL CAPITAL REGION PLANNING BOARD
7th Floor, 'B' Wing, IOC Bhawan,
Janpath, New Delhi - 110001

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Dated, the 27th November, 1987

Copy forwarded to all Members of the Planning Committee and all the participants in the meeting for appropriate action.


(B.N. SINGH)
Chief Regional Planner
&
Member Convenor

MINUTES OF THE 12TH MEETING OF THE PLANNING COMMITTEE
OF THE NATIONAL CAPITAL REGION PLANNING BOARD HELD
AT 11 A.M. ON THE 16TH DECEMBER, 1987 IN THE OFFICE OF
THE NATIONAL CAPITAL REGION PLANNING BOARD, NEW DELHI

58 (78)

The following members were present :

Members of Planning Committee :

1. Shri K.K. Bhatnagar, Member Secretary, NCR Planning Board - Chairman.
2. Shri R.L. Pardeep, Jt. Secretary (UD), Ministry of Urban Development.
3. Shri Rakesh Mohan, Economic Advisor, Planning Commission.
4. Shri G.T. Narayan, Dy. Director General (TP), D.O.T, Ministry of Communications.
5. Shri A.N. Mathur, Secretary, Town & Country Planning Department, Haryana.
6. Shri P.B. Mathur, Commissioner & Secretary, Urban Development, Housing & LSG Department, Government of Rajasthan.
7. Shri Prasanna Kumar, Director, Town & Country Planning Department, Government of Haryana.
8. Shri C.S. Mehta, Chief Town Planner, Government of Rajasthan.
9. Shri B.N. Singh, Chief Regional Planner, NCR Planning Board - Member Convenor.

Other Participants :

1. Shri Shankar Aggarwal, Jt. Secretary, Housing & Urban Development, Government of Uttar Pradesh.
2. Shri S. Shiva Kumar, Scientist S.E., Ministry of Environment and Forest.
3. Shri B.D. Gulati, Chief Coordinator Planner - NCR, Government of Haryana.
4. Shri J.C. Gambhir, Director (Planning), Delhi Development Authority.
5. Shri N. Sankara Raman, Superintending Engineer (Pl), Ministry of Surface Transport (Road Wing), New Delhi.
6. Smt. Neeru Singh, Joint Secretary (Land & Building), Delhi Administration.
7. Shri Satya Swarup, Asstt. Director General (TP), D.O.T., Ministry of Communication..

8. Shri K.T. Gurmukhi, Town & Country Planner, TCPO, Ministry of Urban Development.
9. Shri Prakash Narayan, Jt. Director (PPW), Delhi Development Authority.

Officers of the Board :

1. Shri S. Arunachalam, Senior Planning Engineer.
2. Shri R.P. Rastogi, Regional Planner.
3. Shri S.B. Verma, Associate Planner.
4. Shri V.K. Thakore, Senior Research Officer.
5. Shri Pran Nath, Deputy Director (Adm.).
6. Shri K.L. Sachar, Finance & Accounts Officer.
7. Shri J.N. Barman, Assistant Town Planner.
8. Shri P. Jayapal, Assistant Town Planner.
9. Shri Madhu Babu, Assistant Town Planner.

AGENDA ITEM NO. 1

CONFIRMATION OF THE MINUTES OF THE LAST MEETING
OF THE PLANNING COMMITTEE HELD ON 19.11.1987

The Committee considered the minutes of the last meeting held on 19.11.1987 and confirmed the same after modifications suggested by Shri J.C. Gambhir, Director, PPW, Delhi Development Authority and Shri Prasanna Kumar, Director, Town and Country Planning, Haryana as follows :

Modification in Agenda Item No. 3 - Location of the office of the National Capital Region Planning Board outside Delhi :

"Shri Prasanna Kumar, Director, Town Planning, Government of Haryana, stressed that the NCR Planning Boards' office should continue in Delhi which is centrally located and is connected by all modes of transport".

The above may be read as follows :

"Shri Prasanna Kumar, Director, Town & Country Planning in fact welcomed the idea of locating the office of the NCR Board at Gurgaon and offered to allot the land to the Board under usual terms and conditions of allotment made by HUDA. Shri P.B. Mathur, Secretary, Urban Development, Rajasthan suggested that the office of the Board should continue to stay at Delhi. Shri Prasanna Kumar endorsed his views and stated that he has no objection if the Boards' office continues to stay at Delhi".

Addition to Agenda Item No. 5 - The paragraph "Shri Prasanna Kumar observed that the transport network of NCR consisted basically of the road network, and in fact, preference should be accorded to railway lines which would serve better with more passenger capacity. He suggested the Faridabad-Gurgaon road to be of National Highway standard" is to be followed by the following:

"He further added that Palwal-Rewari-Rohtak railway line is the basic necessity for the economic upliftment of the backward areas of NCR falling in Haryana and should be taken on priority. It will serve as a by-pass to passengers and goods traffic without entering Delhi. It will act as an incentive to the development of towns falling on this railway line".

82
Addition to Agenda Item No. 7 - Location of the distributive trades in NCR : Add the following after the first paragraph

"Shri J.C. Gambhir, Director, Perspective Planning Wing, D.D.A. did not agree with this view. Considering the economy of the city and the present existing employment in the wholesale trade, he was of the opinion that the development of freight complexes within the Union Territory of Delhi to decongest the central areas and the development of wholesale markets within the NCR should be taken up simultaneously. In the present circumstances, it would not be possible to decongest the central areas of the city by a policy of shifting of trade and by only developing markets in the NCR."

Modifications to Item No. 11

(iii) Settlement System :

Replace "The comments were approved by the Planning Committee" by "It was agreed that a section on the Shelter which was not included in the Draft Plan shall be included in the Final Plan."

(iv) Economic Profile :

Add after the Second paragraph : "Director (PPW), D.D.A. and Commissioner and Secretary, Urban Development, Rajasthan were emphatic that as Delhi Urban Area and the Urban Settlements in the DMA have merged into each other, there should not be different industrial policies for the two areas. The industrial location policy for the DMA as a whole including the Delhi Urban Area should be same to permit only small scale non-polluting industrial units with limited numbers of workers. This is essential for proper control on employment, traffic movement in the DMA and environmental pollution".

AGENDA ITEM NO. 2

REVIEW OF THE ACTION TAKEN ON THE AGENDA ITEMS OF THE 11TH MEETING OF THE PLANNING COMMITTEE

The Member Secretary stated that action is being taken on all the items as per decisions of the Planning Committee. In case of item No. 6 relating to study of counter magnet areas, a discussion was held with the Chief Town and Country Planners of the participating States and the School of Planning and Architecture who are the Consultants, about the methodology and criteria adopted for identification of the counter magnet areas in a meeting held on the 15th December, 1987. He also explained the selection process leading to the shortlisting of 12 centres for final analysis amongst which the final selection will be made in consultation with the concerned State Governments. The shortlisted towns are :-

1. Bareilly
2. Moradabad
3. Saharanpur
4. Allahabad
5. Ambala
6. Karnal

7. Hissar
8. Patiala
9. Bhatinda
10. Kota
11. Sikar
12. Gwalior

He informed that the methodology was agreed to by the Chief Planners of the participating States. However, the Chief Town Planner of Rajasthan had suggested inclusion of Ajmer in place of Sikar. The Member Secretary explained that the main considerations for omitting Ajmer by Consultants were :-

- (i) that Ajmer is an important pilgrimage centre; and
- (ii) that it is on the direct axis of Jaipur which would enable it to act as a counter magnet to Jaipur rather than to Delhi.

The Member Secretary requested the Planning Committee Members to deliberate on this suggestion. The Secretary, Urban Development, Rajasthan also felt that even though Ajmer is a pilgrimage centre, it still could act as a counter magnet to Delhi and, Sikar is comparatively a smaller settlement than Ajmer. Shri Pardeep, Joint Secretary, Urban Development also felt that the counter magnets to Delhi should be cities of sizeable population and as such Ajmer deserves consideration rather than Sikar. Shri Pardeep also felt that in Punjab too, Jalandhar or Ludhiana should be considered rather than Bhatinda. Shri Rakesh Mohan and Shri A.N. Mathur were of the view that only large cities would be able to act as counter magnets to Delhi and, therefore, emphasis should be on identifying such large cities. It was agreed by the Members that instead of Bhatinda, Ludhiana should be considered in the final analysis. Shri Pardeep also felt that in Haryana, the proposed new capital could be a very strong counter magnet to Delhi. However, Secretary, Town Planning, Haryana, explained that a final decision on the new capital of Haryana is yet to be taken.

AGENDA ITEM NO. 3

CONSIDERATION OF THE REMAINING OBJECTIONS/SUGGESTIONS RECEIVED ON THE DRAFT REGIONAL PLAN - 2001 N.C.R.

The Planning Committee considered the objections/suggestions received on the Draft Regional Plan alongwith the comments from page IV/21 onwards including the supplementary to the agenda at S.No. 34-37 and approved all the comments except the following where modifications as indicated below were suggested and approved.

2

One of the factors for an unprecedented population growth of Delhi has been identified as increasing employment in the industrial activities. With a view to curb the growth of population, the DRP envisages allowing only small scale industries in Delhi with 20 persons or less per unit. There is no justification for increasing employment in small scale units to 50 workers. The DMP should be revised accordingly.

This will be covered in the Sub-regional Plans.

The NCR Plan proposes a package of incentives and concessions to be given to encourage economic activities to be deflected and dispersed in the priority towns outside Delhi. The details of the incentives need be worked out in consultation with the State Government departments.

The Draft Regional Plan contains proposals for inter-city road and rail network. The Plans for intra-urban transport would be the responsibility of Local bodies/State Governments.

The Transport Sector Plan for NCR through a study nearing completion will incorporate these aspects in the Final Regional Plan.

3

One of the factors for an unprecedented population growth of Delhi has been identified as increasing employment in the industrial activities. With a view to curb the growth of population, the DRP envisages allowing only small scale industries in Delhi with 20 persons or less per unit. The revised Delhi Master Plan may however, specifically list out small scale industries which would employ more than 20 persons a unit with a ceiling of 50 workers and may be permitted with the specific approval of the Competent Authority.

The approach is acceptable and this will be covered in the Sub-regional Plans.

The NCR Plan proposes a package of incentives and concessions to be given to encourage economic activities to be deflected and dispersed in the priority towns outside Delhi. The details of the incentives need be worked out in consultation with the State Government Departments, Authorities and the Ministry of Industry, Government of India.

The Draft Regional Plan contains proposals for inter-city road and rail network. The Plans for intra-urban transport would be the responsibility of Local bodies/State Governments. However, for location of terminals with a view to adequately interface the transport network, the DDA's proposal of developing terminals will be adopted to ensure conformity with landuse.

DRP addressed itself to only inter-urban regional transport requirements while Delhi intra-urban requirements have been looked into in the revised DMP by the D.D.A.

25

10/16(vi)-V/9 This may be considered in the Sub-regional Plan for Rajasthan Sub-region.

1/17(i)-V/9

The proposal for Railway link between Sahibabad and NOIDA would be considered in the Final Plan based on its merits and justifications. However, the expert consultants for transport study in NCR have not indicated the said link as necessary upto 2001.

2/18(ii)(a)-
1/10

The surveys and studies on Transport Network in NCR conducted subsequently in 1987 do not justify the railways bypass till 2001. However, in a longer perspective beyond 2001, this by-pass is considered necessary to facilitate intra-urban commuter traffic. As such, since the line is not justified till 2001, the same has not been shown on the landuse map for 2001.

2/18(iii)-V/10

The Plan envisages stimulated and induced growth of selected urban centres in particular and NCR as a whole in general. The envisaged growth of the NCR by 2001 justifies the need for the suggested express ways. Should a need arise for such extension of express way beyond NCR after 2001, this may be taken due care of subsequently while revising the Regional Plan for NCR every five years.

1/18(i)-VIII/2

The Delhi Water Supply and Sewage Disposal Undertaking is directly concerned with the problems of water supply in Delhi. This Undertaking is the most appropriate and concerned agency to identify the sources of water supply to Delhi.

The DRP-NCR includes proposals to inter-connect the priority towns with Delhi by short service carriers when justified.

The DRP-NCR has proposed an express way for Faridabad-Ghaziabad via NOIDA which will include construction of a four lane bridge. This link will be sufficient to cater to the requirements of projected growth.

The surveys and studies on Transport Network in NCR conducted subsequently in 1987 do not justify the railway by-pass till 2001. However, in a longer perspective beyond 2001, this by-pass is considered necessary to facilitate intra-urban commuter traffic and may thus be incorporated in the NCR Plan.

The Plan envisages stimulated and induced growth of selected urban centres in particular and NCR as a whole in general. The envisaged growth of the NCR by 2001 justifies the need for the suggested express ways. To extend the express-ways beyond the NCR boundary, surveys have to be conducted to see for the justification of the same. However, it is to be expected that the express-ways proposed in the NCR Plan will be suitably joined with the regional links outside the NCR.

The Delhi Water Supply and Sewage Disposal Undertaking is directly concerned with the problems of water supply in Delhi. This Undertaking is the most appropriate and concerned agency to identify the sources of water supply to Delhi. However, the NCR Planning Board would identify sources of water supply for NCR including Delhi UT in general but not specifically for Delhi UT or any town specifically. This would be the responsibility of the concerned State Government and its agencies.

The Green buffer zones along the NH and SH are not to be acquired. The suggestion is that no structure would be allowed to be constructed within the zone. The broad uses that can be permitted within these zones are indicated. However, the suggestion for restriction of construction of structure within 100 metres of Express and 60 metres of other roads is considered inadequate as these depths would not prevent ribbon development taking place along the roadside.

The Green buffer zones along the NH and SH are not to be acquired. The suggestion is that no structure would be allowed to be constructed within the zone. The broad uses that can be permitted within these zones are indicated. However, in view of the practical problems of protecting and maintaining 300 and 200 metres green buffers, the suggestion for 100 metres green buffers on either sides of the NH beyond the Right of Way and 60 metres for SH beyond the Right of Way is acceptable.

AGENDA ITEM NO. 4

PREPARATION OF MODEL URBAN DEVELOPMENT PROJECT FOR
THE INFORMAL SECTOR ACTIVITIES IN THE PRIORITY TOWNS

64 (8)

The Planning Committee noted that a study on the informal sector activities in the NCR in respect of Alwar, Ghaziabad, Khurja, Faridabad and Sonapat was already conducted and completed by the Society for Development Studies. Among three priority towns namely, Meerut, Panipat and Alwar identified for the development during remaining period in 7th Plan, such study has not been conducted for Meerut and Panipat towns. Planning Committee approved undertaking of a study of the informal sector activities in Meerut and Panipat and also preparation of Model Projects one each in Meerut, Panipat and Alwar towns for financial assistance from the National Capital Region Planning Board.

AGENDA ITEM NO. 5

STAFFING PATTERN FOR PLANNING CELLS
IN THE PARTICIPATING STATES

The Planning Committee considered the staffing pattern of the Planning Cells prepared by the participant States. Agreeing to the functions proposed and the need for a multi-disciplinary nature of the Cell, the Planning Committee approved the core staffing pattern consisting of 30 functionaries. It was also decided that the liability by way of additional staff, if any, would be entirely borne by the concerned State Governments, while the NCR Planning Board would finance to the extent of 50% of their expenditure on the core staff and attendant permissible charges till the end of the 7th Five Year Plan. The Cell will be designated as 'NCR Planning and Monitoring Cell' with the Head quarters in Meerut for U.P., Faridabad or Gurgaon in Haryana and Alwar in Rajasthan. The financial assistance will be in the form of grants to the participant States as already approved by the Board.

AGENDA ITEM NO. 6

GUIDELINES FOR LOCATION OF INDUSTRIES IN DMA

The Member Secretary drew the attention of the Committee to the broad guidelines given in the Draft Regional Plan and the need for formulation of operational guidelines for certain specific cases such as, a soap factory in Mohan Nagar, Ghaziabad, where a captive unit at an estimated cost of Rs. 5 crores as an addition to the existing factory in the same plot was proposed. The Planning

Committee approved the suggested guidelines as follows :-

- (1) These guidelines shall be applicable where proposed unit/expansion relate to existing Medium/Large scale units..
- (2) The proposed unit/expansion should be in conformity with landuse of the approved Master Plan.
- (3) The proposed structure is in accordance with the plans approved by the Competent Authority.
- (4) The proposed unit/expansion should be in the nature of an ancillary or of an allied nature to the existing unit or for the moderanisation of the existing unit.


The meeting ended with a vote of thanks to the Chair.

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No.: K-14011/2/87-NCRPB
NATIONAL CAPITAL REGION PLANNING BOARD,
7th Floor, 'B' Wing, IOC Bhawan,
Janpath, New Delhi - 110 001.

Dated, the 23rd December, 1987

Copy forwarded to all Members of the Planning Committee and all the participants in the meeting for appropriate action.


(B.N. SINGH)
Chief Regional Planner
&
Member Convenor

Minutes of the Sixth Project Sanctioning & Monitoring Group,
National Capital Region meeting held on 19.11.87 in the Room
of the Secretary, Ministry of Urban Development, Nirman
Bhavan, New Delhi. 66/88

The following were present:-

S/Shri

1. D.M.Shukthankar,
Secretary, Min. of Urban Development --- Chairman
2. K.K.Bhatnagar
Member Secretary, NCR Planning Board
3. R.L.Pardeep
Jt.Secy (UD), Min. of Urban Development
4. S.Panchapakesan
Jt. Secy (Fin), Min. of Urban Development
5. G.Prasanna Kumar
Director, Town & Country Planning, Haryana
6. Shankar Aggarwal,
Jt.Secy., Housing & Urban Development, Govt. of
Uttar Pradesh
7. Neeru Singh
Jt. Secy (L&B), Delhi Administration
8. P.B.Mathur
Commissioner & Secretary, Urban Development &
Housing, Rajasthan
9. Dr.H.D.Goyal, , , ,
Dy. Adviser (H&UD), Planning Commission
10. K.T.Gurumukh
Town & Country Planning Organisation, New Delhi.

Item No. 1: Organising of Seminars in connection with the Draft
Regional Plan of the NCR

The Member Secretary explained the proposals and
stated that with the approval of the Chairman the expenditure
was incurred in anticipation of the sanction of the Group. The
proposal was approved.

Item No. 2: Identifying counter-magnet towns of the NCR -
carrying out of study

The proposal was approved.

Item No. 3: Preparation of Sub-regional plans - Use of Aerial
photographs and Satellite Imageries

After a brief discussion, the proposal was approved.

...2...

(210)
Item No. 4 : Commemorate Project to the 40th Anniversary of Independence in U.P Sub-region

The Financial Adviser, Min. of Urban Development pointed out that in view of the recent ban by the Government, it may not be possible to issue sanction for the expenditure on the scheme. After a brief discussion, it was decided that the proposal be approved in principle and subsequently a specific clearance of the Government should be obtained before the sanction for incurring of expenditure was issued.

Item No. 5: Financing Land Acquisition cost of proposed Hathkargha Nagar Residential-cum-work Centre Scheme at Meerut by Meerut Development Authority

It was decided that more details regarding total cost of the Project and year-wise expenditure may be worked out. The complete proposal be placed before the next meeting of the Group.

Item No. 6 : Hasan Khan Mewati Nagar (Shivaji Park Extension) Scheme, Alwar

The Scheme was approved in principle. However, sanction should be issued after obtaining the clearance of the Ministry.

Item No. 7 : Grant of Rs.1 lakh to the Society for Development Studies, New Delhi, for setting up Centre for Studies, & Policies on Informal Sector

The proposal was discussed in detail and it was decided that a revised proposal should be submitted clearly stating the services to be rendered by the Society and the quantum of data etc., to be made available to the NCR Planning Board for which the payment is proposed to be made to the Society for development studies in the next meeting of the Group.

The meeting ended with a vote of thanks to the Chair.

No.K-14011/57/87-NCRPB
NCR Planning Board
7th Floor, 'B' Wing
ICC Bldg., Jan Path

New Delhi, dated 26.11.87

Copy forwarded to the participants of the meeting.

(PRAN NATH)
Deputy Director

68
(11)

Minutes of the 7th Project Sanctioning & Monitoring Group held on 16.12.87 in the Room of the Secretary, Ministry of Urban Development, Nirman Bhavan, New Delhi.

The following were present :-

S/Shri

1. D.M. Shukthankar ----- Chairman
Secretary, Ministry of Urban Development
2. K.K. Bhatnagar,
Member Secretary, NCR Planning Board
3. S. Panchapakesan,
Joint Secretary, (Fin.), Ministry of Urban Development
4. B.D. Gulati
Chief Coordinator, Haryana
5. Shankar Aggarwal
Joint Secretary, Housing & Urban Development, Govt. of U.P., Lucknow
6. Neeru Singh
Joint Secretary (L&B), Delhi Administration
7. P.B. Mathur
Commissioner & Secretary, Urban Development & Housing, Jaipur
8. K.T. Curmukh
Town & Country Planning Organisation, New Delhi.

Item No. 1 : Release of Rs. 1 lakh to the Society for Development Studies, New Delhi.

The proposal was agreed. The Financial Adviser, Ministry of Urban Development clarified that the amount payable to the Society for Development Studies should be treated as payment for the services to be rendered by the Society.

Item No. 2 : Hathkargha Nagar Residential-cum-Work Centre Scheme phase-I at Meerut by the Meerut Development Authority.

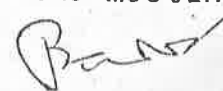
After a brief discussion, the agenda item was approved.

The meeting ended with a vote of thanks to the Chair.

No. K-14011/57/87-NCRPB
NCR Planning Board,
7th Floor 'B' Wing,
IOC Building, Janpath,
New Delhi.

Dated 21.12.87.

Copy forwarded to the participants of the meeting.


(PRAN NATH)
Deputy Director

69
(92)

Minutes of the Personnel Group meeting held on 19.11.87 in the Chamber of the Secretary, Ministry of Urban Development, Nirman Bhavan, New Delhi.

. . .

The following were present:-

S/Shri

1. D.M.Shukthankar
Secretary, Min. of Urban Development -- Chairman
 2. K.K.Bhatnagar
Member Secretary, NCR Planning Board
 3. S.Panchapakesan
Jt. Secy (F) & Financial Adviser, Min. of Urban Development
 4. P.B.Mathur
Commissioner & Secretary, Urban Development & Housing, Rajasthan
 5. G.Prasanna Kumar
Director, Town & Country Planning, Haryana
 6. Shankar Aggarwal
Jt. Secy., Urban Development, Uttar Pradesh
- . . .

Item No. 1 : Upgradation of the post of Junior Accounts Officer in the NCR Planning Board

and

Item No. 2 : Creation of post of Assistant Traffic & Transport Planner in the NCR Planning Board

The Member Secretary explained the proposals mentioned above and after brief discussion, the items were approved.

The meeting ended with a vote of thanks to the Chair.

No.K-14011/58/87-NCRPB
NCR Planning Board
'B' Wing, 7th Floor
IOC Bldg., Jan Path

New Delhi, dated 26.11.87

Copy forwarded to the participants of the meeting.

R. NATH
(PRAN NATH)
Deputy Director

70
(93)

Minutes of the Personnel Group meeting held on 16.12.87 in the Room of the Secretary, Ministry of Urban Development, Nirman Bhavan, New Delhi.

The following were present :-

G/Shri

1. D. M. Shukthankar
Secretary, Ministry of Urban Development ... Chairman
2. K. K. Bhatnagar
Member Secretary, NCR Planning Board
3. S. Panchapakesan
Joint Secretary (F), & Financial Adviser, Ministry of Urban Development
4. P. B. Mathur
Commissioner & Secretary, Urban Development & Housing Rajasthan
5. B. D. Gulati, Chief Coordinator, Haryana
6. Shankar Aggarwal
Joint Secretary, Urban Development, Uttar Pradesh

Item No. 1 : Creation of the post of Programmer in the NCR Planning Board.


The proposal was discussed in detail and it was decided that in the first instance, the work should be got done by appointing staff on contract and job basis rather than creating a post of Programmer for the Board. Services of consultants could also be utilised for framing of programmes.

The meeting ended with a vote of thanks to the Chair.

No. K-14011/58/87-NCRPB
NCR Planning Board,
'B' Wing, 7th Floor,
IOC Building, Janpath,

New Delhi, dated 21.12.87.

Copy forwarded to the participants of the meeting.


(PRAN NATH)
Deputy Director

[Published in the Gazette of India, PART III—SEC. 4 on May 24, 1986]

NCR PLANNING BOARD

New Delhi, the 3rd March 1986

No. C.11031/1/86-NCRPB.—In exercise of the powers conferred by Section 37 of the National Capital Region Planning Board Act, 1985 the Board hereby makes, with the previous approval of the Central Government, the following regulations:—

1. Short title and commencement :

- (i) These regulations may be called the National Capital Region Planning Board Regulations, 1986.
- (ii) These shall become operative from the date on which the Board come into existence.

2. Definition :

In these regulations unless the context otherwise requires :

- (i) 'Act' means the National Capital Region Planning Board Act, 1985.
- (ii) 'Board' means the National Capital Region Planning Board as constituted under Section 3 of the Act.

3. Salaries & allowances of officers and employees

The pay, and all other allowances except House Rent Allowance of officers and employees of the Board shall be the same as those prescribed by the Central Government for its officers of similar status.

4. Grant of leave :

In the matter of grant of leave the officers and employees of the Board shall be governed by the Central Civil Service (Leave) Rules, 1972 as applicable to the employees of the Central Government and orders issued by the Central Government thereunder from time to time.

5. House Rent Allowance :

The officers and employees of the Board at Delhi shall be entitled to twenty per cent (20%) of their pay as House Rent Allowance. Other conditions for the House Rent Allowance shall be the same as are applicable to the Central Government servants.

See attached notification

6. Pension, gratuity, retirement benefits and general provident fund :

The officers and employees of the Board shall be entitled to pension, gratuity, other retirement benefits and general provident fund, at such rates and under such conditions as are applicable to officers and employees of the Central Government in the corresponding grades.

7. Other conditions of services :

Unless expressly provided for in these regulations to the contrary, the other terms and conditions of service of the officers and employees of the Board shall be governed, as far as may be, by the Fundamental and Supplementary Rules, General Financial Rules, Central Civil Service (Temporary Service) Rules, 1965, Central Civil Services (Medical Attendance) Rules, 1944, Central Government Employees Group Insurance Scheme, 1980, etc., and by orders and decisions issued by the Central Government under those rules from time to time as applicable to the employees of the Central Government.

8. Conduct Rules :

The Central Civil Service Conduct Rules, 1955 as amended from time to time, will be applicable to the employees of the Board.

9. Disciplinary proceedings :

The Central Civil Service (Classification, Control and Appeal) Rules, 1965 as amended from time to time shall apply in relation to the employees of the Board as they apply in relation to the employees of the Government. Powers under these rules vested in the President shall be exercised by the Chairman and those of Head of Department by the Member Secretary.

10. Deputationists :

The officers and employees of the Board who are working in the Board on deputation from the Central or the State Governments or from the local, development or other statutory authorities or undertakings of the Central or State Governments shall be governed by those terms and conditions which are specified in the order of deputation by the loaning authority. With respect to other terms and conditions which are not specified in the order, they will be governed by the above regulations applicable to the employees of the Board.

M. SHANKAR, Member Secy.

No.C-11031/1/86-NCRPB
Government of India
NCR Planning Board
IOC Building 7th Floor
'B' Wing, Janpath.

New Delhi, dated the 11-12-1987

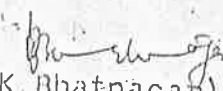
NOTIFICATION

In exercise of the powers conferred by section 37 of the National Capital Region Planning Board Act, 1985 (2 of 1985), the Board ~~herby makes~~, with the previous approval of the Central Government, hereby makes the following amendment in the National Capital Region Planning Board Regulations, 1986, namely:-

1. (1) These regulations may be called the National Capital Region Planning Board (Amendment) Regulations, 1987.
(2) They shall come into force from the date of their publication in the official Gazette.
2. In the National Capital Region Planning Board Regulations, 1986, for regulation 5, the following regulation shall be substituted, namely:-

"5. House Rent Allowance:

- (1) The officers and employees of the Board who did not opt for the revised scales of pay as recommended by the Fourth Pay Commission shall be entitled to 20% (twenty per cent) of their pre-revised pay as House Rent Allowance.
- (2) The officers and employees of the Board who have opted for the revised scales of pay as recommended by the Fourth Pay Commission shall be entitled to House Rent Allowance at the slab rates as prescribed by the Government on the recommendation of the Fourth Pay Commission with effect from the 1st October, 1986.
- (3) Other conditions for drawal of House Rent Allowance for all categories of employees shall be the same as are applicable to the Central Government employees".


(K. K. Bhatnagar)
Member Secretary.

Foot Note:- The principal National Capital Region Planning Board Regulations, 1986 notified vide Notification No.C-11031/1/86-NCRPB dated 3.3.1986 published in the Gazette of India Part III-Section 4 on 24.5.86 and subsequently amended vide Notification No. C-11031/1/86-NCRPB dated 14.12.87 and particulars of Gazette Notification No. & date is still awaited.

To

The Manager,
Government of India Press,
Faridabad.

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Other

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Annex - III

MINUTES OF THE 13TH MEETING OF THE PLANNING COMMITTEE OF THE NATIONAL CAPITAL REGION PLANNING BOARD HELD AT 11.00 A.M. ON THE 4TH APRIL, 1988 IN THE OFFICE OF THE NATIONAL CAPITAL REGION PLANNING BOARD, NEW DELHI.

The following members were present :

1. Shri K. K. Bhatnagar, Member Secretary, NCR Planning Board - Chairman.
2. Shri R. L. Pardeep, Joint Secretary (UD), Ministry of Urban Development.
3. Shri S.M. Prasad, Dy. Director General (TP), Dept. of Telecommunications.
4. Shri S.M. Mittal, Executive Director (MTP), Ministry of Railways.
5. Shri P.B. Mathur, Commissioner & Secretary, Urban Development, Housing & LSG, Rajasthan.
6. Shri Om Kumar, Vice Chairman, Delhi Development Authority, New Delhi.
7. Shri Anil Razdan, Director, Town & Country Planning and Chief Administrator, HUDA, Government of Haryana.
8. Shri D.P. Gupta, Chief Engineer, Ministry of Surface Transport.
9. Shri J.P. Bhargava, Chief Town & Country Planner, U.P.
10. Shri C.S. Mehta, Chief Town Planner, Government of Rajasthan.
11. Shri B.N. Singh, Chief Regional Planner, NCR Planning Board, New Delhi.

Other participants :

1. Shri Shankar Aggarwal, Joint Secretary, Housing & Urban Development, Government of Uttar Pradesh.
2. Shri B.D. Gulati, Chief Coordinator Planner - NCR, Government of Haryana.
3. Shri G.D. Mathur, Commissioner Planning, Delhi Development Authority.
4. Shri J.C. Gambhir, Director (Planning), Delhi Development Authority

5. Shri T. Gupta, Dy. Chief Engineer (C), Norther Railway, New Delhi.
6. Shri D.S.Jain, Officer on Special Duty, MTP, New Delhi.
7. Shri R.S.Bhatia, AEN/NTP (R), Patel Nagar, New Delhi.
8. Shri R.K.Gupta, Director (TPS), Department of Telecommunications, Sanchar Bhawan, New Delhi.

Officers of the Board :

1. Shri S.Arunachalam, Senior Planning Engineer.
2. Shri R.P.Rastogi, Regional Planner.
3. Shri S.B.Verma, Associate Planner.
4. Shri V.K.Thakore, Senior Research Officer.
5. Shri Pran Nath, Deputy Director (Admn).
6. Shri K.L.Sachar, Finance & Accounts Officer.
7. Shri J.N.Barman, Assistant Town Planner.
8. Shri P.Jayapal, Assistant Town Planner.
9. Shri D.Madhu Babu, Assistant Town Planner.
10. Shri Man Mohan Singh, Research Officer.

AGENDA ITEM NO.1

Confirmation of the Minutes of the 12th meeting of the Planning Committee held on 16.12.1987.

The Member Secretary, welcoming the members to the 13th meeting of the Planning Committee said that the Chief Town Planner, Rajasthan had requested for inclusion of his views in the minutes relating to Jaipur as counter magnet area, population projection of the Rajasthan Sub-Region and inclusion of Kama, Deeg and Bharatpur tehsils in the NCR. The Member Secretary clarified that these matters were no doubt discussed in the meeting but since the minutes only contained a gist of the decisions arrived at after discussions, a mention of all the views expressed during the meeting was not possible. Shri P.B.Mathur, Commissioner and Secretary, Urban Development, Housing & LSG, Rajasthan, agreeing with the above views said that in view of the fact that the views of the State Government on these issues had been adequately reflected else where, they did not wish to press the point.

The minutes of the meeting were thereafter confirmed.

11/3

AGENDA ITEM NO.2

Review of the action taken on the 12th meeting of the Planning Committee.

The Member Secretary briefly explained the various actions taken on the decisions at the 12th meeting of the Planning Committee. With regard to action on Agenda Item No.5 relating to staffing pattern for Planning Cells in the participating States, the Member Secretary informed the members that a uniform staffing pattern for Planning Cell had been evolved and its composition communicated to the participating States. In this context, Shri Gambhir of DDA observed that the communication had not been received by DDA. The Member Secretary stated that the position in regard to preparation of the Sub-regional Plan for the Delhi UT was not clear, and it was proposed to make a reference to the Chief Secretary, Delhi Administration to ascertain the agency which shall be responsible for preparing the sub-regional plan for Delhi. The Vice-Chairman, DDA felt that the DDA could be the agency to do it and the Delhi Master Plan could be considered as the Sub-regional Plan for the Delhi UT. Shri B.N.Singh, Chief Regional Planner held that the Delhi Master Plan could not be taken as a Sub Regional Plan since it did not cover various aspects required to be included in the Sub-regional plan under the NCR Planning Board Act. The Member Secretary clarified that, the Ministry of Urban Development also held that the Delhi Master Plan could not be considered as the Sub-regional Plan for the Delhi UT as it had been prepared under another Act. He added that he would write to the Chief Secretary, Delhi Administration in this regard.

AGENDA ITEM NO. 3

Creation of a separate fund for NCR Schemes by implementing agencies.

The Member Secretary gave a genesis of the proposals in the Agenda item regarding creation of a Revolving Fund out of the financial assistance being made for implementation of the NCR Projects to the participating States by the NCR Planning Board. He explained that the Planning Commission had often raised the issue of utilisation of the funds released by the NCR Planning Board and wanted that these funds should act as seed funds and the income generated out of them should be ploughed back in other schemes. Shri Anil Razdan, Director, Town & Country Planning and Chief Administrator, HUDA felt that the NCR funds being too meagre would not serve the purpose of creation of a revolving fund. The State Governments were not in a position to know in advance the likely funds to be made available for implementation of NCR Schemes during their Annual Plan exercises. He felt that unless substantial contributions were assured from the NCR Planning Board and that too the amount was declared in advance, it did not appear feasible either for creation of a revolving fund or for maintaining separate account.

69/4

Shri Shankar Aggarwal, Joint Secretary, Housing & U.D. Department, Government of U.P. supported the creation of a separate fund. He further advocated that since the funds from the NCR Planning Board were limited, the State Government should set aside funds for the NCR under various development sectors.

The Member Secretary clarified that the proposal in the Agenda Item was restricted only to the maintenance of separate account for Receipts and Expenditure out of the funds sanctioned by the NCR Planning Board. He said that though the amount being sanctioned to the State Government was meagre at present, there was every chance of stepping up the Plan Outlay for the NCR during the Eighth Five Year Plan. He, therefore, felt that a system should be introduced right from the very beginning by all the implementing agencies despite the meagre availability of funds at present.

Shri Om Kumar, Vice Chairman, DDA explained the concept of the revolving fund being operated by the DDA at present. Shri Anil Razdan stated that the HUDA was working on "no profit no loss basis" and he was of the opinion that the system might not lead to creation of revolving fund in Haryana. Shri J.P. Bhargava, Chief Town & Country Planner, U.P. agreed with the need for maintaining separate accounts observing that the modality could be worked out separately, and he could see no difficulty in maintenance of such separate accounts.

Shri C.S. Mehta, Chief Town Planner, Rajasthan cited the example of maintenance of separate accounts for implementation by IDSMT schemes and supported the need for separate accounts.

The Planning Committee, after hearing the views of the participating States approved the proposal in principle. It was further decided that the detailed guidelines should be separately prepared in consultation with the participating states.

AGENDA ITEM NO. 4

Inclusion of Kama, Deeg and Bharatpur tehsils of Rajasthan in the National Capital Region.

The Member Secretary, giving the background of the proposed Agenda Item, stated that the Rajasthan State had been pressing for inclusion of these areas in the NCR for quite sometime. The State Government had also forwarded this as a suggestion on the Draft Regional Plan - 2001 for consideration by the Board. He stated that after the Planning Committee had deliberated on this proposal, the recommendation of the Planning Committee would be placed before the Planning Board for its consideration, and if agreed to by the Board, the Central Government might take further action under Section 2 (f) of the NCR Planning Board Act.

W/5

Shri C.S.Mehta, Chief Town Planner, Rajasthan explained that earlier delineation of the Region based on data of 1961 Census did not hold good as had been demonstrated by the findings of the study carried out now. He explained at length the findings of the study which he said amply justified the inclusion of these tehsils in the NCR. Shri Anil Razdan, reacting on the findings of the study said that if the criteria were based on 1981 data, then as many as 15 tehsils of Haryana State would qualify for inclusion in the NCR and he, therefore, pressed that the additional areas which satisfied the criteria based on the data of 1981 Census be included in the NCR.

Shri S.M.Prasad, Dy. Director General (TP), Department of Communications stated that, by the end of the Seventh Plan, all District Headquarters would have been connected with telecommunication facilities whereas Eighth Plan might have a target of connecting all the Sub-divisional Headquarters with the telecommunication facilities and, therefore, the earlier criteria might have to be drastically revised.

Shri G.D.Mathur, Commissioner Planning, DDA felt that inclusion of some part of a State on the basis of a limited study could not be justified since this was a major planning exercise and, all the constituent States should be considered for this purpose. Shri Mathur also felt that after 20 long years, the Draft Regional Plan with a statutory backing for the NCR had been prepared, put to public objections and was at the stage of finalisation, and if at this stage, the boundaries were revised, the entire exercise would be adversely affected.

Shri Razdan, agreeing with the above views held that the proposal of inclusion of certain areas in the NCR should be deferred also for the reasons of availability of inadequate funds today. Shri Shankar Aggarwal and Shri J.P.Bhargava also endorsed the views of Shri Anil Razdan.

The Member Secretary clarified that there was no proposal of other States except Rajasthan for inclusion of the areas in the NCR before the Board and therefore, the Planning Committee had to make recommendations only with regard to proposals pending before it. He further said that the earlier exercise done by the TCPO had initially taken into consideration Kama, Deeg tehsils but in its final selection, these areas had been left out and as such it had a justification for its consideration for inclusion.

Shri P.B.Mathur, Secretary, Rajasthan felt that inclusion of the above 3 tehsils of Rajasthan would not affect the Plan while Shri J.P.Bhargava strongly felt that it would affect the plan in so far as landuse, population distribution, settlement system and transport linkages etc. were concerned.

Shri R.L.Pardeep, Joint Secretary (UD) giving the background stated that even before the constitution of the Board, the matter had been raised by the Rajasthan Government. He felt

IV/b
that, at this juncture when the plan was being finalised and there was serious resource crunch for implementation of the NCR Plan, inclusion of a part of the one State would lead to similar claims by the other participating States and therefore, the matter should be deferred and the Regional Plan finalised with the existing boundaries.

The Member Secretary concluded that, this exercise should not in any case be allowed to interfere with the finalisation of the Regional Plan. He concluded by stating that the Committee had discussed at length the various views raised by the members, and the matter would be considered subsequently in the light of those views.

AGENDA ITEM NO.5

Note on creation of an electricity agency for NCR

The Member Secretary gave in brief the views of the Department of Power, Ministry of Energy stating that constitution of a statutory authority would not be possible in the context of the provisions of the Electricity (Supply) Act, 1948. Therefore, in case of an increased allocation of power, there was a need for a coordinating body to ensure allocation of extra power to the NCR States with proper coordination with the State Electricity Boards.

Shri P.B.Mathur felt that since no statutory body could be constituted under the Act, no useful purpose would be served by creation of a super body in the form of a Coordination Committee. However, Shri Anil Razdan was of the view that such a Committee could be justified to ensure equitable distribution of power in the NCR States. The Vice-Chairman, D.D.A was of the same view.

After consideration it was agreed that such a coordinating body would be useful in the case of additional allocation of power so that it was utilised only in the N.C.R.

AGENDA ITEM NO.6

Draft of the Regional Plan 2001 for the National Capital Region

The Member Secretary stated that the present draft included 3 new Chapters on Policy Zones, Rural Development and Shelter and, the arrangements of its presentation had been slightly modified with the tables having been put at the end of the report. It was earlier intended that the NCR Planning Board would consider the comments of the Planning Committee on the objections/suggestions received on the Draft Regional Plan in its 7th meeting held on January 20, 1988 but, unfortunately the

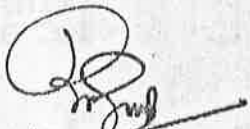
meeting could not deliberate due to the sad demise of Khan Abdul Ghaffar Khan. It was, therefore, thought to prepare the Draft Report for consideration by the Planning Committee to enable the Board to consider the comments on the objections and suggestions received on the Plan along with the revised version of the Draft in its next meeting which might be convened in May or June, 1988. He added that this did not include some of the recommendations which would emerge when the Board would consider them for its decision. The Chapter relating to Counter Magnet areas would be finalised after discussion with the States. In fact, the report on the Towns' Profile had already been sent to U.P., Haryana and Madhya Pradesh while the reports to Rajasthan and Punjab would be sent shortly. The Member Secretary also sought the views of the members to print the final report by including Hindi version either by printing both the versions-English and Hindi on the same page in two columns, or Hindi version on one side, and English on the other. The Members appreciating the draft brought out in a short period said that it would be better to print Hindi version on one page and English version on the other page. However, since the time available for them to go through the draft had been limited, they suggested that another meeting should be held in May, 1988, to consider the views of the members. It was accordingly decided that additional five copies would be sent to each of the participating States and DDA/Delhi Administration to enable them to send their views by 25th April, 1988 and the meeting might be held to consider the same sometime by mid-May, 1988.

The meeting ended with a Vote of Thanks to the Chair.

.....
No. R-14011/2/87-N(CRPB)(13th)
National Capital Region Planning Board
7th Floor, 'B' Wing,
10C Bhawan, Janpath,
New Delhi-110001.

Dated, the 12th April, 1988

Copy forwarded to all Members of the Planning Committee and all the participants in the meeting for appropriate action.


(B. N. Singh)
Chief Regional Planner
and
Member-Convenor

MINUTES OF THE 7TH MEETING OF THE PERSONNEL GROUP HELD
AT 4.00 P.M. ON THURSDAY, THE 17TH MARCH, 1988 IN THE
CHAMBER OF SECRETARY (UD), MINISTRY OF URBAN DEVELOP-
MENT, NIRMAL BHAWAN, NEW DELHI - 110011

III / 8

The following were present :-

15

1. Shri D.M. Sukthankar, Secretary (UD),
Ministry of Urban Development.
2. Shri K.K. Bhatnagar, Member Secretary,
NCR Planning Board, New Delhi.
3. Shri Shankar Aggarwal, Joint Secretary, U.D. Deptt.,
Government of Uttar Pradesh, Lucknow.
4. Shri Anil Razdan, Director, Town & Country Planning
and Chief Administrator, HUDA, Govt. of Haryana, Chandigarh.
5. Shri P.B. Mathur, Commissioner & Secretary,
Housing & Urban Development & LSG,
Govt. of Rajasthan, Jaipur.

Agenda No.1: Permanent absorption of deputationists and their
Item. pay fixation in the NCR Planning Board.

