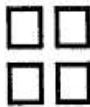


Bhopal **Development Plan** **2005**

Published under the provisions of
the M. P. Nagar Tatha Gram Nivesh Adhiniyam, 1973



DIRECTORATE OF TOWN & COUNTRY PLANNING

MADHYA PRADESH

The Draft Development Plan 2005 Bhopal was published on 17-10-94, under the provision of Section 23 (2) read with Section 18 (1) of the M. P. Nagar. Tatha Gram Nivesh Adhiniyam, 1973, for inviting objections and suggestions. The Draft Plan was exhibited in Directorate Town & Country Planning, Bhopal Development Authority, Municipal Corporation and Office of the Commissioner, Bhopal Division from 17-10-94 to 15-11-94, for explaining the proposals to the citizens. In all 1216 objections were received. The Director and the Additional Director heard the objections from the public, institutions, Government Departments and other organisations.

After giving due considerations to all objections and suggestions, the modified plan was submitted to the State Govt. for approval.

The Bhopal Development Plan, presented here has been approved by the State Government under section 19 of the Madhya Pradesh Nagar Tatha Gram Nivesh Adhiniyam, 1973 vide Notification No. 3773-32-95, dated 9-6-1995 published in the Madhya Pradesh Gazette Extraordinary No. 273, dated 9th June 1995.

The Bhopal Development Plan has come into operation from 9-6-1995 the date of publication of notification in the gazette under the provision of sub-section (5) of Section 19 of the said Adhiniyam.

Contents

	Page
Foreword	(i)
Preface	(iii-iv)
Planning Team	(v)
List of Illustrations	(vii)
List of Tables	(ix-x)
Chapter-1 : Approach to Planning of State Capital Bhopal	1-22
Chapter-2: Development Perspective and Proposed City Structure	23-49
Chapter-3: Proposed Transportation Network and Urban Infrastructure	51-79
Chapter-4 : Development Regulations	81-134
Chapter-5 : Plan Implementation	135-148
Schedule	149-162
Annexure	163-167
Appendix	169-171

FOREWORD

Bhopal the nerve centre of socio-economic, and political life of the State of Madhya Pradesh, a symbol of the most beautiful metro-city and the capital of the largest State in the country, is assuming great eminence among the national cities of India. The city's splendid topography is unique to give it a distinct personality and picturesque urban setting in the global context as well.

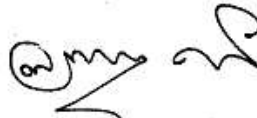
Bhopal is growing at unprecedented pace during the last 4 decades. The city planners have managed to contain its growth within its planned frame work except with some aberration along regional roads.

The coming decade, as the city enters the 21st century throws, a challenge for the planners. To meet this challenge the city needs to be adequately equipped to manage its growth to a 25 Lakh population city during the next phase of its plan.

The planners face a gigantic task to integrate the sub-cities and the natural endowment with the modern city development needs into a wholesome entity. The concerns of planning are clear i. e. (a) inhabitants are able to live in safe, self contained lively surroundings, (b) the city should provide opportunities to improve their economic capability and share the fruits of the modern urban economy, (c) the city should function efficiently to meet the aspiration of its people.

Lessons of learning from the first plan BDP 1975-91 have to be gainfully utilized to give new urban structure to the city which is capable of absorbing the modern challenges in the field of urban planning. The task before the town planners in the Directorate is gigantic.

I understand that in preparing the development plan the planning team has taken cognizance of the restructuring taking place in the urban economy. The ideas thrown in the last years seminar have been helpful to guide the planning team in giving shape to the proposed urban structure. The effort to preserve the magnificent topography is laudable. The development of Metro-Bhopal in terms of self contained sub-cities integrated with the Bhopal Urban Complex seems to be appealing. I am confident that through this plan it would be possible to preserve the pride, the people of Bhopal possess.



(K. S. SHARMA)

Principal Secretary

GOVERNMENT OF MADHYA PRADESH
HOUSING AND ENVIRONMENT DEPARTMENT

PREFACE

Bhopal nestles in a picturesque setting. The vast expanse of lakes dominate the city scape while the elements of Urban Heritage punctuates the sky line. The relatively low rise development with dense vegetation that has taken place so far, the physical features have substantially retained their original character. These characteristics in totality identifies Bhopal as a beautiful city.

Bhopal as a capital city of the largest state, is a national priority city as identified by the National Commission on urbanisation. The pattern of future growth of the city must establish a balance between conserving the critical, natural and Urban heritage areas, based on opportunities and constraints evolved in the synthesis of ecological studies of the planning area while optimising Urban Development.

A national seminar was organised at Bhopal to formulate guidelines for evolving future city pattern. The recommendations of the seminar have been incorporated to a desired extent, within the limitations of the M. P. Nagar Tatha Gram Nivesh Adhiniyam 1973.

The proposals contained in this report lay emphasis on future city structure, the process of plan implementation through active public participation. The organic growth pattern has been honoured, incorporating the committed isolated development in the northern part of the city. For implementation of plan proposals it is preferred that large chunks of land are developed with necessary physical and social infrastructure in priority areas, to ensure desired land supply.

The proposals are in the form of the modification of the adopted plan i. e. 1975-1991 plan. This report is produced in 5 chapters. The first three chapters deal with identification of the city in regional context, conceptualising of parameters of the city development and delineation of a logical frame work for the plan proposals. The chapter four details the development regulations in comprehensive manner while chapter five details the options of plan implementation process, emerging out of local aspirations and past experience.

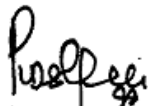
The citizens of Bhopal, Govt. depts., Regional chapter, Indian Institute of Architects, Builders Association, Chamber of Commerce had given their valuable suggestions which were helpful in finalising the plan. The Directorate is indebted to the citizens and the institutions for their valuable suggestions. The suggestions were considered after personal hearing with a positive attitude and on the basis of this, the plan has been finalised. The role of citizens and the implementing agencies is most important. The implementation of the proposals by the development agencies shall be critical for continued identity of this beautiful lake city.

(iv)

Acknowledgement

The Directorate is obliged to various Government Semi-Government Departments, organisations, citizens and individuals for assistance rendered by them. We are also thankful to the Commissioner, Bhopal Division and the Collector, Bhopal, Environmental Planning and Co-ordination organisation, Information and Publicity, Central Railways, Civil aviation, M. P. E. B. and M. P. Housing Board, Bhopal Development Authority, without their support this document would not have taken this shape.

We look forward to the active participation from the citizens of Bhopal for whom the plan has been prepared.


(P. V. DESHPANDE)
Director
Town & Country Planning

(v)

BHOPAL DEVELOPMENT PLAN- 2005

PLANNING TEAM

DIRECTOR
P. V. DESHPANDE

JOINT DIRECTOR

M. Y. KHAN

D. K. SHARMA

DEPUTY DIRECTOR

S. S. RATHORE
K. P. BAJPAI

VIJAY SAWALKAR
M. RAZA KHAN

ASSTT. DIRECTOR

ZAHID ALI
J. K. VIJAY

P. P. BHATIA
SUNITA SINGH

OTHER STAFF

B. R. CHATURVEDI
U. S. TIWARI
AMOL SIRASAO
P. S. BATAV
NAGIN BARKIYA
N. P. SAKWAR
N. S. SHRIRAME

A. K. MUKERJEE
JAMAL KIDWAI
K. M. CHOURASIA
GANGADHAR
R. H. DESHPANDEY
D. D. PATIL
AJAY AGRAWAL

OFFICERS AND STAFF ASSOCIATED WITH THE PLANNING TEAM FROM TIME TO TIME

EX. DIRECTOR
R. S. GATTANI

JOINT DIRECTOR
U. C. SHAH

DEPUTY DIRECTOR

R. C. SARAF

V. P. KULSHRESHTHA

ASSTT. DIRECTOR

SANJAY MISHRA
A. K. SANDRE

S. K. MUDGAL

OTHER STAFF

B. S. SAHARE
R. R. SHARMA
RAJDA NAIM
CHITRALI PAUL ROY
B. S. BISHT
J. ASHAPURE

S. RATNAMMA
U. S. GAUTAM
INDU UPADHYAY
USHA SURI
GEEJO VARGHESE
SITOKI
VIJAI SHRIVASTAVA

LIST OF ILLUSTRATIONS

S. No.	Particulars	Page No.
1.	Existing Land Use	5 (a)
2.	Physiography & Wind Direction	11
3.	Natural Drainage	13 (a)
4.	Natural Resource Base	16 (a)
5.	City Image & Urban Heritage	19
6.	Regional Setting	26 (a)
7.	Planning Area	26 (b)
8.	Plan Concept	28 (a)
9.	City Level Land-Use Allocation	29
10.	Proposed Development Plan 2005	28 (b)
11.	Proposed sub-cities	30 (a)
12.	Proposed Planning Units	30 (b)
13.	Estimated Population	31
14.	Sensitive Areas	44 (a)
15.	Proposed Road Network	64 (a)
16.	Proposed Road Section	65(a)
17.	First Phase Development	142 (a)

LIST OF TABLES

Sr. No.	No. of the Table	Title of the Table	Page No.
1.	1-T-1	Land Use Variation 1975-94	5
2.	1-T-2	Geology and Soil	13
3.	1-T-3	Identification of Landscape Potential Areas	16
4.	2-T-1	Land use Allocation at the City Level	30
5.	2-T-2	Estimated Population	30
6.	2-T-3	Provision for Informal Sector	32-33
7.	2-T-4	Housing Shortage & Requirement	36
8.	2-T-5	Proposed Population Density By Areas	40
9.	2-T-6	Development and Regeneration Areas	47
10.	2-T-7	Incompatible Uses and Proposed Locations	48
11.	3-T-1	Number of Buses Operated and Routes covered	55
12.	3-T-2	Operation of City Bus Service	55-56
13.	3-T-3	Operation of Mini Buses	56-57
14.	3-T-4	Number of Accidents	58
15.	3-T-5	Growth in Number of Mechanised Vehicles (Bhopal District)	58-59
16.	3-T-6	Traffic Volume on Main Roads in Old City Area	60-63
17.	3-T-7	Proposed Widths of Roads	65
18.	3-T-8	Phasing for Road Development (No. of Lanes)	66-68
19.	3-T-9	Capacity of Water Distribution	72
20.	3-T-10	Requirement of Water-2005	73
21.	3-T-11	Consumption of Water (LPCP)	73
22.	3-T-12	Land Requirement for Proposed Electric Sub-Station	76
23.	3-T-13	Educational Institutions	77
24.	4-T-1	Use Zone/Use Categories	88-89
25.	4-T-2	Norms for Residential Area Development	91
26.	4-T-3	Five-tier System of Commercial Area	95-96
27.	4-T-4	Norms for Shopping Area	97

(x)

Sr. No.	No. of the Table	Title of the Table	Page No.
28.	4-T-5	Layout Norms for Whole-sale Commercial Development	99
29.	4-T-6	Coverage, FAR and Set backs for Industrial Areas	101
30.	4-T-7	Recommended Norms for Services in Industrial Area	101
31.	4-T-8	Coverage, FAR for Public Amenities/Facilities	102
32.	4-T-9	Standard for Community Facilities and Amenities	103-104
33.	4-T-10	Open Spaces and Recreational Areas	105
34.	4-T-11	Norms for Transport/Machanic Nagar	106
35.	4-T-12	Standard for Facilities in Transport Nagar	106
36.	4-T-13	Norms for Roads and Streets	107-108
37.	4-T-14	Access Standards	108-109
38.	4-T-15	Dimensions for on Street Car Parking Space	110
39.	4-T-16	Parking Standards	110-111
40.	4-T-17	Permission of Use Premises in Use Zones	116-117
41.	4-T-18	Permission of Secondary Use Permises in Use Zones	118-119
42.	5-T-1	Components of First Phase	143
43.	5-T-2	Targets for Monitoring Plan Implementation	145-146

Chapter 1

Approach to Planning of the State Capital Bhopal

	Page
1.1-1.3 Planning and Development Context	3-4
1.4-1.6 Implementation Status	4-8
1.7-1.9 Concept underlying the Perspective Development Plan 2005	8-9
1.10 Bhopal has to be planned as an integral part of its Region and Sub Region	9
1.11 Ecological Study of Planning Area	9
1.12 Ecological Parameters	9-10
1.13 Physiography	10-16
1.14 Identification of Potential Area	16
1.15 Synthesis of Studies	17-19
1.16 City Image and Urban Heritage Areas	19-21
1.17-1.18 Planning and Urban Design Control Areas	20-22

Chapter 1

Approach to Planning of the State Capital Bhopal

Planning and Development Context

1.1 Planning for a city is a continuous process. It involves initiation of change in the regional, urban and neighbourhood context, to achieve development of the economy and fulfilment of the aspirations for better quality of life and to absorb growth pressures. This becomes a critical exercise in planning for Bhopal, which is the Capital of the largest State in the country, and is one of the most beautiful metro cities in the country. Today, the development of Bhopal is at an important milestone as it enters the 21st century and fulfills its strategic role as the capital of a rapidly developing state, occupying its place in the national scene.

1.2 The Development Plan for Bhopal 1991 (BDP-1991) which was conceived in 1973-75 will remain an important document as it was the plan for the city which envisaged the comprehensive urban perspective for the newly formed State Capital.

1.3 The basic postulates of the Development Plan for Bhopal 1991 are reproduced below—

- Integration of various units of "Bhopal Capital Region".
- Development of Inter-city transportation and communication network to discharge regional functions with efficiency.
- Give shape to the urban structure with the city functions being acquired by Bhopal in the process of its growth.

- Functional disposition by urban use so as to achieve:—
 - Efficient and judicious utilisation of land.
 - Harmonious and coherent inter-relationship between various uses and activities.
 - Functional Distribution of work centers and living areas, minimise travel distances and increase efficient functioning of activities, and Compact city development.
- Hierarchical city structure in terms of self-contained planning unit, and ensure disposition of services and amenities on the basis of hierarchy of the planning entities.
- Gradual removal of existing disorder.
- Functionally efficient transportation network and circulation system, ensuring safe and at the same time speedy movement of Urban and Regional traffic.
- Separate pedestrian ways, where such traffic is excessive and segregation is desirable.

Implementation Status

1.4 The goals set out in Development Plan 1991 were intended to be accomplished during its implementation through a process of detailed planning (formulation of programmes and projects) and public acceptance. This did not always happen and the Plan was often vitiated at various stages of its implementation, mostly in qualitative terms and provision of public facilities. It may be concluded that in some spheres of development, the intent of the proposals were not adequately translated into the envisaged physical frame-work thus creating disjointed and undesirable urban spread in both planned as well as unplanned areas. This can be seen in the distorted land use intensities, proliferation of informal sector settlements, lack of land use control, particularly in critical areas. In addition insufficient development of social infrastructure, inadequate supply of developed land and its disposal, lack of coordination in the provision of utility networks, and inability to provide effective mass transport network, have been among the host of problems which have over-whelmed the development plan in the process of its implementation. Particularly the Plan has suffered for want of adequate management in the following areas:

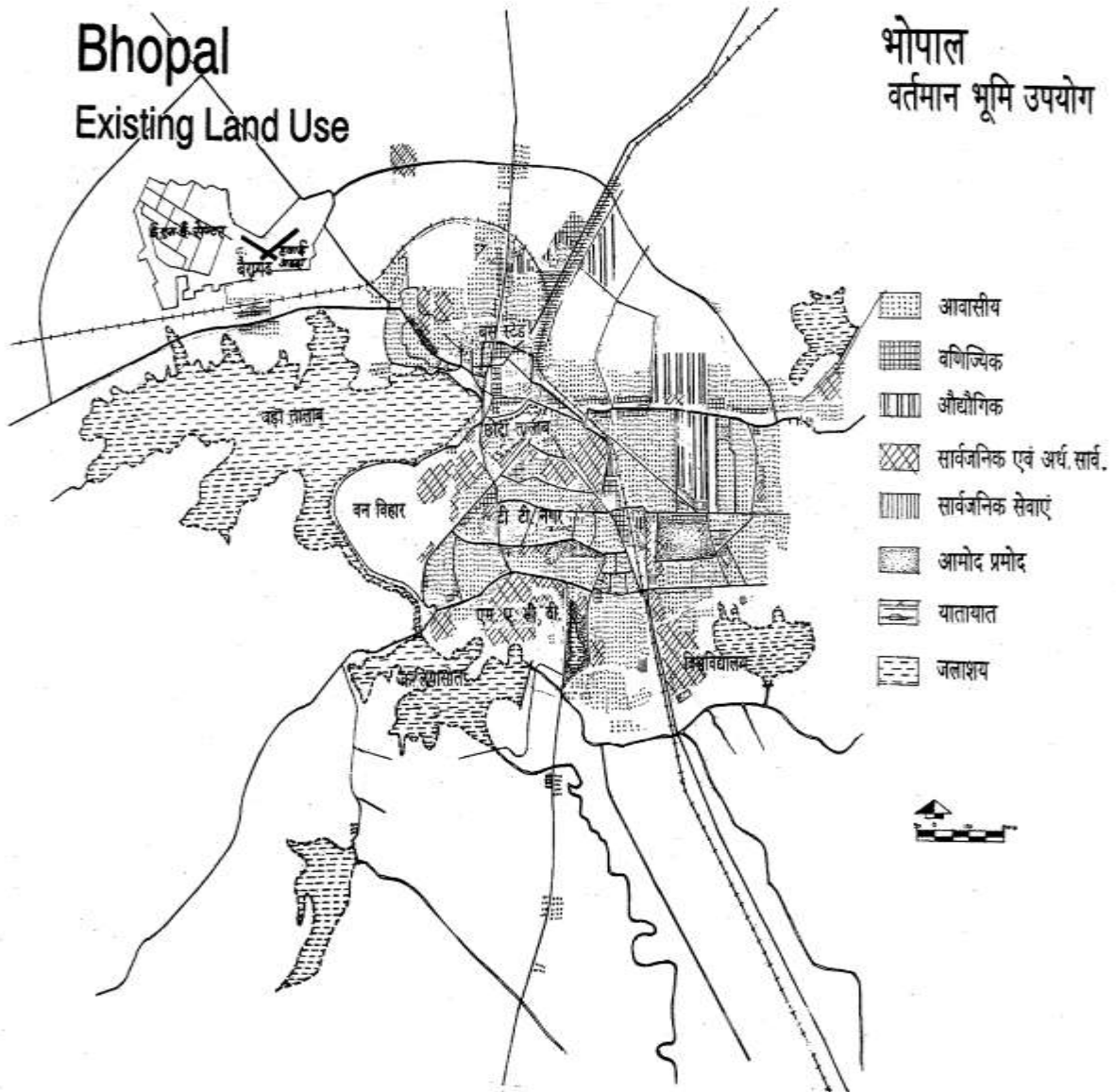
- Absence of institutional framework for supply of land, and the process of Urban Land Management.
- Lack of Institutional Co-ordination.
- Availability of timely and adequate finance for development of urban infrastructure.
- Absence of mechanism for motivating resource mobilisation to channalise private investments.
- The operational management of the physical environment.
- A system of continuous monitoring of the Plan implementation, its feed back and setting up required corrective measures.

1.5 Thus, in absence of effective control and implementation, there has been large areas of unintended growth, development of unauthorised colonies, squatter settlements particularly in low lying areas (polluting the drainage channels leading into the lakes), and development of areas with poor levels of physical and social infrastructure.

1.6 This prognosis necessarily leads to the re-evaluation of the existing planning and development management process.

Bhopal Existing Land Use

भोपाल वर्तमान भूमि उपयोग



Evaluation of Plan Implementation

Bhopal Development Plan was published in 1975 for the planning area of 241 sq. kms. Total area envisaged for development under different land uses was 10120.00 hect., under different uses for 10.00 lakhs population. Forces of development took rapid pace after adoption of the plan. Investment of nearly Rs. 200 to 250 crore was made by public and private agencies for developmental works for the implementation of plan proposals. Activities related to implementation of the said proposals are evaluated in the following table.

BHOPAL : LAND USE VARIATION 1975-94

(Area in hectares.) 1-T-1

S. No.	Landuse	Land Allocation of adopted Plan (1991)	Habitated Area 1994	Variation (-) (+)	(%) level of Impl.
(1)	(2)	(3)	(4)	(5)	(6)
1.	Residential	4050.00	3660.00	-390.00	90.37 *
2.	Commercial	405.00	243.00	-162.00	60.00
3.	Industrial	1135.00	692.00	-443.00	60.96
4.	Public and Semi public	1215.00	912.00	-303.00	75.00
5.	Public Utilities	280.00	200.00	-80.00	71.42
6.	Recreational	1415.00	1153.00	-262.00	81.48
7.	Transportation	1620.00	1062.00	-558.00	65.55
Total		10120.00	7922.00	-2198.00	78.28

* Includes developed and partially developed areas in the Planning area.