The Group took note of the decision of the
Member Secretary to absorb on permanent basis the following
officers on deputation in the NCR Planning Board with effect
from the dates shown against each :-

- | | |
|---|------------|
| 1. Shri K.L. Sachar,
Finance & Accounts Officer. | - 3.2.1988 |
| 2. Shri Pran Nath,
Deputy Director. | - 1.3.1988 |
| 3. Shri Mohinder Pal,
Stenographer Grade 'B' | - 1.3.1988 |
| 4. Smt. K.K. Bhardwaj,
Accounts Assistant. | - 1.5.1987 |

2. The Group, after careful consideration agreed to give
them one advance increment in addition to their normal increment
in their respective pay scales on permanent absorption in
the Board.

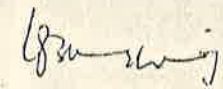
3. The meeting ended with a Vote of Thanks to the Chair.

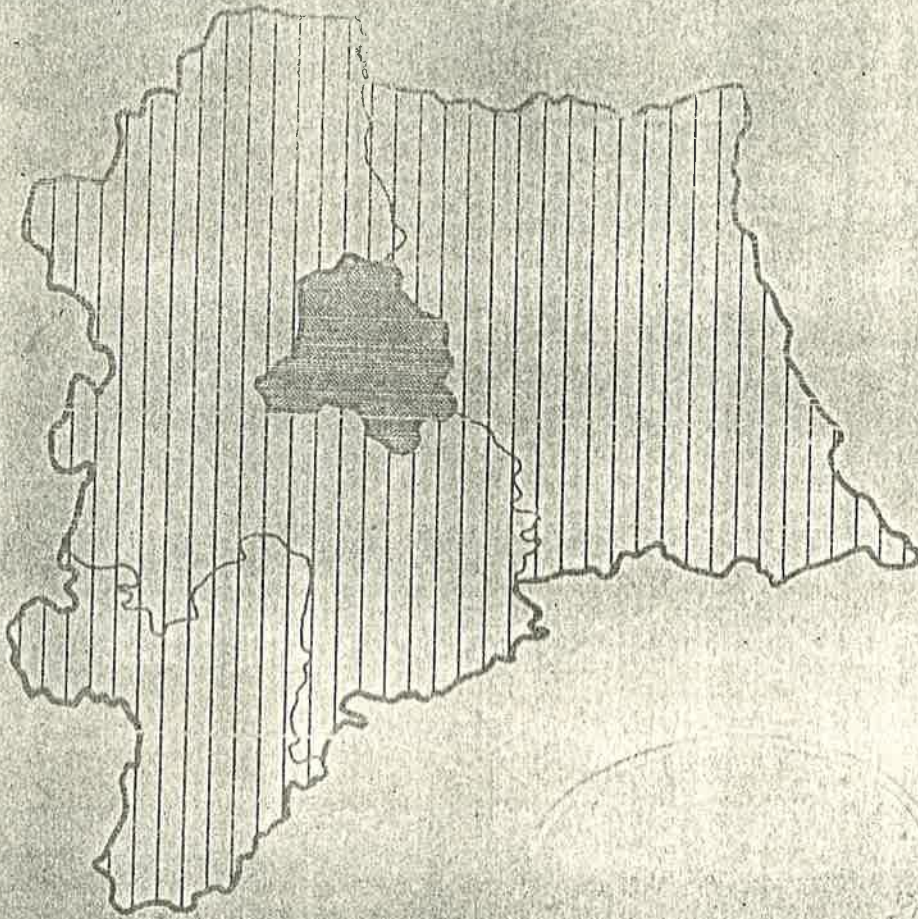
No. K-14011/17/88-NCRPB
NCR Planning Board,
(Min. of Urban Development),
IOC Building, Janpatth, New Delhi-1.

Dt. 21st March, 1988.

Copy to:-

1. To all officers present in the meeting.
2. Shri N.S. Bakshi, Jt. Secretary(F), Min. of UD.
3. Shri S.D. Bagla, Secretary, U.D. Deptt., Govt. of U.P., Lucknow.
4. Shri A.N. Mathur, Secretary, Town & Country Planning Deptt.,
Govt. of Haryana, Chandigarh.


(K.K. BHATNAGAR)
Member-Secretary
NCR Planning Board, New Delhi-1.



REGIONAL PLAN 2001

NATIONAL CAPITAL REGION



NATIONAL CAPITAL REGION PLANNING BOARD
MINISTRY OF URBAN DEVELOPMENT GOVERNMENT OF INDIA

CONTENTS

The Scenario

1. National Capital Region
2. Policy Zones
3. Demographic Profile
4. Settlement System 1981-2001
5. Rural Development
6. Economic Profile
7. Fiscal Measures
8. Transport
9. Telecommunications
10. Power Development
11. Water Supply, Sewerage and Solid-waste Disposal
12. Education and Health
13. Shelter
14. Regional Landuse
15. Environment and Eco-development
16. Management Structure for Plan Implementation
17. Counter-magnet Areas
18. Strategies and Priority Areas for Development

Tables

1. Delhi, the National Capital has been facing unprecedented growth which has been a cause of serious concern to the Central Government, which has recognised that the planned growth of Delhi is possible only in a regional context. In fact the need for regional approach was felt as early as 1959 when the draft Master Plan for Delhi was prepared. Thereafter, the Master Plan of 1962 recommended that a statutory National Capital Region Planning Board should be set up for ensuring balanced and harmonised development of the Region. The setting up of the statutory Board in 1985 and the publication of the Draft Regional Plan in August, 1987 are the major steps now culminating in coming into the operation of the first statutory Regional Plan - 2001 for the National Capital Region.

2. Delhi is besieged by a host of serious problems today. The gap in availability of essential services like water, power, transport and management of solid waste is continuously increasing. The problem is being further aggravated due to increasing immigration. In our democratic system, migrants do not feel bound by physical boundaries of the States while our administrative, development planning and resource allocation system operates within the limits of territorial boundaries. The operation of this system, therefore, on the one hand has manifested in increasing congestion in Delhi and, on the other, acted as an obstacle in the integrated and balanced development of the Region without any regard to the physical boundaries. The enactment of the National Capital Region Planning Board Act, 1985 with the consent of the participating States and the adoption of the Regional Plan by them is a realisation of this reality. Consequently, the Plan has suggested policies and measures which would help in achieving the objective of the planned development of Delhi in its regional context.

3. The genesis of Delhi's growth lies in its rapid urbanisation and its ability to offer wide opportunities for large scale employment through specialisation and increased productivity in manufacturing and supporting services. Till 1951, Delhi was essentially an administrative centre with a population of 14.5 lakhs but, the expansion of industry, trade and commerce providing opportunities for economic development, in turn, began to transform its character from an administrative city to a multifunctional city and exhibited a significant

functional shift to industrial character in 1981 when its population size became 57.3 lakhs recording a growth of about 300% since 1951.

4. This phenomenal growth of population is due to increasing immigration with about 1.50 lakh migrants annually coming to Delhi in search of employment during 1971-81. Today Delhi acts as a powerful job magnet at the national level. This has drawn job aspirants from far and wide but more particularly from the neighbouring States. As Delhi grows, its problems of land, housing, transportation and management of essential infrastructure like water and sewerage become more acute. The city lacks reliable and adequate sources of water and thus has to depend upon the adjoining States to meet its water supply requirements. Delhi is a Union Territory occupying barely 1483 sq km of land. The physical expansion of Delhi due to spread of urbanisation in the last decade claimed about 40% of the total Territory area in 1981, compared to about 30% in 1971 and it is growing at a rapid pace.

5. The Master Plan for Delhi had initially assigned urban Delhi's population as 46 lakhs in 1981 against the trend based projections of 53 lakhs through a policy of diverting 7 lakhs to the 'ring' towns. Subsequently, this figure was revised to 53 lakhs. The 1981 Census, however, revealed a population of 57.3 lakhs. In other words, Delhi's growth has taken place at a much faster rate than anticipated. Worse still, the population of ring towns grew by 567% during this period. In 1981, the city had 11.3 lakhs more population than what was envisaged at the start of the Plan and, 4.3 lakhs more than the revised capacity of 53 lakhs in 1976.

6. Whether economic and demographic concentration in Delhi has already reached a point at which the social cost of agglomeration exceeds the benefits, cannot be proved conclusively, but it is clear that if this threshold has not yet been reached, it is likely to be reached in a relatively near future. It is also clear that alternatives to the further growth of Delhi should be identified on a basis which is consistent with the objectives of national economic growth and social development. The solution may lie in making investments in selected settlements outside the metropolis at appropriate distances and also, in impulse sectors to relieve the National Capital suffering from the pressures within a reasonable future. In spite of the awareness of the pressures being exerted in the Capital, for over two decades, we have failed to remodel the pattern of development from a mono-nodal towards a poly-nodal pattern. Today, the

Government has an obligation to create a pattern of development on as big a scale as possible and, as soon as possible. Policies must define dynamic action and, be dynamic in content. We need, therefore, development policies, programmes and plans aiming to :

- relieve the Capital city from additional pressures,
- avoid adding new pressures on to the Capital, and
- remodel the pattern of settlements in the National Capital Region to enable them to play their assigned role.

The Regional Plan 2001 incorporates inter-related policy framework for the achievement of these objectives.

Provision of transport and communications infrastructure is crucial to increasing the growth potential of every part of the Region. By improving comparative advantages of the Sub-regions, direct spatial policies can contribute substantially to the process of re-direction of migrants flow away from the Capital city. Great attention must, therefore, be paid to the development of priority towns located in the transport corridors, to channelise the growth in the National Capital Region.

7. The Regional Plan was preceded by the Draft Plan as provided in Section 10 of the NCR Planning Board Act, 1985. The Draft Regional Plan was prepared on the basis of expert studies and with the help of extensive deliberations with the concerned Central agencies and the State Governments. It was approved by the Board in its meeting held on the 21st July, 1987. As per the provisions of the NCR Planning Board Act, the Draft Regional Plan was then published for inviting objections and suggestions from the public, Central and State Governments, local bodies and individuals on the 14th August, 1987. In all, 37 objections and suggestions on various aspects of the Plan were received. After thorough scrutiny and consideration of the objections and suggestions by the Planning Committee in two meetings on the 19th November, 1987 and the 16th December, 1987, the Committee offered its comments and observations for the consideration of the Board. The Regional Plan 2001 has been approved by the Board on after consideration of these objections and suggestions received as a reaction to the Draft Plan.

8. The National Capital Region Planning Board Act envisages, formulation of an hierarchy of plans for the purpose of enforcement of the statutory regional

plan for the NCR. These plans include functional plans to elaborate one or more elements by the Board and sub-regional plans for the respective Sub-regions by the participating States within the framework of the Regional Plan. The Board would also cause preparation of project plans by the participating States and also the Central Ministries within the framework of long term investment plan broken up into five years coinciding with the national Five Year Plan periods and annual investment plans. The projects would include comprehensive programmes aimed at induced growth, provision of infrastructure both social and physical, employment generating activities etc. in the development of priority areas.

The functional plans, sub-regional plans and project plans together shall culminate into a set of precise and time bound programmes to ensure a balanced and harmonious development of the National Capital Region.

9. The financing of the NCR Development Plan has attracted considerable attention in the Parliament, press and several non official forums. Serious concern has been expressed at the availability of meagre resources during the 7th Plan. The concern gets aggravated due to the fact that time shall be of great essence if any dent has to be made in the problems being created in Delhi and investments made now may start yielding results only after a few years. At the same time, allocation of major chunk of resources during the currency of a plan, particularly in a situation of alround shortage of resources, was a very diffiult proposition. It is, however, quite clear that unless the Central Government takes the lead in the provision of finances, as it has done in the setting up of the Board and making it functional, there is little hope for the implementation of the Plan. The Central Government also should assume responsibility of providing adequate power to the priority towns of the NCR, as in the case of Delhi, so that they could become alternative sources of substantial employment generating activities.

* * * * *

NATIONAL CAPITAL REGION

1.1 Physical Setting

The National Capital Region covers an area of 30,242 sq km and lies between 27° 18' and 29° 29' north latitude and 76° 09' and 78° 29' east longitude. The Region includes the Union Territory of Delhi and parts of the States of Haryana, Rajasthan and Uttar Pradesh. The physiography of the Region is characterised by the presence of the Ganga skirting it as its eastern boundary, the Yamuna traversing it north-south forming the boundary between Uttar Pradesh and Haryana, and the sand dunes and barren low hills of the Aravalli chain and its outcrops in the west, flat topped prominent and precipitous hills of the Aravalli range enclosing fertile valleys and high table lands in the south-west, and the rolling plains dominated by rainfed torrents in the south. The rest of the Region is plain with a general slope of north-east to south and south-west.

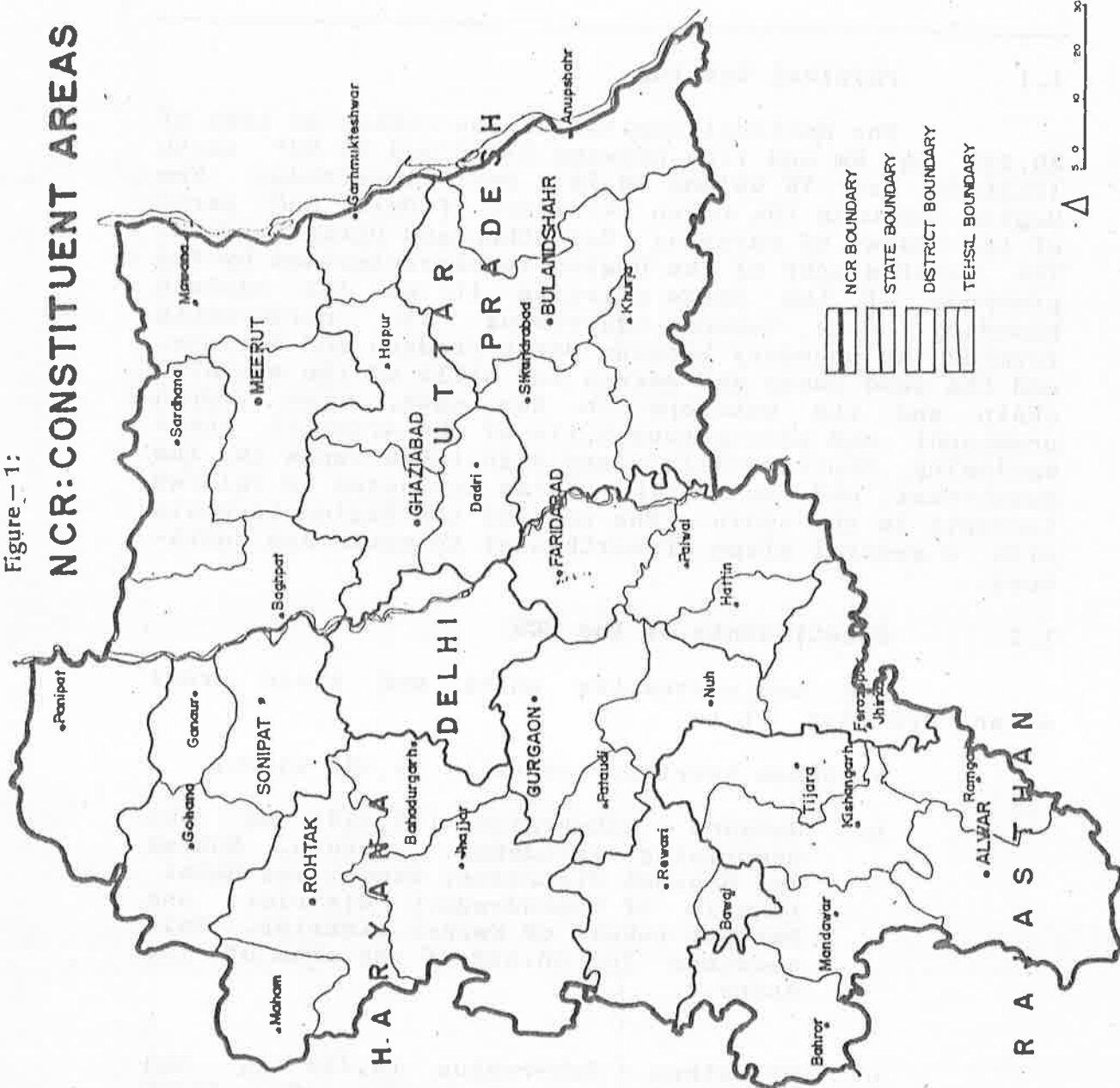
1.2 Constituents of the NCR

The administrative units and their areal extent are (Fig. 1) :

- a. Union Territory of Delhi (1,483 sq km).
- b. Haryana Sub-region (13,413 sq km) comprising Faridabad, Gurgaon, Rohtak and Sonapat districts; Rewari and Bawal tehsils of Mahendragarh district, and Panipat tehsil of Karnal district. This accounts for 30.33% of the area of the State.
- c. Rajasthan Sub-region (4,493 sq km) comprising six tehsils of Alwar district, namely, Alwar, Ramgarh, Behror, Mandawar, Kishangarh and Tijara. The area is 1.31% of the total area of the State.
- d. Uttar Pradesh Sub-region (10,853 sq km) comprising three districts namely, Meerut, Ghaziabad and Bulandshahr. About 3.68% of the area of Uttar Pradesh is under the Region.

Figure - 1:

NCR: CONSTITUENT AREAS



1.3 Morphology

Morphologically, the National Capital Region can be divided into :

- a. The Ganga - Yamuna Doab,,
- b. Area West of Yamuna- the alluvial plains and extension of the Aravallis and the sandy region.

a. **The Ganga-Yamuna Doab :** This seemingly featureless plain lacks topographic prominences and, the monotony of the physical landscape is broken at places by the river channels. The Region is covered by new alluvium (Khader) and older alluvium (Bhangar). Bhangar is found all over the 'doab' while there are finger like extensions of 'Khader' along the main streams. Due to the presence of fertile soil, level land and canal irrigation, the area is intensively cultivated and, supports a high density of population.

b. **Area West of Yamuna :** The slope of the alluvial plains from the Siwaliks is towards the south and south west upto the Najafgarh drain, and then towards the north. North of Delhi, the old high bank of the Yamuna forms the summit level of the plain. In the extreme south of these plains are the outliers of the Aravallis which are intensely folded and eroded. One arm of the Aravallis forms a continuous range terminating in Delhi and, in between, there are only low hills to the west of Bawal and Rewari towns. The Aravallis are quartzite rocks, with numerous ravines on the western slope, densely forested in some areas and bare in the other. North of the Aravalli extensions, the whole tract is traversed by a number of sand ridges which mostly run north-south and form higher prominences in the physical landscape.

1.4 Hydrology

The Region in general is a part of the well integrated drainage system of the Ganga. Almost, all streams generally follow north, south, east course concomitant with the slope of the land. The extremely gentle gradient almost all over the Region restricts the degradational activities of the streams. Wide floodplains and high banks are common features in the course of the Ganga and the Yamuna, alongwith silt and clay deposits. The canal system primarily to irrigate the doab area, has been aligned between the four rivers of the area.

The main river of the alluvial plain is the Yamuna. The only major river in the extension of the Aravallis and the sandy region is the Sahibi, which flows in a south-west-north-east direction. It is ephemeral and ends up in the sandy region of Haryana, but sometimes during heavy monsoons, it drains into the Najafgarh depression and joins the Yamuna. The outliers of the Aravallis also have numerous seasonal streams which erode the bare rocks giving rise to ravines, which are more on the western side. In the depressions of the rocky area, water stagnates resulting in the formation of lakes.

1.5 Resources

(i) Population: As of 1981, the Region accommodated a total population of 191.92 lacs in 94 urban settlements and 6677 villages. Of the total population, as much as 36% was in the Uttar Pradesh Sub-region followed by 32% in the Delhi UT, 26% in the Haryana Sub-region and 6% in the Rajasthan Sub-region.

The urban component of the population was 91 lacs accounting for 47.4% of the total population and, the rest nearly 101 lacs lived in rural areas. The density of population in the Region was 634 persons per sq km against the all India average of 221 in 1981. Of the constituents, Delhi UT has the highest concentration of 4192 persons per sq km followed but distantly by the U.P. Sub-region with 642. In regard to male-female ratio, Delhi UT is the least balanced with 808 females for 1000 males against the Region's average of 840 and against India's 934. The work force participation ratio in the Region was 28.69% with a maximum of 31.93% in Delhi UT in 1981.

(ii) Water : The Region is endowed with adequate water resources. The main sources of surface water supply in the Region are the rivers, canals and lakes. The rivers Yamuna and Ganga meet bulk of the water requirements. The other important rivers are the Hindon, the Kali and the Sahibi. Various canals which irrigate lands are: the Eastern and Western Yamuna canals, the Upper Ganga canal, the Agra canal and the Jawahar Lal Nehru Canal. The prominent lakes in the Region are the Silliserh, Kaduki, Badkal and Surajkund.

Ground water resource is mainly controlled by geology and precipitation in the area. 85% of the annual precipitation occurs during monsoon months. The rainfall ranges between less than 50 cm in south west to more than 75 cm in the north and north east, it is about 180 cm around Delhi UT.

Geologically, the quarternary alluvium is the most favourable lithology for the aquifer systems. The southern portion of the NCR has precambrian Delhi group of rocks and, the older alluvium increases in general from east to west. The general water table ranges between 6 to 15 metres below the ground level. Most of the borewell water comes from aquifers. However, there are two to five confined aquifer systems with great water potential. These systems go up to a depth of 230 metres and, most of the tubewells are dug into these systems. The recharge of these systems is mainly through rivers and precipitation. The ground water quality varies from place to place depending on the local geological setting.

(iii) Soil : The Region basically has alluvial soils ranging between hard clay-clayey, loam-sandy loam and sandy soils. Based on the morphological setting such as nearness to the riverine track, fertility, etc. there are certain local names given to these soils viz. khadar, dadar, bhur, reh, etc. There are alkaline and saline soils which occur as patches particularly near the canals.

In Alwar district of Rajasthan Sub-region, there are three different types of soils viz, (a) loam soil- in parts of Alwar and Behror tehsils, (b) sandy soils- in Tijara, Behror, Mandawar and Kishangarh tehsils- these are less fertile owing to their moisture retaining capacity and, (c) clay-loamy in low lying tracks such as beds of tanks in Ramgarh and Alwar tehsils. The Uttar Pradesh Sub-region has rich loamy soils which are very fertile. However, in Bulandshahr and Khurja region, there are certain 'usar' or sandy soils which are barren. The Meerut and Ghaziabad districts are mainly covered by older alluvium with occasional alkaline efflorescences. The soils very close to the rivers Yamuna and Ganga are sandy in nature. In the Haryana Sub-region, there are alluvial soils which range between totally sandy to loamy and clayey soils. Hard clays and sandy soils are not very fertile. Hard clay soils are predominant in Gurgaon district. Sandy soils dominate in Jhajjar area. Saline encrustations and water-logging are the main problems of the area. The soils in Faridabad, Rohtak, Sonapat and Panipat are fertile sandy loams and light coloured alluvial tracts. However, these soils are deficient in nitrogen and organic matter. In Delhi U.T., the soils are described as (a) Khader (low lying strip along the Yamuna) - a fertile silty loam; (b) Bangar (old alluvium) in north western portion of Delhi, fertile soils with high moisture holding capacity; (c) Dabar tract (of low lying areas) mainly

saline and alkaline with low fertility (West of Yamuna)
(d) Kohi tract (hilly) - sandy loams which are less fertile.

(iv) **Forests** : On account of pressure of population and extensive cultivation, very little has been left of the natural vegetation. The study based on satellite imageries reveals that only 1.2% of area of the Region is under forest cover. The forest cover is of "tropical thorn type" ranging from open shunted forests to xerophytic bushes occurring both on plains and hills. The common tree types are acacias, khair, dhak, kikar and babul. The forest in NCR is important more as a source of fuel and fodder than as timber.

In the Rajasthan Sub-region, the forest cover is about 4.3%, mostly accounted by hill forests of Alwar and Behror tehsils. The forests are mainly "dry deciduous type" with dominant tree types being 'Kikar' and 'Dhak'. Other tehsils have only shrub vegetation. The hill forests of Alwar and Behror have been classified as reserved and protected forests. The forest cover on the hills could be described as dense or sparse. The dense forests are confined to narrow valleys in the hills where there is sufficient supply of water. The upper areas of the hills support only thorny shrub type forests (sparse) with occasional big trees. Sariska Wild Life Sanctuary covering an area of 492 sq km is located in the dense forest of Alwar tehsil.

In the Uttar Pradesh Sub-region, forests account for only 1% of the area. This again is due to extensive use of land for cultivation. This area has dry deciduous forests. The dominant trees are Sal, Shisam and Teak. In the drier parts, the forests are of thorny type.

The Haryana Sub-region accounts for the least amount of forest cover. Most of this forest cover is concentrated in Gurgaon district. 'Khair' and 'Dhak' form the important tree species in the Aravalli hills. The other forest cover is mainly in the form of orchards in the plains. Sultanpur Bird Sanctuary over an area of about 117 hectares is located near Gurgaon.

In the Delhi U.T., owing to low rainfall and the gravelly substratum, the upper strata of the soil does not support any dense perennial vegetation. The forest cover of 1.8% is mainly due to the forest on the ridge and other recreational areas in Delhi urban area.

(v) **Minerals** : The mineral wealth in the Region is very limited and is restricted to constructional materials. The major mineral deposits

of the Region are the china clay with a reserve of 7.54 million tonnes occurring mainly in Delhi and Gurgaon; and the quartz with a reserve of 15.32 million tonnes occurring mainly in Faridabad and Gurgaon, copper is occurring in Alwar with a reserve of 0.91 million tonnes. The major mineral deposits in Alwar district are barytes, quartz, calcite, soap stone, copper, china clay and silica sand.

The annual production of all the minerals and mines in the Region in 1986 was of the order of 4.7 lac tonnes. The other minor mineral deposits are asbestos, china clay felspar, fire clay, soap stone and quartz. In Uttar Pradesh, there are no notable mineral deposits. China clay (kaolin), silica sand and fire clay deposits occur in Faridabad district. Gurgaon contributes silica and kaolin. Occurrence of slate deposits is reported from Rewari tehsil. Rohtak, Sonapat and Panipat areas do not have any mineral deposits of economic importance. In Delhi UT, china clay, silica and quartzite are available.

* * * * *

1. Delhi has been experiencing enormous growth of population since Independence. The partition of the country in 1947 brought over-night nearly 5 lakh people to Delhi swelling the population size of Delhi to almost double its size. Though the services were inadequate and strained beyond their capacity, the Government and the local administration sought a large number of options in the form of industries, trade activities and other economic opportunities in order to absorb the additional population to find means of livelihood. This trend emerged into an encouragement from all quarters which continued for years resulting in large scale proliferation of economic activities in petty, retail and wholesale trades, industries of all categories and informal sector activities. These activities over years out of sheer necessity or otherwise started mushrooming all over the city and assumed large proportions. Gradually these economic opportunities became recognised for which all infrastructural facilities were created and encouraged by the Government/local bodies to serve not only the Delhi population but also the regional needs. Since there was no discernable restrictions on their expansion, the entrepreneurs made use of the opportunities to boost them into big trade and industrial establishments which took stable and strong base in Delhi attracting more labour from the adjoining States and also from the far off places. It took years for the Government and Local Bodies to recognise the mounting pressure on the essential services of Delhi leading to a realisation that it would only be proper to restrict its growth lest it would lead to explosive and unmanageable situation in the foreseeable future.

2. With this recognition as back as 1962, the Master Plan for Delhi recommended to divert the potential migrants to Delhi to ring towns around the Delhi UT such as Faridabad, Ballabhgarh, Gurgaon, Bahadurgarh and Ghaziabad and also Narela in Delhi UT creating adequate employment opportunities there, with appropriate infrastructural facilities particularly for establishment of industries and related activities. Backed with the support of the concerned State Governments, these "ring towns" grew by leaps and bounds registering much faster growth rate than the National Capital itself. Between 1951-81, Faridabad registered a growth of 774%, Gurgaon 380% and Ghaziabad 567% against Delhi's 300%. The "ring towns" subsequently became to be known as Delhi Metropolitan Area with Delhi as core. They have become more and more

attractive for development of industries mainly due to nearness to Delhi with marketing and other supportive facilities and the policies of the State Governments. The development has become intensive particularly along the major transport corridors which led to the form of ribbon development all along transport routes lacking in adequate infrastructural facilities and also shelter.

3. Delhi being limited in its territorial extent and as opposed to it the ring towns having relatively extensive areas for expansion, the unabated pouring of migrants into Delhi brought in manifold problems in the form of congestion and inadequacy of the basic services. This was accentuated, as the ring towns were developed for industries and allied activities but not with adequate residential development. During 1961-81, the influx of migrants into Delhi was about 53000 a year which jumped to 1.23 lakhs a year during 1971-81. In addition, daily 3.06 lakh people commute between Delhi and the DMA towns of which nearly 1.5 lakhs commute to Delhi from the DMA towns as of 1987. The green belt around Delhi of the 1962 Master Plan has slowly vanished leading to a contiguous sprawl of the metropolis engulfing the then ring towns which form the present Delhi Metropolitan Area.

4. The inter-action between Delhi and the adjoining towns within the Delhi Metropolitan Area has become more and more intensive resulting in increasing inter-dependence with each other. The services both economic and social and also job opportunities to a great extent serve the floating population from the DMA towns and the migrants. A study of population, density, growth and the problems of services of Delhi and the towns around shows marked characteristics leading to clear identification of Delhi UT and the other towns within Delhi Metropolitan Area as two distinct zones. The areas beyond the DMA upto the NCR boundary which is pre-dominantly rural and relatively industrially backward recording slower growth and depending for higher level facilities on the DMA towns specifically Delhi stands out as the third zone distinctly different from the other two.

5. The prime objective of the Regional Plan is to contain Delhi's population size within manageable limits atleast by the turn of the Century. As a strategy, after evaluating various alternative scenarios for development, it has been realised and recognised that, in order to save Delhi from population explosion, it is necessary to moderate growth in the areas around it. At the same time, it is also recognised that any additional population in the DMA towns excluding Delhi will not to any extent moderate

or reduce the problems of Delhi as their inter-dependence is intensive and necessarily mutual. The preliminary studies clearly concluded that economic activities with potential for large scale employment should necessarily be located outside the DMA preferably at a distance which discourages daily interaction with Delhi. Thus on the basis of this criteria, the zones which came out distinctly are the Delhi UT, the DMA excluding Delhi UT and the area beyond DMA within NCR for effective application of the policies and implementation of proposals with a view to achieve a manageable Delhi and an harmoniously developed Region.

These Policy Zones are described briefly as follows (Fig. 2) :

I. Delhi U.T.

Delhi UT covers a total area of 1483 sq km. of which 40% had been urbanised and the remaining 60% area was spread over 231 (habitated 214) rural settlements. The urban area is spread over in the 6 settlements containing 57.68 lakh population of which Delhi urban agglomeration is the dominant as indicated below:

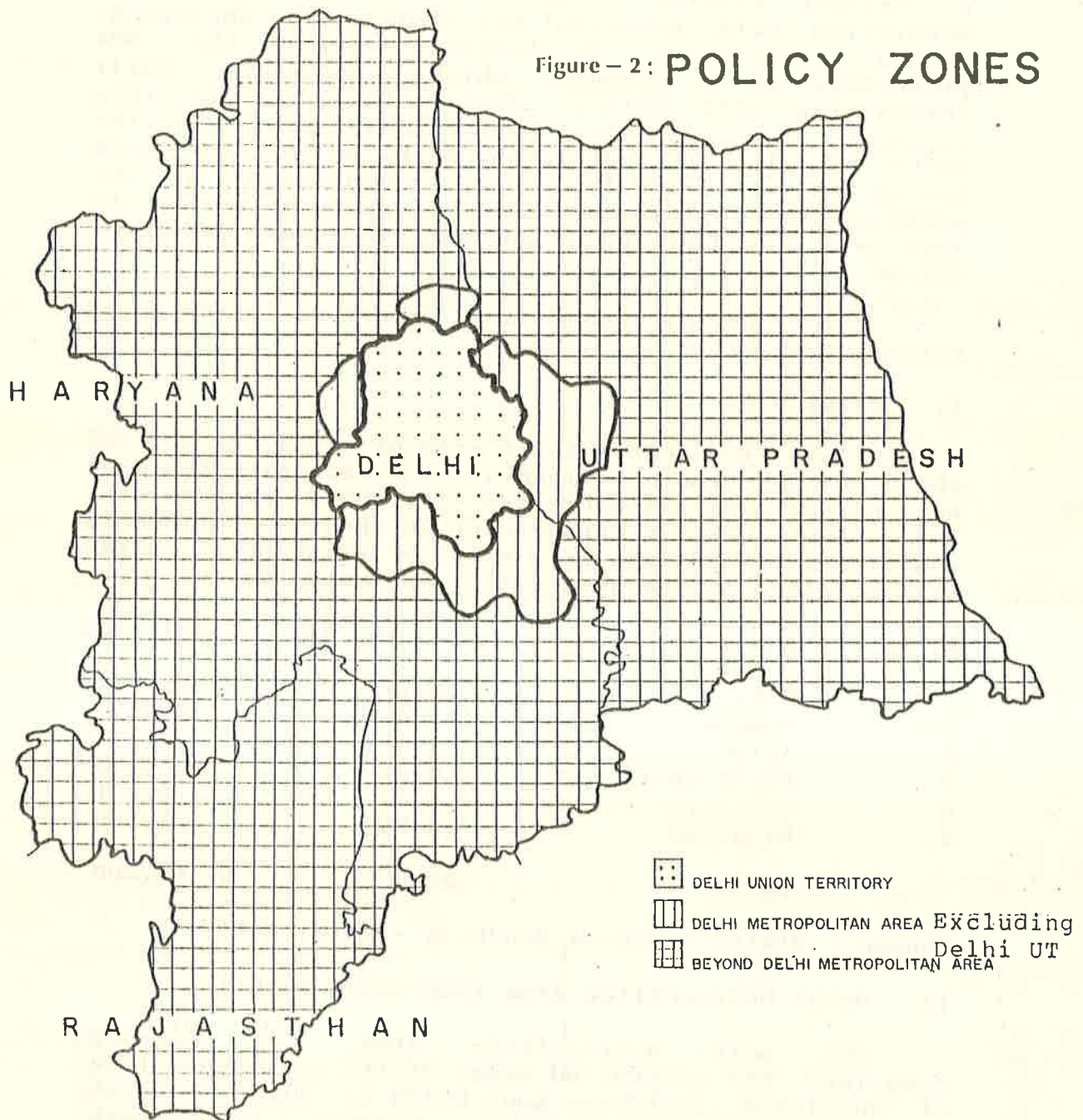
Sl No.	Towns	Area (sq km)	Population
1.	Delhi U.A.	540.74	57,29,283
2.	Bawana	17.00	12,637
3.	Alipur	8.56	6,735
4.	Pooth Khurd	10.00	7,145
5.	Pehlادpur Bangar	4.68	5,011
6.	Bijwasan	10.90	7,389
	Total	591.88	57,68,200

Source : District Census Handbook - Delhi 1981

II. Delhi Metropolitan Area (Excluding Delhi)

The Delhi Metropolitan Area, as envisaged comprises the controlled areas of the contiguous towns of Ghaziabad including Loni, NOIDA in Uttar Pradesh, Faridabad-Ballabgarh Complex, Gurgaon, Bahadurgarh, Kundli and the extension of Delhi ridge in Haryana. The total area of DMA excluding Delhi is about 1696 sq.km (Table 2.1) and population of 8.08 lakhs in 1981 with a density of 476 persons per sq km. This is based on the report of the Sub-Group on DMA constituted by the Ministry of Urban Development in 1982 for the co-ordinated development of Delhi and its peripheral areas.

Figure - 2: POLICY ZONES



III. Rest of NCR

The rest of the NCR comprises an area of 27061 sq km, is predominantly rural in character and contain 80 urban centres and 6046 villages. The population growth rate of towns in the NCR area beyond DMA has been generally lower than the national urban average during the last decade (1971-81). This zone has seven class-I cities of which 3 each are in U.P. and Haryana and one in Rajasthan.

3.1 Background

A significant facet of Indian Urbanisation has been greater concentration of population in metropolitan cities, specially in the recent years. The 12 metropolitan cities as of 1981, alone accounted for more than one fourth of the total urban population. Even among metropolitan cities, the growth of Delhi has been unique in that, it has been constantly growing at a decadal growth rate of more than 50% since 1951. During 1971-81, Delhi registered 57% growth while Bombay (38.2%), Madras (35.3%) and Calcutta (30.8%) grew comparatively at a much slower rate.

i) Population distribution

The National Capital Region had a total population of 191.92 lakhs in 1981. The Sub-regions of Delhi UT, Haryana, Rajasthan and Uttar Pradesh accommodated 32.41%, 25.74%, 5.54%, and 36.31% of the total population respectively. Of the total population, 100.94 lakhs (53.60%) was rural, the Sub-region wise rural component being 49.73% in Uttar Pradesh, 36.97% in Haryana, 8.82% in Rajasthan and 4.48% in Delhi UT Sub-regions. The rural population proportion of the NCR has registered a fall from 65.31% in 1961 to 60.72% in 1971 and 52.60% in 1981. Of the 91 lakhs urban population of the Region, Delhi UT had 63.40%, Uttar Pradesh 21.42%, Haryana 23.27% and the Rajasthan Sub-regions 1.91% in 1981.

With its metropolitan core, the Region had a population density of 634 persons/sq.km. against the all India average of 221 in 1981. Of the constituents of the Region, Delhi had the highest density with 4192 followed but distantly by the Uttar Pradesh Sub-region with 642, Haryana Sub-region with 368 and Rajasthan Sub-region 238. Excluding the Delhi UT, the density of the Region was 451 in 1981.

ii) Growth trend of population

a) Total Population : Population of the NCR has swelled to 191.92 lakhs in 1981 from 140.60 lakhs in 1971 and 105.80 lakhs in 1961, thus registering a growth rate of 36.48% during 1971-81 against 32.89% during 1961-71, and as compared to the national decadal growth rate of 25% during 1971-81. Substantial addition of population to Delhi has been the main reason for the rapid growth of the Region. In fact, the proportion of Delhi's population in the Region was only 25.11% in

1961 which rose to 32.4% in 1981. The net addition of population during 1971-81 was 51.33 lakhs. Of this, Delhi UT accounted for 42.11% followed by Uttar Pradesh (29.82%), Haryana (22.3%) and Rajasthan 6.04%) Sub-regions.

b) Sub-regional growth trends : The constituent areas present varied growth trends. Delhi UT exhibited a growth rate of 53.20% followed by Rajasthan (40.79%), Haryana (29.74%) and Uttar Pradesh (28.12%) Sub-regions during 1971-81. The Uttar Pradesh and Rajasthan Sub-regions have been growing faster in their population counts while the Haryana Sub-region had a reduction of 1.75% during 1971-81 compared to the 1961-71 rate. Growth of population in Delhi is significantly higher since independence. During the four decades preceding 1941, while it gained a modest total of 7 lakhs only during the succeeding four decades, it had an addition of 52 lakhs population. The decadal growth rates since 1941 was 90.18%, 52.46%, 52.91% and 52.98% respectively.

c) Components of growth in Delhi UT : Of the two main components of population growth, namely, the natural growth and in-migration, the share of natural growth has been declining over years. The partition of the country in 1947 resulted in a large influx of population into Delhi. In addition, the attainment of independence and the resultant need to develop Delhi as the National Capital created a huge demand for manpower and, thus, there was a tremendous influx of population into the capital.

According to the 1981 Census, there were 22,99,252 migrants in Delhi constituting about 37% of the total population. Immigration into Delhi has been on rapid increase especially during the last two decades and, the average annual immigration has gone up by about three times during this period. Among the 22,99,252 migrants in Delhi upto 1981, 12,29,745 persons, which constitute 53.48% came during 1971-81 alone. Of the net addition of population during 1961-71, proportion of immigrants was only 37.33% and, it registered a sharp increase constituting as much as 57.07% of the additional population during 1971-81 (Table 3.1). Thus, immigration has emerged as the main factor for the rapid growth of Delhi.

iii. Trend of Migration

a) Origin of migrants : The immigration into Delhi has been mainly from the surrounding States. The NCR States together accounted for about 71% of the total immigrants into Delhi: Uttar Pradesh alone accounted for 48.2% followed by Haryana (15.5%), Punjab

(9.8%) and Rajasthan (7.6%)(T 3.2). Migration to Delhi from Punjab and Haryana has declined from 11.3% to 6.4% and 16.4% to 12.9% respectively during 1961-71 and 1971-81 whereas that from Uttar Pradesh and Madhya Pradesh has increased from 49.6% to 50.1% and 1.7 to 3.1% respectively. Rajasthan maintained almost the same share of contribution of immigrants to Delhi since 1961. In absolute terms, it is Uttar Pradesh from where maximum number of people came to Delhi. All these States have been sending increasing number of people to Delhi over the last two decades as reflected by ratio of migrants to the respective State's population and, about 40% of them are from urban areas. The proportion of flow of immigrants to Delhi has also gone up from 10.7% in 1961 to about 20% in 1981.

b) Reasons for migration : The major reasons for in-migration into Delhi have been the 'employment' and consequent 'family movement'. The large inflow into Delhi in recent times can be attributed to the substantial growth of industries, especially, small scale and, expansion of trade and commerce activities. 'Employment' and 'family movement' accounted for 73% of all the in-migrants in 1981 from the five adjoining States.

c) Occupational characteristics of migrants : Employment structure of migrant workers (1971) shows that tertiary sector engaged the highest proportion (69.17%) of all migrant workers followed by secondary (28.87%) and primary sectors (1.96%). Majority of the immigrants are absorbed in petty trades, low grade production or processing activities, and in the informal sector activities serving local population. Incidentally, proportions of total workers in Delhi in different sectors too reflect roughly the same proportions as for migrant workers.

iv) Delhi Metropolitan Area

Delhi's growth is not confined to the boundaries of the Union Territory. This urban spatial expansion has spread into the surrounding areas of Uttar Pradesh and Haryana around Delhi, which along with Delhi UT, constitute the Delhi Metropolitan Area (DMA). Owing to its location, the DMA excluding Delhi has exhibited growth characteristics similar to that of Delhi in recent years. In fact, while Delhi had grown only 53% during 1971-81, Faridabad-Ballabgarh, Ghaziabad and Gurgaon have grown 169.40%, 141.65% and 76.50% respectively.

v) Population projection :

Recognising the urban growth dynamics in the Region, projections have been made by the Office of the Registrar General of India, Census Operations, for the constituent units of the Region with urban-rural components. The growth differentials of the areas falling in the NCR and other areas of the NCR States were examined, and these differentials were then projected by which the total population and rural-urban composition of the Sub-regions were arrived at (T 3.3).

The Regional population is expected to grow at a decadal rate of 34.73% during 1981-2001 to reach a figure of 325 lakhs. In case of Delhi UT, an addition of 70 lakhs population during this period is foreseen totalling to about 132 lakhs by 2001. The rural-urban population composition of the Region would undergo a significant change for 53:47 to 48:72 over 1981-2001.

3.2 Issues

- i) At the present trend of phenomenal growth rate Delhi will have 132 lakh population by 2001 A.D. Will Delhi remain manageable with this population growth trend in terms of provision of essential services ? In addition, the concentration of economic activities has resulted in soaring prices of developed land, proliferation of slums and squatter settlements, adversely affecting the quality of life.
- ii) As most migrants emanate mainly from the neighbouring States, what regional development strategy would mitigate the trend of migration to Delhi?
- iii) Delhi Metropolitan Area towns around Delhi have been growing faster and would sooner become a huge unmanageable urban agglomeration woefully short of essential services. Could this growth be regulated to relieve the pressure on Delhi's services?
- iv) To achieve a manageable Delhi and a harmoniously developed region, what is the judicious distribution of population both in urban and rural areas?

3.3 Strategies

A pragmatic approach and strategy to meet the issues appropriately to achieve the plan objectives would be to formulate a conscious policy of:

- i) decelerated and restricted growth in Delhi UT;
- ii) controlled moderate growth of the DMA towns excluding Delhi so that the volume and directions of growth are well coordinated; and
- iii) giving impetus to the regional centres through provision of adequate infrastructure and services so that they are able not only to dissuade the potential outmigrating population but also attract and absorb the Delhi bound migrants. In fact, the Delhi Master Plan now under revision for 2001 as perspective has specified selected industrial units found incompatible in residential, commercial and non-industrial use zones, to be shifted from such areas within a period of five to ten years. By suitably developing industrial areas and wholesale markets in the towns beyond Delhi UT, it should be possible to generate additional employment opportunities in the Regional towns.