The above study reveals that more than 78.28% of the proposals have been implemented. The level of implementation is not up to the mark in some of the use categories because of the vertical development which took place in commercial areas and in the old city residential areas, resulting in sub-standard living condition. Details of the implementation of different landuses are described as under :—

Residential

The development plan (1975-91) envisaged 4050.00 Hect. of land for residential development which includes areas around the city. Nearly 90% of the areas proposed were

utilized under the same use. Some of the areas between Railway station and BHEL are lying undeveloped, because of some technical, financial and legal problems. Residential areas of Narela Shankari and village Semarakala are under utilized. Therefore, the spill over area, of near about 400 hectares of land is lying vacant.

The pressure of urban development is around Hoshangabad and Raisen Raod. On these roads new colonies and group housing societies have started development works without permission. The trend of unauthorised development towards these directions created a pressure on land disposal. Now the Government has notified additional 92 villages under planning area vide H & E Deptt's No. F-1 (37) 86 xxxii Bhopal dated 22-3-93.

The growth of population has increased three fold since publication of the plan in 1975. At least 1.25 lakhs dwelling units have been added in the different residential areas out of which 70,000 as plotted development and 55,000 as corporate housing. Further analysis revealed that out of 1.25 lakh Dwelling Units added during last two decades, 40% comes under public sector in new-Bhopal-area and rest of the development was under private sector. As per studies carried out by the Directorate of Town and country planning nearly 1.7 lakh population is living in jhuggi-jhopdi and slum settlements, occupying strategic and precious locations.

Commercial

Development plan 1975-91 envisaged land utilisation rate for commercial use as 0.4 Hectare per thousand person. The land which was reserved for commercial use was 405 Hectare distributed under different categories according to the requirment of planning units, out of this total 60 percent land of commercial use has been developed. The general commercial use proposed in between Berasia and Diwanganj road (for Mandi etc) and other major reservation of land which was on Obedullaganj road near village Ahmadpur could not be developed fully, i. e. 40 percent commercial land could not be developed causing excessive pressure on the few city-centres, planning-unit centres, sub-city-centres, developed during the implementation period viz CBD of Old Bhopal, New Market at Roshanpura, Major shopping centre at Habibganj etc.

From the above discription it is evident that the commercial use could not emerge as per aspectations, the reason appears to be the tedious legal procedure for development of new shopping centre.

Industrial

A close appraisal of land use distribution of Development Plan 1975-1991 indicates that except the industrial use proposed along Bhopal Diwanganj road and on the other side of the railway line in village Sajidabad, Maholi and Bhanpur, the other areas proposed for industrial activities in addition to the existing have come up. This forms 75 percent of the total land proposed under the industrial use, while the 25 percent industrial land could not be developed due to non availability of concession for industrial development from the concerned Deptt.

Public and Semi-Public

The plan 1975-1991 envisaged 12 percent land for PSP purposes. The review of the plan indicates that out of 1215 Hectares land reserved for this use 912 hectares land developed under the PSP.

The land for PSP use which could not be developed and still available for development includes areas on Arera Hills and PSP uses in all the ten Planning units have scope of development for this purpose.

Public Utilities and Facilities

Land proposed under Public utilities and facilities in the plan 1975-1991 has fully consumed except few chunks for grave yards and cremation grounds near Singarcholi, Khudaganj, Khejda Baramad and Bagmungalila.

Recreational

The recreational use which was envisaged in 1975-1991 plan was of the order of 14 percent of the total purposed land for city development. From the study of the recreational development under the heading lake front development an city parks. It is evaluated that lake front and city park development is of the order of 50 percent of the total proposed area. Areas which could not be developed as city parks, are near Lalghati junction, near Aish Bagh Stadium, opposite to Vidhan Sabha, adjacent to western Side of Regional College, western slope of MACT hillock and area around the PHE treatment unit in PU4 near Sai-Baba Mandir.

The major reason of low percentage of implementation of this land use may be attributed to the Jhuggi-Jhopadi activities and the unauthorised construction in private areas which were proposed for green area development. The implementing agencies for recreational development could not take action at proper time due to financial constraints and practical problems.

Transportation

Most of the proposed roads in South Bhopal have been developed except few, which could not be developed due to topographical configurations and site conditions. These roads are-

In South Bhopal

1. Road from village Chunabhathi to Bhadbhada.
2. Road from Asha Niketan to the proposed Ring road along Bhopal-Itarsi Railway line.
3. Ring Road from Obedullaganj Road to Bhopal-Bilkisganj Road.

In North Bhopal

1. Road from Obedullaganj to Raisen Road.
2. Road from near Pulboghda to Ring road in northern direction.
3. Road along Bhopal-Delhi railway line from Ring road to Pulboghda.

4. Ring road from Retghat to Karbala along the lake (lake drive road).
5. Road from Karond kala to Narela Shankari via Bhanpur.
6. Road from Regiment gate to Chhola road.
7. The other sector roads within planning units remains to be developed as per plan proposals.

Under the transportation land use category grade-crossings and terminal-centres for road transport which were supposed to be implemented are yet to be developed:

Terminal Centre

1. Habibganj
2. Pipliya Chamaran
3. Garam Gaddha
4. Semra Kalan
5. Pulbogda.

Grade Crossing

1. Grade crossing near Bhanpur on the proposed road, to Karod Kalan to Narela Shankari.
2. Grade crossing on Ring road near village Misrod.
3. Grade crossing near Habibganj Railway Station.
4. Grade crossing on Bhopal Sehore Railway line near, Bairagarh.

Truck Terminal

Truck Terminal proposed near Railway crossing in village Karod could not be implemented.

Parking sites

Parking sites proposed in 1975-91 plan could not be implemented. Though there was no technical problem for the development, the reason may be the poor recognition of this public demand.

Concept Underlying the Perspective Development Plan 2005

1.7. The proposed Development Plan for Bhopal is now conceived in accordance with the provision of the M. P. Nagar Tatha Gram Nivesh Adhiniyam, 1973 and the modified document is entitled "Development Plan for Bhopal 2005".

1.8. The Development Plan for Bhopal 2005 is evolved on the basis of the BDP-1991 and envisions a system of self contained sub-cities, to accommodate the future growth of city's population, based on planned intervention in critical areas/sectors of urban development like the provision of effective mass transport system, provision of physical and social infrastructure and the provision of public utility systems to guide its development along desirable directions.

1.9 The Bhopal Development Plan 2005 thus comprises a set of coordinated development policies, concerned with all aspects of development in the city, and is derived from the following broad principles:

Bhopal has to be planned as an integral part of its Region and Sub-Region

1.10 The major issue of urban growth pertains to the growth of Bhopal as a metropolitan city and its emergence as a National Priority City.

The implication of city growth therefore, originates both from the regional and sub-regional context and results in the change of its status from primarily a State city to that of a multifunctional city attracting industrial and other socio-economic sectors in its fold.

The employment potential of the city as a growing State Capital and its emerging role as a multi-functional city has to be transformed into new impulses of growth. It requires through restructuring of traditional investment patterns towards key development sectors, such as appropriate regional transport network, land use management policies and new economic and fiscal policies, in consonance with the initiatives of economic liberalization and its restructuring being undertaken by the Central Government.

Ecological Study of Planning Area

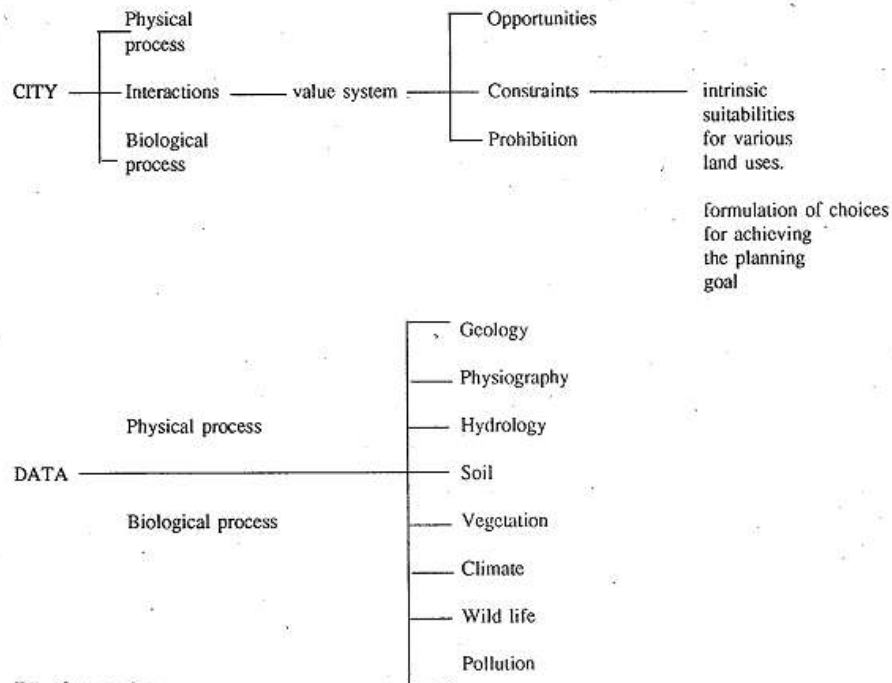
1.11 Ecology is a study of inter-relationship between organisms and its environment, which has proved to be the single integrative science which permits both diagnosis and prescription for planning physical and social environment. It is also a vital input in the search of both comprehension of form in nature and for creation of urban form.

Ecological Parameters

1.12 Nature is not uniform but varies as function of geology, physiography, climate, soils, plants, animals and intrinsic resources and land uses. For example forest felling results in floods, droughts, pollution of ground water, etc.

The main task is to identify the natural process, their own values and prohibitions for human use and following this objective, the natural processes have been identified to study the opportunities and constraints for synthesis of urban form of Bhopal city. The methodology adopted for the study of the planning area is indicated in the diagram.

ECOLOGICAL CONCEPT



Physiography

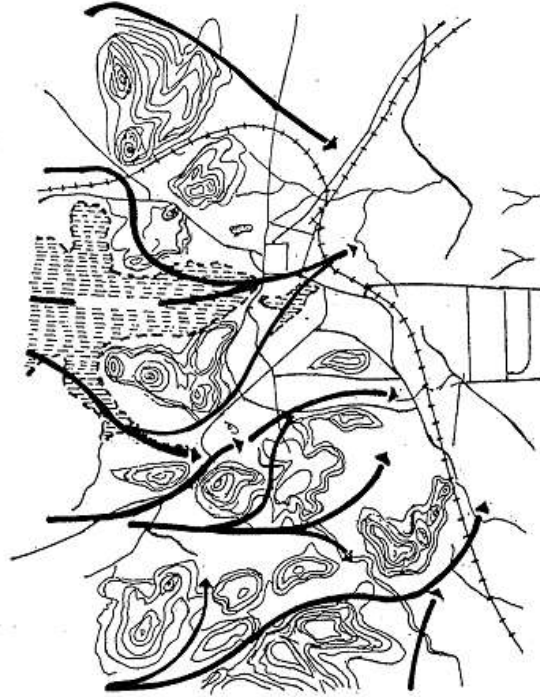
1.13 Bhopal city nestles in a hilly terrain which slopes towards north and south-east. Hillocks of different altitudes are situated along the south-west and north-west portion of the city. These hillocks form a continuous belt from Singarcholi upto Vindhyaachal range. The height of Singarcholi near Lalghati is 625 M. which is maximum in this area. The general ground level is however, nearly 460 M. along the south-eastern and north-eastern portion of the city. The remarkable topography of the city provides enchanting and panaromic views of the city and of natural scenic beauty. There are immense possibilities for landscaping and Water Front Development for recreation. However, hills and lakes are at present a great disadvantage in some respects.

- (a) It is unsuitable for continous Urban Development.
- (b) It creates physical barriers owing to which interlinks between various parts of the city are often inconvenient and circuitous.

Large portion of city areas and New Bhopal are seperated by hillocks and lakes which act as barrier in social and cultural integration of these parts. The present city stands segregated distinctly in three parts. The T. T. Nagar and its extensions being developed on the Southern side is separated by the old city by two lakes-Upper Lake and Lower Lake, B. H. E. L. town is seperated form the new township as well as the old city by a Railway line. The

future plan of the city must provide and improve physical links between these parts so as to encourage social and cultural integration of these townships.

Bhopal Physiography and Wind Direction



(a) Conspicuous Land Form

The hillocks could be classified in the following three orders depending upon their altitude. This would facilitate to identify the areas suitable for development.

1st order — Singarcholi (Manwa Bhand), Lalghati, Idgah, Fategarh situated to the North of the Upper Lake.

2nd order — Shamla, Dharampuri and Arera Hills situated south-east of Upper Lake.

3rd order — M. A. C. T. Char-Imli, Shahpura, Kotra Sultanabad and other hillocks adjoining south-east of Upper Lake.

The areas to the East are comparatively plain without any significant land forms and gradually sloping towards north-east and forming the bowl shape land form. The areas to south-east beyond Shahpura hill are gradually sloping towards Misrod.

Hill Ridges Plateaus

Bhopal with its unique physiography presents a picturesque setting. Extensive control of the skyline formation is envisaged. The ridges and hill tops or plateaus requiring visual aesthetic and conservation considerations are listed below:—

- Shamla Hill Ridge.
- Arera Hill Ridge.
- Char Imli Hill Ridge.
- Idgah Hill Ridge.
- Singar Choli Hill Ridge.
- Baghsewania, Laharpur, Amarawad Khurd Ridge.
- Singhpur Sewania Gond Hill Ridge.
- Sewania Gond Hill Ridge.
- Prempura-Dharampuri Hill Ridge.
- Chhawani Hill Ridge.
- Hill configuration around the Kaliasote and the Kerwa.

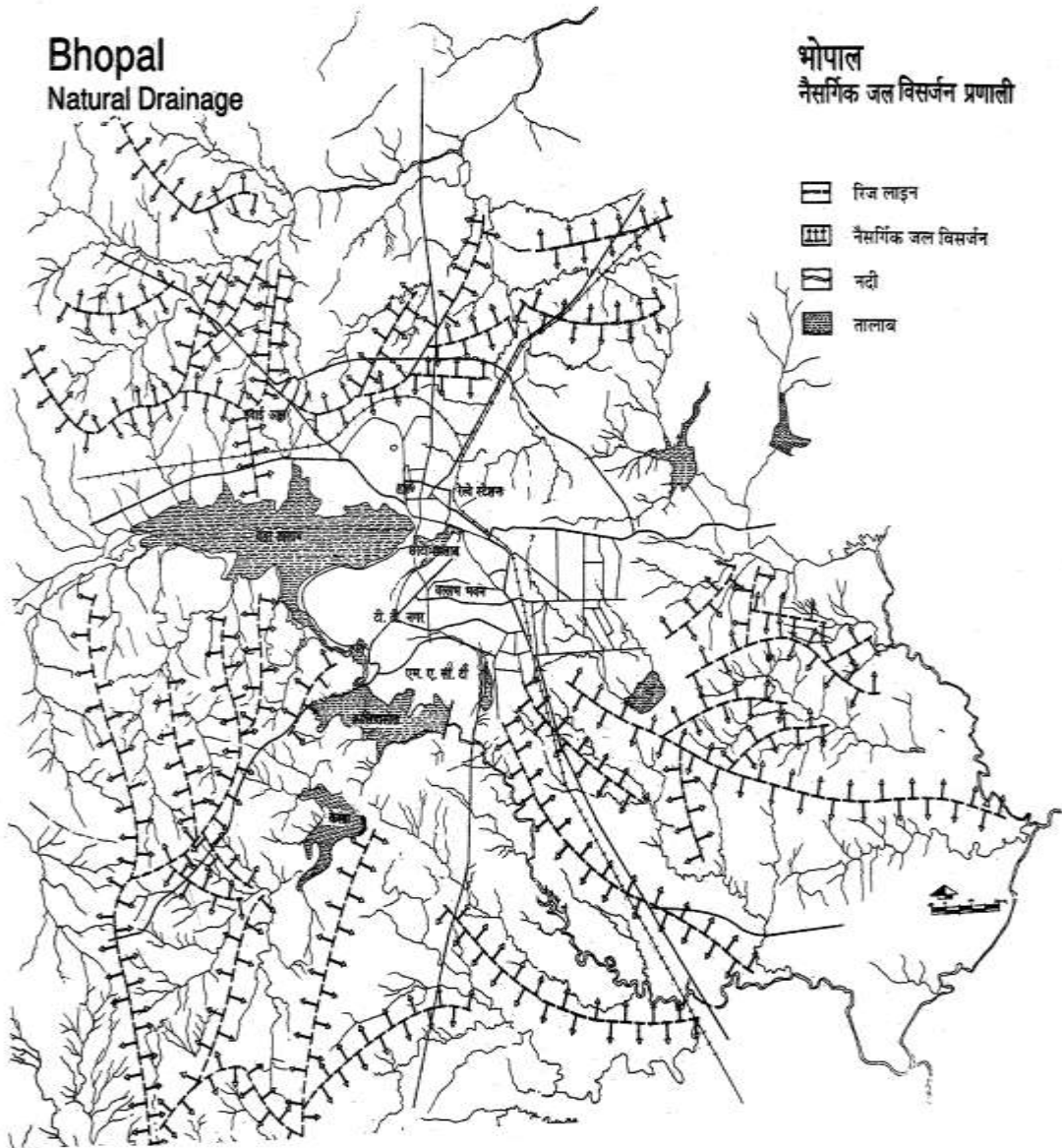
All slopes of more than 8 degree and above needs to be prohibited for any construction or development on such slopes. They need to be extensively planted to stop soil erosion.

(b) Geology and Soil

Sub-surface within planning area is not rich in minerals. The sheet rock of red stone is available in parts. The depth of bed rock varies according to slopes. It can be broadly classified as below.

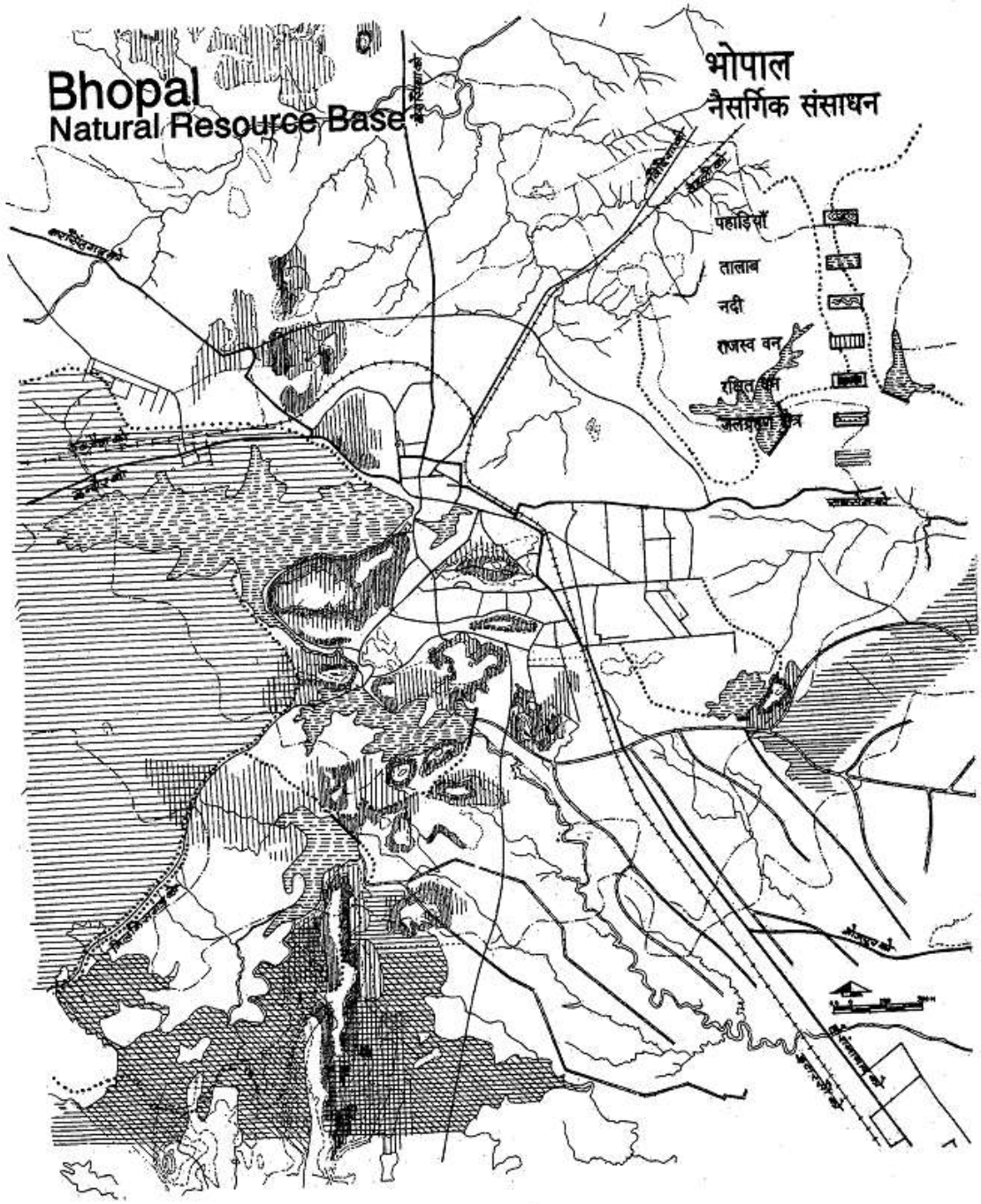
Bhopal Natural Drainage

भोपाल नैसर्गिक जल विसर्जन प्रणाली



Bhopal
Natural Resource Base

भोपाल
नैसर्गिक संसाधन



Synthesis of Studies

1.15 The synthesis of studies enables the delineation of the negative areas and potential areas in respect of future urban use. The future urban form therefore is based on the synthesis of studies.