3.4 Demographic policy and Population assignments

i. Population projection in Delhi UT

Under the assumptions that:

- a) the natural growth rate of population with its declining trend may reach 2.0% per annum during 1981-91 and 1.2% per during 1991-2001, and
- b) the rate of immigration to Delhi would continue at the same rate as it would have otherwise registered during 1981-91 and, in view of the contemplated employment opportunities in the Region, a 50% fall in the rate of migration to Delhi during 1991-2001 from that of the previous decade

The population of Delhi UT would be 112 lakhs by 2001 AD of which 2 lakhs would be rural (T 3.4).

Accordingly, the rate of immigration into Delhi will be about 84,000 per annum during 1991-2001 as against the likely 1.79 lakhs during 1981-91. This would contribute a fall of the immigrants' share in the total decadal addition to a 46.32% by 2001 as against 57.07% observed during 1971-81 and the likely 59.01% during 1981-91.

ii) Population assignment-DMA : Recognising the potential of the DMA in relieving the population pressure of Delhi, and also the problems Delhi would face in case of over growth of the DMA, a moderate growth for the DMA towns around Delhi is prescribed. The population forecast on the present trend of growth places the population size of DMA excluding Delhi at 38 lakhs (excluding NOIDA). However, the population size of DMA including NOIDA would be 150 lakhs but excluding Delhi UT - 38 lakhs both urban and rural by 2001.

iii) Population assignment beyond DMA : Any strategy to control population growth in Delhi should be prepared in consultation with the surrounding States as majority of the migrants come from them. The additional population of 19 lakhs which otherwise would have moved into Delhi from these States during 1981-2001 should be deflected towards or contained in the urban areas beyond the DMA within the National Capital Region. It is proposed to contain and accommodate this additional population in the Sub-regional areas of Haryana, Rajasthan and Uttar Pradesh. Based on the urban growth trends and the projected urban population in the constituent Sub-regions by the year 2001, it is proposed to contain and accommodate respectively about 5.5 lakhs, 1.5 lakhs and 12 lakhs in the urban areas beyond the DMA of Haryana, Rajasthan and Uttar Pradesh Sub-regions and 1 lakh in the rural areas. The projected and assigned population for the Sub-regions and DMA towns are given in T 3.5.

4.1 Background

The Metropolitan core of the NCR, that is Delhi, is growing fast by attracting activities and consequently population from the surrounding areas; and the sprawling development due to overspill of Delhi's population into the areas adjoining it, has also gained tremendous momentum. The policy of restricting the growth of Delhi and allowing only a moderate growth in the DMA beyond Delhi, require an evaluation of the development potentials and functional importance of the urban centres of the Region.

i) **Settlement Distribution** : The 191.92 lakhs population of the Region is distributed over 6771 settlements - 94 urban and 6677 villges. Of the total, 220 are in Delhi UT, 2413 in Haryana, 1091 in Rajasthan and 3047 in Uttar Pradesh Sub-regions. The Region has an urban-rural settlement ratio of 1:71.

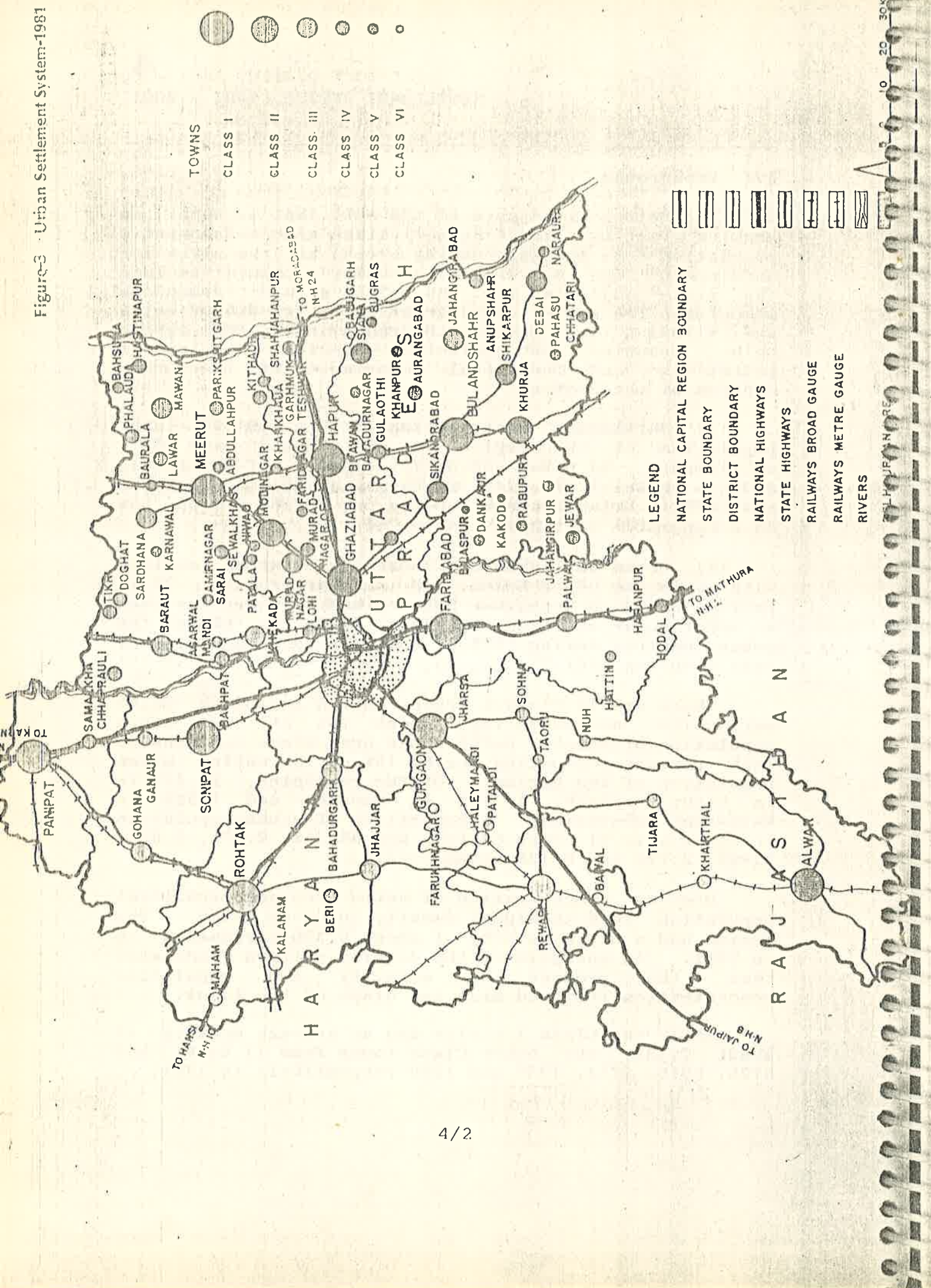
ii) **Urban Settlements** : There are 94 urban centres with 6 in the UT of Delhi, 58 in Uttar Pradesh, 27 in Haryana and 3 in Rajasthan Sub-regions. There has been a spectacular increase from 48 to 94 in the number of urban centres during 1971-81 compared to an addition of only 4 during 1961-71.(Fig.3).

There are 11 Class-I urban centres including Delhi metropolis accommodating about 70% of the urban population of which Delhi Urban Area alone contains 57 lakh persons accounting for 63.45% of the entire urban population of the Region. Of the remaining, 21.44% is in Uttar Pradesh, 13.19% in Haryana and 1.92% in Rajasthan Sub-regions. Proportions of urban population in Class I to VI urban centres are 85.27%, 2.27%, 5.52%, 3.99%, 2.72% and 0.13% respectively.

Greater concentration of activities and resultant population lead to higher density in urban area. The Region had a urban density of about 6,300 persons/sq km in 1981. An analysis of the density pattern indicates that the process of activity and population concentration followed size and class of the towns.

While the Class I cities had an average density of about 7,488, the other Class towns from II to VI had 6725, 6016, 2764, 1835 and 1260 respectively in 1981.

Figure 3 · Urban Settlement System-1981



Urban growth has been extraordinary in the Uttar Pradesh Sub-region. The urban population increased from 10.68 lakhs in 1971 to 19.49 lakhs in 1981, thus registering a growth rate of 82.5% during 1971-81. The Haryana Sub-region also experienced a fast growth of 57.79% during 1971-81 with a population increase of 4.41 lakhs. A growth rate of 56.63% was experienced in the urban population by the Rajasthan Sub-region during 1971-81. Thus, the already highly urbanised NCR will experience faster urbanisation trend in future reaching an urbanisation level of 72% by 2001.

The trend of population growth of a town provides an insight into its latent potentials to absorb economic activities and consequent population. A study of the growth trends of the regional urban centres indicates that most of the urban centres in the Region lack dynamism in growth as they lie in the shadow of a large metropolis. Despite being larger in population size, the economic base of many of them such as Meerut, Hapur, Khurja, Rohtak, Rewari, Alwar etc, is weak to sustain their natural organic growth. This fact is borne by the Census figures of 1981 which has shown that the growth rate of these towns is less than the national average.

iii) **Functional Characteristics** : An analysis of functional specialisation of urban areas of the Region shows the close relationship between population concentration and functional diversification. Diversification in functions has been the phenomenon in the higher order towns. All the towns upto Class-III have shown greater diversification in terms of activity concentration. Industries, trade and commerce and primary activities to a lesser extent in many cases, are equally pronounced in these towns. The Class IV to VI towns had primary activities as either dominant function or equally dominant function amongst other functions in 1981 (T 4.1).

4.2 Issues

With this background, the issues that emerge are:

i) The extraordinary growth of Delhi is to be controlled to 112 lakh population and that of the DMA excluding Delhi UT to be moderated to a population size of 38 lakhs by 2001. The excess 19 lakhs of urban population of Delhi by 2001 would have to be diverted and contained in the urban areas beyond the DMA.

ii) Most of the towns beyond the DMA are showing lack of dynamism and diversification in their functional character. A spatially and functionally articulated settlement system has to be evolved with purposive

development of urban areas of the Region beyond DMA to meet the objective of controlling the growth of Delhi and achieving balanced development of the Region. This assumes additional importance as the study on 'migration pattern in the NCR' by the National Institute of Urban Affairs, New Delhi, clearly indicates that there is a large intra-regional migration taking place at present with the NCR and, about 80% of the potential migrants within the Region would ultimately move into Delhi.

iii) The rural zones of the constituent States contribute greater number of migrants to Delhi mainly for employment and services. This rural out-migration to Delhi should be checked. This requires integration of the settlement system with functional dependence and independence with appropriate services to improve their economy which will dissuade the population to move to other places.

4.3 Strategies

i) The first strategy should be to revitalise the economy of the stagnating regional urban centres and to integrate them in a well-knit system of settlements with specific functions to encourage an orderly development of economic activities and increase their complementarity.

ii) Secondly, the development of small urban centres and villages should be integrated in relation to priority towns to achieve the objective of balanced development of the Region. These could be achieved by developing a four tier hierarchical system of settlements consisting of Regional centres, Sub-regional centres, Service centres and Basic villages with functionally specialised organised structure. Desirable population size and probable functions of each tier settlement will be as follows:

Level of Settlement	Population Size
1. Regional Centres	3.0 lakhs & above
2. Sub-Regional Centres	0.5 to 3.0 lakhs
3. Service Centres	10000 to 50000
4. Basic Villages	Less than 10000 pop.

The main centres of utmost activity concentration in this hierarchical system are the Regional centres and Sub-regional centres. The Service centres and Basic villages are mutually dependent upon each other. The regional centres being self contained, should be capable enough to form an inter-dependent system independent of a great extent of the Delhi Metropolis.

iii) Thirdly, to attract and contain the Delhi bound potential migrants to the extent of 19 lakhs, the selected regional centres would be developed on an intensified scale with conscious intervention to organise and stimulate economic activities to offer a variety in occupational structure and job opportunities. The regional centres are identified in the Regional Plan while Sub-regional plans will identify Sub-regional centres, Service centres and Basic villages.

i Regional Centres

To identify such settlements which may function as Regional centres, a development hierarchy has been followed. Every settlement depending on its size in terms of population and areal spread, location with reference to transport network, availability of social facilities and concentration of economic activities, places itself among others in a development hierarchy within the Region. In consonance with its size and rank, these centres provide higher order services to the scattered population around them.

A study on 'Settlement System in the NCR' by the Physical Research Laboratory, Ahmedabad, based on computer model employed various parameters in selecting the regional centres such as revenue and development administration, population size, sex ratio, literacy level, growth trends during 1951-81, participation ratio and industrial work-force, rate of migration, location of various facilities such as educational, health, road, railway, water supply, power, marketing facilities, financial institutions and recreational facilities in relation to population size. A total number of 38 indicators were employed for the computer modelling. The basic model that has been used to identify relative weightages of each settlement in reference to the 38 indicators is based on composite index. By taking 10% of the higher composite value obtained by any centre, regional centres have been identified. Due to the proposed moderate growth of the DMA towns, Regional Centres have been identified from among the centres that rank in the development hierarchy, and are located beyond the DMA. As such, the identified Regional Centres by the study are:

- | | |
|----------------|-----------|
| 1) Meerut | 2) Hapur |
| 3) Bulandshahr | 4) Khurja |
| 5) Panipat | 6) Rohtak |
| 7) Rewari | 8) Palwal |
| 9) Alwar | |

The Regional towns would be developed primarily to accommodate the Delhi-bound potential migrants by creating employment opportunities in secondary and tertiary sectors and they would act as magnet-centres to attract economic activities. In order that various regional centres are planned to accommodate the excess population of Delhi, a rational distribution has to be attempted. To decide the extent to which these centres should be equipped to attract and contain potential migrants, the Central Building Research Institute, Roorkee, in a study on 'Alternative Development models for urban development in the NCR' evaluated the various scenarios of differential population assignments against development costs for residential, commercial, industrial public and semi-public and community facilities, city infra-structure and provision of telecommunication facilities and benefits assessed in terms of employment absorption potentiality of each scenario, acceptable rate of growth, standard of living and an acceptable standard of linkages between Delhi and the scenario settlements. Cost-efficiency ratios indicate desirability of developing all the eight Regional Centres/Complexes with appropriate additional population mix. Growth trends and regional potentials of each of the selected Regional Centres have been assessed. The Regional Centres - Bulandshahr and Khurja would be developed as a complex while Rewari would be planned in relation to Dharuhera and Bhiwadi industrial townships in the form of a complex. The Regional Centres (priority towns) thus identified and their assigned population for 2001 AD are as under:

Sub-region	Regional Centre	Population(in lakhs)	
		1981	2001
Uttar Pradesh	1. Meerut	5.36	15.50
	2. Hapur	1.02	4.50
	3. Bulandshahr Khurja Complex	1.03 0.67	5.00 3.00
Haryana	4. Palwal	0.47	3.00
	5. Panipat	1.38	5.00
	6. Rohtak	1.68	5.00
	7. Rewari	0.52	1.10
Rajasthan	Dharuhera	-	0.75
	Bhiwadi Complex	-	1.15
	8. Alwar	1.47	5.00

The functional composition of the remaining hierarchical centres is being dealt with very briefly in this Plan since their identification and role would be spelt out in the sub-regional plans.

The Sub-regional centres would serve as focal points with development and resume functions as that of a Sub-divisional headquarters with corresponding facilities. In addition, they also will serve as a first stage industrial centre with agricultural and marketing facilities. While the service centres would cater to the rural hinter-land as co-service centres in the collection and distribution of agricultural goods and services with marketing, warehouses and cold storages, the basic villages would be developed to cater to the day today needs of a cluster of villages with co-operatives for distribution of fertiliser, agricultural implements and also for collection of agricultural goods for marketing in higher order centres.

5.1 Background

The NCR has a vast rural expanse and majority of the population lives today in rural areas. As much as 95% of the geographical area of the Region is constituted by the rural area accommodating about 53% of the Region's population. The Region has agriculture as its occupation. The Region at the same time is one of the highly urbanised zones in the country which has become a job-magnet for the population of the rural areas to the urban pockets, specially Delhi metropolis. The 1981 Census shows about 64% of the migration to Delhi originated from the rural areas and, most of them were from the adjoining States.

It is thus evident that development of the Region in a balanced way to mainly sub-serve the objective of limiting the Delhi's population size within manageable limits is possible mainly through the development of the rural areas. Though, the immediate surges and waves of the incessant influx of migrants into Delhi is envisaged to be absorbed through deflection into the selected regional urban centres, ultimately the rate of flow of influx from the rural areas into urban centres and finally to the Delhi metropolis, could be moderated and reduced only through such developmental activities as raising incomes and diversifying economy of the rural areas and provision of basic civic facilities, which would dissuade the rural population from moving out. Thus development of rural areas of the Region assumes dominating importance in the long run and only this will lead to achieving the objectives of the NCR Plan in its longer perspective.

i) Rural Settlement System

The rural settlement scene (6677 settlements) is characterised by the pre-dominance of medium size villages with 500 to 1999 persons with a stable economic base mostly of primary sector. Nearly 1/5th of the villages have more than 2000 population of which the 5000 and above population sized villages account for 1/6th. Small settlements with upto 500 population are in the form of clusters and hamlets scattered all over and account for around 1/5th of the total number of villages. The Rajasthan Sub-region is typically characterised by smaller settlements while the Uttar Pradesh and Delhi Sub-regions do have dominance of medium sized settlements. It may also be noted here

that the out-migration from the villages of the Haryana Sub-region is minimum as compared to other Sub-regions. This amply demonstrates the necessity of development of rural areas as complementary to the urban development in the region.

ii) Literacy

Though the Region consists of the best developed parts of the constituent States, the rural literate proportion is only marginally higher (31.05%) than that of the national average of 29.65%. The Uttar Pradesh and Rajasthan Sub-regions are lower in the literacy rate compared to the all India average. Among the rural population, the literacy level of the women tends to be lower than that of the males.

iii) Agriculture and allied activities

The NCR area forms one of the most productive areas of the country. The Region is endowed with extensive fertile land and good irrigation facilities. Of the total area, about 80% is under cultivation out of which 60% is irrigated. In case of Rajasthan Sub-region, however, only 33% of the cultivable area is irrigated. Agriculture suffers from the constraints of low operational holdings and poor operational capacity of farmers in Uttar Pradesh. Majority of landholdings are less than one hectare per unit of holding. Animal husbandry plays an important role in supplementing the income of the rural population in the Region. The nearness of the metropolitan city of Delhi has given a great fillip to the establishments of dairies in the rural areas.

iv) Availability of services

a) Educational facilities

Of the total 6677 inhabited rural settlements in the Region, about 80% are provided with some kind of educational facilities. Villages of Delhi UT and the Haryana Sub-region are better served, as 88% of them are having this facility. In terms of population coverage too, Delhi UT and the Haryana Sub-region are better served. The UP and Rajasthan Sub-region's have 10% of their population uncovered by even basic educational facilities (T 5.2 & 5.3).

b) Health facilities

Availability of health facilities in the rural areas is poor as only 36% of the villages of the Region are served by any kind of health facility. In terms of population coverage, only 53% of the Regional

rural population is provided with health facilities in their villages. In this respect too, the Haryana and Delhi UT Sub-regions are better served as 59% and 58% of their villages and about 78% and 75% of their population are covered (T 5.2 & 5.3).

c) Drinking Water Supply

All the villages of the Region draw their domestic water needs from one source or the other. But in many villages, the supply is not organised and protected. Moreover, the supply level is also poor in villages tapping ground water sources.

d) Accessibility

One of the pre-requisites for the speedy development of the rural areas, is the availability of physical linkages. As regards availability of pucca roads the Delhi Sub-region has 97% of its villages and 99.8% of its population covered with pucca roads, followed by the Haryana Sub-region with 92% and 96% of villages and population covered respectively. The Rajasthan and UP Sub-regions lag far behind with only 16% and 26% of their villages and only 29% and 36% of their population having direct access to this facility.

e) Post and Telegraph facility

Only 27% of the villages and 51% of the rural population of the Region have either post or post and telegraph facility. Again, villages of Delhi UT and the Haryana Sub-region are better served to an extent of 54% and 32% of the villages and 73% and 56% of their population respectively.

f) Markets/Hats

The rural markets encourage interaction and act as centres for innovative diffusion. But in the Region, the number of markets and 'hats' held in the rural areas, is practically negligible and only 4% of the villages and about 9% of the population has immediate access to such markets/hats.

g) Power Supply

Availability of power has emerged as one of the most important pre-requisites for agriculture, industrial and in turn overall economic development. All the villages of the Delhi UT and the Haryana Sub-region have power connections, while about 83% of villages and 90% of population of the UP Sub-region and 55% of villages and 71% of population of the Rajasthan Sub-region are provided with power connections.

h) Housing

Estimates indicate that there were 18.23 lakh liveable houses as of 1981 (excluding Delhi UT) both in urban and rural areas and the occupancy rate in 1981 was 7.34 persons. The shortage of dwelling units in the rural areas as of 1981 was 6.18 lakhs and such huge backlog calls for a special programme of rural housing in the Region.

5.2 Problems and Proposals

i) Most of the rural areas of the Region lack in many of the basic services like protected water supply, education, health, accessibility, power and communications. Marketing facilities rarely exists for agricultural products and distribution of agricultural inputs like fertilizer and implements. Both in terms of number of villages and population covered by availability of basic services, the Rajasthan and UP Sub-regions lag far behind. The declining contribution of migrants to Delhi from Haryana State from 22.1% in 1961 to 16% and 12.9% during the successive two decades in 1971 and 1981 while the increasing contribution of Uttar Pradesh to 41.7%, 49.6% and 50.1% during respective periods could be attributed to the lower level of facilities and their access to the population. As compared to Uttar Pradesh and Rajasthan, the villages in Haryana are all electrified and are connected with pucca roads and also have better educational facilities. Thus, there is an urgent need to provide power, roads and educational facilities in the remaining villages.

ii) As the rural settlements are spread over a wider area, often quite distant from one another, while the lower order basic facilities could be provided in each village, higher order facilities would need to be provided in service centres and basic villages. This strategy would serve the following objectives of:

- providing more specialised infrastructure and services such as bank, markets etc. to the isolated villages which individually may not have viable population size to support them,
- acting as a node in the transport system linking the smaller villages with higher order settlements,
- providing an environment for marketing to which nearby rural residents may commute to sell their goods and services and also to find non-agricultural employment, and

- providing an immediate alternative for the potential out migrants from the surrounding areas.

iii) The upgradation of skills of workers engaged in non-agricultural pursuits and employment opportunities may decisively influence the rate of outmigration from the rural areas. Therefore, there is a need to undertake a programme for training of rural artisans and also creating commensurate employment opportunities for them.

iv) There is a huge backlog in rural housing. Government through intermediate and base level housing finance institutions can provide loans and subsidies for construction and improvement of shelter with special emphasis to EWS and LIG households.

v) It is necessary to impart functional education to the rural mass to train and equip them to participate in community development, management of rural institutions and formal credit institutions. Adult education that concentrates on functional literacy and on practical training on subjects like health, nutrition and agriculture should be organised in appropriate places to ensure maximum coverage.

vi) To encourage participation of rural population in the regional development, it would be necessary to encourage rural based community voluntary organisations. Several types of community organisations in rural areas enable the people to mobilise resources for different community purposes. Such Organisations help to disseminate agricultural innovations and implement programmes. It would be necessary to identify such organisations and by aiding them improve public participation.

vii) In the provision of water supply and sanitation facilities in the rural areas, suitable low cost technology options need to be adopted.

viii) It may be necessary to identify a group/cluster of villages at the block level for which integrated plans may be prepared on a pilot basis. The Plan should be prepared keeping in view participation of people, voluntary organisations and public sector on a wider scale.

6.1 Region's economic base

i) Background

The vast hinterland of the Region lying in the area beyond DMA, in the three Sub-regions, is characterised by a fairly well developed rural as well as urban economy and represents comparatively some of the best areas of the respective States. The Region's economy is based on agriculture and other primary activities although significant development in industrial and commercial sectors has also taken place. Industrial centres like Meerut, Modinagar, Ghaziabad, NOIDA and Khurja in Uttar Pradesh, Alwar, Bhiwadi and Khairthal in Rajasthan and, Faridabad, Gurgaon, Panipat, Sonapat, Dharuhera and Rewari in Haryana have been playing an important role in the overall economy of the respective Sub-regions. Among the various types of industries textile products, wood and wood products, leather and fur products, rubber, plastic, petroleum and coal products, electric and electronic equipments are some of the industries which have grown faster in the Uttar Pradesh Sub-region, whereas in the Haryana Sub-region, non-metallic mineral products, wood and wood products, machinery and machine tools, basic metals and alloys and food product industries have grown faster than other industries. In the Rajasthan Sub-region, maximum number of industries are related to manufacture of food items, printing, publishing, iron and steel industries and manufacture of wood products.

Trade and commerce forms another important component of the economic base of the Region. Commercial activities are fairly developed in Meerut, Ghaziabad, Hapur, Khurja and Bulandshahr in Uttar Pradesh, Alwar and Khairthal in Rajasthan and Panipat, Rewari, Gurgaon, Sonapat and Rohtak in Haryana Sub-regions. There are several wholesale mandis in the Sub-regions dealing in commodities like food-grains, pulses, vegetables, fruits, machinery, cloth, timber and wool.

The employment in Government and semi-Government services is mainly centralised in the District towns viz. Meerut, Bulandshahr and Ghaziabad in Uttar Pradesh Sub-region, Faridabad, Gurgaon, Rohtak and Sonapat in Haryana Sub-region and Alwar in Rajasthan Sub-region. Panipat, Rewari and Bawal towns in the Haryana Sub-region, due to their population size and concentration of other economic

activities, besides being Tehsil and Sub-divisional head quarters also have other local and professional activities. Rewari is an important Railway junction too.

The Region acts as a vast hinterland and feeder zone for Delhi's population. The concentration of resources and investments in Delhi has been apparently instrumental in dominating the economic scene of the Region attracting majority of rural-urban migrants, after by-passing intervening smaller towns. The total journey time from Delhi to the farthest point in the Region is so short that no big centre of transportation and trading activity has developed in the Region. Thus, the Region rather than aiding or accelerating its own growth has supported the growth and prosperity of the Delhi metropolis. In this process, a great deal of mutual dependency has also developed between Delhi and the National Capital Region which is now sought to be exploited to the advantage of each other.

The Delhi Metropolitan or more precisely the towns falling in DMA, due to the advantage of their close proximity to Delhi where diseconomies and other problems of metropolitan city exist, have been attracting large number of economic activities in the recent years. The economy of these towns which was mainly agricultural has swiftly become manufacturing and industrial. The magnitude of the industrial progress in these towns can be judged from the fact that in the Uttar Pradesh Sub-region, Ghaziabad alone accounted for more than 60% of the total number of registered factories and about 64% of the factory employment. Similarly, in the Haryana Sub-region, about 45% of the total registered factories employing more than 66% of the total workers are located in Faridabad.

ii) Economic structure

The economic structure of last two census clearly shows the diversification from the activities of primary to secondary and tertiary sectors in the Region. Agriculture labourers and cultivators together formed about 43% of the work force in 1971 which declined to about 37% in 1981. The primary sector, leaving aside Delhi Union Territory, in the three Sub-regions, however, still dominates the scene. The diversification and intensification of secondary and tertiary sectors has also occurred in the urban economic structure of the Region though it has not made any perceptible change in the overall structure. The workforce in activities relating to construction, trade and commerce, manufacturing other than household industries, transport, storage and communication, forestry, fishing and other activities showed a little variance from 93.4% in 1971 to 92.6% in 1981.

In the last three decades preceding 1981, Delhi has experienced a significant functional shift in its economic structure in favour of manufacturing and processing activities. In 1951, only 17% of the workforce was employed in this sector which increased to more than 29% in 1981. This happened mainly at the expense of service sector which declined from 43.7% in 1951 to 31.4% in 1981. There has been no change in the trade and commerce sector, which has uniformly remained around 20-22%.

6.2 Future occupational structure

i) Region

The basic character of the regional economy of the National Capital Region would become more diversified. The fact that more than 70% of the population would be living in urban areas by 2001, would entail the creation of more jobs in non-agricultural occupations than at present. For this purpose, there should not only be creation of additional activities in the existing and new centres outside urban Delhi, but also development of agro-based industries in the rural areas in order to support urbanisation and to stabilise the rural economy.

In the wake of intensified employment opportunities, the participation rate in the Region is likely to be around 31% to 33% by 2001 as against 28.69% in 1981. The urban participation rate is expected to increase to 33% to 35% as against 30.38% in 1981.

ii) Delhi UT

The trend in the functional shift in favour of manufacturing and processing activities over 1951-81 shows that Delhi is likely to have much higher work force in the industrial sector by 2001. With a view to achieve a more balanced economic base by moderating the tendency of growth of employment in industrial activities, employment in manufacturing activities in Delhi is likely to remain around the present share of 29%. In order to revert to a balance in its functional characteristic, the work force in trade and commerce and other services is estimated to remain at 22% and 31.50% respectively. The participation rate in Delhi is likely to increase to 35% by 2001 as against 32.20% in 1981 (T 6.1).

iii) Delhi metropolitan area

Forecast of employment is difficult in case of DMA towns since spurt in activities and rapid population growth have been only a recent phenomenon in this area. However, taking clue from the trends exhibited by these towns in terms of nature and concentration of activities in the recent years, the likely employment structure by 2001 has been worked out (T 6.2). Emphasis has been to derive location specific economic structure. The assumptions made in the forecast are :

a) Owing to the location of the DMA towns adjacent to Delhi, the DMA towns would attract economic activities at a greater scale and hence, the participation rate would be much higher in 2001, than in 1981.

b) These towns initially having specially been planned for industrial development, would continue to generate employment opportunities in industries. However, with a view to restricting the population increase to a moderate scale, controlled growth of industries would be permitted in the DMA towns.

c) All these towns having crossed the initial stages and entered the take-off stage of physical development, would have the potential for employment opportunities in construction, trade and commerce and transport activities.

iv) Priority towns

In the context of the policy of deflecting urban population from Delhi to the priority towns beyond the DMA, it is proposed to develop such activities that are appropriate to the location of priority towns, having due regard to their potential and the growth process that has already set in. It is expected that with positive incentives, such activities shall continue to thrive to provide greater employment opportunities. In view of the fact that the manufacturing activities have greater multiplier effect on the expansion of employment opportunities than employment in other sectors, base - oriented projections such as 'highly industrialised', 'moderately industrialised' and 'less industrialised' have been made. In addition to the past trend, the assigned population sizes of the towns, their participation rates and likely occupations structure have been taken into account to arrive at the workforce in each occupation. For each town, all India average proportions of workers in towns of similar size and character have been taken into consideration for the purposes of assignment of workforce in different occupations (T 6.3).

6.3 Delhi in Region's economy

An examination of the economic structure of the various segments of the Region based on the estimates of the per capita State Domestic Products, reveals that during 1984-85, Delhi with a per capita income of Rs.4191 at current prices tops among all the States and Union Territories of the country let alone the NCR States (Haryana - Rs.3296, Rajasthan - Rs.1838 and Uttar Pradesh - Rs.1764).

Delhi with its well developed linkages with the rest of India, serves as the main entrepot of Northern India. The Region thus depends on it for the movement of goods. There exist strong linkages and interdependency of Delhi with the Region. Delhi besides being a distributive centre is also a big consumption centre which is drawing in commodities from the surrounding rural and urban areas and, distributing commodities and industrial goods among them. The quantum and the range of goods produced in the Region are largely determined by the requirements of the markets in Delhi.

The three main important economic generators which have shown strong tendency of growth in Delhi are: Government and public sector offices, wholesale trade and commerce and, industry. The growth in these sectors, their salient characteristics and issues involved are as follows :

A. Government and Public Sector Offices

i) Growth trends

In Delhi the employment in the Government Offices and Public Sector Undertakings has been expanding fast. The setting up of a large number of foreign embassies, foreign missions, research and cultural organisations has also had its distinct impact on the growth of the city. The employment in the various types of the Government and Quasi-Government offices has been constantly increasing ever since 1921. The employment in Public Sector Undertaking can be divided under four major categories, viz employment in Central Government Offices, Quasi-Government Undertakings, Delhi Administration and local Bodies.

a) The employment in Central Government Offices which was only 8,000 persons in 1921 grew to 2.30 lakhs in 1985. During 1941 to 1985 more than two lakhs new jobs have been added in this sector (T 6.4). The planned attempts to shift certain offices outside Delhi, have not made any dent in the situation.

b) The employment in Government Undertakings was only 6,000 persons in 1961 which leaped to 1.41 lakhs in 1981, adding nearly 1.35 lakh persons in just two decades. In the decade 1971-81, about one lakh sought jobs in these undertakings, which means a total addition of roughly 5 lakh population during the decade 1971-81 through employment in Public Sector Undertakings. During the period 1981-85, there has been an addition of 42,000 jobs in this sector, meaning that the trend continues to remain as before.

These offices, inspite of disincentives such as insufficient space, costlier land and inconvenience and costlier supervision of their regional units from Delhi, prefer to cling on to Delhi and as of today, there is no valid reason in sight for them to decide to move out.

c) The employment in Delhi Administration and local bodies largely grew with the size and enhanced responsibilities of the Administration and the local bodies with increasing overheads of servicing of metropolitan city. In 1921, it had a meagre 3,000 persons employment which grew to 1.82 lakh persons in 1983 but the employment declined to 1.49 lakh persons by 1985. It seems that it may register still a higher growth rate in the years to come.

B. Wholesale trade and commerce

i) Growth trends

a) In a study conducted by the National Institute of Public Policy and Finance, it has been stated that the growth of wholesale trade and commerce in Delhi has been facilitated due to following determining factors which have been favourable to Delhi and given it dominance over the Region :

(i) Delhi as the Capital city is the centre of political as well as administrative power.

(ii) The availability of requisite infrastructure such as banking, warehousing, transport, communication facilities, marshalling yard etc.

(iii) The low tax rates in Delhi as compared to the neighbouring States and the low transportation costs.

(iv) Lower wholesale prices (exclusive of tax) as compared to the neighbouring States.

(v) Lower Central Sales Tax on re-export of goods in Delhi as compared to the neighbouring States.

b) In 1951, Delhi had 22.8% of its working force

in trade and commerce which was second to the services sector. Though, by 1981, it maintained more or less the same proportion of workforce (22.25%), it occupied the third position next to services and manufacturing other than household goods. In absolute numbers, however, the work force increased from 1.17 lakhs to 4.13 lakhs during 1951 and 1981. During 1971-81 alone, it doubled from 2.4 to 4.13 lakhs (T 6.5).

Most of the wholesale trades in Delhi were established in 19th and 20th centuries and are located in Old Delhi area, in close proximity to one another, and nearer to the railway station. The wholesale activity in the central city has concentrated in an unplanned manner resulting in congestion, encroachment on public land, traffic bottlenecks and parking problems, besides causing excessive noise in the area.

The conventional approach to solve these problems has been the shifting and relocation of wholesale trade activities from the central area, mainly to the peripheral areas of Delhi and, in some cases, even to some regional towns within the National Capital Region. The Delhi Master Plan-1981 had recommended shifting and relocation of some of the wholesale markets viz. vegetable market, grain market, steel market etc. Some of these programmes have been successfully implemented (vegetable market - Loha Mandi); some have been partially successful (cycle market); and some have failed. The revised Master Plan Delhi - 2001 has now again proposed the need for decentralisation of these wholesale activities from the congested parts of the city. In the revised Master Plan of Delhi, the main emphasis has been laid on the development of wholesale markets in the peripheral areas of Urban Delhi along with shifting of ware-housing and hazardous activities to the areas specifically assigned to them at the periphery within Delhi. Some of these activities which are hazardous in nature and require extensive space have also been recommended to be located in the DMA towns. Keeping in view the fact that the relocation of these activities in Delhi Union Territory would further generate more employment opportunities and create congestion in the peripheral areas, thereby creating a contiguous expansion, it would be appropriate that alternative/additional wholesale markets are developed in the DMA and priority towns of the region. Studies to carry out surveys and to identify such locations have now been initiated.

The major part of the commodities which are brought to Delhi are distributed outside Delhi. The percentages of exports outside Delhi, in some of the commodities like textiles and textile products, radio, T.V. parts, fruits and spices, surgical and scientific

instruments are as high as 80. Due to the concentration of trade and commerce activities in Delhi, a regional imbalance has been created. The other towns of the Region are lacking in economic activities with weak economic base. It is, therefore, in the larger interest of regional development that consideration has to be given to the shifting of some of these distributive trades.

C. Industry

i) Growth Trends

Industrial progress in Delhi in the last two decades has been phenomenal. The growth of industries in Delhi followed a typical trend, with slow progress upto 1970-71 and rapid one from 1976 onwards. There was a sharp increase in the number of units from 26,000 in 1970-71 to 62,000 in 1984-85 i.e. an increase of 9.89% per annum. The industrial employment increased from 2.15 lakhs in 1970-71 to 5.58 lakhs in 1984-85 registering a growth rate of 11.37% per annum (T 6.6).

The number of registered industries, which constitute the organised sector has increased from 2984 in 1979 to 4652 in 1985 in Delhi. The number of daily workers in these factories increased from 1.41 lakhs in 1979 to 1.85 lakhs in 1984-85 (T 6.7)

Delhi which in 1951 and 1961 had administrative character is now very fast becoming a city of industrial character. The first Master Plan of Delhi recognised the need to put a curb on the industrial activities of Delhi and prohibited certain types in industries, mainly large scale and obnoxious industries, from being set up in Delhi. The increase in the industrial employment in the intervening period shows that the curbs prescribed by the Master Plan were not sufficient.

The revised Master Plan of Delhi - 2001 has also recognised the need for restricting the industrial growth of Delhi for achieving the balanced regional development and has recommended location of only small scale industries in Delhi with stress on units which require more skill, but less of man power and energy, are non-nuisance creating and largely sub-serve Delhi's economy. Recommendations for shifting certain hazardous units and units located in non-conforming areas, have also been made both in the existing as well as the proposed Master Plan for Delhi. At one stage a huge area in Bahadurgarh was specifically developed and earmarked for location of such industries, which failed to materialise. Shifting of industries from Delhi requires decisions on various related issues along with

a consensus about such shifting among the various interests which are involved in the process. It is feared that unless all these issues are tied up, these recommendations may remain only on paper.

With the current aggressive entrepreneurship and local administrations promotional support, the share of industrial sector employment could well increase even beyond 30% by the turn of the century. For a city of national importance, the fact that industrial sector is growing the faster of all the economic sectors, needs serious consideration.

6.4 DMA in Region's economy

As a result of the policies of the Master Plan for Delhi and encouragement by the adjoining State Governments to take advantage of the developed infrastructure of Delhi, the industrial activities started taking place in DMA towns and it registered a phenomenal growth in the last two decades. It has been felt that with the pace of industrial development in these towns, matching level of residential, commercial, telecommunications and other facilities have not been developed simultaneously, due to which higher and middle level executives employed in industries prefer to live in Delhi. The workers at the same time have also found shelters around Delhi, giving rise to proliferation of large scale slums. The further growth of industrial activities in these towns at such a pace, with no check on the establishment of obnoxious and polluting large and heavy industries, may prove a serious deterrent for the healthy development of Delhi. Besides controlling the industrial development in the DMA to this extent, some of the offices of the Government and Public Sector Undertakings and the wholesale trades which are essential for Delhi can be suitably located in these towns.

6.5 Role of informal sector in Region's economy

There are certain economic activities which are generally overlooked in the planning exercise as these do not fall in the category of organised or well defined sectors of economy. Consequently, the needs of such activities and also those people carrying out such activities, generally fall outside the purview of the normal planning and investment exercises. This unanticipated demand results in additional pressure on the existing infrastructure and services, thereby deteriorating them.

These activities collectively known as 'informal sector' are present in all the towns and cities in some form or the other. They range from production of engineering goods, electronic and electrical goods, transport and various other industrial activities to retail and wholesale trading activities, servicing of various equipment, domestic services etc. These activities are further characterised by some salient features viz small scale of operations, reliance on indigenous resources, low level skill requirements, low level of income, labour intensive technology, non-availability of adequate infrastructure facilities etc.

A study on informal sector in the National Capital Region conducted through the Society for Development Studies, New Delhi for the NCR Planning Board had taken into consideration the informal sector activities in the towns of Alwar, Ghaziabad, Khurja, Faridabad and Sonapat. Similar studies are in progress for Meerut and Panipat towns. The study, while emphasising the dynamic role of the informal sector in the development process, has recommended that a phased programme for the development of informal sector activities should be prepared. The study has also emphasised the need for accessibility to institutional finance, skill upgradation programmes for the workers engaged in such activities and the better organisation of the informal sector entrepreneurship.

In the towns of the National Capital Region where induced development has been envisaged by developing economic activities intensively, alongwith the development of organised sector of economy, the growth of informal sector would be carefully nurtured. This would then play the role of a vibrant component of the urban economy and provide gainful employment to the potential migrants to urban areas.

In the priority towns which have been selected for induced development, there are certain economic activities traditionally being carried out since long and also well recognised from the point of view of specialisation and their export potentials. Since in the past, no efforts have been made with regard to provision of adequate infrastructure facilities for these activities in an organised way, they are being carried out in substandard conditions, in congested areas of the towns, in lanes and bylanes. An improvement in the working conditions by suitably locating them with provision of appropriate infrastructure and improvement in the technology will enhance the prospects of these activities and generate more employment.

6.6 Policies and proposals

Major employment generators in Delhi which need to be dispersed within the National Capital Region fall under three categories : Government and Public Sector Offices, Wholesale Trade and Commerce and, Industry. For the dispersal and development of economic activities in the Region, a three tier policy approach has been envisaged in the Plan. A policy of strict control for creation of employment opportunities within the Union Territory of Delhi, moderate control outside Delhi within the Delhi Metropolitan Area and, encouragement with incentives, in the areas outside Delhi Metropolitan Area within the NCR.

A. Government and public sector offices

a) Strict control within the Union Territory of Delhi

With regard to Government offices, the present policy and mechanism for screening the location of new Government offices and expansion of existing Government offices should be continued. The main criterion for location of offices in the Capital should be that they perform ministerial functions, protocol functions or liaison functions which by their nature, cannot be performed anywhere else except in the National Capital. The existing offices which do not perform any of the above functions should be identified and shifted from Delhi. In the case of Public Sector offices, there is an urgent need to scrutinise the list of existing offices and allow them to retain only very small establishments to cater for ministerial and liaison functions. The rest of the establishments should be shifted out of Delhi. The accommodation which may thus become available could be used to cater to the needs of the essential growth of Central Government offices.

A study of decisions taken by the Committee set up to scrutinise requests for fresh locations in Delhi shows that in 17 out of 27 cases the offices have been located in Delhi itself.

b) Control outside Delhi but within the DMA

A similar control on the opening of new Central Government and Public Sector offices in the DMA towns should be exercised. Relocation or expansion of Government offices which have ministerial, protocol or liaison functions which make it incumbent upon them to be located in Delhi alone should be allowed to be located in the DMA towns. In so far as Public Sector Undertakings are concerned, the restrictions on their opening new offices or expanding the existing ones

should apply equally to the DMA also. Rest of them have to go out to the priority towns to be developed in the NCR or in the Counter-magnet areas identified by the Board.

c) Incentives outside DMA but within NCR

The Central Government offices which are considered for being shifted from Delhi and the DMA towns should be located in other towns of the NCR and incentives in the form of CCA, HRA etc, as given to employees working in Delhi, should be given to employees who may be affected by this shifting for a limited period. Other incentives like providing Government accommodation, allowances for study of their children also be given to act as an incentive. For locating the new Central Government and Public sector offices in the DMA and/or the priority towns, alternative sites should be identified and developed by the development agencies in consultation with the Board's secretariat.