The catchment areas of lakes is not considered as areas suitable for intensive Urban Development in order to restrict the pollution of water. The identification of constraints, prohibitions and development potentials of different catchment areas is detailed below.

1. Catchment area of Upper Lake and Kaliasote & Kerwa

The city level accessibility is extremely restricted. Part of the area is affected by geological faults.

The prohibitions in respect of Urban development are:—
The activities which shall not be allowed in the area are the intensive Urban Development, the cultivation by use of chemical fertilisers, activities discharging oil based effluents and obnoxious air.

The opportunities offered are:—

The availability of Govt. land in this area and existence of exclusive institutions provides an opportunity for initiating self contained institutions, having capacity to recycle the solid and liquid waste, extremely low density housing along existing roads, afforestation to check soil erosion, construction of silt dams, regional and city level recreational areas may be considered as opportunities for future development.

The catchment of Upper lake on north shall need similar treatment. The only difference is that the entire northern catchment area is easily accessible from the state highway. It is essential that afforestation along the lake, to check the soil erosion and catch drain/sewer to avoid the effluents entering lake shall have to be ensured.

The density of population shall have to be restricted to bare minimum in context with the opportunities and constraints.

2. Shamla Hills, Northern Slopes of Shamla Hills and Southern Slopes of Fategarh Hills

Shamla Hills commands qualitative views of Upper Lake, and the sky line of old of Shamla Hills and new Bhopal.

The prohibitions and constraints are:—

The carrying capacity of infrastructure has reached its maximum level. the area is occupied by exclusive uses. Therefore further intensification of this area is not advisable.

The northern slopes of Shamla Hills and southern slopes of Fatehgarh Hills needs to be prohibited for any type of constructions. The afforestation of this area is essential to enhance the environs of the lake.

3. Catchment of the Hathaikheda

The lake and its catchment area is in Hataikheda close proximity to the state highway. The availability of Govt. land in village Kansaiya demands interlinkage with state highway and the by-pass. The prohibitions for activities shall be similar to that of the catchment area of Upper lake. The low density development towards south, east and west leaving sufficient margin for afforestation may be considered for delineating activity pattern in the area.

4. Area North of Narsingarh road and existing by pass

The area is favourably accessible. The geological formation is conducive for intensive Urban Development. The past development can be contiguous to existing built up areas. The only prohibition is to protect Islam-nagar from ill effects of Urbanisation needs to be safeguarded.

4.1 Area around Airport

The area around airport prohibits specific type of building construction activity. Part of the area falls in catchment area of Upper Lake. It is therefore essential that the future development pattern in this area should be low rise, low density, and activities being compatible with the air traffic operation.

5. The Area South of Raisen Road, & East of National highway

The accessibility of these areas can be improved since the existing development of BHEL, University shall attract future highway city expansion.

The catchment area of Laharpur lake shall have to be prohibited for undesirable Urban Development.

The proximity to the existing developed area, and the transportation corridor with Mandideep, exerting pull of expansion, this area becomes prime choice for future city expansion.

The geological strata is not as good as northern area but the proximity factor shall dominate the economic considerations of development. Intensive Urban Development may therefore be the prescription of such area.

6. Areas East and West of Kolar Road

The accessibility to the area is restricted through Kolar road. Part of the area is liable for flooding and unforeseen disaster. The low density development at desired locations

The chowk area with properties facing the Jama Masjid including the Jama Masjid.
 The Jumerati Gate.
 The Central Library Campus with adjacent Properties.
 The Kamala Park Area.
 The Sadar Manzil-Iqbal Maidan Complex including Gauhar Mahal, Moti Masjid and the Peer Gate Road.
 The Fatehgarh Fort Area.
 The Tajul Masjid-Benazeer-Taj Mahal Complex including Motia Talab, Noor Mahal Talab, Munshi Hussain Khan Talab, Golghar.
 Gates of Shahjanabad-Bada Bagh.
 The Raj Bhawan-Vidhan Sabha-acqueduct complex.
 The Arera Hill Area.
 The Baradari at Shamla Hills.

The plan envisages restoration of all the above urban heritage areas and further recommends to preserve their identity including distillation of urban planning and architectural essence of the old city to the new developments.

Planning and Urban Design Control Areas

1.17 Areas of Planning and Urban Design Control areas are delineated as given below:—

Junction Near Gupha Mandir.
 GAD Square
 Area around Hamidia Hospital, Tajul Masajid.
 Iqbal Maidan.
 Sadar Manzil complex.
 Gauhar Mahal and its surrounding.
 Area around Lal Parade Ground.
 Motimasjid Surroundings.
 Junction area around Board Office, Roshanpura, Vidhan Sabha.
 All important junctions crossing involving roads more than 30 meters.
 Main Roads No. 1 and 2.
 National Highway.
 Structures on Hill Ridges.
 Lake fringe areas.
 Bhadbhada area.
 Areas covered under sensitive zone not covered above.

with increasing accessibility can be considered as a prescription for such areas.

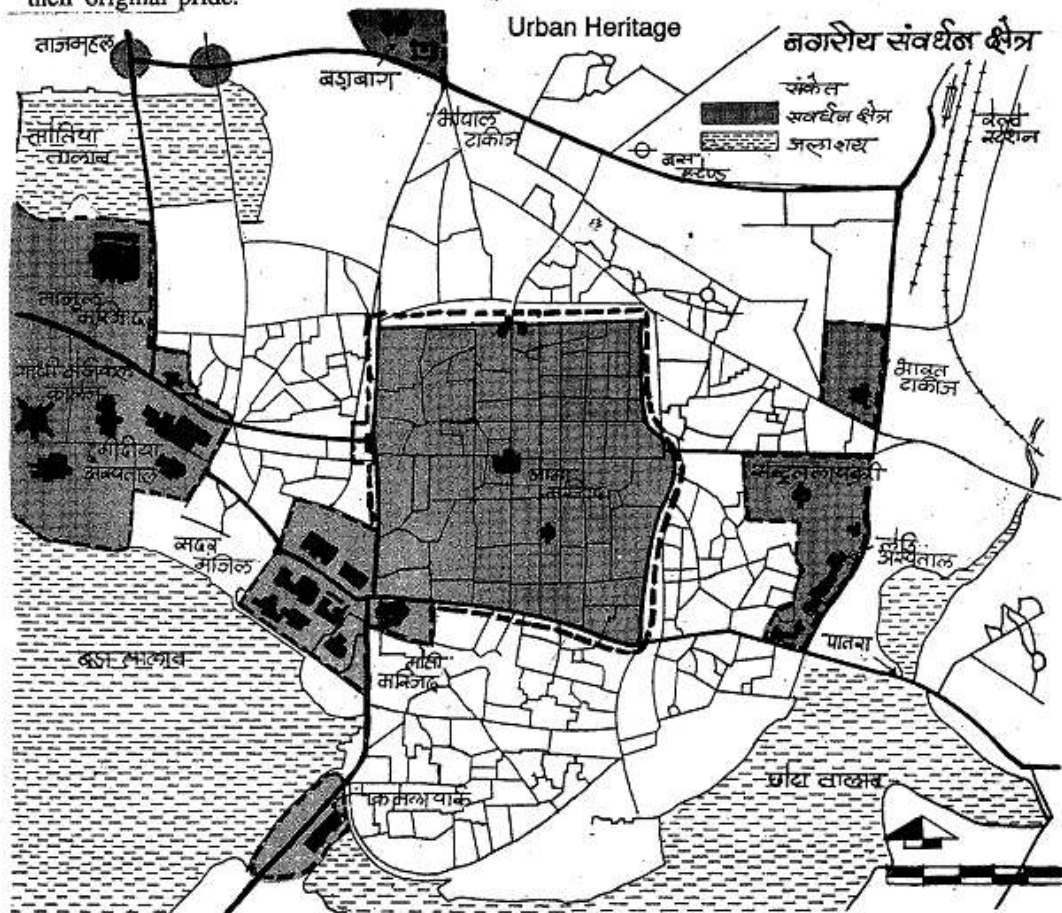
7. **Conspicuous Land forms in village Chandanpur, Chichli** The plateau of these areas possess good visual command of lakes surrounding it. Such areas need to be made accessible and can be used for exclusive residential areas and institutions.

The above prescription have been considered to evolve the shape of future development.

The above evolved shape shall have to be further crystalised at city level in respect of delineation of areas related to "city image and Urban Heritage areas".

City Image and Urban Heritage Areas

1.16 Urban image of the city is a collective visual appearance contributed by natural and man made elements. Man made heritage is the built form which got developed historically over many centuries. The unique urban heritage contributing to the city identity and its image, ought to be preserved. City is gifted with rare monuments and splendid areas of vulnerable architecture. The built heritage, covering areas listed below, are proposed to be dealt with the utmost care and pride. The restoration measures need to be applied with a view to revive their original pride.



As a primary exercise the height of the structure and related horizontal distance required for easy appreciation of the built form, shall be the consideration for delineation of influence zone of such building. The activities within such zone shall be exclusively related to the activity of the building.

The future urban form of Bhopal has been evolved on the basis of the synthesis of the studies indicated.

1.18 The Bhopal Development Plan 2005 thus comprises of a set of co-ordinated development policies, concerned with all aspects of development and is derived from the following basic principles in addition to above:—

(a) City Structure Need to be Multifunctional

The city of Bhopal will continue to be developed as the Capital City of Madhya Pradesh. But it also needs to be designed as a National Level City in the context of the long range perspective of its growth and strategic role in the national and global economy. It must therefore, develop as a multi-nucleated city in terms of its role as the centre for Education, Health, Manufacturing, Regional Centre for distribution of goods and services, trade and commerce and service industries.

The BDP-2005 conceives city of Bhopal as a network of self contained sub-cities each containing sectors, sub-sectors and neighbourhoods. Each sub-city will be self sustainable in terms of social facilities, day to day recreation and other amenities. Water supply and urban waste/ sewage management will be determined by two cycles- a city level cycle of 'Sustainable' development and sub-city level system of re-cycling to reduce intra-sub-city networking. The system of sub cities will be interlinked by strong Rail road transport network supported by secondary road network. Wholesale and bulk traffic generating activities are proposed to be shifted to a peripheral transport network.

(b) the Development Plan to Control Strategic Issues

- Compactness
- Flexibility
- Compatability

The city's urban form will have to be compact so as to minimize the distance and the cost of movement. The compactness is also called for to achieve closeness of living areas with access to various facilities and achieving efficient use of urban land. Flexibility is called for to absorb and assimilate forces of desirable change. Here the approach to mixed land use is called for, maintaining high level of mutual compatibility. The compatibility need to be achieved in terms of maintaining spatial relationship among group of activities attaining reasonable level of performance standards, accessibility and parking standards, and adequacy of utilities and service infrastructure.

Chapter 2

Development Perspective and Proposed City Structure

Regional and Sub-Regional Context

2.1 Planning for Bhopal, which is one of the most beautiful metro-city, can not be limited within its planning area. The developments taking place in the State Capital, are considerably influenced by the socio-economic linkages which are continuously changing and evolving in secondary and tertiary settlements system around Bhopal. Agricultural, forest, mineral and other produce supported by the State Capital Region, population holding capacity of the natural resource base of the sub-region, national transport network and accessibility levels obtaining in the region and the sub-region, are some of the important factors which have to be taken cognizance of, in defining the role of Bhopal, in its regional and sub-regional context.

2.2 The employment opportunities offered by the state capital as well as similar opportunities which can be pre-empted through various fiscal policy measures for economic development in various nearby cities and sub-cities viz. Sehore, Raisen, Vidisha, Hoshangabad and Itarsi around the mother city, Bhopal would determine the future distribution of population in and around Bhopal.

2.3 Bhopal being the State Capital is growing relatively at a rapid pace and is likely to promote increasing urbanization in and around it. The regional and sub-regional infrastructure will have to be strengthened to support increased urban productivity in manufacturing and supporting services. Bhopal which is growing at a rapid pace due to increasing migration not only from within the State but also from neighbouring seven states, calls for more pragmatic policies to absorb the population flow in a balanced manner. In the large context and longer perspective, development policies will have to consider the role of secondary cities and sub-cities described above to support the economic growth taking place in the State Capital region. It may be necessary to channelise the growth into other neighboring cities and sub-cities to maintain the quality of life in the mother city, as well as in the region, as a long term measure.

2.4 To achieve balanced regional development of the State Capital region, it may be necessary to pilot policies which promotes location of economic activities around other cities and smaller settlements through fiscal incentives and development of regional infrastructure, to contain the rapid growth of the State Capital in its longer perspective.

Planning Area

2.5 The planning area limits of Bhopal has been altered and extended under clause (a) of Sub-sector (2) of Section (13) of Madhya Pradesh Nagar Tatha Gram Nivesh Adhiniyam 1973 (No. 23 of 1973), Vide H. & E. Deptt's notification No. F-1 (37) 86-XXXII Bhopal dated 22-3-93. It was previously constituted vide Housing and Environment Department Notification No. 1776/F-1-50-XXXII-74 dated 19th June 1974. The existing land use map of the extended planning area has been published on 23-7-94 and has been duly adopted under Section 15 of the adhiniyam vide No. 3681-A/Bhopal dated 30-8-1994. The revised limits of Bhopal Planning area are given in the schedule below :—

SCHEDULE

Revised Limits of Bhopal Planning Area

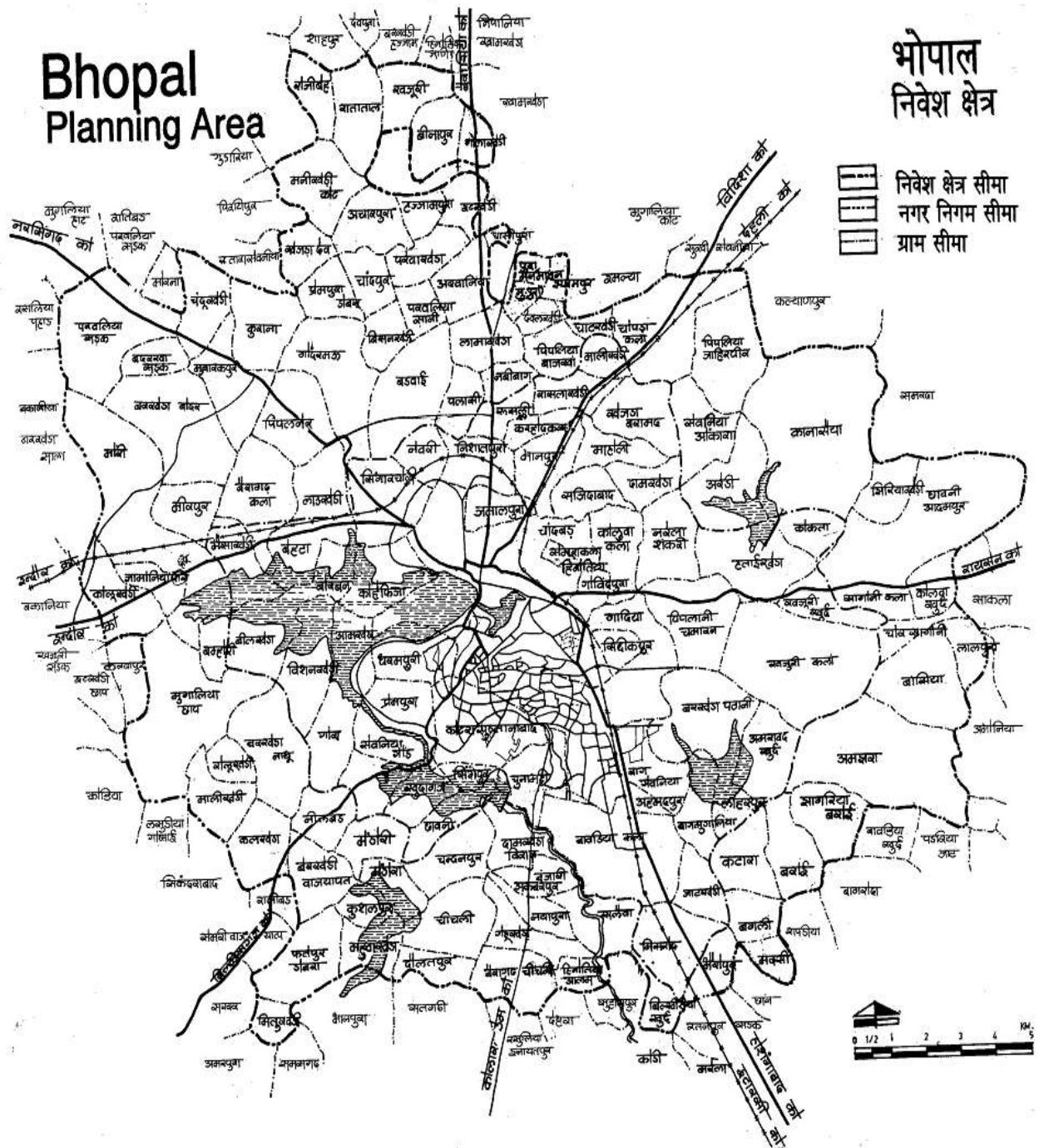
North	Village Ratatal, Khajuri, Beenapur, Golkhedi, Ghasipura, Puraman Bhawan, Sattikheda, Shampur, Devalkhedi. Ghatkhedi, Chopdakalan and upto the Northern boundary of village Pipliya Jahirpeer.
East	Village Pipliya Jahirpeer, Kanasaiya, Jhiriya-kheda, Chhaoni, Adampur, Koluakhurd, Lalpura, Bansiya, Amjhira, Jhagariya, Barra, Katara; and upto eastern boundary of village Bagli.
South	Village Bagli, Bhairapur, Maxi, Misrod, Bilkhoriyakhurd, Hinotia-alam, Bairagarh Chichli, Daulatpura, Mahuakheda, Fatahpur-Dobra, Kushalpur, Barkhedi-Bazyatt, Kalkheda and upto the Southern limit of village Malikhedi.
West	Village Malikhedi, Rolukhedi, Barkhedanathu, Mungaliya- chhap, Jamoniya-chhir, Bhauri, Barkhedabodar, Badarkhansadak, Parvaliyasadak, Chandukhedi, Kurana, Dobra, Premapura, Khejdadeo, Manikhedikot, Rojibeg and upto the Western boundary of village Ratatal.

Regional Setting



Bhopal Planning Area

भोपाल निवेश क्षेत्र



The above limit of present planning area Bhopal covers, areas of Bhopal Municipal Corporation, Bairagarh, B. H. E. L., and 135 urban & rural villages. A total area of the present planning area works out to be nearly 60106 hectares i. e. 601 Sq. kms.

City's Population Growth trends

2.6 Urban population of Bhopal has increased at an average decade growth rate of over 70% during the last 4 decades. Bhopal with a population of 85,000 in 1956 at the time of declaring it as a State Capital was confined within the walled city has grown into a metropolis with around 14 lacs inhabitant in 1993 (1991 census- 10.63 lakhs). With this growth trends, various estimates reveals that Bhopal is likely to grow around 25 lacs by 2005. The longer perspective indicates that the city would grow any where in the region of 6.5 to 7 million during next four decades. Thus, the requirement of water, land, infrastructure, traffic and transportation etc. shall have to be planned initially for about 25 lacs population.

City's Major Functions

2.7 Bhopal being the State Capital of the largest state in the country, is growing as a multi-functional capital city. Rapid changes taking place in the urban-economy due to liberalization of economic policies place new demands, on Bhopal, which is emerging as a national city. Based on these perspectives it is envisaged that Bhopal is likely to perpetuate the following major functional characters.

Multi-functional Capital City

2.8 To function as a state capital providing physical infrastructure for elected representatives of the state assembly to deliberate and lay down policies of the Government.

To provide an environment and physical infrastructure for intellectual deliberations through symposia, seminars, conferences, exhibitions and such other socio-economic and socio-cultural pursuits.