B. Wholesale trade and commerce

a) Disincentives within Delhi

An approach of disincentives to the wholesale trades which do not directly serve Delhi is proposed. Only those wholesale trades which directly serve Delhi and are not hazardous in nature and do not require extensive space may be allowed to continue in Delhi. For the rest, suitable locations should be developed outside Delhi.

b) Controlled development outside Delhi within DMA

The policy of checks and disincentives is also to be followed in case of the DMA towns, but with some relaxations. Only those wholesale trades which directly serve Delhi and the DMA towns should be allowed. There are certain wholesale trades in Delhi which are hazardous because of their location in congested areas and also due to bulk handling activities such as plastic and PVC goods, chemical, timber, food grains, iron and steel and building materials. These wholesale trades should be encouraged to develop in the DMA towns.

The possibility of developing modern Super Markets should be explored in the Delhi Metropolitan towns.

c) Outside DMA within NCR

Incentives, concessions and infrastructure should be made available in the regional towns to encourage and accelerate the growth of trade. The establishments of wholesale trades proposed in the DMP-2001 for shifting should not be relocated in the Delhi UT.

C. Industries

a) Strict Control within the Union Territory of Delhi

While continuing the present policy of not promoting location of medium and large scale industries within Delhi, location of even small scale industries is to be restricted to those which employ 20 or less persons and, are required either for providing or servicing the consumer needs of Delhi's population. The NCR Planning Board should be represented in the statutory licencing committee for new industries in the Delhi Union Territory, so that strict compliance of these policies is ensured.

b) Control outside Delhi but within the DMA

No large scale or medium scale industries should be permitted to be set up in the DMA. Only small scale units should be permitted.

c) Incentives for industries outside the DMA but within the NCR

The towns selected for priority development should have a strong industrial content, and incentives should be given for location of large, medium and small scale industries. Industrial estates should be developed in these towns. Specific areas should be earmarked in the Region outside the DMA, for relocation of non-confirming, polluting and obnoxious industries proposed for shifting in the Delhi Master Plan - 2001

Note : The objections raised by DDA in respect of C (a) and Haryana State in respect of C (b) above are to be considered by the Board. These portions shall become final after the decisions of the Board on these objections.

7.1 Background

Fiscal measures and taxation are amongst the important factors influencing the location of industries and diversion of trade. For an integrated balanced development of the region, it is necessary to look at the region as a economically unified area. That is, inspite of its constituent patterns belonging to different States, for a proper development of the region, the economic policies within the region should be so harmonised that the region comes to have the character of a unified whole, and the growth of the different constituents of the region takes place on the basis of their comparative advantages. This uniformity is far more significant in the National Capital Region where there exists a striking difference in the fiscal measures and the tax structure of the three constituent States and the Union Territory of Delhi.

i) Among the various fiscal measures, Sales Tax is one of the most important taxes. The Sales Tax is governed by two sets of tax laws; one relates to local Sales Tax law in each State/Union Territory which is applicable to local dealings and, the other, to Central Sales Tax governed by provisions of Central Act, 1956. While in Rajasthan and Uttar Pradesh, this tax follows predominantly the first point levy, Delhi and Haryana, by and large, rely on last point levy, although in Haryana, a substantial amount of Sales Tax yield comes from first point tax also.

Like the points of levy, rates of Sales Tax too vary from one commodity to another. Sales Tax rates in Delhi are relatively lower for most of the commodities (T 7.1). In addition, Delhi has no surcharge or additional Sales Tax whereas Uttar Pradesh levies an additional Sales Tax of 5% and, Haryana and Rajasthan levy a surcharge at the rate of 2% and 10% respectively. The effective rate of tax in all the neighbouring States of Delhi is, therefore, greater than that prevailing in Delhi.

Apart from those commodities which are taxed, there are several which enjoy exemption in some States, while they are taxed in others. For instance, all cereals and pulses are taxed in Haryana, Rajasthan and Uttar Pradesh, whereas these are exempted in Delhi. Bread is exempted from tax in Delhi and Haryana, while Rajasthan and Uttar Pradesh tax this item at the rate of 2% and 4%, respectively.

ii) There are wide variations also in the matter of tax treatment of raw materials and inputs used in industrial production. Whereas Delhi and Haryana allow tax-free purchases by manufacturers, Uttar Pradesh provides for exemption on only some raw materials, and a concessional rate of 4% on certain specific raw materials. Rajasthan exempts purchase of raw material for a few select industries but, in general, provides for a concessional rate of 1% for the purchase of raw materials by manufacturers.

iii) In the case of Central Sales Tax, variations exist on account of the provisions under Section 8(5) of the Central Sales Tax Act, which permits variations in rates to suit the specific requirements of a particular State. To illustrate, whereas the rate of tax on the re-export of goods from Delhi is 2%, in all the other NCR constituent States, this rate is 4%.

iv) Taxation of road transport is another important issue which might be a contributing factor in sub-optimal decisions regarding location of economic activities. In fact, variation in the annual combined tax burden of both motor vehicle tax and the passengers and the goods tax among different constituent States of the NCR might cause diversion of vehicles for registration in low-tax State. Consequently, the cost of transporting goods could be much more in low-tax area. Delhi with the lowest combined tax burden among the NCR constituents, exerts a strong gravitational pull on the transport industries in the Region.

v) The prevailing practice of stock transfers and consignment despatches has also been considered as one of the most important factors which has resulted in concentration of wholesale distributive trades resulting into unbalanced development of trades in the Region.

vi) Incentives in Sales Tax are given in all the constituent States of the NCR to attract new industries. These concessions are in the form of: (a) complete and un-conditional exemption from payment of Sales Tax for a limited period of time, (b) conditional exemption, depending upon the type of the industry, and (c) deferment of Sales Tax payment on finished goods as an interest-free loan for a limited number of years upto a specified limit related to the size of capital or assets of the manufacturer. Those concessions have wide variations in the constituent State of the NCR.

vii) Among the local taxes, Octroi is the most important source of local finance. The rates of this tax vary widely from one constituent State to another.

Besides the variations in the rates, there is a general feeling that this tax has several demerits, such as hinderance to smooth traffic flow, corruption in its administration, high cost of collection, regressivity of incidence, collection of large revenue from inputs and producer's goods leading to cascading and perfunctory assessment of the tax.

7.2 Issues

i) Whereas there is a reasonable amount of uniformity in tax rates among the States, the effective rate of tax in Delhi is substantially lower than in the neighbouring States. The Sales Tax rates in Delhi are lower not only on consumer items but also on the semi-luxury and luxury goods which are not consumed by a large section of the society. It is believed that this variation causes diversion of trade, commerce and other economic activities to Delhi. This is also in a way responsible for stagnating nature of economic activities in the priority towns of the NCR. The need to harmonise the tax structure in the country had been realised at various forums including Committee of the Revenue Secretaries of the States and Union Territories set up by Government of India, in which consensus had reached to harmonise tax rates with respect to 29 commodities, throughout the country.

ii) The lower statutory tax rates as well as the liberal tax concessions given to manufacturers on purchase of raw materials and machinery in Delhi in comparison to the constituent States of NCR, added with availability of highly developed transportation system, power, social and physical infrastructure including warehousing facilities and improved telecommunications helps in increasing the magnetic effect of Delhi with all its attendant consequences in the shape of increasing industrial activities in the city.

iii) The concessional rate of Central Sales tax of 2% on the re-export of goods in Delhi has been instrumental in large scale diversion of trade to Delhi.

iv) The lower tax rate on Road transport in Delhi as compared to the other constituent States could cause diversion of vehicles for registration in Delhi. Consequently, the cost of transporting goods could be less and the availability of transport vehicles could be much more in Delhi, as compared to the districts in the neighbourhood of Delhi.

v) It has been pointed out that the concentration of wholesale distributive trade in Delhi is also the direct result of the approved practice of

stock transfers and consignment despatches to Delhi from places outside Delhi. Most of the manufacturers and the big traders have opened their sales offices and godowns in Delhi where they store goods brought from out stations and effect sales thereof.

vi) It has been revealed that the NCR constituents, with the exception of Delhi, have inadequate infrastructure facilities such as power, transport, communication and warehousing. This lacuna has been an important factor causing concentration of industry and trade in Delhi.

7.3 Future action

An expert study was commissioned by the Board through the National Institute of Public Finance and Policy (NIPFP) to examine the tax structure of the States comprising the National Capital Region and to suggest rationalisation of tax structure keeping in view the objectives of National Capital Region Plan. Certain important recommendations were also made in the Interim Development Plan, approved by the Board in August, 1986. After considering the proposals contained in these two documents, the Central Government on the recommendation of the Board decided to refer the issue for indepth study to a Committee under Chairmanship of Secretary, Ministry of Urban Development. The Finance Secretaries of the participating States and the Delhi UT, along with the representatives of the Ministries of Home, Finance and Planning Commission were the other Members. The various aspects relating to the differentiation in taxation as per the State/UT laws and their implications were discussed in the Committee. The consensus of the Committee was in favour of rationalisation of the existing fiscal structure to facilitate a balanced development of the National Capital Region.

The success of the proposals contained in the Regional Plan prepared for the National Capital Region to a great extent will depend on the economic development. The other measures suggested are to support, strengthen or to take care of the requirements of this economic development. Since prevalence of large differentials in the tax structure favouring Delhi as compared to the other constituent parts of the NCR have been identified as one of the most important factors leading to concentration of economic activities in Delhi, therefore, to begin with, unless some steps are taken to bring about uniformity in the tax structure of Delhi vis-avis tax structure of the other parts, the efforts to wean such activities away from Delhi will not bear any fruits. The participating

States after achieving some uniformity with Delhi can go further and continue to take appropriate steps to achieve the overall uniformity in the Region. Keeping this in view a package of policy measures which could be adopted are enumerated as under:

i) The existing structure of sales tax in Delhi should be replaced by the first-point tax. Sales tax rates in Delhi should be raised to achieve uniformity in tax structure in the National Capital Region and to arrive at a minimum floor level of taxation.

ii) The tax structure of Union Territory of Delhi on industrial raw materials and industrial machinery should not be lower than the lowest, in any of the three participating States.

iii) The present rate of Central Sales Tax of 2% in the Union Territory of Delhi should be raised to 4%.

iv) Effective combined burden of the motor vehicles tax and passengers and goods tax in Delhi should be raised to bring it at par with other States of the NCR.

v) In order to achieve synergy effect on the diversification of ownership of assets to neighbouring areas, an additional tax should be levied on the preferences of the persons owning property in Delhi. This could be in the form of an additional tax on new commercial properties constructed in Delhi for commercial and industrial purposes.

vi) Consignment tax should be levied by the Government of India as follow up action to the 46th Constitutional Amendment Act, 1982, and as per the recommendations of the Group of Chief Ministers' Conference.

vii) The participating States should not vie with one another to attract industries through over generous tax concessions, they should give only reasonable tax concessions for industries in backward areas.

viii) Infrastructure facilities should be developed in the NCR for accelerated industrial and economic development. Specific studies should be carried out for location of trades in the NCR.

8.1 Background

The NCR Plan is based on the concept of developing the Region in a balanced manner with optimum growth. It would be multi-sectoral in its nature and scope, ensuring inter and intra sectoral integration. An integrated transportation system in this strategy would rather 'lead' than 'follow' development.

Existing Characteristics :

i) Transport Network Development

The existing primary transport network in the NCR exhibits a pattern of "radial corridor" development. There are nine major corridors in the transport network system. In addition, there are seven orbitals which provide the linkage among important urban centres of the Region. There has been a substantial increase in the volume of activities, work force and population along these corridors over the period, and as such, it is only logical that these activities and population attracting corridors are utilised to gain the prime objective of the NCR Plan of controlling the growth of Delhi through induced development of the regional towns by deflection of economic activities towards them.

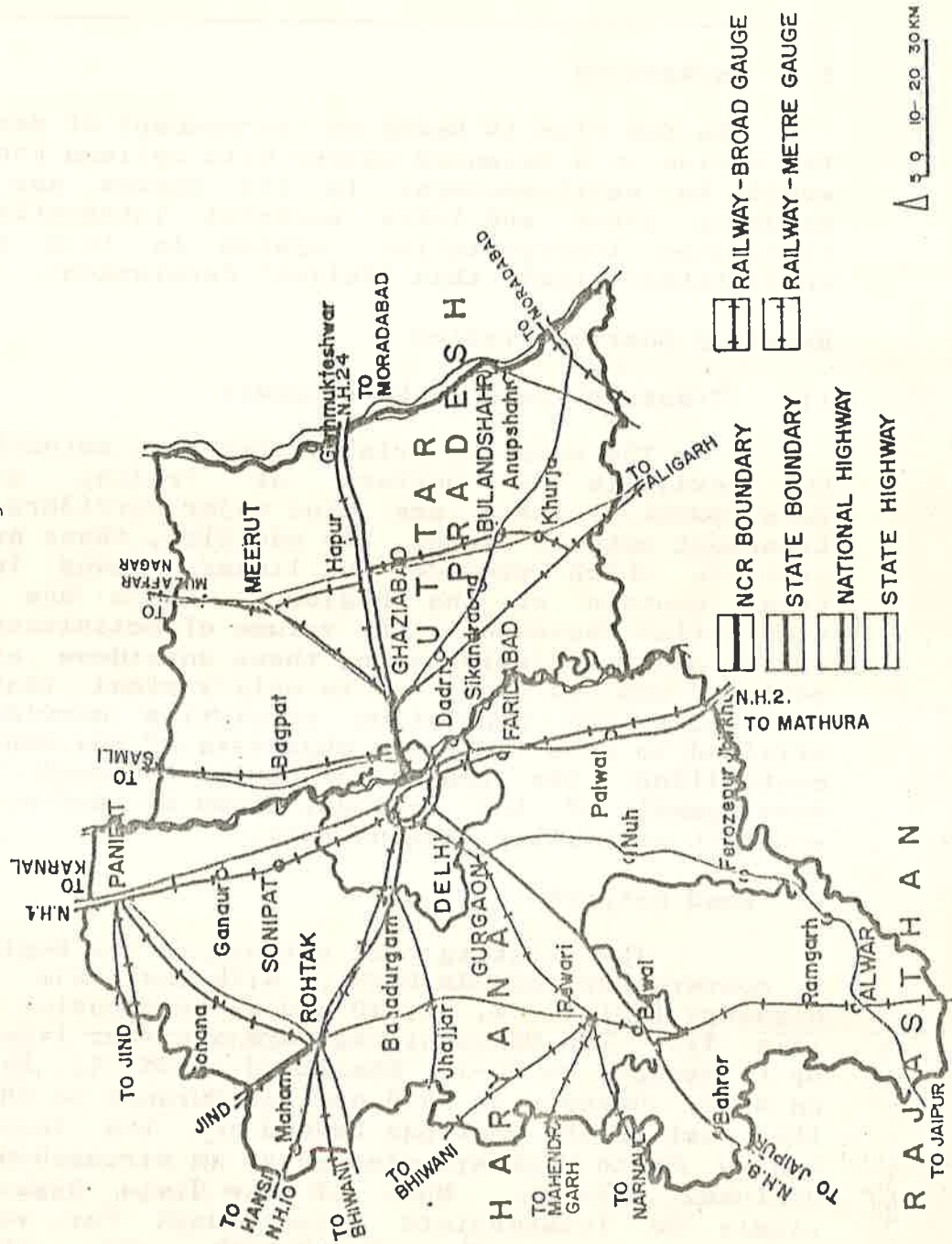
a) Road Network

The existing road network in the Region shows a convergence towards Delhi, with the five National Highways (NH) 1, 2, 8, 10 and 24 terminating at Delhi (Fig 4). The National Highways are four lane divided up to Sonapat on NH-1, Ghaziabad on NH-24, Ballabgarh on NH-2, Gurgaon on NH-8 and Bahadurgarh on NH-10, and the rest of the portions beyond are two laned. The twelve State Highways also serve in strengthening the Regional network. Most of the State Highways are single or intermediate laned except for very busy stretches like Ghaziabad-Meerut and Ghaziabad-Bulandshahar which are two to four lanes.

b) Rail Network

The NCR rail network covers three zonal railways (Northern, Western and Central) and 5 divisions. The rail network in the Region consists of both broad and metre gauges, (Fig 4) and 5 railway lines converge at Delhi. The rail network has two specially identified lines known as the Goods Avoiding

Figure-4 Existing Transport Network



Line (GAL) and the Delhi Avoiding Line (DAL). The GAL provides a direct entry from Ghaziabad into New Delhi, bypassing the congested Delhi Railway Station complex. The DAL provides a direct passage from the major yards-Tughlakabad and Ghaziabad directly into the Delhi-Ambala-Kalka section, and the sections through Lajpatnagar, Patel Nagar, Dayabasti, Azadpur link.

ii) Traffic volume : 1987

The transport development would be highly capital intensive and of long gestation period. It is therefore necessary to base the planning of regional transport system appropriate to different policy scenarios on a set of sound and reliable data. For this purpose, various traffic and transportation studies were got conducted through M/S Operations Research Group, Baroda. These studies threw up the under mentioned present and future characteristics of traffic flow in the Region.

(a) Road

Traffic volume count surveys to estimate the traffic intensity on different road links connecting all important centres in NCR show that the heaviest interactions take place on Ghaziabad-Delhi section (T. 8.1) followed by Delhi-Faridabad and Delhi-NOIDA. The composition of vehicular traffic on Delhi corridors of 5 National Highways is of 67.3% of passenger vehicles, 7.7% of buses and 25% of goods vehicles. Delhi emerges as a major point of attraction and generation in the Region, with relatively less interaction among the other towns.

(b) Rail

The line capacity in and around Delhi is heavily strained. The area around Delhi, within Delhi Division of the Northern Railway distinguishes itself from the rest of the Region and is commonly known as the "Delhi Area". 75% of the goods traffic and 65% of the passenger traffic are handled in this intensively worked Delhi Area through 65 goods trains and 230 passenger trains. Presently the inflow and outflow of commuter traffic which has a peaking character is not catered to effectively by rail transport. The 79 suburban trains on the 8 rail corridors are insufficient to cater to this load and the commuters have to often utilise the 29 long distance trains available to them during the peak periods. This usage has in turn affected the punctuality and departures of the long distance trains.

A peculiarity of Delhi Area is that it also works as distributive centre for the areas in the Region due to convergence of major regional trains at Delhi and, lack of loading and unloading facilities at other railway stations in the Region. Train loads of freight traffic are also received into the Delhi Area, but no back bulk loading takes place.

iii) Passenger Movement -Road and Rail

The generation of total daily passenger movement by all modes in the Region is estimated at 8,84,000 (T 7.2). Share of rail to the total traffic generated is 23.7% and of public transport, about 32%.

Share of Delhi UT in the total passenger movement generated in the Region by all modes is the highest. There are quite a few urban areas such as Ghaziabad, Meerut, Faridabad, Rohtak, NOIDA and Bulandshahr which contribute to the Regional traffic generation but their share is comparatively smaller than that of Delhi.

(a) Per Capita Trip Rate

The per capita inter-urban trip rate for bus passengers varies from 0.021 for Delhi to 0.142 for NOIDA, that of vehicle passengers, from 0.007 for Delhi to 0.65 for Rohtak, and that of rail passengers from 0.011 to 0.085 (T. 8.2). These variations are found to be a result of both size and characteristics of an urban area. The general trend observed is that increase in population size and diversification of economic base result in decline in the per capita trip rate, whereas, increase in per-capita trip is an indicator of lesser degree of self containment of a town.

(b) Movement Pattern

Of the total passenger traffic by buses and that by private vehicles, the share of intra-regional passenger traffic by buses is 65% and by private vehicles 85% and the share of through traffic (both ends of the trips outside the Region) is very small. This shows that the bypassable traffic in the Region is insignificant (T 8.3).

In the case of urban nodes, the component of through traffic by bus via Delhi UT is only 8% whereas through traffic via Ghaziabad, Hapur, Panipat, Sonapat and Modinagar is as large as 60%. The bypassable passenger traffic by other vehicles varies between 20-80%. As such, it is apparent that the smaller the urban node for attraction and generation of the

traffic, the higher is the proportion of bypassable traffic, if the urban node lies on the main trunk route. Location of the towns vis-a-vis the routes being followed is also a factor which contributes significantly to the bypassable traffic. To quote an example, Ghaziabad, which is located at the confluence of three main corridors of movement is having the highest bypassable traffic.

iv) Goods Movement -Road and Rail

The total volume of goods moved on the regional road network of the NCR is about 1.92 lakh tonnes (1.84 lakh tonnes excluding through traffic) of which the share of Delhi bound traffic is about one-third while that of the other urban centres in relation to the DUT is very small.

Daily Goods Movement in tonnes

Mode	NCR	DUT
-----	-----	-----
Road	191816	59980 (32.5%)
Rail	21585	12940 (60.0%)

In the case of railway goods traffic, the importance of Delhi is more overwhelming (60%) as compared to that of road. However, there are quite a few urban centres of significance namely Ghaziabad, Panipat and Meerut. Share of railways in total goods traffic attracted by the NCR (excluding through traffic) is only about 14%.

a) Movement Pattern

About 63.4% of the goods movement by road is inter-regional and 33% is intra-regional in nature while railways goods movement is inter-regional. The through traffic of goods movement by road is a mere 4%.

Goods Flow	Road(%)	Rail(%)
-----	-----	-----
Intra-regional	32.4	0.4
Inter-regional	63.4	99.6
Through	4.2	N.A.

In intra-regional traffic movement by road, DUT followed by the other DMA towns are the important centres and, in the inter-regional movement, vicinity states of the NCR account for a sizeable share. For railway movement, the largest contributor to inward movement is the Eastern Railway followed by the Northern Railway.

b) Commodity Movement

Commodity composition of inward traffic in the shape of industrial raw materials- is more through rail traffic and less through road. In case of building materials, the share of both the modes are equal. Foodgrains account for a sizeable portion of road and rail traffic whereas vegetables and fruits are catered mainly through road transport. There are however large variations in the type of flow from one group to another.

Commodity	Road(%)	Rail(%)
Food grains	12.0	13.6
Vegetables & fruits	8.7	0.2
Manufactured food items	9.7	1.8
Industrial inputs	19.1	46.8
Manufactured household products	15.7	5.0
Building materials	20.4	18.6
Other industrial products	6.7	0.4
Petroleum Products	1.0	4.0
Miscellaneous items	6.7	9.6
Total	100.0	100.0

8.2 Traffic Projection-2001

The projection of traffic volumes, both of goods and passengers is to be necessarily based on the likely population size and economic base of the towns in the Region in order to accomplish the core objectives of a manageable Delhi subserved by a harmoniously developed Region by 2001.

DMA towns are to be contained in terms of location of large and medium industries allowing moderate growth in their population. These cities will have a balanced population-employment ratio.

The traffic forecast also takes into account balanced participation rates of the towns and the development of Panipat, Hapur and Alwar to grow as important industrial centres and Meerut, Rohtak and Bulandshahr to have higher growth of trade, services and industry.

i) Passenger trip projections

Besides behavioural and operational aspects of future travel demand pattern, the forecast of future passenger traffic assumes that:

(i) trip rate (inter-urban) by each mode is a function of the population size of an urban area, its socio-economic base and also locational factors, particularly the relation between the resident workers and jobs. These factors are, in a sense, reflected in what may be called the degree of self-containment of an urban area. The higher the degree of self-containment the less is the per capita trip rate (inter-urban) as in the case of DUT. Other factors like per capita income and behavioural parameters, though important in some cases, have not been explicitly taken into account and,

(ii) the trip rate for railway is both a function of the variables noted above and also the availability of the facility itself.

Accordingly the volume of trip generations through the total vehicle passenger and public transport for Region as a whole are forecast at 7.84 lakhs and 19 lakhs respectively (T. 8.4). On the basis of assigned population, economic base and trip rate, the lowest growth rate of passenger trip will be for DUA and Ghaziabad, (though the projected absolute volume of increase for DUA is much larger compared to other areas), whereas a higher growth rate is forecast for towns with expected high degree of industrialisation and trading activity such as Alwar, Panipat and Gurgaon".

a) Projected traffic Flows : Road

The total traffic projected to move by bus and passenger vehicles are 13.99 lakh trips and 4.77 lakh trips respectively. The present distinct concentration in Delhi of about one-third of the trips currently being generated and attracted by it, is however projected to decline to about 19%. But in absolute terms, there would be an increase in the generated and attracted traffic of Delhi due to increase in population size by 2001.

Mode	1987		2001	
	Generated %	Attracted %	Generated %	Attracted %
Bus	32.2	32.6	19.5	19.3
Passenger	23.7	26.1	19.4	19.9
Truck	22.0	32.6	13.8	19.1

b) O-D Flows - 2001

Vehicle Passenger : An important change is predicted in the gain in movement to and from DMA towns exception being NOIDA which will continue to have a limited interaction (only with Delhi). Among the priority towns, interaction with Meerut, Gurgaon, Panipat and Alwar gains significantly so also rest of the NCR in UP with Hapur as centroid. The other important change in the redistribution of flows is the likely reduced importance of Delhi based flows.

Bus : currently, the bus passenger flow originating from or terminating at Delhi shows that about one-third of the total trips made within or through the NCR have one end of their trip at Delhi. This is estimated to be about 19% by 2001. However, in absolute number of Delhi based trips the increase will be about 1 lakh after taking into account the impact of improvements in rail system. The intra-regional share of public transport is projected at 54% which is less as compared to the present share due to larger railway share in intra-regional public transport. Major movements follow similar pattern as that of vehicle passenger but the proportion of larger distance trips will be more. A significant forecast is of larger number of flows between the priority towns and the DMA towns.

ii) Goods traffic projections

The goods traffic generation is explained more by economic activity base than population size. Accordingly projections of goods traffic are based on employment in large, basic and small scale industry and indices of volumes of wholesale and retail trades. (T. 8.5)

The share of intra-regional traffic will remain less (36%) compared to the bulk of inter-regional traffic. The share of Delhi will fall from 25% to about 15% by 2001. The goods traffic flows between the priority towns and DMA towns will go up in future. Major traffic flows are expected with outside the region. However, Ghaziabad, Faridabad and Panipat show an increasing trend.

8.3 Objectives

The objective of the transport plan is to promote and support the economic development of the Region and, relieve the Capital of traffic congestion. It is to provide accessibility to all the parts of the Region and discourage the transit of passengers and goods through the core area - Delhi by providing bypasses and

there by opening areas for economic development of the rest of the Region.

8.4 Policies and Strategies

Transport is essentially looked upon as a service, though it has all its economic by-products. A sound transport policy will be a catalyst for the growth and economic development of the identified (priority) areas and also influence the direction of growth. The development strategy includes:

- i) interconnection of regional centres among each other, and with the Capital by efficient and effective network system for free movement;
- ii) provision of shortest and free movement network to inter connect the maximum traffic attracting and generating urban nodes in the Region to diminish the centrality of Delhi;
- iii) decongestion of Delhi roads and terminals by diverting the bypassable long distance through traffic;
- iv) provision of suitable fast sub-urban operating system for efficient and effective movement of commuters and for boosting of the development of economic activities in the urban nodes of the Region ; and
- v) integration of road and rail network system in Delhi, DMA and rest of the Region with appropriate inter-facing facilities.

8.5 Programmes and Proposals

The transport plan study concludes that existing transport system will be highly inadequate and ineffective to cope with the projected flow of traffic in the Region by 2001. To supplement the present transport network the Plan proposes the following:

i) Proposals for the Road Network

On the basis of evaluation of alternative road networks and also, expected role that railway system would play in carrying additional passenger traffic, the road network will include (Fig 5):



LEGEND

National capital region boundary

Notes

PROPOSALS

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INTERCHANGES

Figure-5 SUGGESTED ROAD NETWORK

- a) Expressways on new/parallel alignments,
- b) Upgradation of existing National Highways,
- c) Development of inner and outer grids, and
- d) Sub-regional road network.

a) Since the conversion of existing National and State Highways to Expressways will face several constraints in terms of clearing the large built-up areas within the right of way and, also a very large number of junctions/crossings, particularly on the Delhi - Meerut and Delhi - Panipat corridors, development of Expressways (4-lane divided initially with full access control and all intersections grade separated) on entirely new/parallel alignments have been proposed. The Expressway on a new alignment shall lead to sizable savings in travel time, fuel cost and increased convenience of free and faster travel leading to an overall monetary savings of about 100% over and above the savings by improvement of existing road network. The three expressways have been proposed as below:

Upto 2001 :

On parallel alignment i) between Delhi-Ghaziabad-Modinagar-Meerut, and ii) between Sonapat-Panipat, and on new alignment iii) connection between Faridabad-NOIDA-Ghaziabad.

Beyond 2001 :

On parallel alignments i) connecting Delhi-Gurgaon-Rewari-Behror ii) between Delhi-Sonapat connecting the Sonapat-Panipat Expressway, and iii) connecting Delhi-Faridabad-Palwal-Hodal, with a link to Faridabad-Ghaziabad Expressway and creation of additional capacity for traffic between Delhi and Faridabad.

b) Upgradation/widening of existing National Highways by 2001:

- i) Development of Delhi-Gurgaon stretch to 6 lanes on NH-8,
- ii) Development of Gurgaon-Behror stretch to 4 lanes on NH-8,
- iii) Development of Ghaziabad-Hapur stretch to 4 lanes on NH-24,
- iv) Development of Bahadurgarh-Rohtak-NCR Boundary to 4 lanes on NH-10, and
- v) Development of Faridabad-Hodal stretch to 4 lanes on NH-2.

c) Development of an inner grid and an outer grid (2 lane initially with ultimate capacity of 4 lane divided highway).

Inner Grid :

- i) On new alignments to connect Murthal to Baghpat, and
- ii) Strengthening and widening of existing alignments on Rohtak-Sonepat-Murthal, Baghpat-Meerut and Jhajjar-Gurgaon-Faridabad.

Outer Grid :

- i) Strengthening and widening of existing alignment on Palwal-Sohana-Rewari-Jhajjar, Rohtak-Gohana-Panipat, Meerut-Hapur-Bulandshahr-Khurja-Palwal, Khurja - NCR boundary (South), Meerut-NCR boundary (North) and Bhiwadi-Tijara-Kishangarh-Alwar.

d) Sub-regional road network

Smaller towns of the National Capital Region have been stagnating mainly because of their location in the shadow of bigger urban centres. However, their economy could be revitalised by providing suitable infrastructure facilities so that they act as link between the rural areas and the bigger urban centres besides acting as service centres for the rural population. Transport network would be able to provide the initial momentum for their regeneration. Efforts would be to inter-connect the same order centres directly and the lower order centres with their nearest higher order centres. A system of feeder roads of higher standard would be evolved to connect the work centres, industrial estates with the nearest regional or sub-regional centres. This will be dealt in Sub-regional Plans in detail.

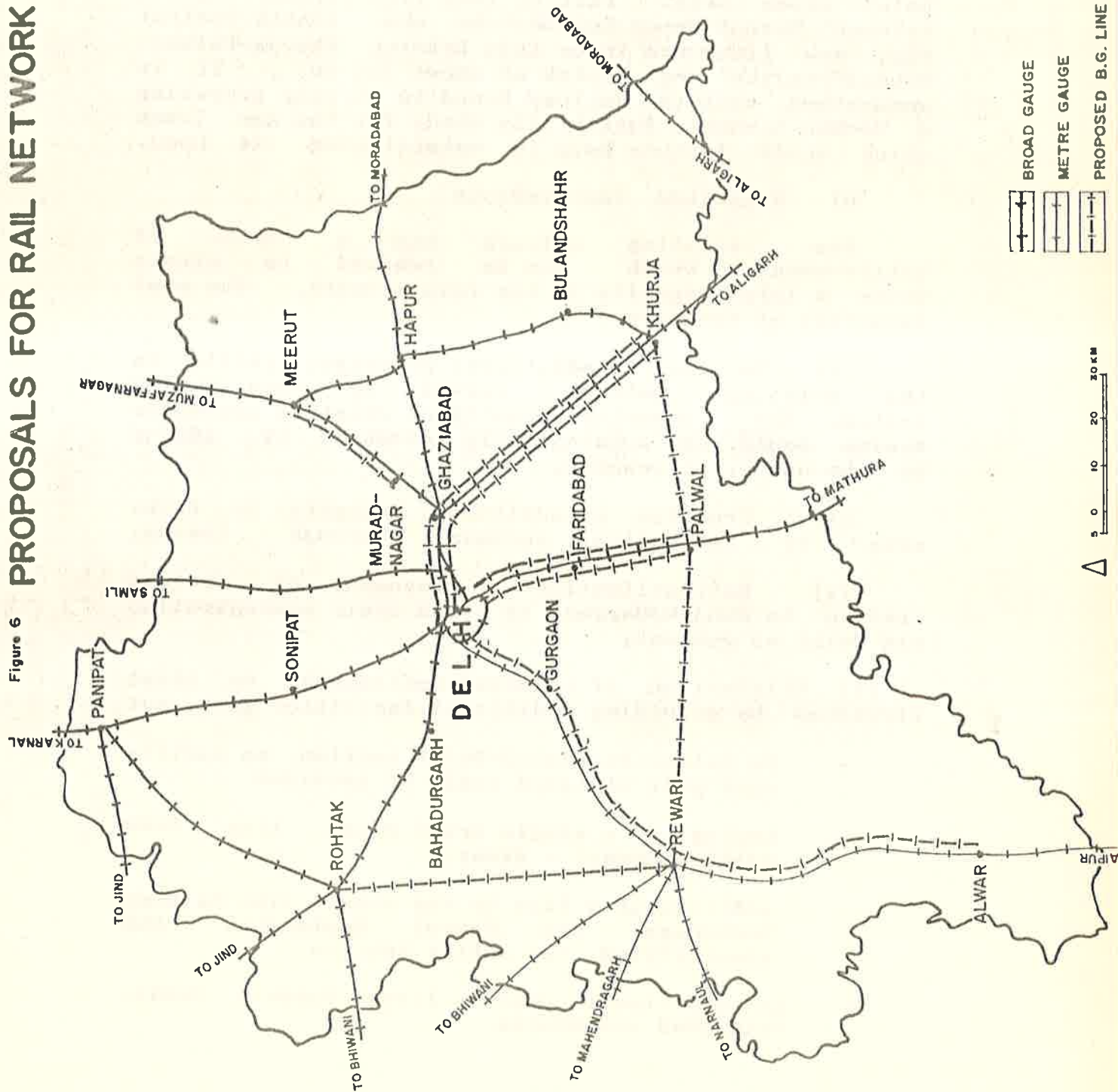
ii) Proposals for the Railway Network

The projected total passenger traffic suggests a need to improve railway system. Accordingly a regional rail bypass and several improvements (Fig 6) are envisaged:

a) Regional rail bypass

Studies on Transportation Network for the Delhi Urban Area have established the need of creating new railway lines to bypass through traffic from Delhi Area. This has also been found necessary in those studies in order to release the existing capacity for the needs of sub-urban and daily commuters' traffic in the Delhi Urban Area. Such a Regional Bypass would

Figure 6 PROPOSALS FOR RAIL NETWORK



further give a tremendous boost to the economy of the region by opening of new areas and help in fulfilling the national objectives of movement of bulk goods. The study conducted by Operations Research Group was required to approach this issue from the narrow angle of the regional needs only and hence they found justification for the proposed bypass only beyond 2001. The Planning Committee and the Board have considered regional bypass passing through Meerut-Hapur-Bulandshahr-Khurja-Palwal-Rewari-Rohtak and Panipat to be essential to further the objectives of an integrated and balanced development of the region, including the Delhi Urban Area. Part of this link already exists between Meerut-Hapur-Bulandshahr and Rohtak-Panipat and, new lines are to be laid between Khurja-Palwal-Rewari-Jhajjar and Rohtak of about 205 km. It is understood that the Railway Board is already preparing a Techno-Economic Feasibility Study for the new lines which would further help in establishing its need.

b) Suggested improvements

The existing network has a number of bottle-necks which can be removed to create quite a large capacity in the rail network. The most important of them are :

i) To cater to additional passenger traffic in the existing network served by loco hauled system. The carrying capacity of existing passenger trains could be substantially increased by adding to the number of coaches,

ii) Creation of additional capacity in Delhi area by re-routing certain through trains,

iii) Rationalisation of movement of freight traffic to Punjab/Haryana to avoid their concentration via Delhi at present,

iv) Elimination of existing bottlenecks on short stretches by providing additional facilities such as:

- On Palwal-Faridabad-Delhi section, an additional pair of lines shall be provided
- Laying of a single Broad gauge line from Delhi - Rewari - Alwar,
- Addition of a line to the single line between Muradnagar and Meerut Contonment and electrifying the entire section,
- An additional pair of lines between Delhi-Ghaziabad and Khurja

v) Development of terminal facilities at four locations in accordance with the Master Plan for Delhi-2001.

vi) After the implementation of the above proposals for augmentation of the rail network, the following Priority Towns and towns in the DMA would not have a rail link. Studies should be carried out to ascertain justification of such rail links:

1. NOIDA
2. Kundli
3. Bhiwadi
4. Daruhera

iii) Proposal for Air Ways

Regional Centres are to be developed on a priority basis by inducing their growth through economic activities. It is necessary to study the possibilities of extending air services to these towns through short distance carriers.

iv) Inter-Facing

The foregoing proposals are primarily based on the inter-urban movement requirements in the Region. Another important component of transport flows is intra-urban movement. The synthesis which would be required between the two can only be achieved through a proper planning of inter-facing facilities. The two major points for consideration are:

- a) the effects of the inter-urban movements on intra-urban circulation pattern, and
- b) the consequent need for new terminals, if any.

The problem of circulation is mainly expected to be felt in Delhi rather than in other centres of the Region, because most of the other towns would be served through a bypass road (as proposed) which would mitigate the problem of through traffic. The projected daily traffic by 2001 which would use Delhi's network will be 144% more than the existing traffic:

Year	Passenger Vehicles	Buses	Goods Vehicles	Total
1987	53890	25370	77320	156580(100%)
2001	92270	42400	149500	284170(144%)

The existing outer ring and ring road in Delhi which are the main arteries for dispersal of regional traffic will not be able to effectively cope with collection and dispersal of inter-urban traffic in the future. Similar will be the problem in rail network in catering to the needs of the future passenger and goods movement. This suggests the need for another concentric ring of a limited access type and preferably not having any major points of origin/destination for the regional traffic along it.

The integration of the regional network with that of urban area network specially for Delhi should be examined from the point of view of accessibility to the four integrated metropolitan passenger terminals and freight complexes proposed in Delhi Master Plan 2001, which will also serve DMA.

These terminals and complexes should be along the proposed concentric ring and also connect the existing outer ring road so that the inter urban traffic would flow either through these regional roads or proposed expressways and, follow the proposed ring upto its metropolitan passenger terminals/freight complexes. It would branch off using the existing connections nearest to the proposed terminals/complexes and to the proposed ring. Similarly, in other important urban nodes of the Region, the terminal facilities would need to either drastically expand their existing facilities or go in for suitably located terminals.

v) Integration of transport services

The problems of Regional transport in the NCR are of a varied nature. At present various transport Authorities/Agencies are responsible for planning, development and managing transportation facilities and services. They operate, in large parts of this Region independently of each other. This results in avoidable long journey time, and more expenditure. The responsibilities for providing transport facilities and enforcement of rules and regulations are often fragmented and vague. The agencies charged with such responsibilities need to be strengthened and a coordinating agency needs to be constituted with representation of various transport authorities, which would coordinate and take an overall and integrated view of the total transportation system in the Region. This agency will be for the entire Region, having a long term goal of planning and development of a co-ordinated network of transport services.

The recommendations contained in the Draft Regional Plan-2001 and the Interim Development Plan for setting up of a unified Regional Transport Authority for the NCR was referred to, by the Ministry of Urban Development, to the Task Force which went into the question of a MRTS and similar Authority for Delhi. However, no recommendation in this regard has been made in the report of the Task Force. An earlier attempt by the Ministry of Surface Transport to achieve effective co-ordination through inter-State Transport Commission under Section 63-A of the Motor Vehicles Act, 1939 on a much bigger scale has also not met with much success. There is no other provision in the Motor Vehicles Act which could enable the setting up of such Authority. Nor does NCRPB Act has any such provision. An Authority for the Region could therefore be set up either through fresh Legislation under clause (1) of Article 252 of the Constitution with the consent of of the participating States or through a Resolution of the Board itself which obviously would be of a non-statutory nature. It is felt that in the present situation only this course of action of setting up of an Authority or any other co-ordinating Body through a Resolution of the Board would be achievable.

9.1 Telecommunication is a vital and essential infrastructure for socio-economic development. It can replace to a large extent the personal travel and as such, can become very cost effective. Telecommunication services could be complementary to other investments in the development process which enhances the productivity and efficiency in other sectors.

Provision of telecommunication facilities assumes a special importance in the context of the NCR, where not only decentralisation of economic activities is envisaged from the metropolis to areas outside but also induced development of the priority towns. These towns are proposed to be developed with a diversified economic base where secondary and tertiary sectors will form the dominant economic activities. These sectors are much more dependent on telecommunication services. More over Delhi, the mother city will continue to remain in the centre of decision making and a window to the outside world and, telecommunication links shall provide the means of information so necessary for business decisions.

In the 8 priority towns/complexes identified for priority development, the existing telecommunication facilities are inadequate in terms of their capacity and sophistication of technology. Some of the existing facilities have out-lived their design life and are unreliable and inadequate. An overview of the existing telecom facilities in the DMA and priority towns shows that the existing capacity varies from 100 to 6600 lines whereas the wait listed demand ranges from 3 to 7585, the maximum being in Faridabad as of 1987 (T 9.1).

The telex facilities are available only in a very limited number of towns such as Faridabad, Gurgaon, Panipat, Alwar, Meerut, Ghaziabad and NOIDA and their capacities are expected to be augmented by the end of the Seventh Plan when a few more DMA and priority towns of the Region like Rohtak, Rewari, Bhiwadi, Palwal, Hapur and Bulandshahr are likely to be covered. (T 9.2)

The priority towns are to be developed faster so as to absorb more economic activities and thus to attract the Delhi bound potential migrants to the extent of 19 lakhs by 2001 A.D. For an effective realisation of this goal, and development of economic activities especially relating to industries, trades and commerce, telecommunication facilities would be

essential. Moreover, in order to make the priority and DMA towns as attractive as Delhi in respect of provision of employment opportunities and standard of living, the facilities in these towns should be made comparable to that of Delhi.

9.2 In order to achieve the objectives, the long term proposals for 2001 AD are :

- i) full automation of telephone services,
- ii) replacement of all life expired exchanges and related accessories,
- iii) provision of telephone and telex facilities practically on demand,
- iv) extension of subscribers dialling facilities between Delhi and priority towns and also the other DMA towns to start with,
- v) connection of priority and DMA towns with Delhi by reliable cable and radio media,
- vi) provision of reliable trunk services either by direct dialling or through demand services among the priority towns and DMA towns,
- vii) extension of telegraph office facilities to all the towns as may be justified; and
- viii) replacement of all the manual and mechanical exchanges in Delhi as well as other towns of the Region by electronic exchanges

As the telecommunication facilities are as important as other community facilities, the planning and development agencies should take note of the proposals so as to provide adequate land in appropriate locations for provision of these facilities right at the planning stage.

It would be desirable that for smooth services a separate electricity feeder to the telephone exchanges and underground ducts in Delhi and other big towns of the region for telephone cables for their safety and better maintenance are provided.

9.3 During the Seventh Plan (1985-90) the Department of Telecommunications have the following national objectives to meet the demand and addition and allocation of direct exchange lines (DELs) for the corresponding switching capacity.

- i) To meet the average demand upto 30.9.1986 in

all the metro and major telephone districts and the demand upto 1.4.87 in MAX-I, that is upto 1.4.88 in MAX-II, and that upto 1.4.90 in MAX-III or manual exchanges in all the minor district of telephone circles.

- ii) To provide telex connections practically on demand by 1.4.90.
- iii) Connecting all the district headquarters to main trunk network through atleast one reliable media.
- iv) To connect all exchanges having capacity larger than 1000 lines through a reliable media to the National network.

According to the information collected from Department to Telecom (DOT), it may be seen from Table-9.1 that 11 stations namely Faridabad-Bahadurgarh-Gurgaon-Dharuhera-Palwal-Alwar-Bhiwadi-Ghaziabad-Loni-NOIDA and Khurja will be provided with exchanges equipped with latest technology by the end of the Seventh Five Year Plan.

9.4 The Department of Telecom is in the process of formulating their broad objectives for the Eighth Five Year Plan (1990-95). These objectives are mainly for further boosting up of telecom services both in quality and quantity. This will benefit the NCR towns also in a big way. The broad objectives are :

- (i) All worn out equipment in the telephone exchanges having 25 years service upto 1.4.90 to be replaced.
- (ii) All manual exchanges to be replaced by automatic exchanges.
- (iii) All Sub-divisional and Tehsil headquarters to be provided with STD facilities and to be connected to the national network by reliable transmission media.
- (iv) All exchanges of capacity of 500 lines or more as on 1.4.90 are to be provided with STD facility. An effort will be made to cover all NCR priority towns even with lesser capacity than 500 lines, specially industrial urban areas such as Bhiwadi-Dharuhera and MIA (Alwar) for STD facility.
- (v) All industrial growth centres tourist and

pilgrimage places to be provided with STD Pay-Phone Facility.

(vi) Providing Telex connections practically on demand.

(vii) All district headquarters to be provided with Telex Public Call Offices(PCOs).

(viii) All Telex exchanges to be of electronic types.

In addition to these, following new services have also been envisaged by the DOT during the Eighth Plan.

- i) Penetration of data services under the project VIKRAM (opening of more nodes) tele-tax, video-tax, telefax and electronic mail to be increased.
- ii) The delivery of telegrams within 12 hours from 500 Central Telegraphic Offices(CTO)/ Departmental Telegraphic Offices(DTO) to be expanded to cover more number of CTOs and DTOs.

On the basis of likely level of economic activities in the priority towns and the DMA towns, the telecom demand has been projected by the Ministry of Communications and targetted to be achieved in three successive phases namely by 1990, 1995 and 2000 AD coinciding with Seventh, Eighth and Ninth Five Year Plans (T 9.3). However, necessary adjustments should be made in the plan provisions wherever possible, to accelerate the achievement of these objectives. The Board shall be separately identifying the sub-regional centres in the sub-regional plans to be prepared by the participating States. The tele-communication needs of these centres would be then take up with the Department of Tele-communications for adequate provisions in their plans.

10.1 Background

Electricity, one of the most important forms of energy, is the life-blood of modern society. It is indispensable for any development whether industry or agriculture, and for improving the living standards of the people.

i) Power generation

a) Existing : The National Capital Region falls in the Northern Power Zone and has in operation six power generating stations five thermal and one gas fired. Three stations are in Delhi UT run by the Delhi Electricity Supply Undertaking (DESU) and the rest three in the Haryana portion of the NCR, two run by the Haryana State Electricity Board (HSEB) and one by the National Thermal Power Corporation (NTPC). The aggregate installed capacity of these generating stations is 1834.1 MW.

b) Under construction : Of the five power plants with a total installed capacity of 1665.3 MW under construction, three are thermal, one micro hydel and, one nuclear type (T 10.1). 815 MW of power would become available from four plants within the Eighth Plan. Thus, the total installed generating capacity by the end of 1995 in the NCR would be around 2644 MW.

ii) Power supply position : 1986-87

a) Delhi UT : The maximum demand for power in Delhi has already reached 968 MW (August, 1986). The present availability of power to the DESU from its own sources is limited to about 200-250 MW from I.P. station. A gas turbine generator with an installed capacity of 180 MW has already been commissioned in November, 1986, which will take care of the peak load requirement of Delhi. The Badarpur Thermal Power Station (BTPS) supplies 400-450 MW to Delhi. The DESU has also a share in the Centrally sponsored schemes like Singrauli Super Thermal Power Station, Bairasiul Hydro Power Station and Salal Hydro Power Station. During 1986-87, Delhi UT required 5676 MU against which the supply was 5674 MU—a shortage of only 2 MU or 0.04%.

b) Haryana : Haryana, in addition to receiving power from its own generating stations, receives power from Bhakra Nangal complex, Dehar and Pong power houses under Bhakra Beas Management Board (BBMB), Bairasiul Hydel station and I.P. Station (Delhi) to meet its

demand. In Haryana, during 1986-87, against the requirement of 5945 MU of energy, only 5147 MU was available and thus there was a shortage of 13.4% which reflects the power position of the Sub-region also.

c) Rajasthan : Rajasthan's power demand is met by the generating stations owned by the Rajasthan State Electricity Board, the BBMB system, Singarauli Super Thermal system and the neighbouring states. In Rajasthan, against the requirement of 8090 MU of energy, 7448 MU was available during 1986-87, and thus, there was a shortage of 7.9%. However, due to some preferential treatment to the industrial areas of Alwar and Bhiwadi, shortage of electricity has been a minor constraint.

d) Uttar Pradesh : Uttar Pradesh receives power from the integrated grid of the Uttar Pradesh Power System and the Northern Regional Grid. The Uttar Pradesh Power System is being operated in synchronisation with the Northern Region Grid comprising Jammu and Kashmir, Punjab, Himachal Pradesh, Haryana, Delhi, Rajasthan and part of Madhya Pradesh. Against the requirement of 20204 MU, the supply was only 17198 MU during 1986-87. thus, there was a shortage of 14.9% in the State. Once again, the towns and industrial areas at Ghaziabad and NOIDA have been getting a preferential treatment in respect of power supply.

Month-wise energy shortage during the period April, 1986 to March, 1987 shows that except Delhi, the other States of Haryana, Rajasthan and Uttar Pradesh faced energy shortages throughout the year. However, the position of Rajasthan was comparatively better than that of Haryana and Uttar Pradesh.

iii) Pattern of energy consumption

During 1985-86, the total energy consumption was of the order of 7530 MU of which more than one-third was by the industrial sector, nearly one-fourth by domestic use and one-seventh by agricultural use.

In all the participant States, the energy figures refer to restricted supply only. The Rajasthan Sub-region relatively tops in industrial use accounting for 80% of the energy consumed in the Sub-region followed by the Haryana Sub-region with 51% and the Uttar Pradesh Sub-region with 40%. In Delhi, domestic sector consumes the maximum, accounting for one-third of the total consumption. Agriculture ranks second in energy consumption in the Haryana, Rajasthan and Uttar Pradesh Sub-regions. In the Delhi UT, domestic use leads in energy consumption with one-third, followed by industrial and commercial sectors (T 10.2).

iv) Per capita consumption

Per capita energy consumption is a barometer of the status of economic development. As of 1985-86, the per capita consumption for the Region as a whole was about 340 units against the Delhi's 580. All the NCR States consumed less than the regional per capita consumption and, the Uttar Pradesh Sub-region is the least with 236 units. Among the various loads, the industrial load leads with a per capita consumption of 127 units compared to 78 by domestic use and 48 by agricultural sector. Commercial sector accounts for the least of 42 units.

v) Rural Electrification

Electrification of villages and energisation of pump sets is indispensable for improving the living standards of rural population. In the Region as a whole, about 80% of the villages are electrified. All the villages in the Union Territory of Delhi and in the Haryana Sub-region are electrified. In the UP and the Rajasthan Sub-regions, only about 60% and 90% of the villages had been provided with electricity respectively till the end of March, 1987. About 2.12 lakh pumpsets have been energised in the Region. The figure is expected to reach a minimum of 2.37 lakhs by the end of the Seventh Plan. (T 10-3)

10.2 Load forecast - 2001 AD

The demand for power has been generally rising at a rapid rate in the constituents of the Region. The demand has invariably outstripped the availability of power causing wide spread shortages of power all over the Region except Delhi. To manage the situation, the State Electricity Boards have imposed varied restrictions from time to time during the last decade, both on the demand and energy requirements. The increase in electricity consumption reflects the increase in availability rather than the demand for it. Adjustments have, therefore, to be made in the forecast to take care of the suppressed demand on account of restrictions imposed on the consumption.

In forecasting the load for the NCR, the intended economic structure in terms of dispersal and informal occupation biased composition of the industrial and other economic activities, including the tertiary occupations, need specific attention.

At present, the broad indications are that the rural-urban population ratio will undergo a substantial change by 2001, the induced development in the selected towns for development on priority basis

will be mostly in the form of industrial and commercial activities and, also as per the policy directives, the norms and standards of civic services including power supply in the DMA and priority towns will be comparable to that of the Delhi UT. The categorywise percapita consumption as of Delhi can be taken as the targets to be achieved in stages. In certain sectors, however like commerce, the participating States cannot match with Delhi as is evident from the energy consumption pattern of the States : it is less than 5% in the participating States against the 21% consumption in Delhi.

The State Electricity Boards and the DESU have forecast the unrestricted load/energy demands upto 2001 and the Central Electricity Authority has, in view of the development proposals adjusted the forecast upwards.

1) Upto the Seventh Plan and 2001

The regional demand for power will be 3077 MW by the end of the Seventh Plan which will shoot upto 12032 MW by 2001 with the corresponding energy forecast of 15871 MU and 61624 MU (T10.4).

a) Delhi UT : The maximum demand of power in Delhi has already reached a figure of 968 MW (August, 1986) and, as per projections made by the 13th Electric Power Survey Committee of the Central Electricity Authority, the demand is expected to go upto 1423 MW by the end of the Seventh Five Year Plan and 5871 MW by 1999-2000 against the expected peak availability of 839 MW from 1989-90 to 1999-2000 excluding shares from other Central sector projects. In terms of energy, the corresponding requirement is forecast at 7586 MU and 28233 MU which gives a growth rate of 9.50% per annum.

b) Haryana Sub-region : The peakload is estimated at 825 MW by the end of Seventh Plan which will go upto 3678 MW by 2001 with the corresponding energy requirements of 4046 MU and 18024 MU. The average growth rate is 9.61% per annum.

c) Rajasthan Sub-region : The peakload is projected at 154 MW 1989-90 and 706 MW by 2001, the corresponding energy being 811 MU and 3716 MU. The growth rate is 10.68% per annum.

d) Uttar Pradesh Sub-region : The peakload by the end of the Seventh Plan will be in the order of 675 MW and this will build upto 2883 MW by 2001, the corresponding energy demand being 3428 MU and 13651 MU which gives a rate of growth of 9.65% per annum.

10.3 Policies

i) To help develop the regional and sub-regional centres in particular and the Region in general, uninterrupted power supply in adequate quantity should be made available in the entire NCR.

ii) Preference and priority in making available the additional power to the NCR should be given utmost attention.

10.4 Issues and proposals

i) The constituents of the Region have been continuously experiencing shortage of power for quite some time and, their actual demands have thus always been the suppressed ones. The tentative assessment of power position by the 13th Electric Power Survey of India shows that the energy shortages would be to an extent of 16.6% in Delhi UT and 28.1% in the State of Rajasthan by the end of the 7th Plan though both in case of Haryana and Rajasthan it has forecast marginal surpluses. It may be noted that in the Sub-regions of the NCR, as of 1986-87, the deficit varied from 25% to 35% except in Delhi U.T.

ii) The envisaged induced development of the selected urban areas at the Regional and Sub-regional levels would require more power. The rural areas where accelerated development programmes are to be taken up would also require more power than at present. Thus, the portions of the States under the NCR would demand substantial additional power as against the other parts of the States. State Governments with their own preferences and priorities will not be in a position to treat areas of the NCR under their States in a special and preferential manner for the purpose of supply of additional power. Department of Power, Ministry of Energy is of the view that the allocation of additional power particularly from the Central power stations is to meet competing claims from different sectors including central core industries and services and thus it would be difficult for allocation of additional power for the NCR. But in order to meet the objectives of the NCR which is time bound, it is an imperative necessity to provide by any means additional power to the Region. The Central Government, on the recognition of the fact that it was its responsibility to save the National Capital, created the National Capital Region Planning Board to prepare a Plan to achieve the objective of a manageable Delhi in the foreseeable future, and as per the Plan strategy if

adequate power is not made available to the NCR, it would never be possible to realise the objectives. It is, therefore, incumbent on the Government of India to provide additional power to the Region through any arrangement considered appropriate.

iii) Under the provisions of the Central Electricity (Supply) Act, 1948 and also in view of the problems and difficulties envisaged in organising generation and distribution of additional power for the NCR in isolation, it is proposed to set up a Coordinating body which will mainly arrange and coordinate distribution of power, if additional power is made available from the Central/State sources for the NCR. Such a Committee would be set up under a resolution of the NCR Planning Board. The Committee will be headed by the Member Secretary of the NCR Planning Board and will include representatives of the State Power Departments, State Electricity Boards and representatives of the Department of Power and Central Electricity Authority.

iv) There are proposals to generate power through gas fired turbines at Dadri and Delhi. The HBJ Gas Pipe Line is expected to be extended from Dadri to Delhi to generate an aggregate capacity of 150 MW in replacement of existing gas turbines. The Dadri Plant has an aggregate generating capacity of 600 MW. Keeping in view the successful performance of the gas turbines in operation, the ready availability of its technology indigenously, the minimum gestation period for its installation and also its relatively non-polluting nature, the possibility of more gas connections for generation of electricity in the Region should be explored.

v) The additional power, once made available, should be reach to all points of consumption through optimum transmission and distribution network. The State Electricity Boards and the Central Electricity Authority have indicated that the present system of distribution network would not suffice to cope with any additional power distribution. The constituent electricity authorities have, therefore, worked out the distribution network requirements in the respective portions and the network comprises sub-stations, tie-lines, transmission and distribution network etc.

11.1 Background

i. Water Supply

The Region is endowed with three perennial rivers namely the Yamuna, the Hindon, both traversing through and, the Ganga skirting its eastern boundary. A good network of water canals benefit the districts of Karnal, Rohtak, Faridabad, Bulandshahr and Ghaziabad providing water for irrigation and domestic consumption. Other districts draw water from sub-surface sources through handpumps, wells/tubewells and, in Delhi, Ranny wells also. The sub-surface water resources to the west of the Yamuna are however, insufficient, and often brackish, in quality rendering it difficult for domestic consumption. Scanty rainfall in this area leaves the groundwater resources limited and, the tubewells go dry as the water table sinks deep in the summer months. There is generally shortage of water supply in the areas west of the Yamuna and, the problems assume acute proportions in dry months.

a) Urban : All the 94 urban centres except 20 urban centres have organised water supply systems of drawing water from tubewells, wells and canals. The per capita supply ranges from 17 to 240 lpcd. Only in 20% of the urban centres, the water treatment is complete and in others, it is partial (T 11.1).

b) Rural : Rural water supply position in the Region presents a very dismal picture. Many villages do not have adequate sources of water supply. Only one in every eight villages has some form of protected or organised water supply. The main sources of water supply are canals and wells in Haryana Sub-region whereas, handpumps are invariably restricted to the Uttar Pradesh Sub-region (T 11.2).

ii. Sanitation

a) Sewerage : Poor sanitation gives rise to high incidence of water-borne and, water and sanitation related diseases. The percentage of high infant mortalities in the NCR is indicative of the poor state of sanitation measures available in the Region. Sewerage system, that too partly, exists only in one fifth of the number of towns. The system is mostly water-borne often supplemented by septic tanks and sanitary latrines. A number of urban centres have only sanitary latrines. The sewage is treated partly in four

towns. In all the others, the raw sewage is let off into the drains, rivers and in many cases, the sewage stagnates in the depressions or in drains that create an unhygienic environment (T 11.1).

b) Storm water drainage : In nearly 60% of the towns, the storm water drainage system exists, but in all, only in two towns the coverage is full. Almost in all cases, the drains are open. In many towns, the system is combined where storm water and the sewage flow together. The disposal of the storm water is invariably unplanned and is allowed to flow its natural way on land, into depressions, ponds and drains (T 11.1)

c) Solid waste disposal : A system exists to dispose of the solid waste in nearly 60% of the towns. Unscientific land refill and open dumping are the methods prevalent in the towns in disposing the wastes. (T 11.1).

d) Rural Sanitation : In none of the villages, a system to take care of its sanitation is reported to exist.

11.2 Issues

i) The Region on the whole does not receive adequate rainfall. In order to attract the Delhi bound potential migrants to the regional towns identified for development on priority basis, and also to discourage out-migration from the rural and urban areas of the Region to Delhi, one of the strategies is that the essential services such as water supply, sewage and sanitation are provided at desirable norms and standards comparable to that of Delhi. Presently, the supply standards are far below the desired norms in the towns and, in the rural areas organised, or protected water supply is rarely provided for want of institutional and financial arrangements.

ii) Sanitation in the Region is very poor resulting in high incidence of water borne diseases. The environmental degradation and insanitary conditions need proper and immediate attention with the conscious efforts of the local bodies and the State Governments concerned.

iii) Storm waters are invariably allowed to flow its natural way on land into depressions, ponds and drains. More often, it is combined with sewage. Unregulated flow of storm water erodes as well as silts agricultural fields and stagnates creating environmental problems. This needs a planned and integrated approach alongwith sewage disposal.

iv) Disposal of garbage in general is given the least attention. Scientific management of solid wastes would help in recycling it partly and through sanitary refilling that would render the environment hygienic and clean. This requires proper education and training of the people in general and institutional arrangement in particular.

v) Rural zone which greatly lacks sanitation measures needs adequate attention to be given so that healthy living environment is ensured which will help the rural population live healthier which would also avoid possible out-migration to urban areas.

11.3 Policies and Proposals

i) Urban Water Supply : The water supply norms and standards of the urban areas particularly of the DMA towns (excluding Delhi UT) and priority towns should be comparable to that of Delhi and should also be uniform in the entire region for rural and urban areas. Accordingly keeping in view the minimum level of water supply expected to be achieved, the following norms are proposed:

Urban Centres with population	lpcd
- 5 lakhs and above	275
- 2 to 5 lakhs	225
- 1 to 2 lakhs	100 minimum

- For the DMA towns and priority towns, the starting point should be 225 lpcd with the target of achieving 360 lpcd by 2001. The requirements should be graded according to the size of the projected population of the concerned urban centre. In four towns viz. Rewari, Palwal, Dharuhera and Bhiwadi, where water scarcity is experienced as a chronic problem, minimum of 225 lpcd may be taken as the target to be achieved.

- In no urban centre, the supply should be lower than 100 lpcd which is the minimum technical requirement.

ii) Rural Water Supply : The sources of water supply to the rural areas should be identified and the water supply should be organised to supply water at the levels commensurate with the functional character of the rural areas.

A minimum of 70 lpcd including a supply of 30 lpcd for cattle is proposed for rural areas. If independent connections are given, a minimum of 100 lpcd is advised. Spot sources may supply a minimum of 40 lpcd which can supplement the piped supply.

iii) **Targets for water supply :** In view of the low levels of coverage in water supply, the targets which have been agreed to by the Government of India under the International Drinking Water Supply and Sanitation Decade 1981-1990 programmes to be achieved by March, 1991 may be adopted for the NCR:

	Coverage	Level of Service
Urban Water Supply	100%	<p>Piped water supplies in all communities, where feasible; Demand range 70-250 lpcd; average 140 lpcd.</p> <p>Stand posts in fringe areas, if necessary at strategic localities; average 40 lpcd.</p>
Rural Water Supply	100%	<p>Piped water supplies for 30% of the population; demand range 25-70 lpcd; spot source water supplies for 70% of the population in the form of dug or tubewells with handpumps and/or power pumps; average demand 40 lpcd.</p>

It is proposed that in all towns other than DMA and priority towns, and all rural areas, the foregoing targets to be achieved by 1991.

Delhi and the other Delhi Metropolitan Area towns - Ghaziabad, NOIDA, Faridabad and Gurgaon have been experiencing inadequacy of water supply recently. The recent drought has also shown that this severity could become quite acute in the absence of normal rainfall. Perennial sources of water supply such as the Ganga, the Yamuna and the Sutlaj with their systems are subject to a number of agreements between the various Governments. The NCR occupies a special position and, its water supply need should be given special consideration. It is, therefore, necessary that comprehensive proposals identifying the sources of water supply are prepared for the Region. Likewise,

the Delhi Metropolitan Area towns would also need an integrated drainage system. The NCR Planning Board has recently constituted a Study Group to look into the various aspects of physical infrastructure particularly, water supply, sanitation and drainage in the Delhi Metropolitan Area towns and, its findings could be the basis for further indepth studies in assessing the needs and identifying the sources of water etc.

iv) Urban Sanitation : Sewerage system, to start with, in the DMA and priority towns, should have sewage treatment facilities before it is let-off into water courses or on land or for irrigation. The other towns where it is not possible to provide a proper system due to topography and for want of resources, low cost sanitation measures may have to be adopted but only to be replaced by regular sewage system subsequently as the conditions improve.

Open drains, which are by and large the sources of nuisance and pollution, should be discouraged and discontinued. Sewage should be treated to bring the pollution level to permissible limits as stipulated by the Indian Standards Institution, and Pollution Control Boards irrespective of the type of disposal of the sewage. As far as possible, areas where the annual rainfall exceeds 75 cm, separate systems for sewage and storm water are recommended.

v) Rural sanitation : The rural areas, where piped water supply system exists should be provided with sewerage system with treatment facilities. Low cost sanitation measures such as sanitary latrines, septic tanks and pit privies should be resorted to in villages with hand-pumps for water supply. Where possible, the sewage should be recycled after treatment for watering gardens, parks and lawns, fire-fighting, street washing, cooling etc. Publicity and demonstration on the necessity for hygienic sanitation should be frequently arranged to make the rural population aware of the imperative need of the clean and healthy environment.

vi) Targets for sanitation : The proposed targets of the International Drinking Water Supply and Sanitation Decade 1981-1990, could be taken as targets of the NCR Plan. The targets are :

	Coverage	Level of Service
Urban Sanitation	80%	100% coverage for Class-I cities with sewage and sewage treatment facilities, low cost sanitation methods in other towns. Overall coverage of 80% in all cities and towns.
Rural Sanitation	25%	Low Cost sanitary methods of disposal.

vii) Water supply and sanitation should be taken together as an integrated project. A combined sewerage system including drainage may be economical if the average annual rainfall does not exceed 75 cm. All the drains should be covered as far as possible. The sewage treatment process should include units to obtain best by-products like cooking gas and the sludge manure. The solid waste should be properly managed and recycled for a healthy and hygienic living environment.

viii) Solid Waste Management

Solid waste disposal and management should be planned for a minimum of 20 years and, at least controlled tipping should be adopted in the disposal of the solid wastes. Compost is a solid stabiliser. Incineration of the garbage is not advisable. Areas should be identified in all the towns for sanitary refill and all the towns above one lakh population should have arrangements to properly manage the waste disposal.

The areas for dumping of solid waste/garbage have to be identified while preparing the development plans for each urban centre in advance, so that the Municipal Authorities responsible for solid waste management could utilise such pre-identified locations for disposal of garbage. The derelict lands, on account of brick kilns and quarrying may be suitable locations for such operations.

12.1 Background

The equitable distribution of educational and medical facilities at convenient locations in the Region, especially those which serve the primary needs, is far more important than the location of any other facility. Education shall provide the vital input for provision of a trained manpower for running the social and economic fabric of the Region.

i) Sub-regional disparities

a) **Educational Facilities :** According to the 1981 Census, the literacy rate in the Region (43.94%) is higher than that of all India (36.23%). When compared among the Sub-regions, Delhi UT (61.54%) has the highest literacy rate followed by the Haryana (33.58%), Uttar Pradesh (33.31%) and Rajasthan (30.24%) Sub-regions. The literacy rates in all the three Sub-regions are also higher than the literacy rates of the States of which they form the parts. The literacy rates in the urban areas also follow the same trend except in the case of Uttar Pradesh Sub-region. Though the rural literacy rate in the Region as a whole (32.35%) is higher than that of all India (29.65%), it is less than the country's figure in Uttar Pradesh (29.02%), and Rajasthan (25.22%) Sub-regions. On the basis of the availability of educational facilities in the rural areas in terms of proportion of villages having one or more of the educational facilities and the proportion of rural population served by educational facilities, Haryana's rural population is better served with educational facilities, as 90.38% villages have one or more of the educational facilities and 97.26% of the rural population are served by education facilities. The corresponding proportions in the Uttar Pradesh and Rajasthan Sub-regions are 73%, 91.3% and 70%, 90%.

In the National Capital Region, Delhi, mother city, has almost all types of higher educational and research facilities, perhaps the best available in the country. Meerut in the Uttar Pradesh Sub-region is the second city after Delhi with a University which has jurisdiction over a large portion of the U.P. Sub-region. At present, Meerut has facilities for higher education including a Medical College. There are large number of post-graduate colleges at Meerut and Ghaziabad which are also patronised by student population from Delhi and Haryana. In Haryana Sub-region, Rohtak town has a University of its own. It has large number of State level institutions such as a Medical College and

two Ayurvedic Colleges, two Polytechnics, Industrial Training Institute etc. As regards the Rajasthan Sub-region, Alwar town is the main centre of educational activities. It has a number of colleges which mainly cater to the local students and to some extent those from nearby areas.

b) Medical Facilities : The availability of medical facilities in terms of number of beds per thousand population in the urban areas of the districts of the three Sub-regions, is substantially better in Rohtak district (5) of the Haryana Sub-region, Meerut district (1.50) of the Uttar Pradesh Sub-region and Alwar district (2.59) of the Rajasthan Sub-region, compared to other areas of the Region. In Delhi, the number of beds per thousand population is 2.50.

As regards availability of medical facilities in the rural areas, the Haryana Sub-region in terms of proportions of population and villages served being respectively 77.62% and 61.00%, ranks higher than the other Sub-regions.

Delhi being the National Capital and the third largest city of India, has an advantage of possessing large number of medical institutions with best specialisation in almost all the fields available in the Country. The medical facilities in the three Sub-regions of Haryana, Rajasthan and Uttar Pradesh lack in specialisations and, also looking at the vast hinterland served by them, they lack in availability of general medical facilities. Meerut in the Uttar Pradesh Sub-region, Rohtak in the Haryana Sub-region and Alwar in the Rajasthan Sub-region are the main centres of medical facilities which attract people from large part of their hinterland.

12.2 Proposals

i) An assessment of the availability of the education and health facilities in the three Sub-regions indicates that the level of these facilities in terms of accessibility and equitable distribution is far from satisfactory. Some of the regional centres namely, Meerut, Rohtak and Alwar being fairly large sized urban centres in the respective Sub-regions are, having some higher order educational and medical facilities which at present cater to the needs of both the local population as well as the neighbouring areas. The priority towns and complexes identified for faster development and also the DMA towns excluding Delhi will contain more population in addition to their natural increase through the deflection of the Delhi bound potential migrants to them and they will need, over the perspective plan period, more education and health facilities. In

addition, some of them may have to cater to the regional requirements with institutions of specialisations both for education and health care.

ii) Provision of these facilities in adequate measures in the regional centres away from Delhi would not only improve the quality of life but may attract population seeking migration to Delhi. This will thus meet ultimately the objectives of provision of infrastructural facilities at desirable norms and standards to improve the standard of living in the areas of the Region.

iii) The distribution of social infrastructure, not only on the basis of population size but also on the catchment areas for each level institution in the Sub-regional centres, Service centres, and Basic Villages will help to remove the imbalance in the provision of social infrastructure of the Sub-regions.

iv) The norms for education and health facilities suggested are as follows :

Type of facility	Norms	
	Rural	Urban
A. Education		
1) Nursery School	One in each village	One for 2,500 Pop.
2) Primary School (including classes upto VIII standard)	One in each village with	One for 5,000 population.
3) Higher Secondary	One in each village with population 10000-15000	One for each town with 10000-15000 population
4) College	-	One for each town with 80,000-1,00,000 population.
B. Medical		
	Rural/Urban	
1) Sub-Centre	One for 5,000 population	
2) Primary Health Centre	One for 30,000 population	
3) Community Health Centre with four basic specialisations.	One for 1,00,000 population	

Housing is a basic human need and ranks next only to food and clothing in importance. One of the primary aims of any policy plan of a welfare state like India has, therefore, to be to improve the quality of living of its people. Seventh Five Year Plan document holds that a certain minimum standard of housing is essential for healthy and civilised existence. The development of housing, therefore, deserves an overwhelming priority in the NCR, where housing amenities are below the minimum standards. The NCR Plan inter-alia aims to provide healthy living conditions in priority and D.M.A. towns, at standards comparable to that obtaining in Delhi. Most of the migrants seeking employment in informal sector activities need priority attention in providing shelter for them. The objectives of Draft National Housing Policy are in fact in consonance with the objectives of the National Capital Region Plan which seeks to 'encourage people to build and improve their own houses; to promote repair, renovation, expansion and up-gradation of the existing housing stocks, and to preserve India's rich and ancient heritage in the field of human settlement planning and architecture and, conserve buildings of historic, cultural and aesthetic significance'.

13.1 Background

Demand for shelter increases with the population. Provision of housing does not keep pace with the population increase. At present about 30% to 40% of the urban population in the NCR live in unhygienic and insanitary conditions.

Occupied residential houses in the Region excluding Delhi UT, with an allowance of 10% either as non-liveable or vacant or non-residential, totalled to 13.83 lakhs for a population of 101.14 lakhs in 1971 with an occupancy rate of 7.31 persons per unit. In 1981, there were 18.23 lakhs liveable houses (except in Delhi UT) for a population of 129.72 lakhs with an occupancy rate of 7.12 persons per unit (Table 13.1). The marginal fall in the occupancy rate during 1971-81 indicates a slight improvement in the living conditions

The 2.576 lakhs liveable residential units in the urban areas of the NCR housed a population of 18.88 lakhs in 1971 with an occupancy rate 7.33 persons per unit and the housing stock doubled to 5.099 lakhs in 1981 to house 33.29 lakhs people at an occupancy rate of 3.53 persons per unit. Though the decline in the occupancy rate in urban areas is a happy development, it is

offset by the increase in occupancy rate from 7.30 to 7.34 during 1971-81 in the rural zones of the Region. If quality of houses is also taken into consideration, the number of houses fit for living might be much less.

13.2 Demand by 2001

On the assumptions that the occupancy rate shall be five persons a residential unit, the 1971-81 trend of growth shall continue and a 10% allowance to compensate non-liveable or vacant or non-residential housing units, the total demand for housing by 2001 AD, except for Delhi UT, is estimated at 42.6 lakh residential units in the NCR; of these 24.8 lakh units (58.22%) will be in the urban area and 17.8 lakh units (41.78%) in the rural area; U.P. Sub-region will have a demand of 24.2 lakh units (56.81%), followed by Haryana Sub-region with a 15.6 lakh units (36.62%) and Rajasthan Sub-region with 2.8 lakh units (6.57%). In 1987, the net liveable residential houses have been estimated at 20.868 lakh units; of these U.P. Sub-region has 11.417 lakhs, Haryana Sub-region 7.766 lakhs and Rajasthan Sub-region 1.685 lakh units.

Thus, the additional demand (including the existing backlog) between 1988-2001, will be (42.6-20.868) 21.732 lakh units in the Region excluding Delhi UT and, of these 18.188 lakh units (83.69%) will be in the urban sector and 3.544 lakh units (16.31%) in the rural sector. Of the total demand, 12.783 lakh units (58.82%) will be in U.P. Sub-region, 7.834 lakh units (36.05%) in Haryana Sub-region and 1.115 lakh units (5.13%) in Rajasthan Sub-region (T 13.2). The towns/complexes identified for priority development will have an additional demand of 7.19 lakh units (39.56%) while the D.M.A. towns will have 5.70 lakh units (31.34%) and other towns 5.29 lakh units (29.10%) (T 13.3).

13.3 Informal Sector Housing

About one-third of the urban population lives in slums. Most of them are engaged in informal sector economic activities. Informal sector has thus to be viewed as an integral part in the process of spatial planning. In the context of Delhi, the migrants constituting more than one-third of the city's population, are primarily occupied in informal sector activities and, the potential Delhi-bound migrants to be deflected away from Delhi to other NCR towns would also be engaged mainly in the informal sector activities. During 1988-2001, the economically weaker sections of the society constituting mainly the informal sector workers, would require about 8 lakhs

dwelling units (44%¹ of 18.19 lakh additional units) in the urban centres of the Region excluding Delhi Urban Area.

The informal sector housing faces more stresses and strains in mobilising resources as it has no easy access to the housing finance market. The informal sector housing would have to exclusively depend on institutional support for loans. Thus, in planning informal sector housing, the points for consideration would be :

- i) making available developed land at affordable prices;
- ii) introduction of minimum need programme to ensure an environment of minimum urban normative levels; and
- iii) provision of an easy access to institutional finance.

13.4 Issues

i. Need for adequate planning and identification of sources to raise the required funds to meet the housing demand arising out of additional population due to natural increase, as well as through immigration into the NCR generally and also the component of the population that would be deflected from coming into Delhi to the NCR towns.

ii. A special treatment to the informal sector housing, as most of the deflected Delhi-bound migrants with their semi and unskilled levels will get occupied in informal sector activities in the NCR towns away from Delhi. In addition to making available adequate incentives, a major component will be that of shelter to suit their needs and affordability. The problem of informal sector housing may have to be met through making available developed land, and finding ways and means for an easy access to finance institutions.

iii. The standards and norms of the civic services should conform to the desirable norms and almost comparable to that of Delhi as a part of the strategy in developing the region harmoniously.

1. Proportion of single room tenements to total as of 1971.

13.5 Strategy

The strategy to meet the housing needs in the NCR would be :

(i) To fix priorities in dealing with different segments of the population.

(a) The 20 lakh Delhi-bound migrants should be given top most priority in providing shelter. They would be requiring about 4 lakh units, most of them in informal sector.

(b) The potential migrants from the urban centres of the NCR to Delhi should be provided with gainful employment - most of whom will join the pool of the weaker sections of the urban population and may be provided with reasonable hygienic and sanitary conditions. Under the slum upgradation scheme, 100% of the beneficiaries of 1.99 lakh units may be provided with financial assistance for improving their homes (T 13.4).

(c) Under Sites and Services schemes, all the beneficiaries of 5.99 lakh units may be provided with institutional finance to provide incremental shelter on self help basis (T 13.4).

(d) There will be a demand of 5.57 lakh LIG dwelling units during the Plan period, 50% of beneficiaries of which may be provided with institutional finance.

(e) 25% of the beneficiaries of MIG dwelling units may also be provided with institutional finance.

(f) HIG dwelling units may be provided with only developed land at market price.

(ii) To identify areas of development in order of priority.

The Regional Plan envisages to develop a four tier hierarchical system of settlements consisting of Regional centres, Sub-regional Centres, Service Centres and Basic Villages. Shelter programmes would also follow the same priorities and pattern of development. Accordingly, the identified eight towns/complexes to be developed as Regional centres should be accorded the first priority followed by the Sub-regional Centres in the second priority, Service Centres the third priority followed by Basic villages.

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2. 25% of the EWS dwelling units
 3. 75% of the EWS dwelling units
 4. On the basis of proportion of two room tenements as of 1971.

At present, there are a number of agencies engaged in arranging housing finance and related activities such as HUDCO and HDFC at the National level, and Housing Development Boards of the three constituent State Governments at the State levels, Ghazipur Development Authority, Khurja-Bulandshahr Development Authority, Meerut Development Authority, Alwar Improvement Trust, Haryana Urban Development Authority, etc. at the local levels. Most of these agencies are engaged partially or wholly in solving housing and/or housing finance problems either at National or State or local levels. But these agencies cannot treat the National Capital Region as a special area for development.

The Government of India has approved creation of the National Housing Bank with a seed Capital of Rs.100 crores. One of the primary functions of the National Housing Bank is to develop the base level and intermediate level housing finance institutions to extend financial assistance to the Economically Weaker Sections, mostly occupied in informal sector activities, for construction and improvement of their shelters.

The NCR Planning Board Act, 1985 under section 22(1)(c) empowers the Board to receive funds from various sources as may be decided upon by the Central Government in consultation with the participating States and, such funds would be credited to the NCR Planning Board Fund. This provision makes the NCR Planning Board as an ideal institution to act as an Intermediate Finance Institution to facilitate in ensuring availability of requisite finances to the target groups for construction of shelters and improvement of houses under the NCR schemes through the implementing agencies which would act as the base level institutions for implementing the NCR Projects.

14.1 Background

The landuse Plan depicts the exposition of various broad land uses designed for a balanced and harmonious development of the Region by 2001. The Plan will serve as a guide and provide direction for the use of land in the NCR in both the short and long term towards accomplishment of the goals of the Plan. This broad land use Plan will be supplemented by Sub-regional Plans dealing with respective Sub-regions in greater depth to provide more specific policy guidance.

Land is a vital but limited and non-renewable resource. With the tremendous increase in population, the pressure on land has gone up rapidly. Particularly, there is an increasing concern over the loss of primary agricultural land and the consequent environmental degradation. This is indicative of the utmost need to optimise the use of land resources in the Region through rational uses of urban land, conservation of areas sensitive to development activities and evolving policies for the effective control of landuses.

14.2 Existing regional landuse pattern

Agriculture is the predominant user of land in the Region. The cultivated area constitutes about 80% of the total reporting area. Of the Region's total cultivated area, about 46% is concentrated in the Haryana Sub-region followed by the U.P. Sub-region (37.3%), while Delhi UT has the least of 3.7%. The land put to non-agricultural uses which comprise area under settlements, transport network, rivers and canals covers 9.9% of the total area. The Haryana Sub-region has the highest area of 128431 hectares under non-agricultural uses which form 43.3% of that of the Region followed by the UP Sub-region (38.7%) and the Delhi UT (24.2%) and the Rajasthan Sub-region (5.9%). The occupation of highest area under this category in the Haryana and UP Sub-regions is mainly due to the large area occupied by the Ganga and Yamuna rivers and their tributaries and, concentration of non-agricultural uses whereas in Delhi, it is owing to large-scale urbanisation and industrial expansion. (T 14.1).

The third important category is the barren land which includes rocky area, saline patches, gullied land, derelict land and covers an area of 141677

hectares or 4.7% of the total reporting area of the Region. The highest concentration is in the Rajasthan Sub-region (39.8%) followed by the Haryana Sub-region (24.7%), the U.P. Sub-region (22.3%) and Delhi UT (13.2%). According to land records, forest covers a total area of 65222 hectares which forms 2.1% of the total area of the Region, with the highest concentration in the Haryana Sub-region (52.2%), followed by the U.P. Sub-region (30.5%) and the Rajasthan Sub-region (15.2%). The Forest Departments of the NCR States place the total area under forest at 153474 hectares, with a break up of 55544 hectares under reserve forests, 31640 hectares under protected forests, 56202 hectares under unclassified forests and 10088 hectares under social forests (T 14.2). The satellite imageries, however, show only 35557 hectares i.e. 1.2% of the reported area under forests. The satellite imageries include only the compact forests under tree cover while records give the area under protected category also.

Culturable waste land constitutes 57484 hectares of land which is 1.8% of the total Regional area. The U.P. Sub-region has the highest of 44.5% of the total area followed by the Haryana Sub-region (41.8%) under culturable wastes. Delhi has the least area of 1.5% of the total culturable waste land in the NCR. The area under 'permanent pastures and other grazing land' which forms 1.2% of the total area of the Region is mainly concentrated in the Haryana (45.0%) and the Rajasthan Sub-regions (42.0%), while the land under 'miscellaneous trees and groves' is concentrated in the U.P. Sub-region. The area under water bodies include lakes, reservoirs, tanks and forms 0.28% of the total area.

14.3 Status of landuse-categorywise - 1987

a) **Agriculture** : Agriculture occupies 23.92 lakh hectares or 79.9% of the area of the Region. In Delhi, only 59.9% of the area is under cultivation.

b) **Forest** : A comparative analysis of forest area, through landsat satellite imageries and land records reveals that 45% of the total forest area is devoid of forest. This vast area has been denuded by encroachment or by other uses and indiscriminate deforestation. In the Haryana Sub-region, 31,925 hectares (T14.4) of the forest area is reported as tree less area. There is a loss of huge forest area of 59,558 hectares in the Rajasthan Sub-region, due to the encroachment and indiscriminate felling of trees. In the U.P. Sub-region, an area of 29,455 hectares (T 14.3) should be under forests which includes reserved, protected, unclassified and social forests against

11,601 hectares of land under actual tree cover and thus there is a loss of 17,854 hectares of forests. Bulandshahr district, in fact, has the highest share of such denuded area.

c) Barren Land : This category of land includes quartzite rocks, sandy and saline patches, gullied land and derelict lands. According to the satellite imageries, 6.5% of the total area is under barren lands against 4.7% as per the land records. Most of the gullied lands are concentrated in Rajasthan, Haryana and Delhi Sub-regions around the Aravalli ranges. In other parts, it occurs along the river and stream courses whereas saline patches are concentrated in the Haryana and Uttar Pradesh Sub-regions especially in the excessively irrigated area. Sandy patches exist in abandoned river courses in the Uttar Pradesh and Rajasthan Sub-regions.

The land actually under the category 'Barren land' as interpreted from the Satellite imageries shows that more area has become barren for one reason or the other in addition to the area designated under this particular category.

The analysis reveals that as much as 53,044 hectares (T 14.4) of land has become barren over and above the barren land as per the land records in the Haryana Sub-region, whereas it is to an extent of 6,672 hectares in the U.P. Sub-region and 2,114 in the case of Rajasthan Sub-region. Interestingly, an area of 7,269 hectares in Delhi UT is found reduced compared to the land records which may be mainly due to the reasons of urban expansion and proliferation of secondary and tertiary activities.

d) Culturable Waste : Rohtak (13,000 hectares) and Bulandshahr districts (12975 hectares) have extensive area under culturable waste lands. Other districts of concentration of culturable waste lands are Sonapat, Ghaziabad, Meerut and Alwar.

e) Land put to Non-Agricultural Uses : In Delhi Sub-region, this category forms maximum 24.2% of the total reporting area compared to nearly 10.0% in the Haryana Sub-region as well as U.P. Sub-region. The concentration of this use is significant apart from Delhi in Gurgaon, Faridabad and Mahendragarh districts of Haryana Sub-region.

f) Others : Land under permanent pasture and other grazing lands which meets the fodder requirements of the cattle occupy 1.2% of the total area of the NCR. The Rajasthan and Haryana Sub-regions have the highest

concentration (2.7%) of the reporting area. Land under miscellaneous tree crops and groves constitutes a meagre proportion of 0.2% of the NCR.

14.4 Changing Characteristics of Land uses

The landuse characteristics in the NCR are influenced mainly by two factors. The first has been the continuous and rapid increase of the economic activities particularly in the Delhi Urban Area (DUA) and the consequential rise in population within the DUA mostly due to inflow of migrants to seek employment opportunities created by the economic activities. In 1981, about two-thirds of the total urbanites of the NCR were concentrated only in Delhi.

The second factor has been the rapid increase in the development of industrial activities on the traffic arteries radiating from Delhi and the consequent pre-mature and speculative sub-division of land for residential and industrial uses along the corridors outside Delhi. The development activities in the secondary and tertiary sectors in the DMA towns have leap frogged leaving widening gap in the development of physical and social infrastructure. The other towns in the Region beyond the Delhi Metropolitan Area (DMA) have been growing slowly with normal activities and natural increase. The landuse demands in the three distinct area, namely, the Delhi UT, the DMA excluding Delhi UT and the area beyond the DMA, are influenced by the aforesaid developmental activities.

The convergence of road and rail routes in Delhi has favoured flourishing whole-sale trade activities and the wholesale market in Delhi has become one of the biggest distributive centres in the Country. The present disposition of landuses within main urban centres and also the mushrooming industrial agglomeration along the transport corridors have amply been reflected in varied economic activities. The change in landuse characteristics particularly the conversion of agricultural land for non-agricultural uses has been at a big scale during the last two decades. This has brought in with it the attendant degradation and deterioration in the environment and eco-system. Vast tracts of fertile agricultural land have been converted for industrial and economic uses. However, the primary sector and agricultural economy will continue to dominate as the mainstay of the Region though the urban structure might play a significant role in shaping the future landuses of the Region.

Moreover, the proposed transport and communication system based on the radial corridor pattern would warrant a rationalisation of landuse in

the Region. In the urban centres along the traffic corridors also, creation of more employment opportunities in the secondary and tertiary sectors would bring about a shift in the land requirement from non-urban to urban uses. The anticipated urban population of 234 lakhs by 2001 as against a mere 91 lakhs in 1981 in the Region would warrant adequate economic opportunities mostly in the non-agricultural occupations to be created by the turn of the century. However, as a major aspect for the regional development policy, most of these activities with employment opportunities are to be developed in the selected urban centres for development on priority basis.