To function as a host-city for receiving dignitaries and develop infrastructure to conduct public receptions, processions, State and National level exhibitions.

To function as a dissemination centre for technology transfer.

To function as a cultural centre for the promotion of national integration and above all to function as a city where people derive pride for living in the city.

Administrative Centre

2.9 Bhopal apart from its function as the capital city also serves as an Administrative centre. The city is required to hold administrative entities of all the hierarchies viz., State, Divisional or Zonal, District and Local Level.

Commercial-cum-Industrial Centre

2.10 The strategic location of Bhopal, along the main transport system of the country and the existence of the establishment of large industrial undertaking like BHEL, Mandideep, Railway workshop has made Bhopal as a nerve centre of Regional Trade and Commerce-cum-Industrial centre.

Educational-cum-Research Centre

2.11 Bhopal has already attained the status of principal educational centre of high learning. the Regional College of Education, Engineering, Technical Training, Forest Management, Medical College, and the Barkatullah University are some of the higher order educational centres which have already come to stay in the city. these institutions together with organizations like Research and Development for Electrical Industries, pesticides, etc. lend Bhopal a status of educational-cum-research centre of national and State importance.

Transport and Communication Centre

2.12 Bhopal being situated on national transportation and communication network, is emerging as a major strategic centre in the national context. It is envisaged that Bhopal is likely to serve as a national centre in this regard as all the national level transport and communication linkages are required to pass through the state.

Plan Concept

2.13 The Present city structure of Bhopal is identifiable in terms of self contained sub-cities/townships. On the logic of its continuity of sub-city structure theme, it is considered appropriate to perpetuate the present sub-city structure in the shape of self sufficient sub-cities, to regulate the future city growth. The proposed sub-city's configuration derives its inter sub-city accessibility through regional Rail Road transport corridor. As against, existing five sub-cities, (Parent City, BHEL, BHEL SERVICE Township, Capital Township and Bairagarh) the development plan envisages additional two sub-cities to accommodate around 10 lakh additional population, on located around Misrod towards Mandi Deep, beyond university in the South and the other between Chhola. Road and Narsinghgarh (Airport) Road in the North-West. These two sub-cities are meant to cater the growth needs of the State Capital upto 2005 as well as that of the mother city.

2.14 The proposed sub-cities have been envisaged with nexus to the present Rail-Road national transport corridor. This regional transport network would also facilitate provision of mass transport corridor inter linked with the overall city road network, integrating the sub-cities movement network. The inter sub-city movement need is proposed to be served by the proposed Rail-Road transport corridor.

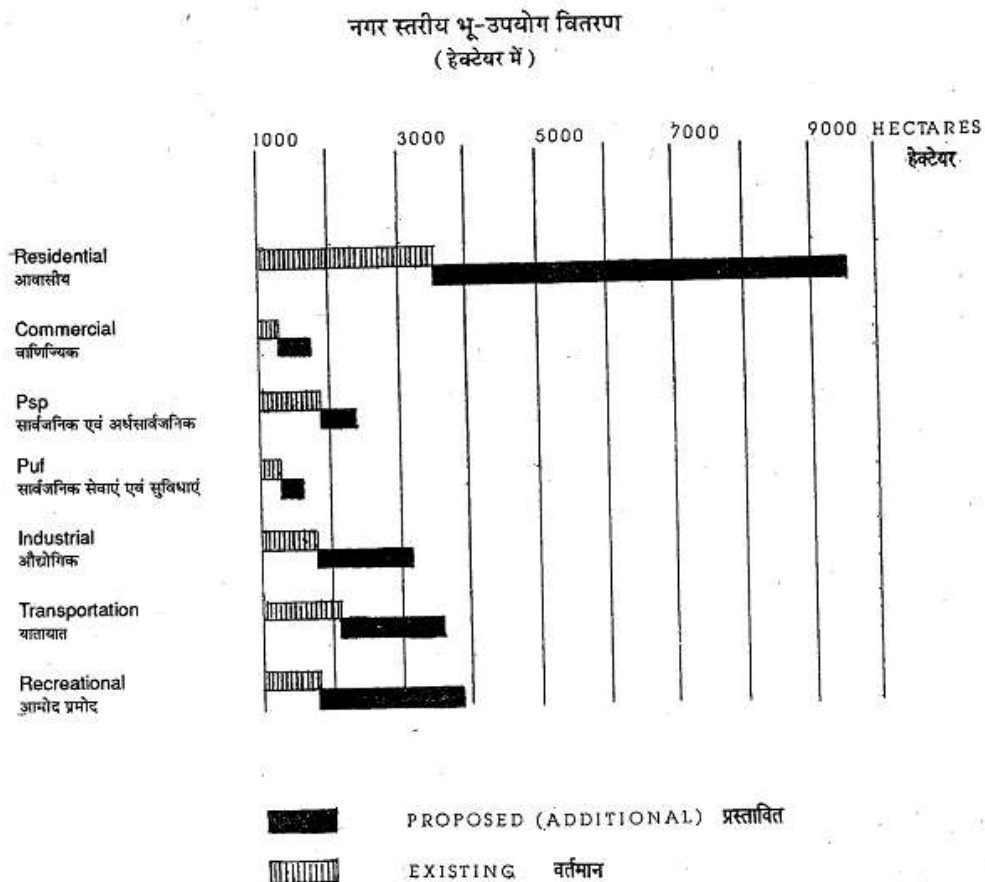
2.15 The proposed city structure has been conceived, which provides for the city spread, over such areas, which are most suited for urban activities based on the synthesis of ecological study and holding capacity in the planning area, ensuring approach to sustainable development.

2.16 Such lands which are prime land for agricultural operation and unique natural features are intended to be retained as such.

Planning Structure

2.17 The plan for Bhopal stipulates the development of city structure in terms of hierarchical planning entities. the hierarchical structure stipulated includes reconstituent planning units corresponding to each sub-cities. Thus, the plan envisages 10 planning units inclusive of two sub-cities. The other planning entities are sectors, sub-sectors, neighbourhoods, community/groups and the cluster.

City Level Land Use Allocation



Land Allocation

2.18 The plan envisages compact development of sub-cities. It is proposed to develop the sub-cities at an average rate of 7.00 hect./1000 persons with variation among sub-cities between 6 to 8 hect./1000. The plan also stipulates more efficient use of under utilized areas. Accordingly percentages have been restructured to meet the setout objective with a view to achieve landuse efficiency. At city level overall landuse breakup is stipulated as under :—

BHOPAL : LAND USE ALLOCATION AT THE CITY LEVEL

2-T-1

S. No.	Category	Existing Dev. Area in ha.	1994 %	Proposed Dev. 2005 Area in ha.	%
(1)	(2)	(3)	(4)	(5)	(6)
1.	Residential	3660 *	46.6	8190	46.48
2.	Commercial	243	3.1	650	3.71
3.	Public and Semi-public	912	11.6	1258	7.18
4.	Public utilities, facilities	266	3.4	488	2.78
5.	Industrial	806	10.3	1389	7.93
6.	Transportation	1062	13.5	2600	14.85
7.	Recreational	902	11.5	2925 **	16.71
Total		7851	100.00	17500	100.00

Source : T & CP survey

* Includes unhabitated developed areas within planning area.

** The higher percentage is due to extensive catchment areas of the lakes.

STRATEGY OF POPULATION DISTRIBUTION AMONG SUB-CITIES

2.19 The plan envisages the development of city in terms of sub-city structure. In addition to five existing sub-cities two new sub-cities have been envisaged. The area of sub-cities has been distributed in form of Planning Units, so as to facilitate review and modification of planning unit proposals in future u/s 23. Taking into consideration of existing densities and future stipulations, it is proposed to distribute the total population among all the existing and proposed sub-cities as given below:—



BHOPAL : ESTIMATED POPULATION

2-T-2

(Population in lakhs)

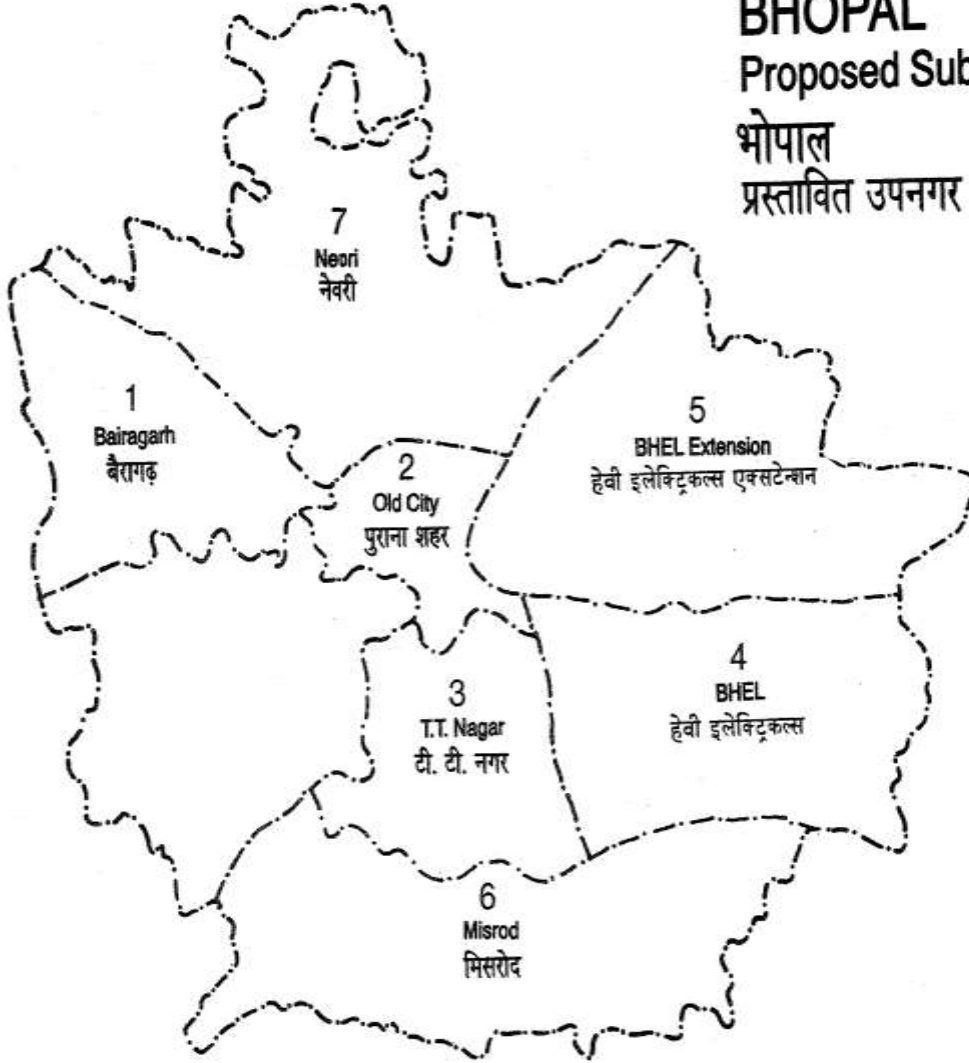
S. No.	Name of Sub-city	Population 1991	Estimated Population 2005
(1)	(2)	(3)	(4)
1.	Bairagarh	0.72	2.00
2.	Main City (Bhopal)	3.86	4.00
3.	T. T. Nagar	2.95	3.50
4.	BHEL	1.45	2.50
5.	Service Township (BHEL Ext)	1.39	2.50
6.	Misrod	0.25	8.00
7.	Neori	-	2.50
Grand Total		10.62	25.00

भोपाल
योजना अवधारणा

उपनगरीय तंत्र 
प्रस्तावित उपनगर 

BHOPAL Proposed Sub Cities

भोपाल
प्रस्तावित उपनगर

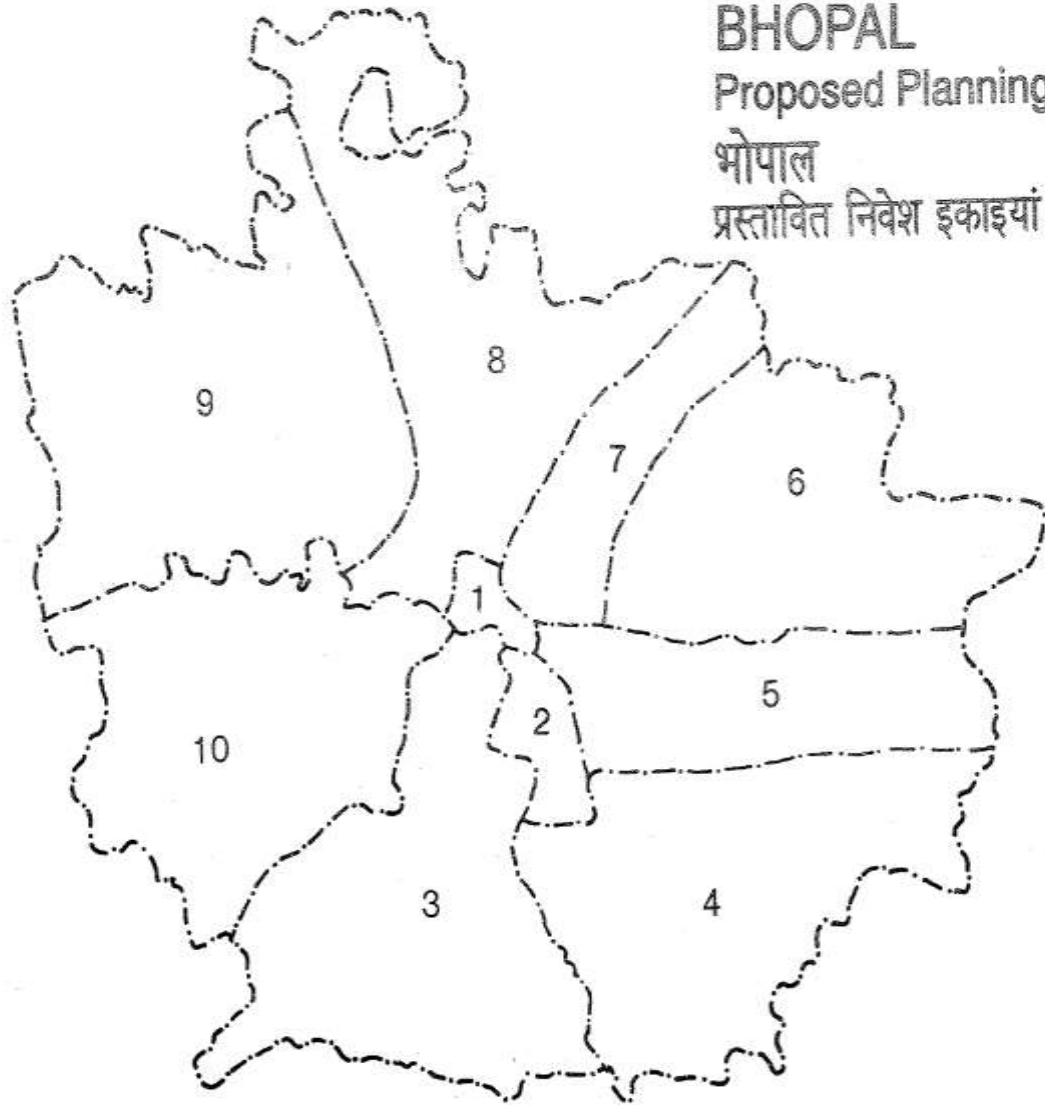


BHOPAL

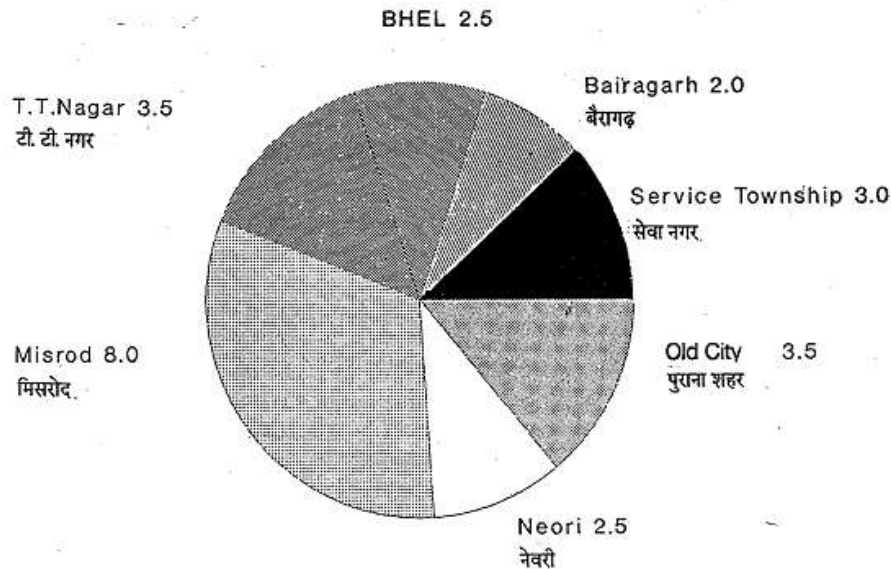
Proposed Planning Units

भोपाल

प्रस्तावित निवेश इकाइयां



Bhopal Estimated Population (In lakhs)



Work Centers

2.20 Bhopal enjoys the status of the Capital city of the small State even before it became the State Capital of the new State of M. P. in 1956. With the establishment of the State Capital the structure of the work centres have undergone considerable changes during past two decades or so. The major work centres are the State Govt. offices, the public sector units i. e. **BHEL**, and the Railways. The trade and commerce, transport, industries, professional services, construction of these major employers has been the State Govt. followed by the public sector undertakings, construction sector, transport sector, and service sector.

2.21 The major location of work centres within the planning area includes State Capital Complex on Arera Hills and Commissionery and District Administration centre and main business Centres in the old city area. The **BHEL**, the public sector undertaking unit, trade and commerce establishments, in new market, M. P. Nagar, old city and Bairagarh. Barkatullah University, the professional colleges have occupied new city area. Health care centre and lower order shopping centers and other services stands distributed through out the city.

Informal Sector

2.22 Large section of unemployed and under employed persons looking for employment and economic upliftment constitutes the informal sector. This sector with highly reduced need of infrastructural services and urban space has an important role to play in economic functioning of the city. They also serve as service population to residential areas.

2.23 The informal sector locate themselves strategically near work centers, commercial areas, out side educational and health institutions, transport nodes and near large housing clusters. Since the sector plays an important role in the city's economy hence a strategy in respect of housing and economic activities is formulated in the plan proposals along with formal sector.

2.24 It is proposed to incorporate and accommodate the informal sector in trade, in the planned development of various use zones covering the following areas :—

- Provision of retail trade shops for service establishment in general commercial areas sector shopping, and convenient shopping centres.
- Provision of service outlets in whole sale trade and freight complexes.
- Provision of service shops serving eatables, etc. in institutional areas, recreational areas, parks, industrial areas, terminal centres.
- Service establishments near residential areas.
- Shelter - cum - service establishment in residential zone.
- Provision of transit accommodation adjacent to construction sites.

2.25 The provision for the informal sector shall be governed by the following, mainly for the target group:—

PROVISION FOR INFORMAL SECTOR

2-T-3

S. No. (1)	Particulars (2)	Standard (3)
(i)	Retail trade Sector Centre Sub-sector Centre Convenience Shopping	3 to 4 units per 10 formal shops
(ii)	Government and Commercial Office	5 to 6 units per 1,000 employees
(ii)	Wholesale trade and Freight Complexes	3 to 4 units per 10 formal shops

(1)	(2)	(3)
(iv)	Hospital	3 to 4 units per 100 beds
(v)	Bus Terminal	1 unit per two bus bays
(vi)	Schools	
	- Primary	3 to 4 units
	- Secondary/Senior Secondary	5 to 6 units
(vii)	Parks	
	- Regional/District Park	8 to 10 units at each major entry
	- Neighbourhood Park	2 to 3 units
(viii)	Residential	1 unit/ 1000 population
(ix)	Industrial	5 to 6 units per 1000 employment
(x)	Railway Terminus	To be based on surveys at the time of preparation of the project.

Note : Size of one unit is stipulated as 2.5 to 5 Sq. mts.

Institutional Zones

Capital Complex

2.26 The site for Capital Complex is proposed to be retained to accommodate office buildings with national and state level functions. It is also realised that there exist a good opportunity to set up group of buildings on the lines of Paryawas Bhavan, sited with large green areas around, with provision for central facility area, catering to the office needs, parking and security with clustered access. Such buildings could be shared among group of offices whose activities are inter-dependent and require close interaction and co-ordination. Present approach of allocating plots for office buildings with individual fencing, is resulting into poor land efficiency.

2.27 The scope still exists to redress the situation. It is proposed to redesign the state capital complex and seize the opportunity for setting up functional character and at the same time creating the most appropriate built-form adopting urban design approach for the design of the State Capital Complex. Office space demand is continuously growing in Bhopal. Apart from the Capital Complex on Arera Hill, the other areas reserved for offices, and such other public propose buildings include, Redevelopment of 12 PWD sheds area in North T. T. Nagar, with mixed occupancy and other areas in proposed sub-city centre in Misrod and Karod.

Campus Based Institutional Complex

2.28 The plan embodies provisions for institutional complex for State and Central Govt. needs. The hills situated between the Kaliasote and the Kerwa lakes is proposed to cater the need for institutional complexes based on requirement of the plan period and even beyond. This area would cater to the need of national and state level social and cultural institutional and such related needs in the life of the city.

University

2.29 The University and regional level institutes of high learning are located in the city with large campus occupying 337 hectares of area. The University and the MACT alone shares 290 hectares area, which now have become central to city's habitated areas. In order to maintain compactness and contain spread of the city consuming good agricultural land, it is proposed to contain future educational needs of the capital by siting institute of high learning within the university campus and such other under utilized institutional campuses.

Industrial Areas

2.30 Major industrial areas in Bhopal include **BHEL**, Govindpura industrial area, service industries in old town, New Market and M. P. Nagar area. The growth of industrial activities in the city is in its initial phase. In view of the liberal economic and industrial policies it is anticipated that considerable change in industrial activities is likely to take place during remaining part of the century.

2.31 Existing Industrial area such as **BHEL**, Govindpura, shall continue to function. Industrial areas proposal envisaged in the Bhopal Development Plan 1991 and which have not been utilized so far are proposed to be retained. Such areas would be permitted to accommodate all such economic activities involved in production of goods and services. Other isolated industries adjoining M. P. Nagar and sick industries on Berasia road, requiring modernisation and are required to be brought under rehabilitation package could be relocated in designated industrial areas. In such case the areas vacated by such industries shall be treated as regeneration areas. Development of such regeneration areas shall be governed by the consideration given under para 2.66, 2.67 and 2.70.

Industrial Potentials in the environs

2.32 Bhopal is known for its prime public sector industry **BHEL**. Gas tragedy which occurred in private sector, Union carbide Ltd., necessitated utmost care for location of industries in Bhopal. There is a great industrial potential around Bhopal. Being a National Priority City and having attained metropolitan status, Bhopal is no longer a service town. The industrial growth is assessed in regional context which is taking place in following nearby industrial growth centres to take advantage of proximity of Bhopal.

Mandideep (Distt. Raisen) is located at a distance of 23 km on South-East of Bhopal on State Highway. As many as 277 small scale and 41 heavy & medium scale units have started functioning making capital investment of Rs. 223 crores and providing employment to 7542 persons. HEG (Bhilwara Group), Nahar Spinning Mills, Lupin Laboratories Ltd.,

Procter & Gamble are some of the National level companies. Optical fibre, micro-wave oven are unique productions.

Pillukheri (Distt. Rajgarh) is an upcoming industrial growth centre located North-South of Bhopal on NH-12 at a distance of 57 kms. So far only 2 units are functioning which have made capital investment of Rs. 16.92 crores and provide employment of 731 persons.

Satlapur (Distt. Raisen) is another growth centre located at a distance of 27 km in the South-East of Bhopal. This centre is adjoining Mandideep and being developed to take partial advantage of available infrastructure to encash the tendency of polarization in a planned manner.

The detailed occupational pattern is described below :

The labour force engaged in manufacturing has registered a declining trend during the period 1971-1991. The percentage of workers engaged in manufacturing was 23.6% in 1961 while it was 26.2% in 1971. It was projected to be 30% in 1991 as per the adopted plan. The actual figures devoted to 1990-91 census, in respect of labour force engaged in manufacturing, has been registered as 18.2%. This clearly indicates that the manufacturing, identified by industrial land use has shown a declining trend during past two decade. This figure of 18.2% can not be called as a correct figure because the census related to residential location while number of workers engaged in Mandideep are residing in Municipal Limit in Bhopal. It is therefore concluded that the participation rate of industrial worker has gone considerably low as such additional area are not provided in the proposed Development Plan. There are number of instances where industrial units been closed down in Govindpura or they are preferring shifting to nearby growth centres.

Recently Rajeev Gandhi Mission have approached the department with the proposal of establishing a complex in Adampur Chhawani which will take care of obnoxious industries proposed for relocation from the heart of the city. The provision of such new demand of additional 583 hectares has been made in the Development Plan.

Housing

2.33 The provision of affordable housing for all is perhaps the most important goal which could be set out as development strategy for any urban area. Such a provision, besides providing a shelter, is of considerable importance in terms of socio-economic upliftment of the urban society and quality of life for the city resident. Housing is one of the key sectors, which offers tremendous opportunity, and activating spinning effect over the growth of urban economy. Above all it offers tremendous scope for community organisation and acts as a vehicle for Social and cultural change.

2.34 Housing, in the context of city structure, bears strong spatial relationship with various work centres, social-cultural centres, and recreational areas. Provision of appropriate structure of living areas in relation to work centres, industrial area and access to various facilities is a key to successful city development strategy for any urban area.

2.35 Housing does not mean provision of house sites or dwelling units alone, but has much larger ramification. Every housing area apart from meeting the shelter needs, is meant to serve various other needs incidental to housing which would include:—

- Provision of affordable housing space with scope for incremental growth for changing needs of the family and its allocation on easy terms.
- Provision of access to utilities such as water, electricity, waste disposal and access to affordable intra-city and inter-city transport.
- Provision of social facilities such as education, health and recreation.
- Availability of transport modes and facilities closely linked with work places, education and other facilities.

Housing Need

2.36 Bhopal Urban area at present, accommodates nearly 2.5 lakh households spread over sub-city zones, in the shape of various housing typology, such as individual housing on plotted developments, flats, slums and squatter resttlements, unauthorised colonies traditional housing areas in old parts of the city and village settlements.

2.37 During the plan implementation period over two decades or so various housing development efforts have contributed shelter for 1.4 lakh families spread out over 2500 hectares areas involving an investment of 250 crores on land development and over 2000 crores on construction of houses.

2.38 The pattern which has emerged since the establishment of the State Capital includes around 20% ownership housing and 80% Govt. housing. Ownership housing is mainly seen in terms of plotted development and more recently in terms of residential flats.

2.39 Informal sector housing is witnessed mostly in the shape of jhuggi settlements involving more than 70,000 families some of them occupying strategic locations and critical drainage basin.

Housing Shortage

2.40 Housing shortage at present is estimated as about 1.2 lakh units taking into consideration the poorly sheltered informal sector in jhuggies, squatter settlements, families sharing accommodation and old dilapidated houses requiring replacements during the plan period upto 2005. Adding additional housing requirement to the tune of 3.2 lakh units to the present housing back log, efforts shall have to be mobilized to generate the housing stock as under :—

BHOPAL: HOUSING SHORTAGE & REQUIREMENT 2-T-4

Year	Housing shortage (Dwelling Units)	Additional Housing need (DU's)	Overall (DU's)
(1)	(2)	(3)	(4)
1995	1,20,000	50,000	1,70,000
2001	-	1,20,000	1,20,000
2005	-	1,50,000	1,50,000
Total	1,20,000	3,20,000	4,40,000

Note : The population of Bhopal Planning area, as per 1991 census was 10.62 lakhs. The number of house holds existing as per 1991 census were 1,19,755. The average family size works out to 5.45 persons per house hold. The number of house holds, distributed by number of room, as per census 1991 is as given below :—

One Room	31.01%
Two Room	31.80%
Three Room	16.73%
Four Room	7.89%
Five Room	2.69%
Six Room and above	2.45%

Policy Initiative Areas

2.41 Studies reveal that efforts required to make livable housing areas require long gestation period of more than 10 years. Some of the observations which require policy initiation to promote housing development efforts, are summarised below :—

- Need for mobilizing and co-ordinating the public agencies efforts towards land development using partnership approach of land owners/developers/community group and beneficiaries, based on policy approved by the State Govt.
- Pooling of land and other resources for development of public facilities and city level infrastructure, based on policy approval by the State Govt.
- Facilitating land development efforts by private agencies and community groups.
- Promoting policies which facilitates easy flow of land for housing including land recycling.
- Review of planning and development norms (density coverage, set backs, FAR, land sub-division norms) for housing with objective of achieving climatic comforts, minimizing energy consumption, land use efficiency and cost optimisation in the area of land development and housing construction.
- Policy for promoting infrastructure upgradation of existing housing areas, through community organisation efforts.
- Policy for regularisation of acceptable housing areas, and dwelling unit construction.
- Simplification of procedure for granting planning and development permissions.

Planning and Design of Housing Areas

2.42 The plan envisages, development of housing areas, to maintain the close work-place relationship and social facility areas. These housing areas have been conceived in terms of self-contained residential sectors which are meant to provide essential social-cultural and basic

health care needs, school education, convenient shopping, leisure areas, and such other community needs, close to their living areas. Living areas will have close access to jogging routes and leisure walk ways and pedestrian paths which largely follow the green spaces.

2.43 The plan envisages detail planning and design of housing areas manifested in terms of housing typologies which may include areas meant for self-help housing, group housing/ corporate development.

Built Form (Housing Areas)

2.44 The guiding principle for regulating the built-form shall be governed by the ground coverage and F. A. R. to promote Indian life style and socio-cultural values, within affordability levels.

Housing Densities

2.45 The basic consideration for arriving at housing density is to optimise on use of urban land and achieve sustainable development to achieve desired level of quality of life. the following criteria are taken in to consideration.

- Existing densities, redevelopment and regeneration potential.
- Restrictive nature of development on hilly areas and areas of restricted accessibility.
- Changing land values.
- Carrying capacity of the infrastructure and its upgradation potentiality.

The Residential density is a measure which is used as a basis for assessment of requirements of land for future population and to forecast the requirement of water supply and sewerage disposal and for provision of amenities and facilities. It is also used as a measure for study of living conditions in the existing residential area. Normally net residential density is considered for study of existing residential areas and also for preparation of layouts for sub-sectors and smaller areas. Gross density is however used to work out requirement at sector level for preparation of Development Plan proposals and Zoning Plan proposals.

2.45 A Residential density range

A study of existing residential built up areas has revealed that the net residential density varies between 113 persons per hect. to nearly 2286 persons per hect, according to Census 1991. The highest density would continue in central area. A gross density of nearly 305 persons per hectare has been adopted as a basis of assessment of requirements at sector level, which will give approximately a net residential density of 610 persons per hectars. The density ranges adopted for planning proposals at sector level is:—

* Low	Up to 125 persons per hectare.
* Medium	126 to 250 P. P. H.
* Medium & High	251 to 400 P. P. H.
* High	401 to 600 P. P. H.

2.45 B The medium high to higher density areas are proposed to be developed around the existing and the proposed work centres. The low density areas are proposed to be developed in those areas, dominated by natural factors and other constraints, in respect of utility and services.

The intermixing of different densities shall be required to be achieved. This is possible by formulation of detailed area schemes/zoning plans for the priority areas.

The development components will be diversified as given below :—

- (i) Plotted development by individual family ;
- (ii) Multi Unit development based on plotted development ;
- (iii) Group Housing;
- (iv) High Rise developments.

These developments must form a part of well conceived and co-ordinated detailed layout plan, so as to ensure adequate amenities and facilities at desired density level.

2.45 C Based on trends of 1991 census the provision for income based distribution of required housing stock shall have to be made. The total requirement of DUs by 2005 (3,20,000) is proposed to be distributed as follows :—

EWS	1,53,600
LIG	92,800
MIG	54,400
HIG	19,200

The EWS, LIG development is proposed to be distributed in 66% of the area for 77% population. the MIG category population i. e. 17% is proposed to be accommodated in 25% area, and the HIG category population 6%, is proposed to be accommodated in 9% area.

2.45 D The areas devoted to plotted development, in existing developed area, were developed primarily for single/ joint family dwelling units. The provision of water supply and sewerage disposal system, in these areas exists to suit the requirement for single/joint family. Since these areas now forms a part of developed locations, these plots are being preferred for conversion of single family/joint family plot in to multi unit development. If this is allowed in existing areas of plotted development, the following parameters shall be over loaded beyond its capacity :—

- (i) Water supply ;
- (ii) Sewerage Disposal ;
- (iii) Parking requirement ;
- (iv) Need for amenities and facilities.

Such desired development shall be permitted only after a project is formulated to ensure adequate utilities, services, amenities facilities and implemented before such conversion of single family plots as multi family plot.

2.45 E Form of Development

The form of development preferred shall be high density, low rise development.

The overall gross residential density of 305 persons, at sector level is proposed to be achieved. The break up of such density shall be low to high depending upon the choice, and the location.

2.46 Proposed Housing densities for walled city and new development have been prescribed on the basis of the above considerations. The identification of areas and the proposed density pattern is given below :—

- For Walled City—
- Inner core which includes the walled city area has already attained status of high density. It is proposed to retain the same density i. e. 150-200 DU/hect for the inner core areas.
- Other areas contiguous to inner core such as Jehangirabad, Jinsi, Barkhedhi are proposed for density ranging from 100 to 150 DU/ hect.
- For Other Areas as prescribed in table No. 2-T-5

BHOPAL: PROPOSED POPULATION DENSITY BY AREAS

2-T-5

S. No.	Name of the Areas	Max. Residential Density (Gross)	No. of DUs based on *1 net residential Density	F.A.R. for evolving built *2 form
(1)	(2)	(3)	(4)	(5)
1.	Shamla Hills, Char Imli, Arera Colony E1 to E 5, Vijay Nagar and areas abutting Narsingharh road Gandhi nagar, Kolar Road from junction of main road No. 3 to canal.	Upto 125 persons pre Hect. (Gross)	52	0.75
2.	Areas west of Kolar road near Kerwa, areas abutting Bilkisganj road.	Up to 25 persons per hect.	10 DUS/hect	0.15
3.	Ramaining Areas of the city	Up to 250 persons	104	1.25

Note:

- A. *1 & 2 are indicators for preparation of land sub-division and development projects.

- B. The additional higher density developments shall be permitted within category 3, in respect of low income group housing, prepared as per the requirement of Appendix M (Rule 94) of Bhumi Vikas Niyam, 1984.

Open Space System

2.47 The development plan envisages system of open spaces, which takes into account, the existing natural features, having potential to develop into a landscape which, manifest distinct visual, qualities satisfying environmental and recreational functions. The major city level open spaces shall be aligned along natural drainage corridors; integrating the existing landscape features with new development.

Regional Parks

2.48 Hathai Kheda catchment area has been envisaged as area to be designed as a unique landscape assets. Likewise, Shahpura-hills, Shahpura-lake, Kerwa, Kaliastoe and Kolar, catchment areas are also proposed to be developed as regional parks and city forests. Major areas of these parks will be afforested, with appropriate species.

The objective is to achieve soil conservation. Agricultural operations, without use of Chemical Fertilisers shall form a part of such development in view of the extensive area coverage.

Local Open Space System

2.49 Detail layout of residential sectors will have to give due consideration for provision of formal and organised second level open spaces corresponding to the local open spaces, forming integral part of the built form. Local Open Space System is envisaged to be linearly structured establishing continuity engulfing the recreational and community based social facilities. the third level of open space corresponds to system of open spaces provisions made within sectors and neighbourhoods consisting of neighbourhood parks linearly inter-linked with an over-all open space network. Based on the physical survey at the time of publication of Zonal Plans, this system of open spaces will be developed with the co-operation of the land owners and department concerned.

2.50 A storm water darinage system is proposed to be intergrated with the open space system, in the form of retaintion ponds, and open channels. This approach would help in conserving the ground water and their recharging and modify the micro-climate, apart from contributing to the new visual elements to the urban landscape.

DEVELOPMENT OF RECREATIONAL AREAS

Landscape Potential Area Treatment

2.51 Bhopal has been endowed with unique land forms and natural areas call for a well intended integrated landscape plan. Characteristic land scape treatment will have to be

designed for all the landscape potential areas identified which includes natural areas and city's builtform. Approach to the integrated landscape planning is described here under :—

(a) Landscape Proposal of Hills and Ridge Area

North Slopes of Shamla Hills, Southern slopes of Fatehgarh Hills,

The sky line provided by mosques and its minarests situated in the old city are to be visually interlinked, with view points on Shamla hills. The plateau of conspicuous land forms delineates the valley floor which provides identity to the landscape.

Therefore, the building construction activity on Fatehgarh Hills, and Hamidia Hospital shall also be conditioned for height restrictions.

The clear vision of water sheet from the ridge and the edges is another objective. Therefore the species to be selected for plantation on slopes, with height variation must fulfil the objectives of visual linkage.

North Slopes of Arera Hills and South Slopes of Arera Hills

The most dominant area of visual linkage is the plateau. The slopes are to be planted for soil ornamental colour. At city level, Arera hills is the most important location for visual integration of north, south and east of Bhopal.

Kamla Park Area

Kamla Park area is one of the most sensitive area in view of visual command of the vast expanse of the lake and unique visual experience of sunset. The plantation shall have to be such that the views are not obstructed.

(b) Landscape Development of Valleys

Valleys (Shamla, Arera, MACT) and sensitive T. T. Nagar area.

The valley floor delineated by Shamla Hills, Arera hills and MACT hills bears uniform character of secondary order.

The plantation in the backyard of houses in South T. T. Nagar provides identity to the area

The open space in the above zones shall be primarily based on soft surface treatment, lawns, annuals, shrubs and trees. the placement of plants shall be determined by visual linkage and movement of the sun.

(c) Builtup Areas

Parent City's Built Area

The landscape design of the old city areas shall depend on the hard surfaces, in respect of plazas and development of foreground of the premises of the historic monuments by soft and hard surfaces.

The street furniture, symbiotic to the design qualities of the traditional architecture shall be added.

The plantation shall be restricted to the use of annuals, shrubs and trees in open spaces to derive co-related functional advantages.

ROAD SIDE PLANTATION

2.52 The road side plantation is preferred to achieve shaded areas along movement spaces, especially during summer. It is essential that evergreen trees are selected for road side plantation.

General Consideration for Road Side Plantation are :—

- The orientation of roads shall dictate the placement of plants. The plants are to be placed on south south-west and west, side of the road; in case of normal orientation of the roads.
- In case of east west orientation, the placement of tree on the central verge, in addition to south side, is most essential, to avoid the discomfort caused by lower altitude sun at summer evenings.
- The Main Road 1, 2 and 3 shall have avenue plantation. The species have to be selected in relation to width of the road, height spread ratio of the species. Likewise the major city arteries shall have characteric plantation.
- Indigenous species may be preferred but species similar to Samania Saman, Basica Latifolia, Plectrocarpum (Yellow Gulmohar) may be considered.
- The effect, in totality, of the landscape shall improve the qualitative aspect of the town scape.

WATER BODIES

2.53 There are 14 water impoundments available in and around Bhopal. The water bodies are being polluted due to inflow of untreated municipal liquid waste, industrial effluent and human intervention. The natural eco-system of the ponds need to be restored by providing adequate measures. Conservation of environment shall provide areas of passive recreation.

2.54 These lakes are enumerated as under :—

- | | |
|------------------|--------------------------|
| 1. Upper Lake | 8. Hathaikheda Reservoir |
| 2. Lower Lake | 9. Kerwa Reservoir |
| 3. Shahpura Lake | 10. Laharpur Reservoir. |

- | | |
|------------------------|--------------------------|
| 4. Lendia Talab | 11. Kaliasote Reservoir. |
| 5. Motia Talab. | 12. The Char Imli Pond. |
| 6. Noor Mahal Talab. | 13. The Piplani Pond. |
| 7. Munshi Hussain Khan | 14. Dahod Tank Talab. |

2.55 Specific recommendations for the protection, and management are may be as under:—

As the Upper lake area is the life line of the residents of Bhopal, it needs due consideration in terms of its preservation and management. The catchment area, specially of the Upper Lake should be properly managed so that pollution level is controlled by appropriate measures such as preventive siltation dams and dense plantation along water channels and in the catchment area. The management of solid waste and its disposal should be carefully worked out so that it does not pollute the environment and the water bodies. Possibilities of generating biogas, making compost by vermiculture and microbial methods and utilisation of non biodegradable wastes for smokeless fuel cakes and building material blocks are proposed to be explored.

For the management of all the water bodies in the study area it is recommended to have one centralised agency taking the responsibilities of its conservation under provisions of legislation. The lake fringe of the Upper Lake is to be kept free from any further construction except passive recreation. However, active recreation shall be permitted if the built structures are not required.

For further conservation of water, the feasibility of recycling of sewage water for secondary uses need to be investigated.

The Upper edge of the lake including slopes are to be planted to the extent of 50-100 mts from the maximum lake level with appropriate indigenous trees, shrubs to arrest the pollution and silt entering into the lake.

The Upper lake water which is basically used for drinking purposes shall not be allowed to be used for such water based recreation activities which adversely affect the water quality.