14.5 Issues

1. The process of urbanisation in the region is comparatively faster than other areas. With the policy of inducing development in the regional and sub-regional centres, the urbanisation will be much faster which implies additional land for urban expansion. Delhi will require large chunk of land to accommodate the envisaged population. All this will need necessary conversion of agricultural land into urban or non-agricultural use. A rational land use pattern would need to be worked out to protect and preserve good agricultural land and utilising unproductive land for urban uses.

2. The Region, for all practical purposes is devoid of forest cover worth its name. Against the National Forest Policy stipulation, an average coverage of 33% - 20% in plains and 60% in hills, the region has only 1.2% of forest cover. Thus the entire region has become environmentally sensitive and the eco-system is already disturbed. Means and measures are to be identified to improve the situation to save the region environmentally in the long run.

3. More and more land patches become barren either due to increase in salinity or indiscriminate abuse through destruction of vegetative cover. This land in fact, is potential for productive use either for afforestation or agriculture use after proper reclamation and replenishment of its lost fertility.

14.6 Proposals

i) Land for Urban Development

Out of the assigned population of 325 lakhs by 2001 AD for the NCR, about 234 lakhs would be accommodated in the urban areas which accounts for 72% of the total population. The population assignments for Delhi urban area is 112 lakhs, for the DMA towns

excluding Delhi 37 lakhs, the eight priority towns/complexes 49 lakhs and the rest of the towns, 40 lakhs by 2001.

To accommodate this population additional urban land would be necessary. The additional land, by and large will be met by conversion of agriculture land. A study of the distribution of urban settlements and their spread reveals indiscriminate use of land for urban uses. It is, therefore, only reasonable that both urban and rural settlements should be developed in future in as compact manner as possible and, on lands unfit for agricultural use. With this in view, especially for the urban settlements, the following density norms are suggested:

a) For urban centres upto 1.0 lakh population, a density of 80 persons per hectare.

b) For urban centres of 1.0 lakh to 5.0 lakh population, a density of 110 persons per hectare, and

c) For urban centres of more than 5.0 lakh population a density of 125 persons per hectare.

Whenever these norms are not readily obtained in the existing urban centres, an appropriate redensification is suggested to be taken up to attain the density norms. Accordingly, the total area under urban use for the DMA (excluding DUT), priority towns and other towns in the NCR will be of the order of 1,23,561 hectare (T 14.2) by 2001. This would mean an additional area of 45291 hectares would be required for urban expansion between 1981-2001.

ii) Land for Forest

Development of forest resources is of vital importance in preserving the environment and eco-system which greatly influences the climate pattern for better. Their presence is also essential as a safeguard against flood and erosion.

Forests occupy a meagre proportion of 1.2% of the NCR area and are under constant danger of encroachment and denudation and as such, the day is not far off when the Region may be devoid of forests altogether. Viewing the situation of the forest in the Region with reference to the National Forest Policy, the Region's forest cover should be increased in any form such as protected, reserved, community and social forestry in all those areas which are not fit mainly

for agricultural use. The main targets of operation will be :

a) to afforest and vegetate barren lands, rocky areas, culturable waste land etc, so that the forest or vegetative cover is raised atleast to 10% of the land area.

b) to intensify the forest cover by planting suitable species in the sparsely forested zones and denuded areas, and

c) to identify alternate sources of energy for fuel and also to find methods of increasing the efficiency in the use of the forest fuel especially from the social community forests. These should be taken up in a phased and planned manner so that afforestation and vegetation sustain and stabilise over time.

iii) Land for Agriculture

For meeting the growing demand for food and food products, the existing cultivated land of 23.92 lakh hectares should be kept reserved for agricultural use. Efforts should be made to increase the production through intensive cultivation by providing irrigation facilities and other necessary infrastructure.

In view of the anticipated changes in land use, there would be a major impact on land requirement of agricultural sector. To the extent that new employment opportunities are proposed in non-agricultural sector and consequent concentration of population, the urban expansions would have to be largely met from the agricultural and other non-urban uses. It is however, necessary to institute measures for the protection of prime agricultural land and to ensure against its needless conversion. This necessitates a rational policy as to the utilisation of less and least valuable land for urban expansion/new urban centres.

iv) Conservation area

The un-planned urbanisation and industrialisation and intensive exploitation of resources with little regard to environment, affect the environment and ecology adversely. An intimate and in-separable relationship exists between the environment and development and that sustained development may not be achieved by ignoring the environmental causes.

To achieve the overall development of the NCR without destruction of its natural environment, all economic activities need to be rationally planned. Special attention should be given to check the damage to natural features and environment by man's interference for development purposes.

In the NCR, the major natural features are the Ridge, an extended part of the Aravalli range, the forest areas, the rivers Yamuna and Ganga. Apart from these, the NCR has two sanctuaries namely, Sariska wild life Sanctuary in the Rajasthan Sub-region and Sultanpur Bird Sanctuary in the Haryana Sub-region harbouring a large number of wild animals and birds. The ridge areas and these sanctuaries should be conserved with utmost care and should be afforested with suitable species.

The rivers Yamuna and Ganga have a high level of water pollution mainly from the un-treated sewage and waste from industrial areas. While measures have been taken to make the river Ganga pollution free under 'Ganga Action Plan', similar action is needed to check pollution of the river Yamuna too.

v) **Landuse Control : Zoning Regulations**

In order to avoid haphazard development and ensure orderly development of the rapidly developing urban sector in the National Capital Region, a legislative tool in the form of Zoning Regulation is a necessity. Keeping in view the anticipated rapid urban expansion of the NCR towns and also the rate of environmental degradation in the Region, the following four distinct zones have been identified for application of strict landuse control and development. An attempt has been made to identify the likely major economic activities in the following use zones/areas:

- a) Urbanisable area
- b) Green belt/green wedge
- c) Areas along the major transport routes
- d) Remaining rural land

a) **Urbanisable area - 2001**

Within the urbanisable area-2001, which is proposed in the Master Plans of the respective towns, the functions and uses designated as under could be continued :

- 1) Residential
- 2) Commercial
- 3) Industrial
- 4) Government offices
- 5) Recreational

- 6) Public and semi-public
- 7) Circulation
- 8) Open spaces, parks and playgrounds
- 9) Grave yards/cemeteries and burning ghats.

The detailed uses within the urbanisable area will be governed by the local authority according to the prescribed uses in the Master Plans. However, master plans for Delhi Metropolitan Area and Priority Towns should be prepared under the existing rules and act of the participating States/UT. In order to avoid the land use conflicts especially in the Delhi Metropolitan Area Towns, the master plans of all the towns within the National Capital Region should be prepared in consultation with the National Capital Region Planning Board and approval obtained before it is finally approved by the respective State Governments.

b) Green belt/green wedge

The peripheral agricultural zone in the immediate vicinity of the urbanisable area is very vulnerable to encroachment by development. To arrest undesirable growth in this zone and to ensure orderly and compact urban development, a control belt is proposed all around the expected developable area. The development will be restricted or strictly controlled in this green belt. The activities compatible with open character of land will be permitted. The major landuses that could be permitted in these zones are as under:

- 1) Agriculture, particularly high value cash crops
- 2) Gardening
- 3) Dairying
- 4) Social forestry/plantation
- 5) Quarrying
- 6) Cemeteries
- 7) Social institutions-such as school, hospital
- 8) Recreation or leisure

The detailed boundaries of the green belt/green wedge will be defined in the Sub-regional and master plans.

In the cases of settlements particularly those which are in close vicinity to each other either along the roads or interior, the intervening space between the settlements should be kept green which can be designated as green wedge. This will prevent not only any development other than permitted taking place around the settlement but also from merging with each other. The green wedge should be forested partly and,

whereever. It is not possible for pressing reasons it could be in the other forms of greens.

c) Green Buffer along the major transport corridors

The un-desirable industrial development in the areas beyond the urbanisable area limits of the towns along the 5 National Highways would become a serious problem in the near future. There will be a continuous ribbon development along the major transportation routes. The large scale development beyond urbanisable limits of any town should be strictly controlled. A width of 100 metres on either side along the National Highways and the proposed Expressways and 60 metres on either side along the State Highways should be kept as green buffer. Those should be afforested under the control of the forest department. Only activities permitted in the green belt as indicated earlier would be allowed.

d) Remaining rural land.

The remaining rural zone include mainly the vast agricultural land, forest, ridge areas and rural settlements. This zone-virgin agricultural land at present, is being threatened by the spotted industrial/urban encroachments especially along the 5 National Highways and State Highways. The lower cost of land in the rural areas, excellent transportation system, and marketing for the products have accelerated the development of industries along the roadsides. The following major landuses can be designated in the rural lands. Strict prohibition and control on the large scale and hazardous industries, has to be exercised in the rural zone:

- 1) Intensive agriculture and allied activities
- 2) Afforestation especially on the hills, rocky lands, gullied land and barren lands.
- 3) Regional recreational facilities such as regional parks, wild life sanctuary.
- 4) Cemeteries, schools, institutions, like hospitals may be permitted. However, the proposed development, should not involve the use of high yielding agricultural land not should it adversely affect a site of special scenic beauty of ecological interest.
- 5) Quarrying
- 6) Brick kilns
- 7) Existing village mandies
- 8) Rural industries etc.

15.1 Background

Environmental changes are inevitable consequence of developmental process. In NCR damage to the environment by man's interference for development purposes or otherwise has taken place mainly in the form of denudation of its scanty forests. Unless necessary steps are simultaneously taken to preserve it, the environmental health of the National Capital Region may start deteriorating.

There is also a gradual decline in the quality of environment in the industrial area of, particularly, the Delhi Urban area and other industrial towns of the Region. The undesirable environmental effects of industries are noise, smoke, dust and dirt, odour, emission of toxic gases, glare, vibrations, effluents, and aesthetic and psychological factors and many more.

i) Present environmental status of the Region

a) Delhi UT

Air : "Utter disregard to environment has placed Delhi in the unenviable position of being the world's third grubbier and unhealthy city". Delhi records 12 times the national average for respiratory ailments mainly due to the unchecked pollution or the thick cloudes of smoke that hang over the city. An estimated one million motor vehicles, thousands of industrial units in conforming and non-conforming use zones, some of them hazardous and hundreds of stone crushers located in different parts of the Union Territory, are responsible for this situation.

The power plants in Delhi account for as much as 82% of the total industrial pollution in Delhi. Though the Electro Static Precipitators (ESP) to trap the flyash are fitted, the Kalpavish Environmental Action Group has found that these ESPs are working at less efficiencies than intended. The mushrooming industrial units not only pollute the environs but also pose safety hazards as a large number of them are located in the thickly populated areas of the walled city and in the residential complexes in the north and West Delhi. Of the 15000 polluting industries, nearly 5000 of the industrial units including hazardous units such as chemicals electro & nickel plating and plastics are in the non-conforming areas. Each 500 tonnes crusher throws 3 tonnes of suspended particulate matters

daily and, the dust concentration around them varies from 3000 to 8000 micro grains per cubicmetre of air. This is 15 to 40 times the limit prescribed by the Central Pollution Control Board.

Fifty percent of the total atmospheric pollution in the Capital however, comes from the emission of nearly a million vehicles. A study by the Indian Institute of Technology, Delhi, at the behest of the Delhi Administration found only 18% of the Delhi Transport Corporation buses and 10% of the trucks that ply on the Delhi roads have the standard smoke intensity of 65% on the Hartridge scale. Nearly, 41% of the DTC buses and 50% of the trucks and all tempos monitored by the IIT have a smoke intensity over 90% on the Hartridge scale. The Railways are also contributing to the air and noise pollution in the city.

Water : The major share of Delhi's water is from the Yamuna. Nearly 1200 million litres of domestic and industrial wastes, containing about 100 tonnes of BOD (Bio-chemical oxygen Demand) load are let into the Yamuna every day. In fact, the entire stretch from Delhi to Agra is unfit for bathing and drinking. Nineteen major storm water drains meet the river in Delhi. A survey by the Pollution Control Board in 1984 revealed that five drains namely, Najafgarh, Civil Mill, Power House, Sen Nursing Home and one from Okhla Sewage Plant contribute more than 95% of the Yamuna's total BOD load. The thermal plants discharge waste oils and chemicals into the drains that threaten subsoil waters that will seep into the river. Some of the industries discharge dangerous pollutants like cadmium, zinc, chromium, cyanide, oil, grease and colour into the river. Major part of the solid wastes of the city are dumped at many places in the open in the city which pollute the air, subsoil water and land too.

According to a study on environmental impact Assessment and Guidelines for Industries Development in NCR by the School of Planning and Architecture, New Delhi the status of environment of the industrial towns of NCR is in brief as under :

b) Haryana Sub-region

Sonepat

Large scale pollution of land and water from the effluents of large industries is prevalent in Sonepat. Roads adjacent to Atlas Industries are polluted with solidwastes and sullage water causing insanitation and health hazards. The Shanti Paper Mills, Engineering industries, Seafarm Roller Tanner, Gedore Tools and Hindustan Everest Foods and units in the Kundli Industrial Estate cause both air and water pollution.

Panipat

This textile town has a number of handloom & powerloom industries dealing with woollen fabrics. The effluents from these industries are allowed into an open drain. A large and highly polluted drain through the middle of the city outfalls into the Yamuna polluting it to dangerous proportions.

Bahadurgarh

Bahadurgarh has extensive areas under industries. The industrial area near railway station with about 100 small and large industries, private industries north of the road cause air and water pollution. Though HUDA has constructed sewage treatment plant, major part of the sullage is disposed off on land as the plant is not yet completed.

Faridabad - Ballabgarh Complex

There are around 1800 polluting industries and amongst them 337 industries including electro-plating processors are more polluting. There are a number of private owned electroplating units in the residential areas seriously endangering the health of the residents. Traces of zinc have been found in the water drawn from the borewells and, this poses an alarming health hazard to many in the city. Moreover, in the absence of sewage treatment not being in use, the raw sewage is let into the drains damaging the environment.

Dharuhera.

The solid and land wastes of the industrial Estate are dumped on the Jaipur road side causing water stagnation and insanitation. There is pollution of air, water and land in an extensive way in the Estate. The paper mills throw out liquid wastes on to the road and also the gaseous wastes (sulphuric acid) which has damaged the agricultural crops as well as trees in the area. The solid wastes from the paper and chemical industries being dumped on land will spoil the land as well as the water resources. The Oriental Carbons and Chemicals Ltd. and the Multi Technical Chemical Industries particularly the cause heavy pollution of land, water and air.

Gurgaon

Among the many industries in the city, polluting industries are the ceramics, rubber and iron works etc. For want of adequate power supply, even the large industries are using diesel generators which aggravate the smoke pollution hazards.

c) Rajasthan Sub-region

Bhiwadi

Bhiwadi Industrial Estate located on the Rajasthan Haryana border accommodates number of large industrial units besides a number of small scale industries. There is no arrangement to deal with the solid and liquid wastes. The sullage water is carried untreated through the natural drainage channels towards Haryana causing a great hazard of water pollution. The Cardboard Factory and the two paper mills are the most polluting units and, their solid and liquid wastes are dumped on land. The coal ash is not properly disposed off.

Alwar

Alwar has two industrial areas, one in the town is of medicine and chemical industries which create pollution hazard. The other one is outside the town consisting of chemical gases and glass industries which give rise to large scale pollution. There are chances of gas leakages which has occurred at minor levels causing eye irritation to the residents nearby.

d) Uttar Pradesh Sub-region

Khurja

This is a unique case where a large number of ceramic industries have been developed close to each other with a kiln and a chimney for each. The kilns are mostly coal fed. The smoke from many chimneys heavily pollutes the atmosphere and sometimes, choking sensation has been reported by the people around. The proposed expansion of ceramic industries may add more to the pollution level and suitable measures to minimise the pollution should be taken.

Meerut

Meerut city has three industrial areas - one at Partapur, one at Modipuram and the other at Daurala. In Partapur, presently only water pollution by the distillery is reported. Modipuram industrial complex is reported to have no significant pollution problem so far. The small industrial units within the city are causing air, water and land pollution.

Modi Nagar

A large number of industries which have been located on road side as well as inside the city have no provision for any treatment and the liquid waste is

discharged into the Kalinadi. This endangers the inhabitants of the area as well as the ground water sources. The chimneys of various plants are causing air pollution.

Ghaziabad

There are a number of industrial complexes comprising forging units, rolling mills, paper plants, metallurgy plants, pharmaceuticals, rubber industries and electro - plating. All of these cause serious water and air pollution. The wastes pollute the Hindon River. The calendering and dyeing plants at Pilakhuwa, though small in size, cause water pollution in a big way.

Mohan Nagar

The food processing plant, engineering shops located on the border of Delhi cause air and water pollution.

Sahibabad

There are a number of industries manufacturing textiles, paper, chemical and rubber products. Besides, there are a number of printing and electroplating industries. These are causing air and water pollution. The water pollution covered by these industries may also affect the waters of the Yamuna.

ii) Environmental sensitivity

a) Industrial

This is a tool to assess the overall impact of various types of pollutants generated by different kinds of industries on various landuse zones, infrastructure, flora and fauna and man - made structures.

The Environmental Sensitivity Index (ESI) for industrial complexes in the NCR are as under :

Sub-region/Industrial Complex	ESI	Environmental condition
a) Haryana Sub-region		
1) Sonapat	778	Adverse
2) Panipat	798	Adverse
3) Gurgaon	757	Adverse
4) Rohtak	758	Adverse
5) Bahadurgarh	679	Bad
6) Faridabad	675	Bad
7) Rewari	715	Adverse
8) Dharuhere	730	Adverse

b) Rajasthan Sub-region

1)	Alwar	757	Adverse
2)	Bhivadi	789	Adverse

c) Uttar Pradesh Sub-region

1)	NOIDA	614	Tolerable
2)	Khurja	650	Bad
3)	Bulandshahr	615	Tolerable
4)	Hapur	650	Bad
5)	Meerut	632	Bad
6)	Modinagar	633	Bad
7)	Sikandrabad	635	Bad
8)	Ghaziabad	662	Bad

* Source : ' Environmental Impact Assessment and Guidelines for Industrial Development in NCR' by School of Planning and Architecture, New Delhi sponsored by the Ministry of Environment and Forests .

b) Human Settlements

So far sanitation facilities are concerned, the Region presents an equally unsatisfactory picture. Of the urban centres, as many as 65 do not have sewerage system at all. The raw sewage is disposed off on lands, into open drains and is allowed to flow its natural slopes where it stagnates and results in formation of foul smell, germs and virus, rodents and water pollution. Solid wastes are managed only in 29 towns and they are dumped in depressions in an unorganised and unscientific manner polluting the air and underground water by its gaseous products. The rural sanitation scene is still worse. Sewerage system does not exist in villages and solidwaste collection and disposal is fully unscientific and irrational.

iii) Imbalance of Eco-system

One of the important elements in keeping the eco-system in balance is the vegetative cover. The National Forest Policy in this regard stipulates a minimum of 33% of the land area to be under forest cover in average, made up by 20% in plains and 60% mountainous zones. The NCR, by and large, is plain and should have therefore, a minimum 20% of its area under forest/tree cover. But, the Region has only 1.2% of its area under forest cover. In fact, even this is being fast eaten away by encroachment for other uses. Even in the left

over forest area, forests are getting denuded leaving only a fraction of the forest area under tree cover. The satellite imageries of the Region reveal that out of the forest designated area of 65,222 hectares, only 35,557 hectares of land is covered by trees meaning thereby denudation/encroachment of nearly 29,665 hectares of land. This is a significant loss of forest wealth which will have damaging effects on microclimatic conditions causing reduced rainfall, dust storms, deepened water table conditions and finally in economy and livelihood of people. The damage is to an extent of 31,925 hectares in the Haryana sub-region and 8317 hectares in the Uttar Pradesh sub-region.

15.2 Policies and Proposals

i) Air Pollution

The main sources which contribute to air pollution are emission from automobiles, industries, thermal power plants, fertilizer plants, coal burning and indirectly putrefying odour from slaughter houses, raw sewage disposal, solid waste dumping and stagnating water. There is a direct relationship to air pollution levels and urbanisation and industrial activities. The levels of air pollution in the NCR are severe in several pockets such as in the metropolitan and urban industrial areas, major transport corridors, etc. Therefore, any further urbanisation and industrialization, the NCR has to be reckoned for their air pollution impacts and the general tolerance levels that should be achieved for viable development programmes. These have to be identified through appropriate field research studies so that the levels and types of industrialisation can be established for different sub-regions.

ii) Water Pollution

a) No industry be permitted to discharge its effluents over land or other water bodies without treating it to requisite pollution control standards.

b) As far as possible, new industries be developed in identified and classified industrial areas/estates which should have proper effluent treatment facilities in-situ before they are discharged into natural areas.

c) Urban wastes should be treated to requisite levels of pollution control standards before being discharged into rivers or other water bodies.

- d) The existing water supply problems should be solved through inter-State cooperation.

iii) Sewage Disposal

Detailed schemes should be prepared at local level for sewage treatment for all DMA, priority and other towns so that the sewage may be recycled for irrigation and other purposes. The settlements where regular sewerage schemes are not available, low cost sanitation system for individual family or community may be adopted as a short-term measure.

iv) Solid Waste

Solid waste from urban and agricultural areas, if properly recycled, can be a valuable source of nutrient and energy. This approach will also lessen the pollution loads of the solid wastes on the environment or the eco-system. A scientific approach should be adopted for the solid waste management and its re-use in all urban and agricultural areas.

v) Coordination Committee

A Coordination Committee for prevention and control of pollution of water, land and air should be established for the NCR with the following main functions :

a) To coordinate the activities of the State Pollution Control Boards for the prevention of pollution, and the Environmental Committees constituted at local levels and to provide them the technical assistance and guidance to carry out and sponsor investigations and research relating to problems of water and air pollution and prevention, control and abatement of such pollution.

b) To advise enforcing law for treatment of liquid effluents from domestic areas, industrial and commercial areas for making them fit for recycling, and

c) To promote solid waste management for extracting its nutrient value.

vi) Location of industries in the NCR should be regulated with respect to pollution propensities. Before issuing new licence or renewing the old one, licensing authorities should ensure that industries are located in such a way that smoke emitted by industries is carried away from the main human settlement, and the liquid wastes are released so that the water sources

are not polluted and no liquid effluents are released without proper treatment.

vii) Afforestation programmes should be undertaken on all barren and uncultivable land by the concerned agencies.

viii) Care should be taken by the local planning and plan implementing authorities at the time of preparing and implementing the development plans of the urban areas in their Sub-region to contain the spread of corridor developments all along the major arteries of the Region. All urban developments should be regulated within identified geographical areas. As far as possible, each of the settlements may be surrounded by a green belt comprising social forestry, urban forestry or agro-horticulture with adequate vegetal and biomass cover. These would inter-alia, act as climate balancers.

ix) Technical help and training should be given to the people in rural areas through voluntary Organisations and through the concerned agencies of the Central and State Governments to put the animal dung and human waste to productive use of bio-gas generation.

x) Municipalities and other local authorities should provide for sewerage and solid waste disposal in towns and low cost sanitation in towns and villages where conventional sewerage system is not available.

MANAGEMENT STRUCTURE FOR
PLAN IMPLEMENTATION

16.1 With the establishment of NCR Planning Board, an apex body has been constituted at the Central level with the requisite statutory powers to prepare a Regional Plan for the balanced, harmonised and coordinated development of the NCR and to enforce, oversee and monitor the implementation of the Plan. For successful implementation of the Plan in the Region, suitable institutional arrangements are necessary at all levels. The NCR Plan is required to be implemented by the participating States/Delhi U T. While, schemes falling in the Central sector will be implemented by the concerned Central Ministries.

16.2 A review of the existing planning and implementation arrangements shows a varied pattern in the three participating States and the Union Territory of Delhi. However, none of the existing arrangements has been found to be fully compatible to fulfil the needs of taking up the balanced and integrated development of the concerned Sub-Regions at the field level, which could encompass both the rural and urban areas. In Haryana, the Haryana Urban Development Authority (HUDA) fully meets the needs as far as the urban areas, including controlled areas, are concerned. Planning in their case is the responsibility of the State Town and Country Planning Department. The Director of the Town & Country Planning Department who is also the Chief Administrator of HUDA, is in a position to achieve a fair degree of integration in planning and developmental activities. However, their jurisdiction does not extend to rural areas at all.

In Uttar Pradesh, planning in urban areas is the responsibility of the Development Authorities and Controlling Authorities under the U P Urban Planning & Development Act and the U P Regulation of Building Operations Act respectively. The State Town & Country Planning Department acts as an agency for planning on behalf of the Development Authorities. But once again, they have no responsibility for the rural areas. The suggestion made to the UP Government for declaring the Sub-Region as a Special Area under their UP Special Area Development Authorities Act, 1986, has not yet found favour with the State Government and they have been considering various other proposals. Uttar Pradesh, of course, has the added advantage of having Development Authorities covering their towns included in the DMA and the other towns identified for priority development. However, as pointed out above, the

body which could exercise uniform authority for planning and implementation in the urban and rural area. In the Rajasthan Sub-Region, all the territory lies in one district alone, viz Alwar. The State Government has presently extended the scope of the Urban Improvement Trust, Alwar, to include development of Bhiwadi, one of the identified priority towns, but they have themselves accepted the limitations of this arrangement. They have agreed that they intend to constitute a Sub-Regional Development Authority with wider jurisdiction to undertake planning and to implement the NCR Plan for the entire Sub-Region when their proposed Town & Country Planning Act is enacted. The situation in the Delhi Union Territory is still more complicated and a Commission appointed by the Union Government is presently going into the question of suggesting a revised administrative structure and we shall have to await their findings.

16.3 The main issue to be resolved is about dovetailing the planning and development in the rural areas along with urban areas. The concept of the development of the NCR goes much beyond the limited applicability on the urban areas and has to integrate and harmonize the development of the rural areas also. It is a fact that a number of agencies, such as Zila Parishads, Panchayat Samities, Panchayats, cooperative bodies, in addition to the official agencies of the Government, are operating in the rural areas. Since an integrated approach is crucial for the development of the Region, it is of utmost necessity that a suitable organisation be set up at the Sub-regional level which would have jurisdiction for planning in the entire Sub-Region, and an overseeing role in the implementation of the NCR objectives and policies. It would be necessary at the Sub-Regional level to have one plan for the entire Sub-Region consisting of resources from the NCR Planning Board and the regular schemes of the State Plan. Suitable proposals in this regard should be worked out by the Board in consultation with the States.

16.4 The need for having a Planning Cell in the three participating States to carry out the preparation of the Sub-Regional Plans, Functional Plans, Project Plans etc. and to provide the necessary information to the NCR Planning Board for the preparation of its plans, has been accepted. Planning Cells with different compositions are already in operation and it is expected that they would be shortly re-organised on the pattern recommended and accepted by the Board. Presently, the three participating States have also set up Steering Committees under the chairmanship of the Chief Secretaries concerned, to establish the required coordination at the State level.

16.5 One of the functions of the NCR Planning Board is to arrange for, and oversee, the financing of selected development projects in the NCR, through Centre and State Plan funds and other sources of revenue. For both these functions suitable monitoring systems would be developed as under :

A. In case of projects with financial assistance of the NCR Planning Board, it is proposed that each implementing agency/organisation would have the following institutional arrangement :-

- (i) Within the Implementing Agencies in participating States : Creation of a Programme Monitoring Unit (PMU) which would be responsible for monitoring of the programmes of the agency/organisation including projects funded by the NCR Planning Board. This Unit will monitor the achievement of the overall goals of the sectoral programmes and also physical and financial progress of individual projects funded by all sources, including NCR Planning Board. This Unit will submit a quarterly progress report to be evaluated by the Planning cells (in the Town and Country Planning Department) of the State Government and finally to the NCR Planning Board for review by the Project Sanctioning and Monitoring Group of the Board.
- (ii) In Central Ministries : In case of NCR projects to be implemented by the Central Ministries, progress reports on quarterly basis will be made available to the NCR Planning Board Secretariat for review by the Project Sanctioning and Monitoring Group of the Board.
- iii) For monitoring of projects both of State and Central Schemes, a Project Appraisal Monitoring and Evaluation system will be developed in the NCR Planning Board.

B. As regards monitoring of the following aspects suitable scientific systems will be developed within the secretariat of the NCR Planning Board for monitoring of major developmental activities as follows :

- (i) Landuse aspect Through sequential/

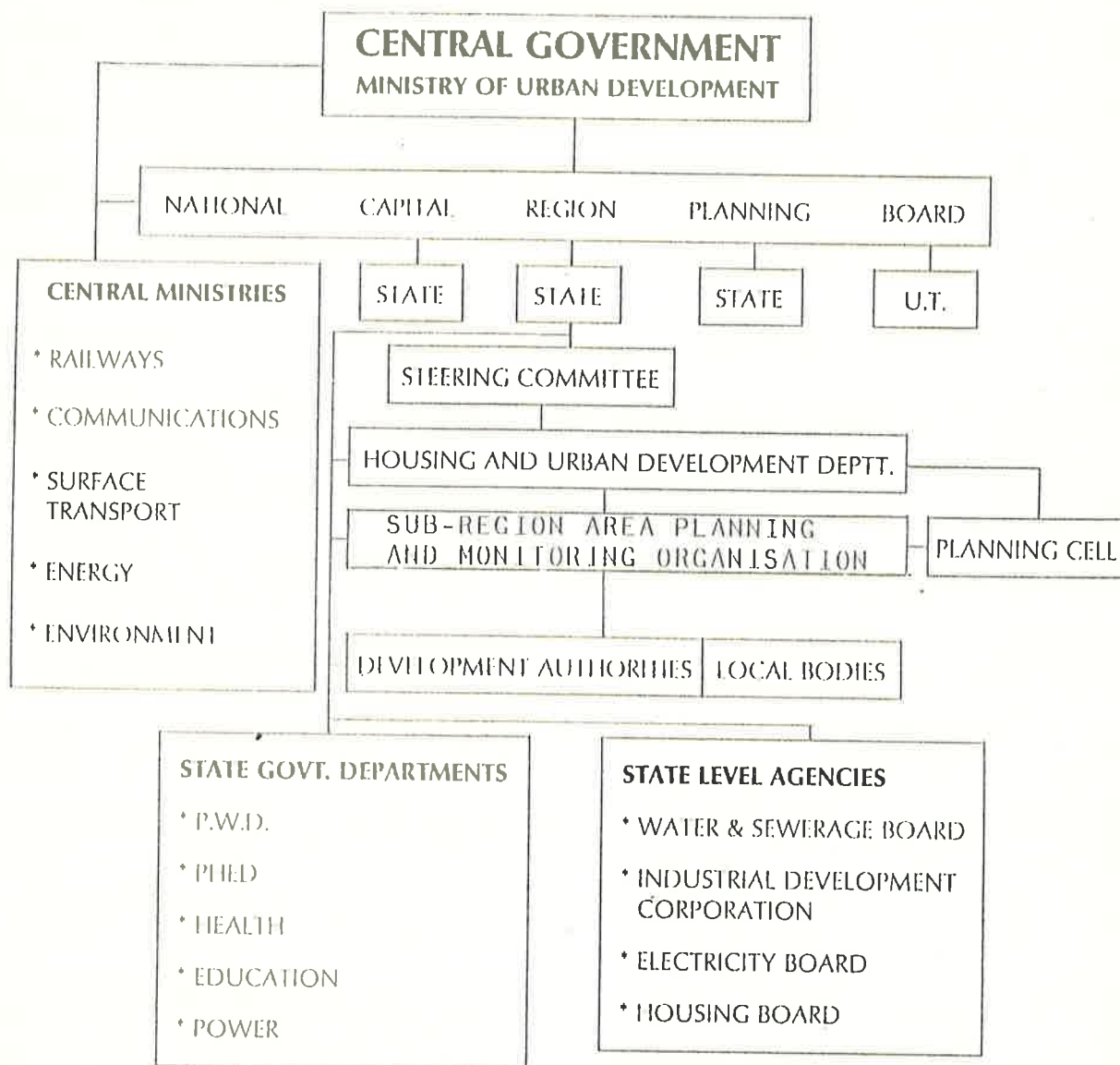
periodical aerial
photographs/satellite
Imageries to evaluate
persistent trend of land-
use over a period of time
and monitor unauthorised
developments and to detect
growth trend of urban
areas for review by the
Planning Committee and the
NCR Planning Board.

(ii) Environmental
aspects

Through Constitution of a
Joint Committee represen-
ted by the respective
constituent State Pollu-
tion Control Boards,
Central Pollution Control
Board and the NCR Planning
Board to be reviewed by
the Planning Committee and
the NCR Planning Board.

16.6 An Organisational Structure for the purposes
of Planning and co-ordination of enforcement and
implementation of the Regional Plan, Functional Plans,
Sub-regional Plans and Project Plans is as follows :

PROPOSED ORGANISATIONAL STRUCTURE FOR IMPLEMENTATION



17.1 Background

The NCR Planning Board Act, 1985 empowers the Board to select, in consultation with the State Governments concerned, any urban area outside the NCR having regard to its location, population and potential for growth, which may be developed in order to achieve the objectives of the Regional Plan. As per 1981 Census, the major share of Delhi migrants was from Uttar Pradesh (48.2%), Haryana (15.5%), Rajasthan (7.6%), Punjab (9.8%), Madhya Pradesh (2.4%) and thus it may be appropriate to identify the Counter-magnets in these States to help meeting the objectives of the Regional Plan. A study to identify appropriate Counter-magnet areas has accordingly been entrusted to a Professional Institution- the School of Planning & Architecture, New Delhi, by the Board.

i) Concept of Counter-magnet

Counter-magnet areas to Delhi should be located sufficiently away from the NCR and should have its known established roots and inherent potentials to function as viable independent growth foci. Such identified Counter-magnets would have the attributes of physical, social and economic viability; nodality with respect to transportation network and will have the quality of physical linkages in the form of facilities for transportation and communications.

ii) Role of Counter-magnet Areas

The proposed Counter-magnets are envisaged to play two distinctive and mutually complementary roles in the context of the NCR :

- (a) firstly, as the future interceptors of migratory flows which may escalate as the accelerated development of the NCR would provide a pull to migrants from the less developed adjoining areas;
- (b) Secondly, as regional growth centres in the regions of their setting which would help over time to achieve a balance pattern of urbanisation.

17.2 Identification of Counter-magnets

i) The criteria employed by the Consultants in identifying the Counter-magnet areas are:

a) **Nodality Considerations :** The Counter-magnet areas are expected to maintain certain amount of complementarity in respect of metropolitan functions with Delhi and the NCR and as such, a range of 250-300 km from the NCR boundary or 350-400 km from Delhi representing 6 hours journey time at the prevailing transport conditions should enable interaction between chosen Counter-magnet and the metropolitan core, without impairing its developmental autonomy and functional identity as a regional growth centre. However, these distances for search zones would be extended to the entire constituent States with the likely technology improvement in the transport sector specially along the major transport corridors. To avoid overlapping of influence zones, such identified centres would be spaced atleast about 60 km apart.

b) **Spatial Considerations :** To infuse complementarity to spatial pattern, size and functional specification of priority towns and their linkages outside the NCR, particularly in the search zones to identify kfor linking possible Counter-magnets, spatial considerations are imperative.

c) **Size and viability considerations :** Counter-magnets will generally have a population size of about 3,00,000 and upwards as that size cities have established service area and basic level social and economic infrastructure with a diversified economic base. While this would be only a general guideline, emphasis would be location specific.

d) **Migration considerations :** By an large, the location of Counter-magnets may be guided from the consideration of higher rate of migration flow in a district or a group of districts of a State.

ii) Search Zone

For selection of possible counter magnets, area falling between 100 and 400 kilometre radius from Delhi and including Haryana and parts of Punjab, Rajasthan, Madhya Pradesh and Uttar Pradesh was considered and on the whole 36 Class I urban centres were listed for multi stage scanning (T 17.1).

17.3 Selection of Counter-Magnets

The 36 listed centres, were subjected to considerations such as metropolitan or sub-metropolitan

size, major administrative status, viz Capital cities, religious or ecological significance, or any special locational attributes; and also to quantitative analysis using five variables - viz Population Size (1981), Population growth (1971-81), Work Force Participation Ratio (1981), Growth in Work Force Participation Ratio (1971-81) and Population Density (1981); and to a spatial analysis using three parameters, viz accessibility, congruence with immigration corridors, and proximity to other contenders in the region, in addition to an evaluation of them in terms of viable economic base, availability of infrastructure, input requirements particularly in secondary and tertiary sectors has led to the selection of certain urban centres as potential counter magnet areas. After discussions and consultations with the State Governments, the following urban centres emerged as possible contenders for further scrutiny to decide the counter-magnet areas :

Haryana

- 1) Hissar
- 2) Yamuna Nagar/Ambala/Karnal

Madhya Pradesh

- 1) Gwalior

Punjab

- 1) Patiala
- 2) Bhatinda/Ludhiana

Rajasthan

- 1) Kota
- 2) Sikar/Ajmer

Uttar Pradesh

- 1) Bareilly/Moradabad
- 2) Saharanpur
- 3) Allahabad

The Consultants have recommended that from amongst the above mentioned urban centres, 5 counter-magnets, one from each constituent State be selected for investment initially. This has been suggested not only in view of general financial constraints, but also to enable proper synchronisation of development programmes in the priority towns of the NCR vis-a-vis that which may need to be undertaken in the counter-magnet cities by the State Governments, and further to provide them time to acquire the necessary institutional

strengthening. Further addition to the number of centres to be designated as counter-magnets in each State could be considered at subsequent stages of NCR plan implementation.

In the interest of a balanced directional split, the consultants have therefore, recommended the following centres as the counter-magnets to the NCR for first stage intervention:

- 1) Hissar in Haryana (along westerly direction)
- 2) Patiala in Punjab (along northerly direction)
- 3) Gwalior in Madhya Pradesh (along east of southerly direction)
- 4) Kota in Rajasthan (along west of southerly direction)
- 5) Bareilly in Uttar Pradesh (along easterly direction)

17.4 Policy Guidelines

Development of Counter-magnet areas would require co-ordinated efforts of the State and Central Governments and the National Capital Region Planning Board. The broad policy guidelines for development of Counter-magnet areas in terms of the role by the Governments and the Board may be as under :

A. State Governments :

- i) The Counter-magnets would be finally identified by the NCR Planning Board in consultation with the State Governments. The State Governments/its implementing Agencies will prepare an integrated long term development programme under which detailed projects would be prepared to coincide with Five Year Plans for their accelerated development.
- ii) Specific action programmes for each Counter magnet area for the first five years, would then have to be prepared by the State Government/implementing agencies indicating the investment implications relating to development of physical and social infrastructure, economic activities such as industries, commerce and services, housing, environmental improvement etc. in the State sector and, development of transport (National Highways and Railways) and Telecommunications in the Central Sector.

iii) The constituent State Governments should take steps to formulate a special programme in the State sector for the integrated development of the concerned Counter-magnet areas and, set apart a special fund (in the form of revolving fund) for this purpose in the State Plans providing easy access to the funds by local bodies/authorities.

iv) The State Government should immediately take steps to establish statutory development authorities if not existing and these authorities and local bodies should be equipped adequately with both manpower and finance, to be able to take up urban development programmes.

v) The State Governments' promotional role would include extending incentive packages for industrial and commercial entrepreneurs favouring location in Counter-magnet areas. This calls for a reorientation of the State level industrial development policy directed at encouraging not only public sector but also corporate sector investments in the Counter-magnet areas.

vi) A Coordination Committee may be set up at the State level to coordinate various development programmes of the Counter-magnet areas with other development programmes relating to agriculture, marketing infrastructure, rural roads and electrification etc. in the district.

vii) The State Government may provide additional thrust to Counter magnet areas taking advantage of Central Sector urban development programmes and ensure additional allocation for such schemes.

viii) The Counter magnets should be given a priority status for the purpose of institutional funding of various development programmes like development of industrial land, infrastructure and housing.

B. Central Government/NCR Planning Board :

i) The NCR Planning Board in its budgetary demands should incorporate a separate head for supporting the development of Counter-magnet areas, based on an assessment of investments required under Central sector for transport and communication schemes, subject to the availability of resources.

ii) The NCR Planning Board would extend technical assistance to the State Governments/implementing agencies for the preparation of integrated projects for the development of Counter magnet areas. Besides, the NCR Planning Board would also be responsible to monitor the implementation of various development programmes

for which a suitable mechanism will be worked out by the Board in consultation with the State Governments.

iii) The Central Government, in addition to providing the financial support would also have a substantial promotional role to play. For this purpose the Board would formulate policy guidelines relating to development of various sectors.

C. State and Central Government And NCR Planning Board

i) To mobilise public support and participation and to attract private entrepreneurs to invest in the Counter-magnet areas at the development authority level, a publicity campaign should be organised with the support of such institutions as Chamber of Commerce, Market Associations, Mandi Committees, etc. and using mass media like newspapers, radio and television network.

The Regional Plan for the NCR-2001 stipulates an inter-related policy frame-work for achieving the objectives of the NCR Plan. The policies require several strategies to be followed each of which has significant impact on programmes to be undertaken in the NCR. Various strategies and priority areas for development as discussed below are related to the goals of the NCR Plan being (i) a manageable Delhi, (ii) harmonised and balanced development of the NCR to be achieved by 2001 A.D.

18.1 Policies and Strategies

Although the year 2001 AD has been taken as the perspective for the Regional Plan, the Plan is not finite but is a part of a continuous process. Nevertheless it is essential to structure this continuous process into discrete phases, that can be organised within the limits of the resources and implementing capability of the organisations involved. It is equally essential to place the tasks into an order of priority. The tasks can be divided into the following :

- i) Continuation of the work of Regional Plan through the preparation of Functional Plan by the NCRPB and Sub-regional plans by the participating States and Delhi UT.
- ii) Action Plan, programmes and project plans by each of the participating States and Delhi UT and the Central Ministries.
- iii) Institutional Improvements
- iv) Resource mobilisation
- v) Approval and monitoring of implementation of projects, and
- vi) Implementation of the Regional Plan.

i) Continuation of work of Regional Plan

The Regional Plan contains broadly policy frame-work, strategies and guidelines for development of the Region together with broad land-use for the NCR-2001.

The Secretariat of the NCRPB will prepare functional Plans for various sectors of development in close collaboration with the Central/State Government agencies. These Functional plans will identify areas of action for proper guidance of the participating States and of the Union Territory to achieve the objectives of the NCR Plan.

The action plan will suggest measures :

- a) To contain the population of Delhi UT through decelerated growth
- b) To achieve moderate growth of DMA excluding Delhi UT.
- c) To induce growth in the towns/complexes identified for priority development by enhancing the momentum of economic expansion and technological development and also adopting effective promotional measures to create employment opportunities to attract the Delhi bound potential migrants and, creating a physically efficient pattern and socially desirable environment with effective participation of the States, that will sustain dynamic growth in keeping with objectives and goals of the NCR Plan.
- d) For action to expand and to effect qualitative and quantitative improvement in physical and social infrastructure in towns identified for priority development.

The Sub-regional Plans will be prepared by each of the participating States for the respective Sub-region. The Sub-regional Plan will indicate the following elements to elaborate the Sub-regional Plan at the Sub-regional level namely :

- a) reservation of areas for specific landuse which are of the regional or sub-regional importance;
- b) future urban and major rural settlements indicating their areas, projected population, predominant economic functions, approximate site and location;
- c) road network connecting Sub-regional centres, Service Centres and Basic villages;
- d) proposals for the coordination of traffic and transportation, including terminal facilities;
- e) priority areas at sub-regional level for which immediate plans are necessary;
- f) proposals for the supply of drinking water and sanitation and drainage; and
- g) any other matter which is necessary for the development of the Sub-regions.

ii) Action Plan, programmes and Project Plans by each of the participating States/Delhi UT and Central Ministries :

a) The Regional Plan for the NCR envisages development of economic activities over a wider area in the Region more specifically in the towns/complexes that are identified for this purpose. These priority towns need to be planned each as a self-contained unit and action taken for their coordinated and synchronised development both physical and economic to maximise their growth for induced development. This can only be done through an interrelated programme for which projects would be required to be identified over a time-scale. The programme for Central Ministries would be in the Transport both road and railways and telecommunications sectors while that for State sector in Urban Development Schemes and regional roads.

b) The development strategies approved in the Regional Plan need to be translated into a set of programmes and phased suitably to achieve the major objectives of the plan. The three phases would be as follows :

- Phase I (1987-90) corresponding to the remaining part of the 7th Five year Plan period.