The practice of agriculture right along the lake fringe areas is proposed to be discouraged so that water is not polluted due to the addition of chemical fertilizer pesticide and insecticides.

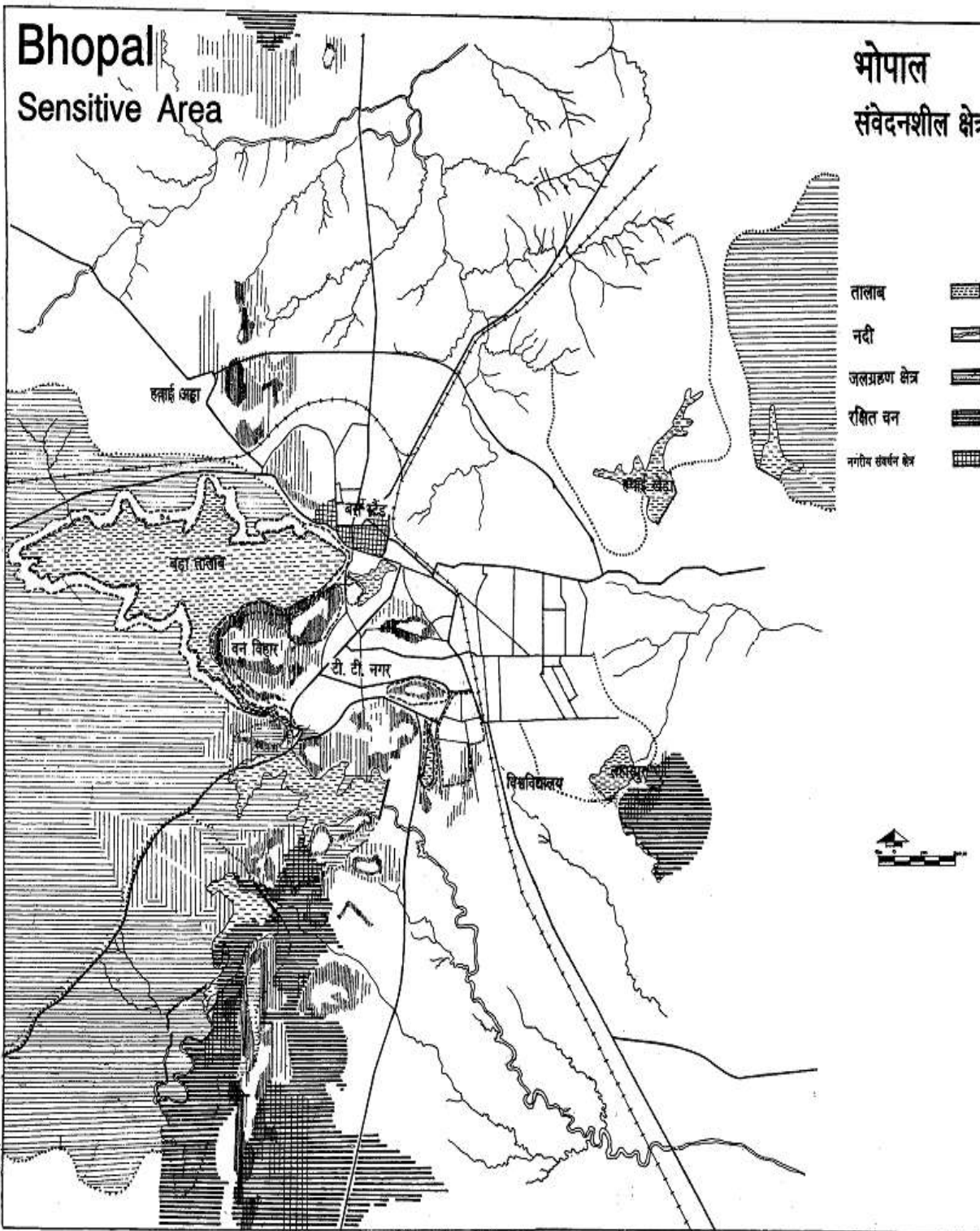
The lake fringe will fulfill the need for large recreational belt for the growing population of Bhopal and would form a continuous belt easily approachable from the residential zones. Openings and linkages wherever possible are proposed to be developed between the outer recreational belt and the inner core of the city which is deficient in open spaces.

Bhopal

Sensitive Area

भोपाल

संवेदनशील क्षेत्र



2.56 The natural resource base and unique natural land forms offers great opportunity for development of recreational activities both at city level as well as regional level, enhancing the tourist potential of the city based on recreational potentials the city offers. The basic frame work of the landscape proposals as envisaged in the first plan is of great relevance even today. As not much investment have been made on the lives of recreational areas proposed in the BDP 1991. It is considered appropriate to maintain proposal in respect of recreational area as reproduced below :—

Botanical Garden

2.57 A site covering 150 hectares of land for Botanical garden is earmarked on areas around the Kaliasote and the Kerwa reservoir as a part of regional park.

Zoological Park

2.58 Zoological park is already established to exploit its tourist potential.

Fish Farm

2.59 The existing site of Fish Farm near Bhadhbhada is propose to be expanded to cover an area of 50 hectares. The area around the large ponds is earmarked for planning and the ponds will provide facilities for boating to children.

Picnic Spots

2.60 Th existing important picnic spots viz. Birla Temple Complex, Hathaikheda, Lalghati, Gufa Temple Complex, Bhadhbhada and Kerwa, Kaliasote, Laharpur, Bhojpur, BhimBetica, Islam Nagar, and Ajnal are proposed to be improved and developed. Valley and hill development spots will also serve as picnic spots.

City Parks

2.61 There are three city level parks located viz. Yadgare Shahjahani (near Lady Hospital), Kamla Park Complex (covering Kamla Park, Kilol Childern Park) a Neelam Park (abida) on the bank of lower lake. Mayur park complex (Mayur Park, Deer Park, 74 Bungalows Park) could also function as city park. Bada Bagh can be developed as city park. The expansion and development of these parks is proposed in the plan.

City Forest

2.62 The environs of metro Bhopal offers great scope for development of city forest. The major locations are Bhojpur areas north of Hathaikheda, Singarcholi are around Kaliasote and Kerwa occupying four corners of the city.

Golf Course

2.63 The development of Golf Course in western Bhopal, and north-east of airport and near NRI colony in village Bhouri are envisaged. Suitable areas identified in Agricultural zone may also be permitted for development of Golf Course.

Central Exhibition Ground

2.64 The plan envisages provision of central exhibition ground in the area presently in occupation of poultry farm, which is proposed to be relocated in Bhadbada area. This would be in addition to the other exhibition ground in use in different sub-cities.

REDEVELOPMENT AND REGENERATION AREAS

Redevelopment Areas

2.65 In the process of development/city expansion certain existing built areas become central for the city growth acquiring high land values, shall be identified as redevelopment areas. The plan envisages redevelopment of such high value areas which are inefficiently utilized. The strategy for development of such areas shall be governed by the following consideration.

- Under utilised and or inefficiently utilized high value lands subjected to land use pressure shall be identified as redevelopment areas.
- Redevelopment schemes shall be treated as special projects. Planning and Design of such projects shall be evolved using urban design approach.
- Activities permissible shall be governed by the consideration of performance standards achievable and compatibility levels with adjoining uses. The scheme shall be framed as a zoning plan to be published as per the procedure prescribed in the Adhiniyam.
- Intensity of development permissible shall be governed by the carrying capacity of the utility infrastructure and sustainability of traffic load and its impact in adjoining areas.

Regeneration Areas

2.66 Certain areas which have become central to the city growth occupying high land value and which are subject to land use pressure due to adjacent commercial areas are proposed to be treated as regeneration areas. the strategy of development of such areas shall be as per those given under preceeding para :—

Development scheme which would help in improving the quality of life or modernising the productivity process and would bring qualitative change in city's economic functioning.

In the light of above consideration the plan envisages areas for redevelopment and regeneration, as outlined below :—

BHOPAL : REDEVELOPMENT AND REGENERATION AREAS

2-T-6

Areas Proposed for Regeneration (1)	Areas Proposed for Redevelopment (2)
(1) Managalwara Chhawani	(1) South T. T. Nagar and other low density areas of T. T. Nagar
(2) Laxmiganj Mandi	
(3) Delapidated Areas within the walled city	
(4) Jhuggi settlements occupying high value Land basin.	(2) Areas around Banganga basin
(5) Areas vacated by existing industries. Mandies, Depot, Warehouses, Unani- Shafakhana, Central Kotwali, State Garage.	(3) Jhuggi settlements in BHEL and other areas.

Incompatible Uses : Relocation

2.67 The efforts to work on the incompatible uses relocation have made some headway which includes, Kabadi market, Imamigate, cattle breeding, central area, vegetable market Azad market and Mangalwara, vehicle repair, at Royal market are some of the important proposals which could be implemented.

2.68 There has been partial success in certain areas which includes residential buildings abutting Upper lake within 200 m of FTL, Israni Market, Graveyard of central area, Veteminary centre, Bone mill, Dal and Oil mill, distillery of Pul-bogda where efforts are proposed to be persued further to achieve the end objective.

2.69 Some of the uses listed under incompatible uses have remained unimplemented. The list of such uses/activities have been reviewed accordingly. The reviewed framework of

proposal to deal with the incompatible uses is summarised in the table placed below :—

BHOPAL : INCOMPATIBLE USES AND PROPOSED LOCATIONS

2-T-7

S. No.	Uses to be shifted	Existing Location	Proposed Location	Use after vacation
1.	Saw Mills	Around Bharat Talkies Ice Factory and Hamidia Road.	Timber Market	Transportation/ commercial
		Raisen Road Sites	for Timber markets	Transportation and PSP
2.	Bone Mill	Pulbogda	Obnoxious Industrial Area	Flatted Factories & Commercial
3.	Distillery	Pulbogda	Obnoxious Industrial Area	Flatted Factories/ commercial/PSP
4.	Slaughter House	Jehangirabad	Obnoxious Industrial Area	Residential/ PSP
5.	Glu Factory	Pulbogda	Obnoxious Industries Area	Commercial/ Flatted Factory
6.	Bhopal Oil Mills	Jehangirabad	Industrial area-Agro based Industries	Flatted/Factories Commercial
7.	Dal and Oil Mill	Around Laxmi Grain Mandi	Near New Grain Mandi	Commercial/ Residential
8.	Dhobighat	Lower lake	Dhobighat Jehangirabad	Recreational
9.	Straw Product	Chhola road	Location approved by the M. P. Pradushan Nivaran Mandal, Industries Deptt. and the owner.	Commercial/ Residential/ Recreational

The state Govt. shall be empowered to allow use after vacation and such permission for change in occupancy shall be deemed to have been granted under the Dev. Plan proposal.

In addition to the relocation of industries indicated above any industry preferring relocation outside the planning area, on its own or under the direction of the State Govt. may be allowed use of their land for other occupancies subject to conditions that :—

- (i) A redevelopment plan for the area be prepared based on the norms indicated in chapter 4.
- (ii) The compatibility with the adjacent use is ensured.
- (iii) the activities to be permitted shall be based on the conditions fixed by the State Govt. while allowing relocation of industry.
- (iv) The decision of the State Govt. in this respect shall be considered to be a development plan proposal.

Grave yards and Cremation grounds

2.70 The grave yards and cremation ground situated in the rural zone shall continue to function. The cremation grounds and grave yards presently functioning in the existing builtup area are proposed to be retained. In the proposed developed area the graveyards could continue to be retained with proper landscape buffer but their operation may be discontinued as soon as the area becomes inhabited. Likewise the cremation grounds presently functioning in existing proposed development area shall continue to operate till such time the area around it gets inhabited and there is a public demand for relocating them elsewhere. To meet the situation the nearest cremation ground could be considered as a site for relocating such cremation ground. Any proposal in respect of new site identified by the collector on public demand shall also be acceptable. Such decision taken shall be deemed to have been taken in conformity with the development plan proposal.

Chapter 3

Proposed Transportation Network and Urban Infrastructure

	Page
3.1-3.3 Proposed Transportation Network	53-54
3.4 Present Status of Traffic	54
3.5 Personalised Transport	54
3.6 Public Transport	54-57
3.7 Accidents	58-63
3.8-3.10 Porposed Mass Transportation System (Rail)	63-64
3.11-3.15 Proposed Mass Transportation System (Road)	64-65
3.16-3.22 Proposed Road Sections	65-68
3.23-3.24 Grade Separater	68
3.25 Interlinkages of Development on either side of Railway track	68-69
3.26 Transportation System (Air)	69
3.27 Goods Traffic	69
3.28 Transportation for the Old City	69
3.29-3.35 Terminal Centers and Truck Stations	69-71
3.36-3.59 Physical Infrastructure	72-76
3.60-3.70 Long Range Plan for Physical Infrastructure	76-78
3.71-3.72 Distribution Services (Milk and L. P. G.)	79
3.73 Socio- Cultural Facilities	79

Chapter 3

Proposed Transportation Network and Urban Infrastructure

Proposed Transportation Network

3.1 Bhopal occupies a strategic location on the national transportation network which include Rail, Road, Airways linking the city with various state capitals in the country and Regional and districts centers in the State. Geographically Bhopal is a central place and as such has a potential to play role of a Regional center for distribution of goods and services both at the national level as well as state level. Bhopal has advantage of two railway lines and five regional roads which gets converged in the city. The inter-mixing with intra-city traffic creates traffic disorder, in the management of traffic movement and call for appropriate modification in the network of regional roads, and roads catering to for intra-city movement.

3.2 Planning the transportation network to serve both intra-city and inter-city movement is a crucial task, as it influences all sectors of urban economy.

3.3 The quality of life and economic efficiency of the city functioning depends upon how best we manage to reorganise and re-structure the activity configuration and living areas in relation to the transport network, taking into consideration various options and choices. The strategy for planning of transportation network for the capital city have been evolved as described here under :—

- to establish reliable, efficient multi-model public transport system.

- to generate conditions and development of roads for convenient and safe movement of slow moving vehicles also.
- to establish a reasonable access to major activity nodes and living areas by vehicular traffic with increased safety and convenience.
- to manage the pedestrian movement, particularly in main activity areas such as transport nodes, shopping centers educational areas and other work centers.
- to establish and innovate traffic management techniques to resolve problems of critical areas.
- to provide effective movement linkages both by rail and road network between sub-cities.
- Provision for restricted direct access on main routes, thorough lanes of main roads. In cases where main thorough lanes pass through an activity area, such areas should have a separate access route connected with the main road.

Present Status of Traffic

3.4 The total number of mechanised vehicles has increased from 1981 to 1991 by 191 percent. It is also observed that increase in number of 2 wheelers has gone up by 267 percent. Substantial increase in intermediate public transport viz; Auto Rickshaws. Tongas are the only mode of transport to reach the destination in conjected area of the city where the public mass transport (buses) can't operate.

According to a survey about 2500 Auto Rickshaws are plying on the city road. Car/Taxis are very few in number and do not attract the passengers due to high charges, only the affluent class citizens and tourists use these taxis.

The number of two wheelers is about 98'000 viz. Mopeds, Motor Cycles, Scooters. This significant growth is due to easy mobility on narrow roads and lanes and also areas where the buse service is not available.

Personalised Transport

3.5 Bicycle which is a common man vehicle is not an important mode of transportation in Bhopal, the reason is the numerous ups and downs due to general topography of the town, hence cycle have very restricted use on the roads. The most popular mode of transport is personalised transport as a result scooters, mopeds and motor cycles have increased the volume of traffic on city roads in recent years.

Public Transport

3.6 Efficient public transport system not only improves the mobility on the roads but also make the movement much safer and economical. A scenario of city bus transport system in Bhopal is detailed below :—

In 1957 the city bus transport service was started with four buses only. The operation was confined to a circuitous route and encircling the old city and touching the main employment

centres and transportation nodes viz; Secretariat area, Hamidia Hospital, Lady Hospital, Kamla Park, Jehangirabad, Railway Station, Bus Stand, Golghar. The importance of public transport was realised in 1961 and the M. P. S. R. T. C. increased its fleet shown in the following Table :—

BHOPAL : NUMBER OF BUSES OPERATED AND ROUTES COVERED

3-T-1

Date/Year (1)	Number of vehicles (2)	Number of routes (3)
1961-62	12	7
1966-67	40	20
1970-71	40	20
1975-76	40	20
1981-82	41	37
1986-87	45	22
1988-89	45	22

Note: The city bus operations were discontinued from 1977 to 1981 except for the school and office specials.

The study of operation of city bus service conducted by MPSRTC, reveals that on 21 routes the total Kms. operated per day by the M. P. S. R. T. C. buses is 7649 Kms. within the planning area limits of Bhopal. In addition to this, school and office special buses performs trips of an order of 6304 Kms. It was observed that total Kms. operated by the city buses is of the order of 13953 Kms.

Operation of city bus service may be seen in the following table :—

BHOPAL : OPERATION OF CITY BUS SERVICES

3-T-2

S. No. (1)	Route (2)	Name of the route (3)	Kms Operated (4)
1.	3	Jawahar Chowk-Nehru Nagar	140
2.	4	R. Market-Narialkhara	120
3.	5	Nehru Nagar-Roshan Pura	100
4.	6	R. Market-Vishva Vidhyalaya	110

(1)	(2)	(3)	(4)
5.	8	Nehru Nagar-Railway Station	121
6.	13	Jawahar Chowk-Piplani	468
7.	14	Nehru Nagar-Bairagarh	522
8.	15	Bairagarh-Barkhera	1197
9.	16	Rly. Station-Bairagarh	1134
10.	17	Vallabh Bhavan-Bairagarh	308
11.	18/19	Bairagarh - EME centre & Gandhinagar	186
12.	20	Rly. St.-Barkhera	560
13.	21	Rly. St. - Barkhera via Subash Nagar	448
14.	22	Rly. St. - Saket Nagar	544
15.	24	Railway Station - Shahpura	255
16.	25	Railway Station - Nehru Nagar	250
17.	26	Railway Station - Gandhi Nagar	412
18.	28	Railway Station - Patel Nagar	240
19.	29	Shahpura - Royal Market	238
20.	30	Jain Mandir - M. A. C. T.	144
21.	31	Itwara - Kokta	152
Sub- Total			7649
School and Office Special Buses			6304
Grand Total			13953

Source : M. P. S. R. T. C.

The management of M. P. S. R. T. C. due to economical reason and pilferage of revenue reduced the buses on uneconomical routes. Scope of earning attracted private parties to come in the field and as a result private mini buses, tempo are plying on different city routes. At present 180 buses are plying on different routes :—

BHOPAL : OPERATION OF MINI-BUSES

3-T-3
(Yr. 1994)

S. No. (1)	Route (2)	No. of Buses (3)
1.	Rly. Stn. platform No. 1, Over Bridge, Bharat Talkies, Piplani, Anand Nagar and back.	15

(1)	(2)	(3)
2.	Berkheda Pathani, Kasturba Hospital, Habibganj Rly. Stn. Maida Mill, Central Library, Rly. Stn. Platform No. 1.	12
3.	Berkheda Pathani, Anand Nagar, Jyoti Talkies Maida Mill, Rly. Stn. Platform No. 1	11
4.	Shahpura, R. Shukla Market, P. & T. Colony, Jawahar Chowk.	5
5.	1100 Qrts., Arera colony, Gandhi Bhavan Kamla Park, Bairagarh.	15
6.	Police Lines Qrts., Nehru Nagar, Jawahar Chowk, Roshanpura naka.	10
7.	Shahpura, 1100 Qrts., 1464 Qrts, Kamla Park, Golghar, Rajal Market.	14
8.	Shahpura, 1100 Qrts, Arera Colony, Bharat Talkies, Rly. Platform No. 5	14
9.	Rly. Stn. Platform No. 5, Hamidia Road, Golghar, Bairagarh	21
10.	Gandhi Nagar, Lalghati, Shahjahanabad Putlighar, Bus Stand, Rly. Stn. Platform No. 5	6
11.	Lily Talkies, Jail Road, Vallabh Bhavan, Jawahar Chowk, Lily Talkies and back.	6
12.	Bairagarh, Royal Market, Shahjahanabad Hamidia Road, Bharat Talkies, Piplani, Berkheda	16
13.	Annand Nagar, Piplani, Barkhera, Ravindra College, Jawahar Chowk.	5
14.	Shahjahanabad, Bhopal Talkies, Central Library Budhwara, Noor Mahal, Water Reservoir.	20
15.	Vishwa Vidyalaya, Habibganj naka, 1464 Qrts. Golghar, Taj Mahal, Rajal Market, G. P. O.	10
Total		180

Accidents

3.7 The heterogeneity of vehicles and their faster rate of increase indicates the travel demand. The urban mobility is deteriorated because of inadequacy of road space and involvement of huge amounts for widening the roads and improving the road geometrics. The following table shows the accident statistics for Bhopal city which gives a grim picture:—

BHOPAL : NUMBER OF ACCIDENTS

3-T-4

Year (1)	Number of Accidents (2)	Number of Deaths (3)	Number of Injured Persons (4)
1981	1065	1081	72
1982	1129	741	38
1983	1336	879	60
1984	1471	991	76
1985	1621	1089	95
1986	1437	1028	79
1987	1911	1129	91
1988	1812	1416	97

Source: D. I. G. (Traffic) Bhopal, Traffic Training Institute.