- Phase II (1990-1995) corresponding to the 8th Plan period.

- Phase III (1995-2001) corresponding to the 9th Plan period and part of 10th Plan period.

c) Bringing down the growth rate by attracting the Delhi bound migrants to priority towns through creation of job opportunities will have a strong impact on priority towns cannot absorb a large number of migrants who are presently moving to the National Capital without inducing growth rate in them three to four times higher than their present rate. In view of the greater concentration of population in the Capital, the need for flow of migrants to be re-directed to priority towns will be greater. This will require well identified projects to gradually increase the migration share to the priority towns by improving their economic base. The dominant force in triggering immigration is the growth of secondary and tertiary sectors. The secondary sector has a greater multiplier impact upon the expansion of local and regional economy than a similar employment expansion in the service sector. For effectuation of such programme, the institutional framework both at the State and local levels will need to be strengthened and action taken to improve the resource mobilisation at the local level. This will

also call for inter-linkages of investments and programmes of the agencies responsible for economic activities, State level functional agencies and local authorities incharge of the infrastructural services and maintenance.

Need for multisectoral projects :

In the context of the above, coordinated urban development projects for various sectors of the Region/selected towns will need to be prepared.

The regional level components will be :

- surface transport: the Expressways, N.H. and regional roads
- railways
- telecommunications

And the priority towns components will be :

- development of economic activities - Industry, Distributive trade and commerce and Government and Public Sector Offices to promote employment and improve the economy
- urban infrastructure and services like water supply, sanitation, storm water drainage, solid waste management, traffic and transportation etc.
- provision of social infrastructural facilities such as education and health
- development of shelter for the urban poor, and
- development of small scale enterprises in the informal sector for expansion of employment opportunities and upgrading skills.

Determining priorities :

In this regard, more appropriate action would be to designate the areas where urgent planning action is needed and to treat these as 'priority areas' for which integrated plans and programmes would be prepared. These would be called 'action areas' and the plans would be called 'action plans'. To prepare the plan, it is suggested that the Planning Cells of the State Governments would be responsible for complete programmes including the tasks of coordinating investments of public and private agencies. A programme would be

devised in relation to the priorities finally culminating into projects for implementation. The Secretariat of the NCR Planning Board's role in the project cycle will be in the areas of :

a) Identification of suitable projects that support the NCR Plan objectives.

b) Assisting the agencies in preparation of projects comprising technical, economic and financial aspects and institutional aspects of the proposed project by providing guidance and/or financial assistance for preparation.

c) Appraisal comprising review of all aspects of the project. The appraisal report will serve the basis for sanction of the projects by the NCR Planning Board.

d) Implementation and supervision will be the responsibility of the participating States/Delhi UT. Quarterly progress reports on the implementation will be reviewed and field visits undertaken by the Secretariat of the NCR Planning Board for the same.

e) Evaluation to provide lessons of experience which will be built into subsequent identification, preparation or appraisal work.

iii) Institutional improvements

For efficient implementation and management of the projects, it is necessary to tone up institutions incharge of urban development, services and management at all levels. This will involve review of the working of the development authorities, taxation and tax recovery system of the local authorities and monitoring methods of the projects, at the local level.

iv) Resource mobilisation

Under Section 22 of the NCR Planning Board Act, it is provided that the National Capital Region Planning Board fund may be constituted. The sources for such fund shall be :

a) all grants and loans from the Central Governments;

b) all sums paid to the Board by the participating States; Delhi UT; and

c) all sums received by the Board in consultation with the Central Government, participating State Government and UT

v) Approval and monitoring of projects

The project plans will be mainly prepared by the implementing agencies at local level within the framework of the Regional/Sub-regional/Functional Plans in collaboration with the Planning Cells at the Local levels. The NCR Planning Board will assist the implementing agencies in preparation of identified projects. Each implementing agency will have a Monitoring Cell for the projects under that agency and they will submit timely progress of the performance in implementation as a feed back to the NCRPB. The NCRPB will develop a Monitoring and Evaluation system and also extend assistance in the preparation of objective effective and financially viable projects.

vi) Implementation of the Regional Plan

The Regional Plan, although containing socio-economic policies, has alternative strategies with investment implications. The Regional Plan represents an end product, the implementation of which would be pursued on the desired strategies and goals through a number of projects. However, in the light of the impact the development would create, the Plan and its strategies in its entirety would be reviewed every five years and, after such review, substitute it by a fresh regional plan or make such modifications or alterations therein as may be found necessary.

18.2 Resources for implementation

i) NCRPB's Resources : In addition to the 'NCR Fund', it is proposed to mobilise resources under Section 22(1) (c) for financing implementation of the NCR projects through :

- a) Life Insurance Corporation of India
- b) Debentures/Bonds
- c) Nationalised Commercial Banks
- d) Proposed Urban Development and Urban Water Supply Finance Corporation.

ii) State Government Resources

At the State level, the general provision of pattern of matching share will continue. However, the State Governments will make efforts to raise additional resources through :

- a) HUDCO
- b) LIC
- c) Nationalised Commercial Banks
- d) Market borrowings.

iii) Local Government Resources

- a) Locally raised taxes
- b) User Charges
- c) Market Borrowings
- d) Other non-tax revenues for performance of statutory and regulatory functions.
- e) Transfers from higher level of Government including shared taxes and grants-in-aid.

iv) Role of Private Sector

Recognising the critical importance of the private sector and the dominant role of private investments in the total investment, its resources and expertise should be incorporated in the regional planning process. The regional planning involves the integration of a much larger number of sectors such as economic development, social services, and environmental management where the private sector can play a significant role in improving the regional economy.

18.3 Special Component Plan

The allocation of financial resources is primarily made by the concerned Ministries with the approval of the Planning Commission. Allocation of resources for State sector urban development schemes sponsored by the Centre is made by the Ministry of Urban Development. The Ministry of Urban Development would also be responsible to ensure that sectoral investments concerning other Ministries such as Surface Transport, Telecommunications and Railways allocate resources for the NCR Schemes consistent with, and supportive of NCR priorities and objectives. In practice, this task is extremely difficult because of the competing demand on the available resources and is thus a serious drawback for implementation of the regional development programmes. It is, therefore, proposed that a financial mechanism of Special Component Plan for NCR be established in the Central and State Plans to permit the simultaneous channelling of funds through Central Ministries and State Governments for inter-related activities ensuring the efficient implementation of comprehensive urban and regional development programmes in the NCR.

TABLES

Table-2.1 : Area, Population and Growth Characteristics of DMA

Constituent Units of N.C.R.	Area (in hectare)	Population (1981) in lakhs	Decadal Growth (%)		
			1951-61	1961-71	1971-81
Delhi, UT	1,48,500	62.20	52.43	52.92	52.93
Bahadurgarh	17,403	0.37	34.43	72.28	45.23
Faridabad- Ballaahgarh	39,398	3.31	57.98	103.42	169.39
Ghaziabad including Loni	49,691	2.97	61.01	63.71	141.65
Gurgaon	26,671	1.01	103.42	50.94	76.50
Kundli	13,722	-	-	-	-
NOIDA	14,915	0.42*	Did not exist till 1981		
Ridge falling out- side the area of DUT, Gurgaon and Faridabad	7,385	-	-	-	-
Total D.M.A.	3,18,185	70.28	-	-	56.76
Total D.M.A. Excluding Delhi	1,69,685	-	-	-	55.84

*Gives rural population of fifty villages in controlled area.

Source : 1. Census of India - 1981

2. Report of the Sub Group of DMA - 1982,

Ministry of Urban Development, Govt. of India.

Table 3.1 Pattern of Immigration into Delhi 1941-81

Census Year	Population	Net decadal increase	Total Decadal immig- ants**	Propn. of immigrant to total pop. % in that year (4/2)	Propn. of immigrant to net increase (%) (4/3)	Decadal Growth of in- migration(%)
1941	917939					
1951	1744072	826133				
1961	2658612	914540	544198*	20.47		
1971	4065698	1407086	525309	12.92	37.33	
1981	6220406	2154708	1229745	19.77	57.07	134.10

* Represents immigrants upto 1961 and includes migrants for 'period not known category (99,143).

** In the population Census, migrants are classified on the basis of either (i) Place of birth, or (ii) Place of last residence. A person is considered a migrant by place of birth if the place of enumeration during the Census is other than the place of his/her immediate last residence. Till 1961, statistics on migration was based on 'birth place', but since 1971, it is on the basis of 'place of last residence'.

Table 3.2 Migrants to Delhi by States of their Origin

State	Before 1961	1961-71	1971-81	Period not known	Total
Haryana	98324 (22.1)	85945 (16.4)	159028 (12.9)	14412	357709 (15.5)
Madhya Pradesh	5585 (1.2)	8860 (1.7)	37709 (3.1)	2496	54650 (2.4)
Punjab	749 44 (16.8)	59503 (11.3)	78671 (6.4)	11447	224565 (9.8)
Rajasthan	33341 (7.5)	39885 (7.6)	93836 (7.6)	7603	174665 (7.6)
Uttar Pradesh	185550 (41.7)	260748 (49.6)	616021 (50.1)	54362	1107681 (48.2)
Other(including outside India	47311 (10.7)	70368 (13.4)	244480 (19.9)	17823	379982 (16.5)
Total	445055 (100.0)	525309 (100.0)	1229745 (100.0)	99143	2299252 (100.0)

Note: Figures in brackets indicate % to the respective totals.

Table 3.3 Population Projections for the NCR by Constituents
(Population in lakhs)

Sub-Region		Population 1981.	Projected 1991	Population 2001
Delhi UT†	Total	62.2	92.5	132.6
	Rural	4.5	4.4	3.6
	Urban	57.7	88.1	129.0
Haryana	Total	49.4	62.7	72.1
	Rural	37.3	40.3	34.4
	Urban	12.1	22.4	37.7
Rajasthan	Total	10.6	11.3	11.9
	Rural	8.9	8.7	8.5
	Urban	1.7	2.6	3.4
Uttar Pradesh	Total	69.7	87.6	108.6
	Rural	50.2	51.8	45.0
	Urban	19.5	35.8	63.6
NCR	Total	191.9	254.1	325.2
	Rural	100.9	105.2	91.5
	Urban	91.0	148.9	233.7

† Projection for Delhi UT is based on the draft recommendations of the Expert Committee on Population.

Table 3.4 Controlled Population Projection of Delhi UT 1981-2001.

Year	Population (in lakhs)	Net increase (in lakhs)	Decadal Growth rate	Addition by Natural growth(%)	Increase by immigration in lakhs(%)
Actual					
1961	26.59				
1971	40.66	14.07	52.91	8.82	5.25
				(33.17)	(19.74)
1981	62.20	21.54	52.98	9.24	12.30
				(22.74)	(30.24)
Projected					
1991	92.55	30.35	48.79	12.44	17.91
				(20.00)	(28.79)
2001	112.00	19.45	21.01	11.11	8.34
				(12.00)	(9.01)

Note: Figures in brackets indicate components of decadal growth rate.

Table 3.5. Population Assignment by 2001 AD For Delhi, DMA & NCR

(in lakhs)

Sl.No.	Area	Population 2001					
		Projected			Assigned		
		Total	Urban	Rural	Total	Urban	Rural
1.	Region	325	234	91	325	234	91
2.	Delhi Sub-region	132	129	3	112	110	2
3.	Haryana Sub-region	72	38	34	78	43.5	34.5
4.	Rajasthan Sub-region	12	3.5	8.5	14	7	7
5.	Uttar Pradesh Sub-region	109	63.5	45.5	121	75.5	45.5
6.	Delhi Metropolitan area						
	a. Total	170	166	4	150	147	3
	b. Delhi				112	110	2
	c. Haryana				21	20.5	0.5
	d. U.P.				17	16.5	0.5
7.	DMA Towns				37	37	—
	a. Ghaziabad including Loni				11	11	—
	b. NOIDA				5.5	5.5	
	c. Faridabad				10	10	
	d. Gurgaon				7	7	
	e. Bahadurgarh				2	2	
	f. Kundli				1.5	1.5	
8.	Other areas outside DMA				(Urban 89 and Rural 86 lakhs)		
	a. Haryana	17	17		57	23	34
	b. Rajasthan	12	3.5		14	7	7
	c. U.P.	47	47		104	59	45

Table 4.1 Functional Classification of Towns in NCR 1971-81

Sl. No.	Name of the Town	Census Class Size	Population in 1981	Density (per sq.km) 1981	Growth rate in 1971-1981	Function in	
						1971	1981
1		2	3	4	5	6	7
Delhi UT Sub-Region							
1.	Delhi UA	I	5729283	10594	57.09	Others Industry	Others
2.	Alipur	V	6735	787	"	—	Others
3.	Biwana	IV	12637	745	"	—	Others
4.	Bijwasan	V	7389	678	"	—	Others
5.	Pehlادpur Banger	V	5011	1073	"	—	Others
6.	Poth Khurd	V	7145	716	"	—	Others
Uttar Pradesh Sub-Region							
7.	Abdullapur	V	6383	3940	"	—	Primary-Others
8.	Agarwal Mandi	V	9353	10116	"	—	Primary-Others
9.	Aminagar Sarai	V	6837	3617	21.97	Industry-Trade & Commerce-Others	Others
10.	Anup Shahr	IV	15193	5866	23.99	Others-Industry-Primary	Others
11.	Aurangabad	IV	11622	3874	"	—	Others-Primary
12.	Babugarh	VI	2389	445	"	—	Others
13.	Baghpat	IV	17157	5957	47.07	Primary	Others-Primary
14.	Bahusama	V	7906	2635	"	—	Primary
15.	Baraut	III	46292	4468	48.07	Trade & Commerce-Industry-Others	Others
16.	Bhawan Bahadur Nagar	V	6779	1808	"	—	Others-Primary
17.	Bilaspur	V	4661	2188	"	—	Others
18.	Bugrasi	V	8307	1298	16.12	Primary-Others Industry	Others
19.	Bulandshahr	I	103436	11016	73.83	Others-Trade & Commerce-Industry	Others
20.	Chhaprauli	IV	13805	12550	"	—	Primary
21.	Chhatari	V	5862	982	"	—	Primary
22.	Dadri	IV	19723	3156	51.01	Others-Trade & Commerce-Industry	Others
23.	Dankaur	V	7935	802	14.18	Others-Trade & Commerce-Industry	Others
24.	Daurala	V	9146	8710	"	—	Primary
25.	Debai	III	22430	9627	31.62	Industry-Trade & Commerce-Primary	Others
26.	Doghat	IV	10019	10890	"	—	Primary
27.	Faridnagar	V	9116	20718	20.89	Industry-Primary	Others

1	2	3	4	5	6	7
28. Garmukteshwar	IV	17914	560	63.79	Primary Industry Others	Others
29. Ghaziabad (UA)	I	287170	4366	124.88	—	Others
30. Gulaothi	III	24416	10949	40.52	Trade & Commerce Industry	Others
31. Hapur	I	102837	17639	44.30	Trade & Commerce Industry—Others	Others
32. Hastinapur	IV	11637	3803	30.91	Industry—Others	Others
33. Jahangirabad	III	29301	10317	35.79	Primary—Industry Trade & Commerce	Others
34. Jahangirpur	V	6447	626	..	—	Primary—Others
35. Jewar	IV	15275	837	..	—	Others
36. Kakod	VI	1299	3495	..	—	Others—Primary
37. Karnawal	V	9895	8315	..	—	Primary
38. Khanpur	V	8311	5099	..	—	Primary
39. Kharkhoda	V	8708	4976	..	—	Primary—Others
40. Khekada	III	24984	20648	..	—	Others
41. Khurja	II	67119	6479	33.58	Industry—Others Trade & Commerce	Others
42. Kithaur	IV	13791	4522	..	—	Primary
43. Lawar	IV	11535	3178	..	—	Primary—Others
44. Loni	IV	10259	3901	..	—	Others
45. Mawana	III	37620	14525	51.3w	Diversified	Others
46. Meerut (UA)	I	536615	6640	44.34	Others—Industry	Others
47. Modinagar (UA)	II	87665	6105	101.67	Industry	Others
48. Murad Nagar	III	26047	16279	86.25	Industry—Trade & Commerce—Primary	Others
49. Narora	V	9573	1760	..	—	Others
50. Niwadi	V	7078	4424	..	—	Primary
51. OF Muradnagar	IV	13147	1983	45.66	Others	Others
52. Pahasu	V	9016	39200	45.66	Others	Others
53. Parikshitgarh	IV	11328	3293	..	—	Others
54. Patiala	V	7847	6539	..	—	Primary
55. Palauda	IV	10357	4523	..	—	Primary
56. Pilkhua	III	37884	8363	58.24	Industry	Others
57. Rabupura	V	8999	868	..	—	Primary—Others
58. Sardhana	III	30138	2145	36.48	Industry—Primary Trade & Commerce	Others
59. Sewalkhas	IV	10278	12634	..	—	Primary
60. Shajahanpur	V	8867	1483	20.80	Primary—Industry	Primary
61. Shikampur	III	21449	43876	29.79	Primary—Industry Others	Others
62. Siana	III	22410	4335	35.79	Primary—Others Trade & Commerce	Others
63. Sikandrabad	III	43135	4913	34.67	Industry—Primary Trade & Commerce	Others
64. Tikri	IV	11315	10286	..	—	Primary
Haryana Sub-region						
65. Bahadurgarh	III	37488	4165	45.23	Others—Industry	Others
66. Bawal	V	7760	21556	18.85	Primary	Others
67. Beri	IV	13490	5208	9.35	Primary	Others—Primary
68. Faridabad Complex Administration	I	330864	1856	NA	Industry	Others
69. Farukknagar	V	6367	4760	16.04	Primary—Trade & Commerce—Industry	Others
70. Ferozepur	V	9400	1061	18.06	Primary—Trade & Commerce—Industry	Others
71. Ganaur	IV	16489	1820	96.32	Industry—Trade & Commerce—Others	Others

1	2	3	4	5	6	7
72. Gohana	III	26188	3986	56.81	Trade & Commerce	Others
					Others-Primary	
73. Gurgaon	II	100877	4181	76.51	Others	Others
74. Hailey Mandi	IV	10140	3915	350.27	Trade & Commerce	Others
75. Hassanpur	V	5109	5494	**	-	Primary-Others
76. Hathin	V	6553	3293	**	-	Primary-Others
77. Hodal	IV	18740	8329	32.49	Diversified	Others
78. Jhajjar	III	24247	4041	27.97	Primary-Others-	Others
					Trade & Commerce	
79. Jharsa	V	8412	842	**	-	Others
80. Kalanau	IV	12380	2172	*	-	Others
81. Maham	IV	11722	3359	11.20	Primary-Trade &	Others
					Commerce	
82. Nuh	V	5992	19973	26.68	Trade & Commerce	Others
					Others	
83. Palwal	III	47328	8574	30.72	Others-Trade &	Others
					Commerce-Industry	
84. Panipat	I	137927	6625	56.77	Industry-Trade &	Others
					Commerce-Others	
85. Pataudi	V	8422	2165	39.32	Primary	Others-Primary
86. Rewari	II	51562	8509	17.49	Trade & Commerce	Others
					Others-Industry	
87. Rohtak	I	166767	7570	33.68	Others-Trade &	Others
					Commerce	
88. Samalkha	IV	13532	2222	**	-	Others
89. Sohna	IV	12667	3424	44.35	Trade & Commerce	Others
					Others-Industry	
90. Sonipat	I	109369	5118	75.29	Industry-Other-	Others
					Trade & Commerce	
91. Taoru	V	6912	19749	**	Primary-Industry	Others
Rajasthan Sub-region						
92. Alwar	I	145795	1822	45.25	Others	Others
93. Khairthal	IV	15962	728	49.36	Primary-Trade &	Others
					Commerce	
94. Tijara	IV	12199	556	**	-	Others

Note:

* Declassified in 1971

** Newly added town

NA Not Available

Table 5.1 : Number of Villages in Different Population Range - 1981

Sub-region	No. of Villages	Population less than 200	200-449	500-1999	2000-4999	5000-9999	10000 and above.
Delhi U.T.	214	9 (4.20)	9 (4.20)	110 (51.40)	71 (33.20)	15 (7.00)	-
Haryana	2386	158 (6.62)	335 (14.04)	1287 (53.94)	503 (21.29)	93 (3.90)	5 (0.21)
Rajasthan	1088	125 (11.49)	318 (29.23)	573 (52.67)	65 (5.97)	7 (0.64)	-
U.P.	2989	149 (4.98)	283 (9.47)	1705 (57.04)	742 (24.83)	107 (3.58)	3 (0.10)
N.C.R.	6677	441 (6.60)	945 (14.10)	3675 (55.10)	1386 (20.75)	222 (3.32)	8 (0.13)

Note : Figures in brackets indicate proportions to respective sub-region's total.

Table-3.2- Distribution of villages according to the availability of different amenities

S.No.	Sub-region	No. of inhabited villages	Number (with percentage) of villages having one or more of the following amenities-						
			Education	Medical	Drinking Water	Post and Telegraph Hat	Communication	Approach by Pucca Road	Power supply
1.	Delhi UT	214	189 (88.32)	125 (58.41)	214 (100%)	113 (53.74)	183 (85.51)	207 (96.73)	214 (100.00)
2.	Haryana	2386	2114 (88.60)	1396 (58.51)	2386 (100.00)	758 (31.77)	1156 (48.45)	2197 (92.08)	2386 (100.00)
3.	Rajasthan	1088	767 (70.50)	194 (17.33)	1088 (100.00)	332 (21.32)	179 (16.49)	265 (24.35)	393 (54.50)
4.	U.P.	2939	2283 (76.38)	697 (23.61)	2939 (100.00)	719 (24.05)	737 (26.38)	1512 (50.33)	289 (33.77)
	India	6677	5353 (80.17)	2412 (36.12)	6677 (100.00)	1324 (27.22)	2305 (34.52)	4431 (66.22)	5332 (85.10)

Table-2.3 Proportion of Rural population served by different amenities

Proportion of Rural population served by the amenity of										
S.No.	Sub-region	Total population of villages in the tehsil	Education	Medical	Drinking water	Post and telegraph	Market/ Hat	communication	Approach by motor road	Power Supply
1.	Delhi UT	452206	96.52	7.82	100	72.51	4.69	91.75	99.30	100.00
2.	Haryana	3731337	97.05	7.90	100	56.12		66.43	95.72	99.64
3.	Rajasthan	290553	92.25	40.51	100	44.93	1.92	29.34	36.77	70.57
4.	U.P.	5019979	91.34	34.44	100	46.12	17.34	36.34	59.43	89.31
NCR	1009475		93.72	52.96	100	50.96	8.99	49.40	72.79	92.35

Table 6.1 Distribution of work-force in Delhi 1981 & 2001

Categories	Proportion of workers(%) in	
	1981 (actual)	2001 (proposed)
Primary Sector	1.59	1.50
Industry	29.18	29.00
Construction	6.39	5.00
Trade & Commerce	22.25	22.00
Transport, Storage and Communication	9.07	11.00
Other services	31.47	31.50
Participation rate	32.20	35.00

Table 6.2 Employment Structure in DMA Towns - 2001

Town	Proposed partici-	Primary	Proportion of workers (%) in				
			Industry	Const- ruction	Trade & Commerce	Transport storage & Communication	Services
Ghaziabad	30	0.5	38.0	6.0	15.0	10.0	30.0
NOIDA	35	2.0	45.0	6.0	20.0	12.0	20.0
Faridabad	35	2.0	45.0	6.0	16.0	7.0	23.0
Ballabhgarh	35	2.0	40.0	10.0	16.0	10.0	22.0
Gurgaon	35	6.0	30.0	4.0	25.0	10.0	25.0
Bahadurgarh	35	2.0	40.0	10.0	16.0	10.0	22.0
Kundli	35	2.0	40.0	10.0	16.0	10.0	22.0

Table 6.3 : Occupational Structure in the Priority Towns by 2001.

(in Percentage)

Priority Town	Participation Ratio- 2001(%)	Proportion (%) of workers in					
		Prim-ary	Indus-try	Const- ruction	Trade and Comm- erce	Trans- port & Stora- ges Co- mmuni- cations	Service
1. Meerut	32	2	29	4	20	9	36
2. Hapur	30	6	28	4	22	13	27
3. Bulandshahr - Khurja	30	4	40	4	20	12	20
	30	4	40	4	20	12	20
4. Panipat	32	4	40	4	20	12	20
5. Rohtak	30	7	28	4	20	13	28
6. Palwal	30	9	15	4	17	21	34
7. Rewari Dharuhera Bhiwadi	30	9	15	4	21	15	36
	30	5	50	4	16	7	18
	30	5	50	4	16	7	18
8. Alwar	30	5	30	4	20	11	30

Table 6.4 : Employment in Government and Public Sector Offices in Delhi (1921-35)

Sector	(Employment in lakhs)										
	1921	1931	1941	1951	1961	1971	1981	1982	1983	1984	1985
1. Central Government	0.08	0.11	0.26	0.35	0.94	2.11	2.25	2.31	2.29	2.35	2.30
2. Delhi Administration	0.01	0.03	0.03	0.07	0.25	0.53	0.58	0.62	0.65	0.64	0.65
3. Local Bodies	0.02	0.01	0.12	0.14	0.34	0.9	1.09	1.13	1.17	0.83	0.84
4. Quasi-Government	N.A.	N.A.	N.A.	N.A.	0.06	0.56	1.41	1.51	1.63	1.72	1.83
Total	0.11	0.15	0.41	1.06	1.59	4.1	5.33	5.57	5.74	5.54	5.62

Source: Delhi Statistical Handbook - 1936.

Table 6.5: Distribution of Working Force in Urban Delhi 1951-1971

Categories	1951		1961		1971		1981	
	Workers	Percentage	Workers	Percentage	Workers	Percentage	Workers	Percentage
1. Cultivators	3433	0.7	5173	0.7	5176	0.5	7237	0.39
2. Agri. Labourers	534	0.1	1242	0.2	2603	0.3	4772	0.25
3. Livestock Forestry etc.	-	-	-	-	-	-	13091	0.70
4. Mining & Quarrying	1521	0.3	3446	0.7	9011	0.3	4745	0.25
5. Manufacturing, Processing								
a) Household Industry	6632	1.3	12634	1.7	25107	2.2	41249	1.69
b) other than household	30639	15.7	155099	20.7	242733	21.7	513743	27.49
6. Construction	44943	3.7	32540	4.4	61517	5.5	112699	6.39
7. Trade & Commerce	117333	22.3	143309	19.3	239719	21.6	413430	22.25
8. Transport of Comm.	24455	6.7	47337	6.3	107324	9.6	163457	9.07
9. Other Services	224426	43.7	243430	46.0	422667	37.3	594063	31.47
Total Workers	514026	100.0	746315	100.0	1116937	100.0	1357545	100.00
Population	1437134	-	2359408	-	3647023	-	5763200	-
Participation Ratio	27.96	-	31.65	-	30.62	-	32.20	-

Table 6.6 : Industrial Progress in Delhi - 1985

Item	70-71	76-77	77-78	78-79	79-80	80-81	81-82	82-83	83-84	84-85
No. of Industrial units (in '000)	26	37	40	41	42	45	50	54	57	62
Investment (Rs. in crores)	190	550	600	650	700	867	965	1035	1155	1200
Production (Rs. in crores)	343	1025	1200	1430	1700	2196	2350	2352	2483	3300
Employment (in '000)	215	300	325	350	375	450	490	507	528	558

Source: Delhi Statistical Hand Book-1986.

Table 6.7 : Registered Factories in Delhi : Group-wise - 1935

Description	Number of Factories							Workers (daily average in '000)						
	79	80	81	82	83	84	85	79	80	81	82	83	84	85
1. Food Products	114	124	130	142	148	153	160	7	9	9	9	9	9.5	9.7
2. Textiles & Textiles Products	457	520	545	622	666	709	746	43	46	46	46	43	50	52
3. Wood Products	46	47	52	56	60	66	67	1	1	1	1	1	1	1.04
4. Paper Products and Printing	230	223	255	279	290	302	315	11	12	12	12	12	12	12.6
5. Leather Rubber & Chemicals	396	429	434	495	534	578	581	12	14	14	14	15	17	17.1
6. Non-metallic mineral Products	55	57	51	107	114	119	146	4	3	3	3	3	3	3.7
7. Metal & Engineering Products	763	307	356	970	1032	1097	1128	23	26	26	27	29	31	32.2
8. Manufacturing of Electric machinery	308	355	374	451	480	530	545	12	14	14	15	16	18	19.6
9. Manufacture and other Misc. of Transport Equip.	393	395	487	555	592	629	653	15	16	16	24	25	27	27.5
10. Generation and Trans. of electricity, water supply and gas.	21	21	13	21	21	21	21	6	5	5	3	3	3	3
11. Miscellaneous	201	215	200	219	226	241	290	7	7	7	4	5	7	7.3
Total	2934	3193	3402	3917	4163	4445	4652	141	153	153	158	166	178.5	135.74

Source: Delhi Statistical Hand Books - 1936.

Table 7.1 Sales Tax Rates on Consumer Goods, Raw Materials in the States of NCR (1986-87)

		Delhi	Haryana	Rajasthan	Uttar Pradesh
I.	Consumer Goods:				
A.	Items of Common Consumption				
a.	Basic agricultural products:				
	1. Rice, Paddy, Wheat (all form)	Ex	4	4	4
	2. Gram, Tur, Moong, etc.	Ex	4	4	4
	3. Bajra, Barley, Jowar, Maize etc.	Ex	4	2.5	4
	4. Maize, Suji	Ex	4	5	4
	5. Bread	Ex	8	2.5	5
b.	Textile Goods:				
	1. Hosiery Garment	1	4	4	4.8
	2. Ready Made Garments valued less than Rs.30/- only.	2	.4	5	4.8
	3. Umbrella Cover	1	8	10	8
c.	Miscellaneous:				
	1. Matches	4	8	10	8
	2. Kerosene	3	8	10	8

(Contd...2)

E. Other Consumer Goods:

a. Textile Goods:

1. Ready Made Garments costing Rs.30/- and above.	5	4	6	4-8
2. Hosiery Goods sold at a price of Rs.30/-	5	4	4	4-8
3. Silk Fabrics	3	Ex	4	8-(Handloom
4. Goods of Canvas Cloth	5	8	10	8 silkfabric
5. Razai Galafis (quilt covers) costing less than Rs.15/-	5	8	6	8 .Ex.)

b. Food items:

1. Powdered Milk and Condensed Milk	5	8	6	6
2. Edible Oils	5	6	6	5
3. Honey	5	8	10	Ex
4. All types of baby food sold in sealed container	5	8	6	6
5. Tea	7	8	10	8

c. Miscellaneous:

1. Paper	5	8	10	6
2. Black-Lead Pencil and Coloured Pencil	5	Ex	Ex	8
3. Drugs, Medicines and Pharmaceuticals	5	8	6	6
4. Washing Soap, Detergents and other Washing Materials	5	8	10	6
5. Foot Wear	5	8-12	10	8
6. Optical Lenses, Hurricane lantern	5	8	10	8
7. Torches, Torch-Cells etc.	5	8	8	8
8. Soap, Tooth Brush, Tooth Paste, Tooth powder	6	3	12	8
9. Safety-Razor Blades, Razor Blades	5	8	12	12

11. Boot Polish

C. Semi-durable Semi-luxury Goods:

Sl. No.	Description	Unit	Quantity	Rate	Total
1.	Butter (tinned)	kg	5	6	30
2.	Butter (other than tinned)	kg	5	6	30
3.	Cream	kg	5	6	30
4.	Cheese	kg	5	6	30
5.	Ice Cream	kg	5	6	30
6.	Vegetable Ghee (hydrogenated vegetable oil)	kg	7	10	70
7.	Deshi Sweetmeats & Namkin	kg	5	12	60
8.	Cakes & Pastries	kg	5	6	30
9.	Confectionery, Coco and Chocolate	kg	7	12	84
10.	All kinds of eatables and non-alcoholic potable liquors	kg	7	12	84
11.	Deshi Ghee	kg	10	12	120
12.	Kcha	kg	5	6	30
13.	Aerated water	kg	5	6	30
14.	L.P.G. (Cooking Gas)	kg	5	14.5	72.5
15.	Gota, Khamri etc.	kg	5	10	50
16.	All goods made of glass excluding plain glass	kg	2	4	8
17.	Vacuum Flasks of all kinds	kg	10	12	120

Consumer Durables, Luxury Goods
and Intoxicant Items:

a. Means of Transport:

1. Motor Vehicles	10	6-10	8-12	6-10
2. Motor Cycles	10	10	12	10
3. Perambulators	7	12	12	10
4. Component parts, spare parts and accessories of motor vehicles, motor cycles, scooters and motorbikes.	10	10	12	10

b. Consumer Durables:

1. Refrigerators	10	10	12	12
2. Wireless Reception Instruments	10	12	14.5	12
3. Cinematographic Equipment	10	12	14.5	12
4. Photographics and other cameras equipment	10	12	14.5	12
5. All Clocks, Time-pieces and Watches	10	12	12	10
6. All arms including rifles	10	12	14.5	14
7. Cigarette Cases & Lighters	10	12	18	12
8. Dictaphone, Tape-recorders	10	12	14.5	12
9. Sound Transmitting Equipments	10	12	14.5	12
10. Type-writers, Tabulating Equipment	10	10-12	12	12
11. Binocular, Telescope	10	12	12	12
12. Gramophones	10	12	12	12
13. Iron & Steel Safe and Almirahs	10	12	14.5	12
14. Furniture including Iron and Steel	10	12(Excluding wooden)	12-14.5	12
15. Sofas, Cushions, Pillows, Mattresses	10	12	12	12
16. Articles and ware made of stainless steel	10	12	14.5	12

17. 1453	10	12	10	12	12
18. 1454	10	10	10	10	12
19. 1455	10	10	10	10	12
20. 1456	10	10	10	10	12
21. 1457	10	10	10	10	12
22. 1458	10	10	10	10	12
23. 1459	10	10	10	10	12
24. 1460	10	10	10	10	12
25. 1461	10	10	10	10	12
26. 1462	10	10	10	10	12
27. 1463	10	10	10	10	12
28. 1464	10	10	10	10	12
29. 1465	10	10	10	10	12
30. 1466	10	10	10	10	12
31. 1467	10	10	10	10	12
32. 1468	10	10	10	10	12
33. 1469	10	10	10	10	12
34. 1470	10	10	10	10	12
35. 1471	10	10	10	10	12
36. 1472	10	10	10	10	12
37. 1473	10	10	10	10	12
38. 1474	10	10	10	10	12
39. 1475	10	10	10	10	12
40. 1476	10	10	10	10	12
41. 1477	10	10	10	10	12
42. 1478	10	10	10	10	12
43. 1479	10	10	10	10	12
44. 1480	10	10	10	10	12
45. 1481	10	10	10	10	12
46. 1482	10	10	10	10	12
47. 1483	10	10	10	10	12
48. 1484	10	10	10	10	12
49. 1485	10	10	10	10	12
50. 1486	10	10	10	10	12
51. 1487	10	10	10	10	12
52. 1488	10	10	10	10	12
53. 1489	10	10	10	10	12
54. 1490	10	10	10	10	12
55. 1491	10	10	10	10	12
56. 1492	10	10	10	10	12
57. 1493	10	10	10	10	12
58. 1494	10	10	10	10	12
59. 1495	10	10	10	10	12
60. 1496	10	10	10	10	12
61. 1497	10	10	10	10	12
62. 1498	10	10	10	10	12
63. 1499	10	10	10	10	12
64. 1500	10	10	10	10	12
65. 1501	10	10	10	10	12
66. 1502	10	10	10	10	12
67. 1503	10	10	10	10	12
68. 1504	10	10	10	10	12
69. 1505	10	10	10	10	12
70. 1506	10	10	10	10	12
71. 1507	10	10	10	10	12
72. 1508	10	10	10	10	12
73. 1509	10	10	10	10	12
74. 1510	10	10	10	10	12
75. 1511	10	10	10	10	12
76. 1512	10	10	10	10	12
77. 1513	10	10	10	10	12
78. 1514	10	10	10	10	12
79. 1515	10	10	10	10	12
80. 1516	10	10	10	10	12
81. 1517	10	10	10	10	12
82. 1518	10	10	10	10	12
83. 1519	10	10	10	10	12
84. 1520	10	10	10	10	12
85. 1521	10	10	10	10	12
86. 1522	10	10	10	10	12
87. 1523	10	10	10	10	12
88. 1524	10	10	10	10	12
89. 1525	10	10	10	10	12
90. 1526	10	10	10	10	12
91. 1527	10	10	10	10	12
92. 1528	10	10	10	10	12
93. 1529	10	10	10	10	12
94. 1530	10	10	10	10	12
95. 1531	10	10	10	10	12
96. 1532	10	10	10	10	12
97. 1533	10	10	10	10	12
98. 1534	10	10	10	10	12
99. 1535	10	10	10	10	12
100. 1536	10	10	10	10	12

II. A. Basic Raw Materials:

1. Coal	3	4	4	4
2. Iron & Steel	4	4	4	4
3. Oil Seeds	3	4	4	4
4. Hides & Skins	2	4	4	4
5. Jute	4	4	4	4
6. Cotton	4	4	4	4
7. Crude Oil	1	4	4	4

II. B. Other Raw-Materials and Products:a. Textile Materials:

1. Cotton waste	5	4	5	4
2. Cotton Yarn waste	5	4	2.5	4
3. Polyester staple fibre	5	2	4	2
4. Raw wool and wool tops	2	2	5	4
5. Woolen carpet yarn	5	2	2.5	2
6. Knitting wool	5	8	2.5	6
7. Yarn of all varieties other than cotton yarn and knitting wool.	2	2	4	2
8. Silk & art silk yarn	2	2	4	2
9. Acrylic yarn	2	2	2	6

b. Chemicals:

1. Paints, lacquers and Varnishes	10	8	14.5	10
2. Pesticides and Insecticides	5	2	5	6
3. Fertilizer	Ex	Ex	6	5

: 7 :

4. Industrial Chemicals

5. Furnace Oil

6. Hydraulic brake fluid

7. Dyes & Dry colour

c. Metal Products & Machinery:

1. Parts of Industrial Machinery and Plant

2. Industrial Machinery

3. Agricultural Machinery

4. All kinds of non-ferrous metals

5. Tractor and parts

6. Electrical equipments, parts and their accessories

7. Manufactured metals

8. Plants and equipments required for generation, transmission or distribution of electric power.

d. Mineral Products:

1. Lubricants

2. Mineral turpantile oil

3. Light Diesel Oil High Speed Diesel

4. Petrol

5. Aviation Spirit

7	8	10	8
7	8	10	8
7	8	10	8
7	8	10	8
5	8	10	5
7	8	10	5
EX	EX	EX	EX
7	5	10	2
5	6 imported	4	EX-4
10	4 indigenous	12	12
7	3	10	8
10	1 when sold to HSEB	6	12
7	8	10	8
7	8	10	5
7	6-8	16	12
7	6	18	10
7	6	18	10

e. Miscellaneous:

1. Molasses	5	8	10	12
2. Distilled water	5	8	10	8
3. Waste paper	7	8	10	8
4. Bullion and specie	0.5	0.5	1	2

f. Building Materials:

1. Bitumen asphalt	7	8	10	8
2. Plywood, Sawn Board, Card Board	7	8	12	10
3. Building stone	7	8	10	6
4. Cement and Cement Products	7	8-12	12-16	10
5. Marble and Marble Chips	7	8	14.5	6
6. Asbestos sheet	7	8	14.5	10
7. Bricks	7	8	10	8
8. Tiles and Tiles	7	8	10	12
9. Roofing materials	5	8	5	6-8
10. Scaffolding	10	12	12	12

Table 8.1: Traffic Movement on Major Corridors

Major Corridor	Total Pass. Vehicle	Total Buses	Total Goods Vehicle	Total Volume
1. Delhi-Faridabad	21585 (71.2)	1936 (6.4)	6795 (22.4)	30316 (100.0)
2. Delhi-Gurgaon	9407 (62.7)	1483 (9.9)	4105 (27.4)	14995 (100.0)
3. Delhi-Bahadurgarh	3708 (53.2)	753 (10.8)	2513 (36.0)	6974 (100.0)
4. Delhi-Panipat	3383 (40.7)	1207 (14.5)	3712 (45.8)	8302 (100.0)
5. Delhi-Baghpat	5056 (64.0)	474 (6.0)	2371 (30.0)	7901 (100.0)
6. Delhi-Ghaziabad	28714 (67.2)	2605 (6.1)	11432 (26.7)	42751 (100.0)
7. Delhi-NOIDA	16677 (82.1)	1623 (8.0)	2007 (9.9)	20307 (100.0)
8. Ghaziabad-Meerut	7047 (62.7)	1089 (9.8)	3109 (27.5)	11245 (100.0)
9. Ghaziabad-Hapur	4176 (60.8)	789 (11.5)	1906 (27.7)	6871 (100.0)
10. Ghaziabad-Bulandshahr	6110 (67.8)	768 (8.5)	2141 (23.7)	9019 (100.0)
11. Gurgaon-Sohna-Alwar	1146 (52.4)	157 (7.2)	884 (40.4)	2187 (100.0)
12. Gurgaon-Behror (NCRB)	2021 (30.3)	613 (9.2)	4036 (60.5)	6670 (100.0)

Table 8.2: Generation of Passenger Traffic (Daily) for
NCR and Important Urban Areas - 1987.

Urban Zone/NCR	Vehicle Passengers		Bus Passengers		Rail Passengers		Total	Rail Share %
	Total	Per Capita Trip Rate	Total	Per Capita Trip Rate	Total	Per Capita Trip Rate		
1. D.U.T.	58794	0.007	173722	0.021	107000	0.013	339516	32.00
2. Ghaziabad	17465	0.035	32298	0.060	32856	0.061	82619	40.00
3. NOIDA	9300	0.043	31026	0.146	-	-	40326	-
4. Faridabad	16505	0.031	24675	0.146	6568	0.012	47748	14.00
5. Gurgaon	8868	0.032	18603	0.056	N.A.	N.A.	-	-
6. Bahadurgarh	1863	0.022	4123	0.048	4115	0.048	6390	64.30
7. Meerut	17368	0.022	34242	0.045	9420	0.012	61030	15.00
8. Hapur	6125	0.041	11456	0.077	3500	0.023	21081	16.60
9. Bulandshahr	13460	0.054	23522	0.094	2644	0.011	44242	7.00
10. Palwal	1215	0.016	1674	0.022	6440	0.085	9329	69.03
11. Panipat	1573	0.006	7097	0.029	5775	0.023	14445	39.97
12. Rohtak	18200	0.065	20845	0.078	5197	0.019	39626	12.00
13. Rewari	5025	0.040	6454	0.051	6307	0.050	17786	35.46
14. Alwar	1945	0.008	7392	0.029	2915	0.012	9337	31.20
15. Sonapat	824	0.005	4196	0.027	15183	0.096	20203	75.15
16. Modinagar	3242	0.016	909	0.006	1820	0.013	5971	30.48
17. Rest of NCR	51406	0.004	39623	0.003	N.A.	-	-	-
TOTAL	232000	-	442000	-	210000	-	884000	23.7%

Table 0.3: Road Passenger Movement Pattern (Generation)

Movement	Bus Passengers		Vehicle Passengers	
	Total NCR	DUT	Total NCR	DUT
Internal-Internal	346933 (64.4)	143968 (69.6)	214168 (86.3)	53739 (85.5)
Internal-External	95036 (17.6)	61188 (29.5)	18066 (7.2)	8740 (13.9)
External-Internal	95062 (17.7)	-	15580 (6.499)	-
External-External	2055 (0.4)	1855 (0.9)	313 (0.001)	366 (0.06)
Total	539085 (100.0)	207014 (100.0)	248127 (100.0)	62845 (100.0)

Figures in bracket indicates %age to total.

Table 3.4: Projected Trip Rate and Passenger Trips

Towns	Projected Trip Rate		No. of Passenger Trips	
	Vehicle Passengers	Public Transport	Vehicle Passengers	Public Transport
DUT	0.007	0.030	93406	339671
Ghaziabad	0.023	0.075	25300	82500
NOIDA	0.057	0.154	25856	85224
Faridabad	0.036	0.064	25812	64131
Gurgaon	0.063	0.145	31650	101554
Bahadurgarh	0.040	0.119	8095	23872
Meerut	0.030	0.094	39000	122200
Hapur	0.050	0.135	23272	81000
Bulandshahr	0.011	0.169	8867	169289
Palwal	0.025	0.048	7643	14441
Panipat	0.035	0.128	28200	76800
Rohtak	0.030	0.082	18000	49200
Rewari	0.051	0.097	15446	29151
Alwar	0.034	0.112	27500	79500

Table 3.5: Projected average daily goods traffic (road) for NCR

Towns	Existing		Projected		Average annual Simple Rate Growth.
	Gen.	ACER.	Gen.	ACER.	
1. DUA	40577	59980	82980	124458	7.5
2. Ghaziabad	23415	25995	59357	72136	11.0
3. NOIDA	2165	4606	10283	23230	26.8
4. Faridabad	9676	4738	32898	16968	17.1
5. Gurgaon	2845	2253	19459	15320	41.7
6. Bahadurgarh	1721	1252	7465	5713	23.8
7. Meerut	2210	5705	11558	28810	30.2
8. Hapur/Rest of NCR	11471	3360	45061	25288	20.9
9. Bulandshahr	1705	1710	9070	14405	30.9
10. Palwal	824	691	5042	4215	36.6
11. Panipat	880	5724	14673	22906	112.0
12. Rohtak	2169	4004	9154	17017	23.0
13. Rewari	829	648	5020	3467	36.1
14. Alwar	1681	4438	10590	27072	37.9
15. Sonapat	7038	4426	28997	16917	22.3
16. Modinagar	1998	1834	8032	11397	21.6
Rest of NCR	7346	4258	19769	20737	17.8
Total	118550	135622	385266	449088	16.1

Table 9.1. Telecom Facilities in D.M.A/Priority Towns - 1987

Tele-communication

Sl.No.	Name of Town	Existing Exchanges 30.9.1987		Waiting List	Expected capacity as on 1.4.90	Remarks
		Type	Capacity			
1.	Faridabad	MAX-I (Strowger)	5100	7585	12.1Klines (E-10B)	
2.	Ballabgarh	MAX-I	1800		1800 (SXS)	
3.	Bahadurgarh	MAX-II	600	226	2000 lines Electronic (RLU)	
4.	Rohtak	MAX-I (Strowger)	4500	810	5400 (SXS)	
5.	Gurgaon	MAX-I PRX Electronic)	4000	2000	6000 (E-10B)	
6.	Panipat	MAX-II	2100	2252	4000 (ICP)	
7.	Rewari	MAX-II	1500	49	2000 (SXS)	
8.	Dharuhera	Manual CSEM	200	3	400L NEAX Elect.	
9.	Palwal	Manual CSEM	840		900L NEAX Elect.	
10.	Alwar	PRX Electronic	3000	581	4000 PRX	
11.	MIA Alwar	Manual CSEM	250		400L MAX-II	
12.	Bhiwadi	Manual CSEM	300	37	400L NEAX Electronic	
13.	Ghaziabad	- ICP (X)	5000		6000 (ICP)	
		- Strowger	1700		2000 (Dig) RLU	
		- ICP	2000		2000 ICP	
		-	-		4000 E10B	

Sl.No.	Name of Town	Existing Exchanges		Waiting List	Expected Capacity as on-1.4.90	Remarks
		Type	30.9.1987 Capacity			
14.	Loni	MAX-II	100		200	Expanded to 200 lines w.e.f. 6.10.87.
15.	NCIDA	MAX-I (Strowger)	3000	5000*	3000 (SXS)	
16.	Meerut	MAX-I (Strowger) ICP	6600 4000		4000 6100 6600 (SXS)	Already Commissioned in 1987-88.
17.	Hapur	MAX-II	1400	450*	6000 ICP + 4000 (Expn. of ICP)	Allotment made.
18.	Bulandshahr	MAX-II	1300		1600L	
19.	Khurja	Manual CBM	960		1400L	
					1000L NEAX Electronic	

*Figures as obtained from respective Divisional Telephone Offices.

Source : D.C.T. Ministry of Telecommunication.

Table 9.2 TELEX Facilities in D.M.A./Priority Towns : Proposals

Sl.No. Name of Town

Sl.No.	Name of Town	Telex		Remarks
		Existing Capacity (1.4.90)	Expected 1.4.90	
1.	Faridabad	150L	250L	Telex expanded to 250 lines during 87-88 and 300L electronic concentrator is proposed in 88-89 to replace the existing telex exchange.
2.	Ballabhgarh	-	-	
3.	Bahadurgarh	-	-	
4.	Rohtak	-	20L	
5.	Gurgaon	40L	100L	Notional telex proposed
6.	Panipat	50L	100L	
7.	Rewari	-	20L	
8.	Dharuhera	-	-	
9.	Palwal	-	20L	Notional telex proposed
10.	Alwar	-	20L	
11.	MIA Alwar	20L	40L	
12.	Bhiwadi	-	20L	
13.	Chaziebad	100L	100L	Proposal to increase capacity under consideration.
14.	Loni	-	-	
15.	NOIDA	40L	100L	
16.	Meerut	60L	150L	
17.	Hapur	-	20L	Notional telex proposed
18.	Bulandshahr	-	20L	
19.	Khurja	-	-	

Source : D.C.T. Ministry of Telecommunication.

Table 9.3

Augmentation of Telecom Facilities in DMA/Priority Towns - 7th, 8th & 9th Five Year Plan.

Sl. No.	Name of the Town	1990			1995			2001		
		Demand Projections		Likely Status	Demand Projections		Likely Status	Demand Projections		Likely Status
		Normal Growth			Normal Growth			Normal Growth		
1.	Faridabad	17380	12.1K		30869	-	-	61501	To be capable of providing telephones practically on demand	
2.	Ballabgarh		1.8K							
3.	Gurgaon	8509	6K		20583	14K/1993*		59412		
4.	Behadurgarh	879	2K		1172	-		1657		
5.	Rohtak	6454	5.4K		12226	9.4K/1993*		17762		
6.	Panipat	5022	4K		1943	6K/1993*		13771		
7.	Rewari	2117	2K		1335	3K/1991		5755		
8.	Dharuhera	-	0.4K		-	-		-		
9.	Palwal	925	0.9K		1638	-		3250		
10.	Kundli	-	-		-	-		-		
11.	Alwar	4349	4K		6936	5K/1992*		12145		
12.	Mir Alwar	-	0.4K		-	-		-		
13.	Bhiwadi	-	0.4K		-	-		-		
14.	Ghaziabad	13356	14K		23519	-		46377		
15.	Lonl		0.2K			-				
16.	NCIDA	-	7.0K		-	12K/1993*		-		
17.	Meerut	18936	12.6K		30212	17.6K/1992*		52922		
18.	Hapur	1973	1.6K		2965	2K/1992*		4833		
19.	Bulandshahr	2637	1.4K		4390	2K/1992*		7410		
20.	Khurja	-	1K		-	-		-		

*Year of allotment of Equipment.

Source : D.C.P. Ministry of Telecommunication.

Table 10.1: Power Generation Schemes in the NER

POWER DEVELOPMENT

S.No.	Schemes (Agency)	Type	Units & rated capacity MW	Installed capacity MW	Expected year of commissioning
<u>EXISTING</u>					
1.	Rajghat (DESU)	Thermal	1X15	15	
2.	IP Estates (DESU)	Thermal	1X36.6 3X67.5 1X60	284.1*	
3.	Badarpur (NTPC)	Thermal	3X100		
4.	IP Estates (DESU)	Gas	2X210	720	
5.	Panipat Stage I & II (HSEB)	Thermal	6X30	180	
6.	Faridabad (HSEB)	Thermal	4X110	440	
			1X15 3X60	195	
		Sub Total		1834.1	
<u>UNDER CONSTRUCTION :</u>					
1.	Rajghat (DESU) (Replacement units)	Thermal	2X67.5	135	Unit I May, 1988 Unit II Sep, 1988
2.	Panipat Stage III (HSEB)	Thermal	1X210	210	1987-88
3.	Kokroi**	Hydel	3X0.1	0.3	Not known
4.	Narora (APP)	Nuclear	2X235	470	& Unit I-87-88 Unit-II- 89-90
5.	Dadri (NTPC)	Thermal	4X210	840	Unit I- 1991-92 Unit- II- 1992-93 Units III & IV 93-94
		Sub-total		1655.3	
		Grand Total		3489.5	

* Includes the share of Haryana of 62.5 MW
 ** By Alternate Hydro Energy Centre, Roorkee University as an experimental project.
 £ Narora Atomic Power Project under Central Sector is being set up for the benefit of constituent States of the Northern Region. Allocation of power is yet to be decided.

Sources:

- i. Ministry of Energy/Central Electricity Authority
- ii. State Power Boards
- iii. DESU

Table 10. Pattern of Energy Consumption 1985-86

Unit: MU

Sl.No.	Area	Domestic	Commercial	Industrial	Agricultural	Others	Total
1.	Delhi UT	1280.00 (32.32)	800.00 (20.20)	1115.00 (28.16)	—	765.00* (19.32)	3960.00 (100.00)
2.	Haryana Sub-Region						
	i. Sonapat Distt.	31.50	4.80	78.68	40.59	1.83	157.40
	ii. Gurgaon Distt.	24.91	6.36	51.58	55.79	5.29	143.96
	iii. Faridabad Distt.	72.64	14.34	327.33	53.64	6.95	474.90
	iv. Rohtak Distt.	—	13.40	68.00	44.77	2.89	184.49
	v. Panipat Tehsil	28.78	9.92	168.27	151.59	2.31	360.87
	vi. Rewari and Bawal Tehsils	12.33	1.95	25.32	37.17	2.49	79.26
	+ Sub-Total	225.88 (16.12)	50.77 (3.62)	719.18 (51.33)	383.29 (27.36)	21.76 (1.55)	1400.88 (100.00)
3.	Rajasthan Sub-Region						
	i. Six Tehsils of Alwar Distt.	14.74 (4.69)	7.36 (2.35)	253.76 (80.86)	30.29 (9.66)	7.67 (2.44)	313.82 (100.00)
4.	Uttar Pradesh						
	i. Meerut Distt.	89.34	31.31	157.53	208.09	88.79	575.06
	ii. Ghaziabad Distt.	82.75	34.06	498.53	143.65	125.56	884.55
	iii. Bulandshahr Distt.	28.21	3.35	69.81	291.35	1.78	394.50
	Sub-total	200.30 (10.80)	68.72 (3.71)	725.87 (39.15)	643.09 (34.68)	216.13 (11.66)	1854.11 (100.00)
	Grand total	1720.92 (22.86)	926.85 (12.31)	2813.81 (37.37)	1056.67 (14.04)	1010.56 (13.42)	7528.81 (100.00)

Sources: Concerned State Electricity Boards and DESU

Note: 1. Figures in brackets are percentages to total.

* DESU supplied 710 MU in bulk to licencees like NIDMC and MES

+ The unrestricted energy consumption would be Domestic: 305, Commercial: 69, Industrial: 971, Agricultural: 517 and Others: 30.
Total: 1892.

Table 10. Rural Electrification and Energisation of Pumpsets

S.No.	Area	Total No. of Inhabited villages	Villages electrified	Villages proposed to be electrified during VII Plan	Villages to be electrified by the end of VII Plan	Pumpsets to be energised	Pumpsets proposed to be energised during VII Plan	Pumpsets to be energised by the end of VII Plan
I	Delhi UP(31.3.85) Sub-Total	214 (100.0)	214	Nil	214 (100.0)	15732	2500	18232
II	UP Sub-Region (31.3.85)							
	1. Meerut Distt.	920	710	210	920	40154	3823	43977
	2. Ghaziabad Distt.	704	424	280	704	8727	2180	10907
	3. Bulandshahr Distt.	1365	651	714	1365	39943	4500	44443
	Sub-Total	2989	1785 (59.7)	1204	2989 (100)	88824	10503	99327
III	Haryana Sub-Region (31.3.85)							
	1. Sonapat Distt.	331	331	Nil	331	11687	2000	13687
	2. Gurgaon Distt.	673	673	Nil	673	25374	2000	27374
	3. Faridabad Distt.	425	425	Nil	425	15174	3000	18174
	4. Rohtak Distt.	438	438	Nil	438	10987	3000	13987
	5. Panipat Tehsil	167	167	Nil	167	29295	3000	32295
	6. Rewari & Bawal Tehsils	352	352	Nil	352	14838	2000	16838
	Sub-total	2386	2386 (100.0)	Nil	2386 (100.0)	107355	15000	122355
IV	Rajasthan Sub-Region (31.3.87) Alwar, Behror, Mandawar, Tijara, Kishangarh and Rangarh Tehsils	1063	960	N.A.	1063	N.A.	N.A.	N.A.
	Grand Total	6652	5345 (80.35)	1204	6652 (100)	211911	28003	239914

*Includes uninhabited villages.

Note: Figures in brackets indicate percentages of the total number of villages in the respective Sub-region/region.

Sources: State Electricity Boards and DESU

Table 10.4: Electricity Forecast- 2001

Area	1988-90		1994-95		11999-2000		2000-2001	
	ER	PL	ER	PL	ER	PL	ER	PL
Grand Total	7217	1373	11372	2164	17920	3409	28233	5971
Revenue Subsidies	4046	625	6401	1305	10128	2065	19024	3670
Other Subsidies	811	154	1347	256	2237	425	3716	706
Other Subsidies	3428	675	5434	1070	8613	1696	13651	2683
Other	15502	3027	24554	4795	38998	7595	61624	12032

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Sources : 1944a Governments and Ministry of Energy.

Water Supply, Sewerage, Drainage
and Solid Waste Management.

and sold last management.

Sub-Region	No. of Urban areas	Organised w/s available	Per capita consumption lpcd	Population covered % (range)	Supplemented by spot sources %
Dalmi UT	6	1	240	94.3	1
Maryana	27	26	30-159	30-100	15
Rajasthan	3	3	80-106	100	18
U.P.	53	37	17-240	45-90	12
W.B.	94	67	17-240	30-100	12

(c) New System: 1986

Sub-region	Total towns 1981	Info. available	Sys. exists	Sewage Systems	Towns with water borne lat	Septic tank	Other	Treatment Yes	No	Disposal Dr- on ri- ai- la- ve- ns ad r
				Comp. part Com- bined						
Delhi	6	1	1	-	1	-	-	1	-	1
Haryana	27	26	13	-	13	10	6	-	6	1
Rajasthan	3	3	1	1	1	2	1	-	1	-
U.P.	58	58	4	4	3	1	1	3	1	1
N.C.R.	94	39	20	11	16	14	8	4	4	9

c) Storm Water Drainage: 1986

Sub-region/No. of towns available 1981	Info.	Drainage		Part	Type		Cove- red	Disposal		
		Yes	Comp.		Comb.	Open		Drains/ sewer	on land	Irrigate others
Delhi	6	1	1	-	-	1	1	-	1	-
Haryana	27	26	-	2	-	-	2	2	-	-
Rajasthan	3	3	-	3	1	3	1	1	2	-
U.P.	58	58	1	32	1	32	-	-	31	2
N.C.R.	94	89	52	2	11	49	4	-	35	6

d) Solidwaste Management: 1986

Sub-region/NCR	No. of towns	Info. available for	Solidwaste managed in	Type of Disposal			
				Comp.	sanitary refill	Landfill	Open dumping
Delhi	6	1	1	1	1	-	1
Haryana	27	25	-	-	-	-	-
Rajasthan	3	3	3	-	-	-	3
U.P.	58	19	14	-	-	11	3
NCR	94	49	31	2	1	19	11

Sources : State Governments and D/S and SDU.

Table II.2: Rural Water Supply and Sanitation.

Sub-region/ Tehsil	No. of vill- ages	No. served by		PWS	Problem Villages		No. of vill- ages with sewer- age.	Type and cove- rage
		Canals	Wells		HP	Scarcity Bad (water) qua- lity		
I. DELHI UT								
1. Delhi		Not available.						
II. HARYANA								
1. Bahadurgarh	92	90				5		
2. Jhajjar	231	74	130	6		21		
3. Rewari	346		36		37		309	
4. Meham	30	24				8		
5. Rohtak	103	45				42		
6. Sonapat	215	53	13	49	117			
7. Panipat	167	47	120		84	123	39	
Sub-Total	1134	333	581	55	238	199	348	
III. RAJASTHAN								
1. Ramgarh	134		16	116	11	1	4	
2. Alwar	156		33	118	13	1	11	
3. Tijara	196		11	175	6		6	
4. Mandawar	114		16	100	6		7	
5. Kishangarh	130		20	155	11	2	18	
6. Behror	159		55	100	3	1	11	
Sub-Total	929		151	764	55	5	57	

1	2	3	4	5	6	7	8	9	10	11
IV. UTTAR PRADESH										
1. Meerut	263	-	-	45	-	71	-	-	-	-
2. Mathura	315	-	-	13	-	9	-	-	-	-
3. Baghpat	231	-	-	9	-	29	-	-	-	-
4. Sarthana	212	-	-	15	-	34	4	-	-	-
5. Ghaziabad	187	-	-	1	-	59	-	-	-	-
6. Hapur	232	-	-	123	-	93	-	-	-	-
7. Dehra	155	-	-	25	-	42	32	-	-	-
8. Garhmukteshwar	153	-	-	55	-	45	-	-	-	-
9. Bulandshahr	404	-	-	135	-	359	3	-	-	-
10. Khurja	370	-	-	100	-	241	3	-	-	-
11. Arupsagar	420	-	-	71	-	299	-	-	-	-
12. Sikandrabad	265	-	-	63	-	147	-	-	-	-
Sub-Total	3173	-	-	737	-	1478	42	-	-	-

Source : State Governments DMS and DMO.

Table -13.1 Occupied Residential Houses : 1971-81

Sub-Region/ Region	Occupied Residential Towns 1971			1981		
	Urban	Rural	Total	Urban	Rural	Total
Haryana	1,06,157	4,63,113	5,69,270	2,10,427	5,42,379	7,52,806
Uttar Pra- desh	1,61,325	6,32,078	8,43,403	3,26,603	7,82,515	11,09,118
Rajasthan	18,718	1,05,391	1,24,109	29,494	1,34,082	1,63,576
MCR (exclud- ing Delhi CT)	2,86,200	12,50,582	15,36,782	5,66,524	14,38,976	20,25,500
Net after deleting 10%	2,57,580	11,25,524	13,83,104	5,09,372	13,13,078	18,22,950
Occupancy Rate	7.32	7.309	7.313	6.53	7.34	7.116

Sources : Census 1971, 1981

Table: 13-4 Housing Requirement in Phases 1988-2001.

Category	1988-90	1990-95	1995-2001	2000-2001	Total
1. E.W.S.					
a) Slum up- gradation	0.22	0.70	0.85	0.22	1.99
b) Sites & Services	0.70	2.15	2.70	0.44	5.99
2. L.I.G.	0.32	1.00	1.20	0.265	2.785
3. M.I.G.	0.06	0.20	0.25	0.07	0.58
Total	1.30	4.05	5.00	0.995	11.345

Table 13.2: Additional Demand for Housing Units: 1981-2001

Sub-regions/ Region	Occupied Residential Houses		Population Assignment for 2001 (in lakhs)	ORH requirement by 2001 @ 5 persons per (in lakhs)	Addition H. Units between 1988-2001
	1971 (Actual)	1981 (Actual) 1987 (estimated)			
Haryana	U 1,06,157	2,10,427	43.5	8.7	6.243
	R 4,63,113	5,42,379	34.5	6.9	1.591
	T 5,69,270	7,52,806	78.0	15.6	7.834
Uttar Pradesh	U 1,61,325	3,26,603	75.5	15.1	11.258
	R 6,82,078	7,82,515	45.5	9.1	1.515
	T 8,43,403	11,09,118	121.0	24.2	12.783
Rajasthan	U 18,718	29,494	5.0	0.150	0.677
	R 1,05,391	1,34,082	9.0	1.8	0.438
	T 1,24,109	1,63,576	14.0	2.8	1.115
NCR (Exclu- ding Delhi UT)	U 2,86,200	5,66,524	124.0	24.8	18.188
	R 12,50,582	14,58,976	89.0	17.8	3.544
	T 15,36,782	20,25,500	213.0	42.6	21.732

* Net after allowing 10% for non-residential, vacant and non-liveable units.
Sources: Census 1971, 1981 for actuals.

Table-13.3 Additional Housing Requirements in the Priority, DMA and other Towns by-2201

Towns	Housing Requirement by 2001 (Lakhs)	Not liveable Housing Units in 1987(actual)	Additional Requirement 1983-2001
1. Priority Towns			
1. Meerut	3.1	1,17,703	1,92,297
2. Hapur	0.9	16,983	73,012
3. Bulandshahr	1.0	17,391	82,109
4. Khurja	0.6	10,116	49,584
5. Panipat	1.0	26,157	73,843
6. Rohtak	1.0	28,926	71,074
7. Palwal	0.5	7,545	52,455
8. Rewari	0.22	3,222	13,723
9. Dharuhera	0.15	-	15,000
10. Bhiwadi	0.23	-	23,000
11. Alwar	1.0	20,000	73,320
Sub-Total	9.8	2,60,583	7,19,417
DMA Towns			
1. Bahadurgarh	0.4	7,017	32,983
2. Faridabad Complex	2.0	79,001	1,20,999
3. Ghaziabad	2.2	64,722	1,55,278
4. Gurgaon	1.4	19,315	1,20,685
5. Kundli	0.3	-	30,000
6. NOIDA	1.1	-	1,10,000
Sub-Total	7.4	1,70,055	5,59,945
Other Urban Centres in NCR	7.5	2,30,609	5,29,391
Total Urban NCR excluding Delhi U.T.	24.3	6,61,247	13,18,753

Table 14.1 Landuse in the NCR-1986-87 (Sub-regionwise Distribution)

Regional Landuse

(Area in Hectares)

Category	Delhi	Haryana	Rajasthan	Uttar Pradesh	NCR	Proportion reported
1. Forest	1434 (2.2)	34000 (52.1)	9870 (15.2)	19918 (30.5)	65222 (100.00)	2.1
2. Land put to non-agricultural use	35820 (24.2)	128431 (44.3)	17398 (5.9)	114860 (38.7)	296509 (100.00)	9.9
3. Barren Land	18707 (13.2)	35000 (24.7)	56425 (39.8)	31545 (22.3)	141677 (100.00)	4.7
4. Water Bodies	329 (4.0)	3569 (42.9)	2407 (28.9)	2017 (24.2)	8323 (100.00)	0.28
5. Permanent pasture & Other grazing land	793 (3.0)	12000 (45.0)	11262 (42.3)	2593 (9.7)	26648 (100.00)	1.2
6. Land Under Misc tree crops and groves	1137 (24.0)	—	91 (1.9)	3512 (74.1)	4740 (100.00)	0.2
7. Culturable Waste	856 (1.5)	24000 (41.8)	7073 (12.2)	25555 (44.5)	57484 (100.00)	1.8
8. Cultivated Land	88411 (3.7)	1099000 (45.9)	314419 (13.1)	890288 (37.3)	2392118 (100.0)	79.9
Total Reporting Area	147487 (4.93)	1336000 (44.64)	418945 (14.00)	1090288 (36.43)	2992720 (100.00)	100

Figures in brackets indicate percentages to total of the NCR
Sources: Compiled from State Government records.

Table 14.2 Distribution of Forest Area in NCR-1985

Sub-region	Total Reporting area	Total forest	Reserved forest	Protected forest	Unclassified forest	Social forest
Delhi UI	149788	1443 (0.9)	NA	NA	NA	NA
Uttar Pradesh	1075993	29455 (19.4)	16308 (29.4)	1995 (6.3)	1064 (1.9)	10088 (100.0)
Haryana	1334640	43815 (28.5)	7346 (13.2)	20850 (65.9)	15619 (27.8)	NA
Rajasthan	420348	78761 (51.3)	30447 (54.8)	8795 (27.8)	39519 (70.3)	NA
NCR	2980769	153474	55544	31640	56202	10088

Source: State Forest Departments & Delhi Administration

Note: Figures in brackets indicate percentages to total of the respective category of forest.

Table 14.3 Landuse Pattern of the NCR 1986-87

Sl. No.	Category	Based on Land records					Based on Satellite Imageries				
		Sub-Region					Sub-Region				
		Delhi	Haryana	Rajasthan	Uttar Pradesh	NCR	Delhi	Haryana	Rajasthan	Uttar Pradesh	NCR
1.	Forest	1434 (1.0)	34000 (2.5)	9870 (2.4)	19918 (1.8)	65222 (2.1)	2678 (1.8)	2075 (0.15)	19203 (4.27)	11601 (1.0)	35557 (1.2)
2.	Land put to non-agricultural use	35820 (24.2)	128431 (9.6)	17398 (4.2)	114860 (10.5)	296509 (9.9)	35820 (24.2)	128431 (9.6)	17398 (4.2)	114860 (10.5)	296509 (9.9)
3.	Barren Land	18707 (12.7)	35000 (2.6)	56425 (13.5)	31545 (2.9)	101677 (4.7)	11438 (7.7)	88044 (7.4)	58539 (13.0)	50117 (3.5)	196238 (6.5)
4.	Water Bodies	329 (0.22)	3569 (0.27)	2407 (0.54)	2017 (0.19)	8323 (0.28)	329 (0.22)	3569 (0.27)	2407 (0.54)	2017 (0.19)	8323 (0.28)
5.	Permanent pasture & Other grazing Land	793 (0.5)	1200 (0.9)	11262 (2.7)	2593 (0.2)	26648 (1.2)	793 (0.5)	12000 (0.9)	11262 (2.7)	2593 (0.2)	26648 (1.2)
6.	Land under Misc. tree crops & groves	1137 (0.8)	—	91 (0.02)	3512 (0.3)	4740 (0.2)	1137 (0.8)	—	91 (0.02)	3512 (0.3)	4740 (0.2)
7.	Culturable waste	856 (0.6)	24000 (1.8)	7073 (1.7)	25555 (2.4)	57484 (1.8)	856 (0.6)	24000 (1.8)	7073 (1.7)	25555 (2.4)	57484 (1.8)
8.	Cultivated Land	88411 (59.79)	1099000 (82.3)	314419 (73.1)	890288 (81.7)	2392118 (79.9)	95249 (64.2)	1083182 (80.7)	333256 (74.1)	88694 (81.3)	2398631 (79.3)
Total Reporting Area		147487 (100.00)	1336000 (100.00)	41945 (100.00)	1090288 (100.00)	2992720 (100.00)	148300 (100.00)	1341299 (100.00)	449300 (100.00)	108298 (100.00)	3024211 (100.00)

Figures in brackets indicate percentages to total of the NCR

Source: Compiled from State Government Records and Satellite Imageries.

Table 14.4 Proposed Landuse in NCR-2001

District/ Tehsil	Landuse Category	Forest area with no tree cover	Difference in cultivated land (SG-SI)	Barren land (SG-SI)	Cultural waste	Land put to Non Agricultural	Proposed Forest Expansion
I.	DELHI DT	(-) 1244	(-) 6838	7269	856	35820	8800
II.	HARYANA SUB-REGION						
1.	Gurgaon	9970	38358	(-) 44294	—	38149	59200
2.	Faridabad	4000	(-) 6095	(-) 7789	—	27703	28500
3.	Rohitak	8000	(-) 9837	(-) 3253	13000	25167	19700
4.	Sonepat	7966	(-) 11502	(-) 4531	10000	16811	13600
5.	Rewari & Bawal	1989	(-) 5428	3100	—	15000	8300
6.	Panipat	—	10323	3723	1000	5601	4700
	Sub-Total	(-) 31925	(+) 15819	(-) 53044	(+) 24000	(+) 128431	134000
III.	RAJASTHAN SUB-REGION						
1.	Alwar(part of NCR)	(-) 9333	(-) 18837	(-) 2114	7073	17398	89860
IV.	U.P. SUB-REGION						
1.	Meerut	813	(-) 1450	(-) 2912	5182	46238	12800
2.	Ghaziabad	(-) 1050	(-) 4730	1173	7398	32654	29100
3.	Bulandshahr	8555	9524	(-) 1033	12975	35968	28100
	Sub-Total	(+) 8317	(+) 3344	(-) 6672	2555	114860	7000
	NCR Total	(-) 29665	(+) 6512	(-) 54561	(8) 57484	(+) 296509	(+) 302660

Table 1.4.5: Land Requirement for Urban Development By 2001.

Sl.	Town/Urban Complex	1981		2001		Land Requi- red in Hect- ares	Additional Land in Hectares.
		Area in Hectares	Popula- tion in lakhs	Density per Hectare	Assigned Popula- tion		
I. DMA TOWNS							
1.	Ghaziabad incl. Loni	6840	3.00	44	11.00	3800	19.0
2.	NOIDA	600	0.75	125	5.50	4400	3800
3.	Faridabad						
4.	Ballabgarh	17824	3.30	19	10.00	8000	Nil
5.	Gurgaon	2413	1.01	42	7.00	5600	3187
6.	Bahadurgarh	900	0.37	41	2.00	1318	918
	Kundli	200	0.25	125	1.50	1363	1163
	Sub-Total I.	28777	8.68	-	37.00	29981	11028
II. PRICATIN TOWNS							
1.	Meerut	8032	5.37	66	15.50	12400	4313
2.	Hapur	583	1.03	177	4.50	4091	3503
3.	Etahandshahr	939	1.03	109	5.00	4000	3061
4.	Khurja	1036	0.67	64	3.00	2727	1691
5.	Panipat	2082	1.37	66	5.00	4000	1913
6.	Rohatki	2203	1.66	75	5.00	4545	2342
7.	Palwal	552	0.47	35	3.00	2727	2175
8.	Bewari	606	0.52	36	1.10	1000	394
9.	Dharuhera	-	0.05	-	0.75	937	937
10.	Bhimwadi	445	-	-	1.15	1045	600
11.	Alwar	8000	1.47	13	5.00	4545	Nil
	Sub-Total II.	24528	14.33	-	49.00	42017	20007
III. REST OF THE TOWNS (Excluding Delhi)							
		37307	10.69	-	40.00	51563	14256
	Grand Total	90612	33.70	-	126.00	123561	45291

Counter - Magnet Areas

Table 17.1 Search Zone Delineation for Counter-magnet Study

State	Population 1981			
	Class 1 (100,000 Population and above)			
	5 Lakhs and above	3 to below 5 lakhs	2 to below 3 lakhs	1 to below 2 lakhs
Uttar Pradesh	1. Kanpur	4. Bareilly	7. Saharanpur	13. Mathura
	2. Agra	5. Moradabad	8. Dehradun	14. Farukhobod
	3. Allahabad	6. Aligarh	9. Jhansi	15. Haridwar
			10. Shahjahanpur	16. Amroha
			11. Rampur	17. Etawah
			12. Ferozabad	18. Sambhal
Haryana			19. Ambala	20. Yamunanagar
				21. Hissar
				22. Karnal
Rajasthan				23. Bhiwani
	24. Jaipur	25. Ajmer	27. Bikaner	28. Ganganagar
		26. Kota		29. Bharatpur
Punjab	31. Ludhiana			30. Sikar
	32. Jalandhar		33. Patiala	34. Bathinda
Madhya Pradesh	35. Gwalior			
Union Territory		36. Chandigarh		

MINUTES OF THE EIGHTH MEETING OF THE NCR PLANNING BOARD
HELD ON 17.5.1988 AT PARLIAMENT HOUSE ANNEXE

The following members were present :-

1. Smt. Mohsina Kidwai,
Minister of Urban Development Chairperson
2. Shri Devi Lal,
Chief Minister of Haryana.
3. Shri Shiv Charan Mathur,
Chief Minister of Rajasthan.
4. Shri H L Kapoor,
Lt. Governor, Union Territory of Delhi.
5. Shri P Namgyal,
Dy. Minister (SFT).
6. Smt. Padma Seth,
Minister of State (UD),
Government of Uttar Pradesh.
7. Shri Verendar Singh,
Minister of Town Planning & Urban Dev.,
Government of Haryana.
8. Shri R K Verma,
Minister, Government of Rajasthan.
9. Shri Vishnu Rajoriya,
State Minister Housing,
Government of Madhya Pradesh.
10. Shri Jag Parvesh Chandra,
Chief Executive Councillor, Delhi.
11. Shri D M Sukthankar,
Secretary, M/o Urban Development.
12. Shri P M Abraham,
Secretary, M/o Surface Transport.
13. Shri M N Prasad,
Member (Engg.),
Railway Board.
14. Shri E F N Ribeiro,
Chief Planner, TCPO.

15. Shri K K Mathur,
Chief Secretary,
Delhi Administration.
16. Shri L C Gupta,
Chief Secretary,
Government of Haryana.
17. Dr. Rakesh Mohan,
Adviser (HUD),
Planning Commission.
18. Shri Om Kumar,
Vice Chairman,
Delhi Development Authority.
19. Shri N K Sabharwal,
Joint Secretary,
Department of Industry.
20. Shri P B Saxena,
Joint Secretary (Finance),
M/o Urban Development.
21. Shri K K Bhatnagar,
Member Secretary,
NCR Planning Board.

The Chairperson, Smt. Mohsina Kidwai, Minister for Urban Development, welcomed the members, particularly the Chief Ministers of Rajasthan and Haryana. She expressed satisfaction that the Board and the Planning Committee had been meeting regularly for preparation of the statutory plan. She then drew the attention of members towards the items included in the agenda for discussion, particularly items 9 and 10 relating to consideration of objections/suggestions to/on the Draft Regional Plan 2001 and consideration of the Regional Plan. She expressed the hope that it would be possible to finalise the plan with the help of the members and then the phase of implementation would begin.

The Agenda items were taken up for discussion and the following decisions were taken :

Agenda Item No. 1.

Confirmation of the minutes

The minutes of the meetings held on 21.7.87 (along with the corrigendum issued on 14.9.87) and 20.1.88 were confirmed.

Agenda Item No. 2.

Action taken on the decisions of the Sixth meeting of the Board held on 21.7.87.

The Member-Secretary gave the details of the action taken on the decisions. These were noted.

Agenda Item No. 3 ✓

Details of business transacted by the Planning Committee, Personnel Group and Project Sanctioning and Monitoring Group, etc.

The Board noted the information contained in the Annexures relating to meetings of the Planning Committee and the Project Sanctioning and Monitoring and, Personnel Groups.

Agenda Item No. 4 ✓

Amendment of Regulations

The Member-Secretary explained the need for amending Regulation No. 6 to provide for adoption of the CPF scheme of Government of India for such employees of the Board who may not be eligible for pensionary benefits. The following amended Regulation No. 6 was approved by the Board :

"6. Pension, gratuity, retirement benefits and general provident fund :

The officers and employees of the Board shall be entitled to pension, gratuity, other retirement benefits and general provident fund or contributory provident fund at such rates and under such conditions as are applicable to officers and employees of the Central Government in the corresponding grades."

Agenda Item No. 5

Revised Estimates 1987-88 and Budget Estimates 1988-89 in respect of Revenue (Non-Plan) and Capital (Plan) expenditure

The Member-Secretary explained the Non-Plan and Plan provisions for 1987-88 (including Revised Estimates) and the Budget Estimates for 1988-89. The members expressed concern over the inadequate Plan provision. The Chairperson, while agreeing that the provisions were inadequate, remarked that this was due to the scarcity of resources which was primarily because of the conditions of drought in the country.

She also stressed the need of suggesting other measures, so that the objectives of the NCR Plan could be achieved. The Chief Minister of Rajasthan also expressed the need for a policy framework and for creation of conditions in Delhi so that migration from outside would not be encouraged.

Agenda Item No. 6

Annual Statement of Accounts for the year 1986-87

The Board adopted the Statement of Annual Accounts for the year 1986-87.

Agenda Item No. 7

Annual Statement of Loans and Advances for the year 1986-87

The Board noted the Annual statement of Loans and Advances for the year 1986-87. On a query made by the Lt. Governor of Delhi it was explained by the Secretary (UD) that the loans sanctioned to State Governments and development agencies were for various Urban Development projects, and were released according to the progress of expenditure and had been fully utilised.

Agenda Item No. 8

The Board approved the Annual Report for the year 1987-88.

Agenda Items No. 9 and 10.

Draft Regional Plan - Consideration of objections/ suggestions along with comments and recommendations of the Planning Committee. Consideration and approval of the Regional Plan

On a suggestion made by the Chairperson, consideration of these two agenda items was taken up together. Before taking up consideration of these items, an audio-visual presentation of the Regional Plan 2001 was made before the Board by Shri B.N. Singh, Chief Regional Planner. The presentation was appreciated by all the members.

The Chairperson then directed the Member-Secretary to explain the details of the objections/suggestions received and the related issues raised in the agenda items. The Member-Secretary informed that, in all, 37 objections/suggestions were received to/on the Draft

Regional Plan 2001 which included objections/suggestions from the State Governments, DDA, certain institutions and members of the public. The Planning Committee had considered these in two meetings held on 19.11.87 and 16.12.87. The gist of the objections/suggestions and recommendations of the Planning Committee had been compiled in the book circulated for consideration by the Board. The original objections had also been placed on the table of the house for the purpose of record.

The Planning Committee had recommended five amendments to the Draft Regional Plan and notes on those had been included in the agenda item. The Planning Committee had also referred to the Board for its consideration one of the objections made by the Government of Haryana, regarding the industrial policy in the Delhi Metropolitan Area. The Member-Secretary briefly explained the 5 amendments suggested by the Planning Committee to the Draft Regional Plan. The Chairperson then invited the members to express their views on the agenda items, keeping in view specially the status of the National Capital. She further stated that the Plan had no intention of curbing the development efforts of any of the participating States.

Shri Jag Parvesh Chandra, Chief Executive Councillor, Delhi stated that the Plan, as conceived, was against the interests of Delhi. While admitting that Delhi was sinking under the weight of its population and the increasing pollution, he said that only the development of seven 'Little Delhis' around the mother city equipped with full facilities, could deflect the growing population away from Delhi to such self-sufficient "Little Delhis". Referring to the problem of resources, he suggested that money should be raised by floating debentures and by developing self-financing schemes. He also advised recourse to institutional funds. He emphasised the importance of the distributive trade and commerce which had developed over several years in Delhi and expressed himself against its shifting. According to him, these were not large employment generating activities. He stated that the problem of congestion in the Capital could be tackled by taking away the godowns to peripheral areas of the Union Territory. He also expressed himself against the proposals for disincentives to industrial growth in Delhi which may have the effect of reducing it to a "city of Baboos and bicycles". He further observed that employment was mainly provided by the alround construction activity going on in the Capital. He also stated that Government and Public Sector offices, which had no justification for continuing in Delhi, should be shifted. He gave the example of the office of the Coastal Guards which had no justification

for continuing in Delhi. He also questioned the justification for so many guest houses of public sector undertakings in the Capital. He doubted whether the population projections made in the Plan were realistic. While referring to the fiscal policy, he gave the instance of tax reduction on motor vehicles and electronics by the neighbouring States which had reduced the tax revenues accruing to Delhi Administration. He expressed himself against raising the rates of taxes in Delhi. Finally, Shri Chandra emphasised the need for urgent action and said that every day was extremely important for Delhi.

Shri Verendar Singh, Minister for Urban Development, Haryana, remarked that the stand taken by the Hon'ble Chief Executive Councillor, Delhi, was against the very basic concept of the National Capital Region Plan. He wondered that if industries, trade and commerce were not generating employment then, where was the need for insisting on their continuation in Delhi. At the same time, he questioned the justification for placing curbs on growth of industries in the Delhi Metropolitan Area where Haryana Government had spent huge resources for development of infrastructure. He was of the view that the spread of population in Delhi could be effectively curbed by allowing the full growth of the DMA towns. He further doubted whether the population assignments given in the Plan could be achieved without allowing medium and major industries in these towns. He gave the example of assignments for Kundli, Gurgaon and Faridabad in this connection. He suggested that a high power committee should be set up to make an in-depth study of this issue and declared that its recommendations would be acceptable to Haryana in the larger interest. He appreciated the need of viewing the problems of Delhi from the point of view of its being the National Capital and gave the instance of the assistance extended by Haryana in meeting the present water crisis in Delhi. He opposed the proposal for shifting of industries which were creating pollution in Delhi to Haryana. He further expressed agreement with the point earlier made by the Chief Minister of Rajasthan that no further industrialisation of Delhi should be permitted and, only home and cottage industries should be allowed to develop. He expressed the view that the large scale construction activity in the Capital was definitely creating employment opportunities for the migrants. Shri Verendar Singh emphasised the fact that the policies adopted by the NCR Planning Board were crucial for their State since, as compared to U.P. and Rajasthan, one-third of Haryana was included in the Sub-Region of the National Capital Region. He, therefore, stressed the need for giving commensurate weightage to the views of Haryana while finalising the policies of the Plan.

The Chief Minister of Rajasthan, Shri Shiv Charan Mathur, stated that the proposals contained in the Plan were generally in order. He stated that there were no two opinion that Delhi should be developed as an ideal National Capital. However, for this purpose, a framework of policies was necessary. He suggested that Delhi should have only home and cottage industries and the construction activity should be reduced. A policy of disincentives was necessary to curb the growth of economic activities in the Capital city and he suggested that even Haryana should develop towns which are away from Delhi. He gave the example of the development of Jaipur where efforts were being made to develop the areas away from this State capital and certain disincentives were being envisaged. He stated that Delhi, as National Capital, belonged to every one and was already enjoying the facility of allocation of special funds for development by the Centre and even certain other subsidies. However, there was a need to curb economic activities and to reduce the pressure of commuting population, which could be done by an approach of disincentives, shifting of offices, decentralisation of trade, rationalisation of fiscal structure, levy of consignment tax etc. He stressed the need to include Bhiwadi town in the alignment of the proposed regional rail by-pass. He also emphasised the need for creation of a seed capital of Rs.200 crores, so that the policies contained in the Plan could be supported by definite financial commitments.

Shrimati Padma Seth, Minister for Urban Development, U.P., generally endorsed the views expressed by the Chief Minister of Rajasthan. She raised the question of the likely conflict between the State legislation and the proposal contained in the Draft Regional Plan for approval of individual master plans of cities by the Board. The Member-Secretary explained the provision and stated that this could be done by following the policy of obtaining approval in advance from the Board. The Chairperson stated that the conformity of the individual master plan with the Sub-Regional and Regional plans was necessary and, if need be, the State legislation may have to be amended to provide for this essential approval. On a suggestion made by the Urban Development Minister, U.P., it was agreed that the written speeches of the Chief Ministers of Haryana and Rajasthan and Urban Development Minister, U.P., may be taken as read and placed on record.

Winding up the discussion, the Chairperson stated that in view of the very important observations which had been made, it was necessary to examine them at length before finalisation of the Plan. She stated

that in view of the continuing scarcity of resources, priorities would also have to be laid down for development and, to begin with, development of infrastructure should be taken up. She stressed the need for a policy of give and take to achieve the objective of a manageable Delhi. On her suggestion, the Board agreed to constitute a Committee consisting of the Chief Executive Councillor, Delhi, Urban Development Ministers of Haryana, Rajasthan and U.P. and Chief Secretaries of Delhi, U.P., Haryana and Rajasthan, to go into the following issues; the Committee should submit its report to the Board within three months and a meeting of the Board should then be convened to consider the Plan :

- (i) Policy relating to location of industries, wholesale trade and commerce. This should include not only the location policies for DMA but also Delhi.
- (ii) Fiscal policy. This, apart from rationalisation of tax structure, should include the consideration of the question of disincentives to trade and commerce in Delhi and the proposed shifting and decentralisation of these activities.

The meeting ended with a vote of thanks to the Chairperson.

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NCR Planning Board

Dated the 10th June, 1988

Copy forwarded to all concerned for information and necessary action.



(B N Singh)
Chief Regional Planner