The road net work which gives the form to a city develops also the structure to a urban centre. In the above paras a brief of transportation aspects interms of vehicles, organised mass road transport and accidents reveals that the future plan should be based on safe mobility concept which should be economical and suiting to the existing available structure of the city. The proposed road transport network has been worked out on the basis of the available land fit for urban expansion and development of employment centers.

**BHOPAL : GROWTH IN NUMBER OF MECHANISED VEHICLES
(BHOPAL DISTRICT)**

3-T-5

Year (1)	Area of operation (2)	CATEGORIES							Total (10)
		Car & Jeep (3)	Taxi & III Wheeler (4)	Buses National/ Private (5)	Trucks (6)	Motor, Cycle Scooter/ Moped (7)	Tractor/ Trolley (8)	Others (9)	
1980-81	Urban	3345	2107	1041	2367	19320	201	1137	29518
	Rural	327	-	-	-	1017	3817	-	5206

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1981-82	Urban	3559	2435	1082	2566	22189	208	1222	33261
	Rural	359	-	-	-	1168	3958	-	5521
1982-83	Urban	3771	2823	1114	2815	26167	212	1304	38215
	Rural	419	-	-	-	1377	4162	-	6277
1983-84	Urban	4052	3398	1153	2979	31638	219	1389	44828
	Rural	450	-	-	-	1665	4162	-	6277
1984-85	Urban	4439	3888	1242	3098	37702	227	1512	52108
	Rural	493	-	-	-	1984	2309	-	4786
1985-86	Urban	4787	4308	1362	3215	45157	231	1603	60663
	Rural	532	-	-	-	2377	4399	-	7308
1986-87	Urban	5256	4390	1379	3389	52196	243	1813	68663
	Rural	532	-	-	-	2747	4619	-	7950
1987-88	Urban	5991	4759	1403	3596	60585	251	2016	78601
	Rural	666	-	-	-	3188	4783	-	8637
1988-89	Urban	7039	5172	1411	3933	70852	265	2092	90764
	Rural	782	-	-	-	3729	5054	-	9565
1989-90	Urban	7725	5581	1437	4238	97234	276	2281	118750
	Rural	858	-	-	-	5118	5252	-	11228
1990-91	Urban	8339	6088	1437	4752	129572	291	2349	152828
	Rural	926	-	-	-	6819	5530	-	132755
1991-92	Urban	9024	6591	1481	5029	157973	314	2523	182935
	Rural	1002	-	-	-	8314	5966	-	125282
1992-93	Urban	9656	7082	1570	5582	193696	331	2867	220784
	Rural	1072	-	-	-	10195	6298	-	17565

* Data analysis by Town And Country Plannign Deptt.

Volume of Traffic at peak hours was recorded to assess the characteristics of movement on important commercial streets and road junctions. Due to inadequacy of road width in the old city, the roads and junctions are over loaded and causing traffic jams, noise, air pollution, accident and general environment degradation.

The following road sections are found highly congested and traditional methods of widening the road will not solve the problem. Only traffic management system may help to re-organise the directional flow and shifting of some commercial activities to the peripheral sub-city areas proposed may reduce the traffic burden on the old city which is a real traffic problematic area of the capital.

BHOPAL: TRAFFIC VOLUME ON MAIN ROADS IN OLD CITY AREA

3-T-6

S. No.	Location	From	To	PCUS/Hour	Average road width at present	Remarks
1	2	3	4	5	6	7
1.	Bhopal Talkies Junction	Bhopal Talkies Chowki Imambada	Chowki Imambada Junction Bhopal Talkies	2157 1349	10-12 Mts 10-12 Mts	The analysis of the data reveals that the road width available and the capacity of roads, traffic is double the capacity. As a result, accident delays and environmental degradation occurs. This problem is acute at road junctions.
2.	-do-	Bhopal Talkies Junction	Shahjahanabad Police Station	3884	24-30 Mts	
		Shahjahanabad Police Station	Bhopal Talkies Junction	1319	24-30 Mts	
3.	-do-	Bhopal Talkies Junction	Bus stand Junction	1319	30 Mts	—"
		Bus stand Junction	Bhopal Talkies Junction	3884	30 Mt	
4.	-do-	Bhopal Talkies Junction	Sindhi Colony Junction (Berasia road)	1349	30 Mts	—"

1	2	3	4	5	6	7
		Sindhi Colony Junction (Berasia road)	Bhopal Talkies Junction	2157	30 Mts	The analysis of the data reveals that the road width available and the capacity of roads, traffic is double the capacity. As a result, accident delays and environmental degradation occurs. This problem is acute at road junctions.
5.	Polytechnic Chowk	Polytechnic Chowk	Kilol Park	1205	30 Mts	„
		Kilol park	Polytechnic Chowk	1132	30 Mts	
6.	-do-	Polytechnic Chowk	Gandhi Bhavan	209	12-18 Mts	„
		Gandhi Bhavan	Polytechnic Chowk	198	12-18 Mts	
7.	-do-	Polytechnic Chowk	Raj Bhavan	1616	18 Mts	„
		Raj Bhavan	Polytechnic Chowk	1909	18 Mts	
8.	-do-	Polytechnic Chowk	Shamla Hills	601	24 Mts	„
		Shamla Hills	Polytechnic Chowk	498	24 Mts	
9.	-do-	Polytechnic Chowk	Banganga	1846	30 Mts	„
		Banganga	Polytechnic Chowk	1770	30 Mts	
10.	Royal Market	Royal Market	Peergate	1787	18-24 Mts	„
		Peergate	Royal Market	2613	18-24 Mts	
11.	-do-	Royal Market	Shahjahanabad	1536	18 Mts	„
		Shahjahanabad	Royal market	1827	18 Mts	

1	2	3	4	5	6	7
12.	Royal Market	Royal Market	Lalghati	3690	18-24 Mts	The analysis of the data reveals that the road width available and the capacity of roads, traffic is double the capacity. As a result, accident, delays and environmental degradation occurs. This problem is acute at road junctions.
		Lalghati	Royal Market	2913	18-24 Mts	
13.	Bus stand	Bus stand	Bhopal Talkies	2022	30 Mts	"
		Bhopal Talkies	Bus stand	3884	30 Mts	
14.	-do-	Bus stand	Narbada Ice Factory	2031	30 Mts	"
		Narbada Ice Factory	Bus Stand	2678	30 Mts	
15.	-do-	Bus stand	Chhola	1045	12-18 Mts	"
		Chhola	Bus stand	935	12-18 Mts	
16.	-do-	Bus Stand	Jumerati Gate	665	12 Mts	"
		Jumerati Gate	Bus Stand	510	12 Mts	
17.	Police Station Talaiya	Police Station Talaiya	Lady Hospital (Bharat Talkies)	1494	24 Mts	"
		Lady Hospital (Bharat Talkies)	Police Station Talaiya	1303	24 Mts	
18.	-do-	Police Station Talaiya	Jehangirabad	2001	30 Mts	"
		Jahangirabad	Police Station Talaiya	1944	30 Mts	
19.	-do-	Police Station Talaiya	Budhwara	1264	12-18 Mts	"
		Budhwara	Police Station Talaiya	1205	12-18 Mts	

1	2	3	4	5	6	7
20.	Narbada Ice Factory	Narbada Ice Factory	Bus stand	2678	30 Mts	The analysis of the data reveals that the road width available and the capacity of roads, traffic is double the capacity. As a result, accident, delays and environmental degradation occurs. This problem is acute at road junctions.
21.	-do-	Bus Stand	Narbada Ice Factory	2031	30 Mts	
		Narbada Ice Factory	Railway Station	724	18 Mts	—"
		Railway Station	Narbada Ice Factory	531	18 Mts	
22.	-do-	Narbada Ice Factory	Bharat Talkies	3980	30 Mts	—"
		Bharat Talkies	Narbada Ice Factory	4004	30 Mts	
23.	Pul Bogda	Pulbogda	Hoshangabad	2092	18-24 Mts	—"
		Hoshangabad	Pulbogda	1079	18-24 Mts	
24.	-do-	Pulbogda	BHEL	2811	18-24 Mts	—"
		BHEL	Pulbogda	2001	18-24 Mts	
25.	-do-	Pulbogda	Bharat Talkies	1902	18-24 Mts	—"
		Bharat Talkies	Pul Bogda	1835	18-24 Mts	

Proposed Mass Transportation System (Rail)

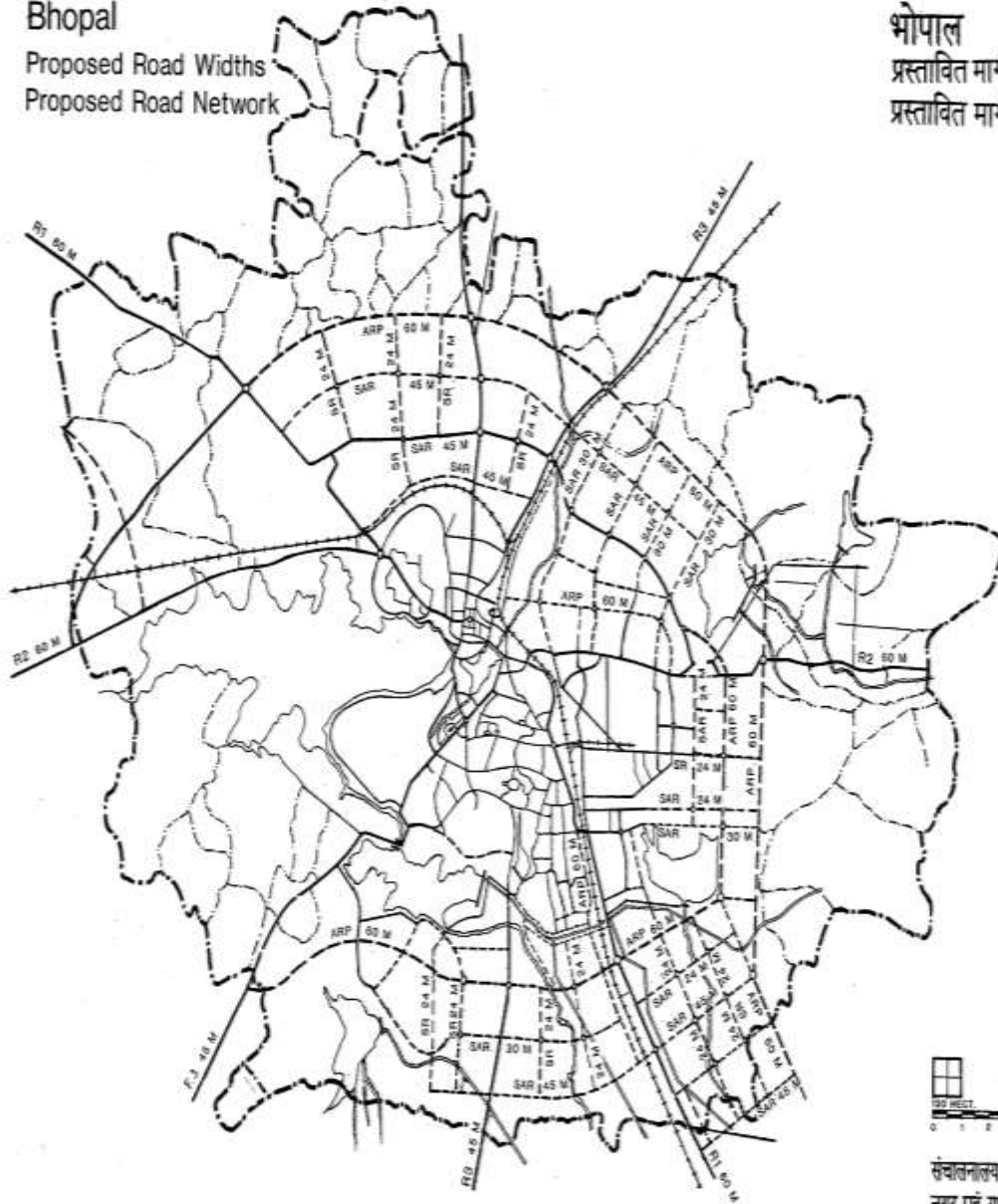
3.8 Bhopal has already attained metro status. In view of this provision of efficient mass rapid intra-city passenger movement has become a necessity. Such a system needs to be considered to linkup sub-cities with all the major work centres, and traffic generating zones, both existing and proposed in the Development Plan. Provision of such a mass rapid transport system calls for a detail investigation and requires feasibility studies to be carried out. The feasibility study should lead to the kind of most appropriate rapid intra-city passenger movement suitable for the city to serve present as well as future intra-city movement needs, of the State Capital.

Bhopal

Proposed Road Widths
Proposed Road Network

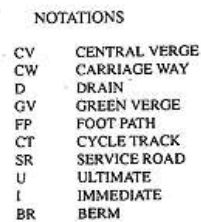
भोपाल

प्रस्तावित मार्ग चौड़ाई
प्रस्तावित मार्ग संरचना



संचालनालय
नगर एवं ग्राम निवेश, मध्यप्रदेश

भोपाल
प्रस्तावित मार्ग सेक्शन



NOTE

THE POSITION OF LIGHT & OTHER FIXTURES
FOR DIFFERENT ROADS SHALL BE GIVEN
DURING THE ACTUAL CONSTRUCTION OF
ROADS

BHOPAL : PROPOSED WIDTH OF ROADS**3-T-7**

S. No.	Name of Road	R/W beyond urban spread (m) (3)	Within Urban* spread (m) (4)
(1)	(2)	(3)	(4)
1.	Raisen Road	60	30-45
2.	Berasia Road	60	30-45
3.	Vidisha Road	60	30-45
4.	Bilkisganj Road	60	30-45
5.	Kolar Road	45	30-40
6.	Chiklod Road	45	30-40

* Subject to the maximum available right of way and possibility of widening

Proposed Road Sections

3.16 It is proposed to adopt road section for various categories of roads as per provisions given below. These provisions shall supersede those formulated under traffic management plan and transportation plan envisaged from time to time by the State Govt. in consultation with the Director.

Primary Arterial Roads (ARP) 30 M-60 M

3.17 These include major city roads to carry heavy volumes of mass traffic having access control. It is proposed to have Primary Arterial Roads, which would provide intra-city linkage with sub-cities having right of way 60 meters within proposed extension and 30-50 meter within the existing areas as may be feasible.

Secondary Arterial Roads (ARS) 30 M - 45 M

3.18 Secondary Arterial Roads are also proposed having 45 meter right of way through proposed development and 30-40 meter through existing areas as may be feasible on different road sections.

Sub-Arterial Roads (SAR) 25 M - 40 M

3.19 These roads are meant to connect arterial roads and sector roads linking residential area with the main city road network. the recommended minimum right of way in the proposed urban extension is 40 meters and within present developed area as 25-30 meters. In this group, wherever required and feasible, separate cycle track shall be provided.

Sector Roads (SR) 20 M - 24 M

3.20 These include roads meant to carry heavy volume of traffic including mass transport vehicles route. The suggested minimum R/W in the proposed extension is 24 mts and within existing developed area as 20-24 meters, as may be feasible on different road sections.

Sub-Sector Roads (SS) 15 M - 25 M

3.21 These roads are meant to collect traffic from local streets within one residential sector. The recommended minimum right of way in the proposed urban extension is 18 meters/ 25 meters and within the present developed area as 15-18 meters as may be feasible on different road sections.

Local Streets (LR) 15 M - 20 M

3.22 These are intended to serve residential neighbourhoods on which through traffic need to be discouraged. The recommended right of way is 20 meters in the proposed development & within present developed areas as 15-20 meters. Recommended road widths in present and proposed developed areas shall be governed by the aforesaid proposition for various categories of road network subject to availability of road width as may be available on site. In portions providing access to market complexes, shops and such other non residential activities the construction or development permission shall be granted after making provision of service road with parking bay with access controls as may be required.

BHOPAL : PHASING FOR ROAD DEVELOPMENT (No. of Lanes)

3-T-8

S. No.	Category	Traffic Management Consideration	No. of Lanes		
			Ist Phase	IInd Phase	Ultimate
(1)	(2)	(3)	(4)	(5)	(6)
1.	National Highway (R-1)	<ul style="list-style-type: none">- Exclusive through traffic route and local traffic route segregated by divider.- Access control and mostly through service roads for all new developments.			

(1)	(2)	(3)	(4)	(5)	(6)	
		<ul style="list-style-type: none">- Goods through traffic only through alternate alignments wherever developed. Other local goods traffic only during night hours.	Regional traffic	2	4	6
			Local traffic	4	4	8
2.	State Highway (R-2)	<ul style="list-style-type: none">- Exclusive through traffic route and local traffic route segregated by divider- Access control and mostly through service roads for all new developments.- Goods through traffic only through alternate alignments wherever developed. Other local goods traffic only during night hours.	Regional traffic	2	4	6
			Local traffic	4	4	8
3.	Other Regional Roads (R-3)	<ul style="list-style-type: none">- Separate through traffic lanes.- Access to buildings only through service roads.	Regional traffic	2	2	4
			Local traffic	2	2	4
4.	Arterial Road Primary (ARP)	<ul style="list-style-type: none">- Separate mass transport routes and local traffic routes- Access control.	Regional traffic	2	4	6
			Local traffic	2	2	4
5.	Arterial Road Secondary (ARS)	<ul style="list-style-type: none">- Separate Lanes for mass Transport and other vehicular movement.- Access Control.		2	4	6
6.	Sub- Arterial Road (SAR)	<ul style="list-style-type: none">- Mass transport traffic and local traffic sector.		2	4	6
7.	Sector Road (SR)	<ul style="list-style-type: none">- Its vehicular traffic and Resident traffic.		2	2	4

(1)	(2)	(3)	(4)	(5)	(6)
8.	Sub- Sector (SS)	- Intra Sector Traffic	2	2	4
9.	Local Roads	- Local Resident Traffic	2	2	4

- Footpath, service roads with lane segregation strips shall be provided as per detail design of roads as per requirement.
- Separate light vehicular lanes shall be provided atleast one lane each direction on arterial roads and Sub-arterial roads and sector roads, wherever the road provides the access, to the residential plots facing the main road.
- Separate cycle/two wheeler traffic movement tracks shall be provided along arterial roads, sub-arterial road, wherever needed.

Grade Separater

3.23 The transport network plan for 2005 indicate inter-sections to be developed with grade separater at the following locations :

- Inter-section at Banganga (near 45 bungalows).
- Inter-section at Ahmadpur (Inner Ring Road & NH-12)
- Inter-section near Bhanpur village (Railway Line and Ring Road and Diwanganj Road).
- Underpass at Cholakechi.
- Chiklod road Inter-section with NH-12, (near Chiklod road T-Junction).

3.24 Based on the traffic movement and directional splits, the design of the flyover will be worked out at the time of implementation of the plan proposals. Road junctions at the important roads will be designed according to the desired condition.

Interlinkages of Development on either side of Railway Track

3.25 Throughout the railway track, passing through the existing and proposed development the plan envisages following provisions for establishing movement linkage on either side of the railway track :—

- Overbridges as indicated on the proposed transportation plan.
- Detail investigation shall be carried out to provide linkages on either side, atleast for light traffic so that each such linkage service area do not exceed 3 Kms. of railway track as far as possible.

- Feasibility of converting existing railway bridges over natural nullahs as railway under pass for light traffic shall be examined and wherever such linkage are possible; the scheme shall be taken up for implementation.

Transportation System (AIR)

3.26 The existing airport in the west of Bhopal city at Bairagarh is serving the domestic air passengers only. 16 flight (both way) from this airport operate from Delhi and Bombay and special aircraft's from the other main cities of India. Though, the air traffic is not significant at present but in years to come when economic prosperity will attend its maturity more and more air travel will be performed, for which reservations for land and infrastructure will have to be done at this stage.

Goods Traffic

3.27 With increasing growth of commercial and industrial activity in the State Capital, it is necessary to suggest goods traffic routes linking regional roads, goods terminal-centers and warehousing areas. The plan provides for suitable location to cover all important areas for collection and distribution of goods produced in the city and produce brought from outside for consumption in the city. The major locations for freight complex (warehousing) and truck terminal areas shall have to closely linked with Railway stations, and Road Transport terminals.

Transportation for the Old City

3.28 It is proposed to consider provision of a medium capacity mass transit system to cover the main routes which may include Sultania Road, Hamidia Road, Kamala Park-Polytechnic road, Pari Bazar, Goal Ghar.

Terminal Centres and Truck Stations

Railway Station

3.29 Except the main railway station which provides Rail passengers facilities like waiting rooms, reservation counter, retiring room and other amenities and facilities, the other railway stations within metropolitan area are lacking in terms of the above requirements.

3.30 The work of development of Habibganj Railway Station is in progress as a modern railway station. The space needs for the same is to be ensured. The other Railway stations including mandideep, Bairagarh, within the Metropolitan area, are also proposed to be equipped as per requirement of each station.

3.31 The entry to the main Railway Station Bhopal from Hamidia Road side needs large scale improvement to facilitate the access to the station which happens to be most inconvenient for the parent city at present.

Bus Station

3.32 The existing bus-stand for regional buses on Hamidia Road is inadequate to accommodate a fleet of the M. P. S. R. T. C. buses and private buses. It is proposed to provide for multi nodal Regional Bus Terminal facilities following regional bus stations should be developed according to the needs and the volume of the bus users.

Near Habibganj Railway Station towards BHEL. (inter-state)

Jawahar Chowk

Near Bhanpur Village

Near village Ahmadpur

Near village Anandnagar

Near Garm Gadda

Near Lal Ghati Junction

3.33 Practically Habibganj railway station and inter-state bus terminal site is the physical centre of Bhopal metro-city this Multi-nodal Regional Bus-stand is to be developed as a inter-state bus terminus. The site which is proposed is 20 hect. approx., BHEL Administration is expected to share the space requirement for terminus development in larger interest of the city. This terminal and the six other regional terminals may be inter linked with the computer system for reservation and booking facilities. The operation of the Regional passenger traffic will be organised according to the time based requirement.

3.34 The design of the terminals should accommodate the local/city bus terminal and properly segregated entry/exits. Location for bus depots need to be worked out in consultation with the departments concerned to minimise the dead mileage. Proposal of pick up stations already proposed in the previous plan, regional road are retained as such with few additions.

Terminal Centres (Goods)

3.35 Goods Yards/Marshaling-yards at Nisatpura Railway Station is catering to the needs of goods traffic of Indian Railways. Truck stations and goods-yards are inter related activities for which reservation of lands is of utmost importance. Truck traffic and Godowns can be closely located, depending upon the bulk, nature of goods and the Goods traffic volume. Sites for truck stations are proposed keeping in view the directional movement of goods.

— In Bhoiri village on bye pass road

— Near village Bhanpur

— Near village Bhairapur

PRESENT STATUS OF ROAD DEVELOPMENT

Most of the proposed roads in South Bhopal have been developed except few, which could not be developed due to topographical configurations and site conditions. These roads are:—

1. Road from village Chunabhatti to Bhadbhada
2. Road from Asha Niketan to the proposed Ring Road along Bhopal-Itarsi Railway line
3. Ring Road from Obedullahganj Road to Bhopal Bilkisganj road
4. In north Bhopal :—
 - i. Road from Obedullahganj to Raisen road
 - ii. Road from near Pulbogada to Ring Road in northern direction
 - iii. Road along Bhopal Delhi railway line from ring road to Pulbogada
 - iv. Ring road from Retghat to Karbala along the lake (Lake drive road)
 - v. Road from Karod kala to Narela shankari via Bhanpur
 - vi. Road from Regiment gate to Chhola road
 - vii. The other sector roads within planning units remains to be developed as per plan proposals

Under the transportation land use category grade crossing and terminal centres for road transport which were supposed to be implemented are yet to be developed.

Terminal Centres

1. Habibganj
2. Pipaliya Chamaran
3. Garam Gadda
4. Semra Kalan
5. Pulbogada.

Grade Crossing

1. Grade crossing near Chola Kanchi on the existing road to Dewanganj
2. Grade crossing on ring road near village Misrod
3. Grade crossing near Habibganj Rly. Station
4. Grade crossing on Bhopal Sehore Railway line near Bairagarh
5. Grade crossing near village Bhanpur

Truck Terminal

Proposed near railway crossing at village karod could not be implemented

Parking Sites

Parking sites proposed in 1975-91 plan could not be implemented. Though there was not technical problem for the development, the reason may be the poor recognition of this public demand.

Physical Infrastructure

3.36 Quality of life in any urban area is very much conditioned by level of availability, accessibility and quality of physical and social infrastructure it can provide and could be afforded by its inhabitants. The rapid growth of population necessitates augmentation of water, power, sewerage, drainage and solid waste management along with new urban development extensions. Major reasons for urban discomfort occurred as a result of level of satisfaction offered in these areas, by the urban management authorities. Sewerage, solid waste management are comparatively internal affairs but supply of water and power as well as drainage are inter regional, sub-regional issues and are, thus more critical. Appropriate interventions are required for the management of water and power as well as drainage including urban waste in the regional context for the adequate provision of physical infrastructure needed to support the growing population and other economic functions.

3.37 The existing availability and projected need for water supply is indicated as under:—

BHOPAL : CAPACITY OF WATER DISTRIBUTION

3-T-9

Description (1)	Source (2)	Water in (mgd.)	
		Production (3)	Distribution (4)
Present developed capacity	28 mgd (Upper lake)	26	26
	34 mgd (Kolar)	21	21
	1.5 mgd (Hataikheda)	1.5	1.5
	5 mgd (Under ground tube well & other)	5	5
	Total	53.5	53.5
Present requirement (1993 population 14 lacs).	@ 40 Gallon/day Total requirement 56 mgd.		
Present inadequacy	7 mgd.		
Requirement for 25 lacs population	@ 40 Gallon/day Total requirement 100 mgd.		
Potential existing	51.5 mgd.		

Source : P. H. E. Department, Bhopal

Water

3.38 Bhopal had only one major source i. e. Upper Lake. Subsequently the two other sources got developed by construction of dam on Kolar and Kerwa river have also been added as additional water source for the city. With this the total water source capacity from the three sources assuming normal rain fall works out to be only 100 mgd. At present water production capacity from three sources is only 70 mgd.

BHOPAL : REQUIREMENT OF WATER 2005

3-T-10

Sr. No.	Present Water Sources	Present drawal capacity (mgd.)	Present water production capacity (mgd.)	Unutilized capacity (mgd.)
(1)	(2)	(3)	(4)	(5)
1.	Upper Lake	28	26	2
2.	Kolar	34	21	13
3.	Hataikheda	1.5	1.5	-
4.	Under ground tube wells & Other sources	5	5	-
Total		68.5	53.5	15

3.39 The above table reveals that availability of water shall be the critical factor for future growth of the city. As per the water source potential around Bhopal, the urban area may not be able to support population beyond 20 lacs. In view of this, it would be necessary to explore, new water sources to meet the city growth need beyond 15 lacs or so. Bringing water from Narmada which is around 40 Kms on the periphery on the existing development, needs to be explored as possible water sources.

3.40 In that case, the physical urban spread would also be guided by the consideration of procurement distance of tapping the water source.

WATER REQUIREMENT

3.41 The requirement of water supply has been worked out @ of 180 litre per capita/day with breakup as follows :

BHOPAL : CONSUMPTION OF WATER (Liters per Capita per day)

3-T-11

Domestic	200
Industrial	
Commercial	
Community requirement @ 45,000 Lt/ha/day	40
Garden @ 6,000 Lt/ha/day	30
Floating population and misc. uses.	50

Minimum water supply in residential area should be atleast around 25 gallon/c. d.

Sewerage

3.42 Collection and disposal of sewage from living areas and urban waste from manufacturing areas is essential to maintain environmental and good sanitary living conditions in the city. The present habitated areas of the city are partially served by sewerage system which include BHEL and T. T. Nagar sub-cities. Sewerage project for the old city is in advance stage of its completion. The areas at present, which are not served by sewerage system include old city areas served by old conservancy system/individual septic tank with effluent flowing into open sullage drains. Some of the post development after 1960 which have come up through private sector investment are having their own community septic tanks with their effluent discharging into the open sullage drains ultimately joining the natural drainage.

3.43 The present method of collection and disposal of sewage needs to be examined more seriously. Present system of disposal using water as a medium of transport through sewage pipes to the city out fall involves huge cost and resources. This is a key area which calls for innovative solution which promote use of modern technologies. It may be worth while to examine the possibility of providing urban service areas around each sub-city for disposal of treated sewerage effluent use for market Gardening and Agricultural operations in the shape of green wedge. Such a system could be replicated for each sub-city as per the natural topography. Using mechanism which promote recycling of sewage water and its use for generation of energy, and other urban waste need to be explored.

3.44 It is also clear that the present treatment plants are not adequate to serve the population which it can command. The capacity of treatment plant will have to be augmented as per the system designed and envisaged for various areas.

Drainage

3.45 The natural drainage of the city is provided by three main streams, which are, of course, joined by small nallahs and rivulets. the city areas of north-eastern zone, drains into river Halali and those of south-eastern zone, and south zone by Kaliyasote river. Both the rivers ultimately drains in to Betwa, Halali reservoir near Vidisha and Kaliasote near Bhojpur. On the south-western side, the drainage is provided by various small nallahs which drains in to Kolar river, which ultimately joins river Narmada.

3.46 River Halali is a potential water source which could be utilised as a possible source of water supply for future needs of the city. In that case, it will not be possible to discharge city sullage and industrial waste in Halali drainage system. The city drainage which at present joins Halali reservoir will have to be diverted after treatment so as to meet Betwa directly or to utilise water for the purpose of irrigation.

3.47 River Kaliasote which provides drainage on the south-eastern side joins Betwa near Bhojpur in Raisen District. There is hardly any possibility of utilisation of this water for irrigation purposes as it passes through a hilly terrain. The water polluting industries located in this zone discharge their wastes in river Kaliasote ultimately polluting source of water supply to Vidisha. The problem needs to be dealt objectively in the regional context.

Solid Waste

3.48 Collection and disposal of domestic and other urban area solid waste is another important area which require immediate attention. There are economic aspect of dealing solid waste management issues which require careful attention, requiring installation of a efficient solid waste management system including waste recycling.

3.49 There is no compost plant existing in the city. There is a need to provide a comprehensive well worked out solid waste collection system and its disposal through sanitary land fills and other methods as may be considered appropriate.

3.50 Special care is required for the collection and disposal of waste from hospital, nursing homes, fruit and vegetable market, dairy farm and congested area from old city.

3.51 Provision of dust bins at convenient location should be planned taking in consideration the norms of solid waste around pound 6 kg. per c. d.

Power

3.52 The present power source is from hydel grid system. The pattern of power supply is satisfactory with consumption shared among various use-zones with break up as industrial - 30%, Commercial- 20%, Residential 40% and miscellaneous 10%.

3.53 The capacity of the present system will have to be augmented as per the load requirements, to cover all the areas included in the proposed plan.

3.54 Madhya Pradesh Electricity Board has proposed the scheme of power supply to meet out the increasing demand of the power in future. the Board proposal for 20 years need is to be developed in two phase. A multi-circuit tower ring is proposed having two circuits of 132 KV and 32 KV each. The ring will be linked with the existing 132 KV sub-station.

3.55 In addition to existing power supply sub-stations following 7 sub-stations of 133 KV are proposed for installation during first phase having capacity of 20 MVA each.

- Ayodhya Nagar
- Gandhinagar
- Khajuri Sadak
- Near Nabibagh
- Sukhi Sevania
- Misrod
- Anandnagar
- Kolar Road

3.56 It is proposed that an additional transformer of 20 MVA would be installed in each sub-station to meet the further demand of power during its second phase.

3.57 On the basis of distribution system of power supply 26 new sub-stations of 33/11 KV are proposed for coming 10 years (upto 2005). The capacity of these sub-stations would be 129.65 KV. To meet the further demand of power (2005-2011) the capacity of each sub-station would be enhanced by 5 MVA.

Land Requirement For Power Supply

3.58 Land requirement for the proposed sub-stations is given below:—

LAND REQUIREMENT FOR PROPOSED ELECTRIC SUB-STATION

3-T-12

S. No.	Sub-station Capacity	Number of sub-sections	Area Requirement in ha
1.	132 KV	6	24
2.	33/11 KV	26	30
			Total Land Required = 54 ha

3.59 In addition to above area provision of land between the tower of 132 MVA circuit ring shall be required. A power corridor has to be proposed along the multi-circuit ring. The area around the ring would be proposed for conservative green and under major roads.

Long Range Plan for Physical Infrastructure

3.60 It is considered essential to workout long range plans for the physical infrastructure, with reasonable details for implementation, during the plan period. These plan should be prepared by the concerned departments viz. water and sewerage by PHED, power by MPEB solid waste disposal by Local authority, in consultation with the co-ordinating authority.

Infrastructure Health

3.61 Higher order health facilities in Bhopal is meant to serve health needs of the city and the region. Study reveals that there are several poly-clinics, health centres and nursing homes well distributed through out the city, caters to the population which can afford treatment offered but there is a large target group inadequately serviced by the available Govt. hospital facilities in the city.

3.62 Bhopal being a regional level city and the State capital demands specialised health facilities to serve its large region, to meet critical ailments.

Education

3.63 Bhopal offer higher order education facilities catering to the regional and local needs. Present facilities need to be modernised to serve the changing demands in this area. Present status of available facilities are summarized below :—

BHOPAL : EDUCATIONAL INSTITUTIONS

3-T-13

Institution	No. of Institute College/School	Remarks
State and Regional Level	6	University & Medical Engineering Forest Colleges. Technical & professional institutes.
City level	8	- Science Colleges - Arts and Commerce Colleges.
Sub-city level	180	1. Pre-primary 50 2. Primary 90 3. Secondary 40

3.64 The provisions for educational facilities for differed age groups catering to variety of educational and training needs, have been recommended, for Bhopal. the standards prescribed under table shall be adopted. (3-T-13)

Communication

3.65 Level of communication pay vital role in urban economy, need for the same is continuously growing. An efficient and modern communication system, contributes towards reducing travel trips and ultimately on the energy needs of city management. Landuse management policies should be geared to meet these new demands.

3.66 Present telecommunication facility network in Bhopal is managed through three telecommunication zones. Five telephone exchange centers having a total capacity of 25,500 lines. There are 11,250 applications pending with department of telecommunication for telephone connections.

3.67 Planning norms envisaged for telecommunication facilities are given below :—

- 1 telephone exchange with a capacity of 40,000 lines one unit for 4 lakhs population @ 10 phones per 100 population.

Area of land required 10,000 Sq. mt. It includes the administrative area, stores, work-shops etc.

- departmental telegraph office, one for 1 lakh population is to be provided in community centre.
Area of land 900 Sq. m.
- booking and delivery office one for 5 lakhs population is to be provided in District centre 1000 Sq. m.
- post office counter without delivery one for 10,000 to 15000 population is to be provided in local shopping centre.
- head Post Office with delivery office, one for 2.5 lakhs population is to be provided in community centre/district centre. Area of land 600 Square meter.
- head Post Office cum Administrative office, one for 5 lakhs population in the district centre.
Area of land 2500 Sq. m.

Security

3.68 Security requirements in urban areas, is continuously placing new demands, due to increasing urban violence. At present there are 8 police stations and 8 police posts in Bhopal. Provision of these facilities shall be governed by the standard stipulated as under table 4-T-10.

Fire

3.69 Bhopal Fire Services are meant to meet exigencies arising out of human sufferings and save life and properties which occur due to fire, house collapse, accidents and other emergencies. These facilities are also meant to serve areas around Bhopal. There are at present 4 fire stations in Bhopal, which are highly inadequate. The provision of these services having easy access to all areas will have to be considered while formulating detail plans for various activity zones.

3.70 Provision for fire services in multi storeyed buildings needs special attention. Building bye-laws or regulations in this regard needs to be adhered to more closely. Bhopal Fire Service Department should be fully equipped to deal with the new demands of multi-storeyed buildings. In congested and built up areas access for fire fighting needs to be ensured while preparing the re-development plans, for the old areas. The provision of fire services shall be governed by the following norms:—

1 Fire Station or sub-Fire Station within 1 to 3 km. to be provided for 2 lakh population.

Area for Fire Station with essential residential accommodation. 1.00 Ha.

Area for Sub-Fire Station with essential residential accommodation 0.60 Ha.

Distribution Services : MILK

3.71 The present milk supply in Bhopal from the Mother Dairy is 2.5 lakhs litres per day and from private dairies 1.5 lakhs litres per day. As per estimations the demand for milk will be 5 lakhs litres per day by the end of 2005. Development plan will have to take into consideration needs of milk producing and processing centre particular within urban service area of various sub-cities. Provision for Sites for the milk processing plants with urban service area (Rural zone) shall be permitted as per need of the city.

Liquefied Petroleum Gas (LPG)

3.72 Bhopal has about 1.25 lakhs L. P. G. connections against a need for 2.5 lakhs in 1991 and projections of connections for the year 2005 is worked out to be 4 lakhs connections.

Provision for these facilities shall be governed by the norms given under table 4-T-9.

Socio-cultural Facilities

3.73 The development plan for Bhopal envisages enhancement of quality of life. To meet the various community needs in the area of socio-cultural facilities, the detailed plans for various zones will take into consideration provision which shall be governed by the norms given under table 4-T-8 & 4-T-9.

Chapter 4

Development Regulations

	Page
4.1 Introduction	83
4.2 Applicability	83
4.3-4.11 Jurisdiction	83-85
4.12 Definitions	85-87
4.13-4.16 Establishment of Use Zones and Use Premises	87-92
4.17 Low Density Area	92
4.18 Group Housing	92-93
4.19 High-rise multi-unit construction	93-94
4.20 Old City	94
4.21 Floor Area Ratio	94-95
4.22-4.26 Commercial Area	95-98
4.27 Non-formal Sector Shops/Thelas	98-99
4.28 Norms for Fuel Filling and Filling cum Service Station	99-100
4.29 Norms for Cinema Hall	100
4.30 Norms for Hotel	100
4.31-4.33 Norms for Industrial Development	100-102
4.34 Norms for Reuse of Industrial site after Relocation of Industrial Unit	102
4.35 Norms For Social Infrastructure	102-104
4.36 Education & Research Centres	104-105
4.37 Norms for Transportation Nagar/Mechanic Nagar	105-106
4.38 Amenities	106-107
4.39-4.40 Recommended Road/Street Widths	107
4.41-4.42 Model Split of Circulation Network	107-108
4.43 Norms for Slow Moving Vehicles	108

	Page
4.44	Access Standards for Public Facilities 108-109
4.45-4.46	Norms for an Street Parking for Cars and Buses 109-111
4.47	Regulations for Sensitive zones 111-112
4.48	Regulations for Urban Heritage Areas 112-113
4.49	Regulations for Urban Design and Architectural control 113
4.50-4.56	Mixed use Regulations 113-115
4.57-4.58	Permission of use premises in use zones 115-120
4.59	Use Premises which are not permitted in the Use Zones 120
4.60	Permission of Use Premises in Low Density Use Zones (Residential) 10 DUS/Hect. 120
4.61	Permission of use premises in the Remaining Use zones. 120-123
4.62	Uses/Use activities permitted in Use Premises. 123-134

CHAPTER IV : DEVELOPMENT REGULATIONS

INTRODUCTION

4.1 The purpose of the regulations detailed in this chapter is to promote quality of life of people of Bhopal by organising the most appropriate development of land in accordance with the development policies and land use proposals contained in the Plan.

These are systematic regulations to decide the use activity (use) in two levels : (i) conversion of use zone into use premises (layout); and (ii) permission of use activities on use premises. The code differentiates between the use zone and use premises.

APPLICABILITY

4.2 Development and construction except as herein after otherwise provided, these regulations shall apply to

- (i) All development in Planning Area.
- (ii) Making any material change in land and includes subdivision of land and use of land in terms of occupancy.
- (iii) The corporate development inclusive of group housing project.
- (iv) Any type of building including height of building etc.
- (v) Development of land; construction/alteration, demolition of building in area beyond Municipal area but within Planning area.

Jurisdiction

4.3 The development regulations prescribed in this chapter shall be applicable within the Planning Area delineated by the State Govt. U/s 13 (2) of the M. P Nagar Thata Gram Nivesh Adhiniyam, 1973 vide notification No P-1 37/86/XXXII/Bhopal, dated 22-9-93. Norms and regulations which are not specified in this chapter, in such matters the provisions those contained in Madhya Pradesh Bhoomi Vikas Niyam, 1984 shall be applicable.

4.4 The Development Plan proposals shall be detailed in zoning plans. There is a possibility that the proposals indicated in the Development Plan in respect of circulation, use zone delineation may need modification based on the engineering requirements for implementation. The decision of the State Govt. in respect of such modification shall be final and shall be considered as a part of the plan proposals.

4.4.1 The proposals indicated in the Development Plan are indicative and broad in nature to provide for the contents of Section 17 of the Act. The residential zone, for instance indicated in the Development Plan map embodies the inherent provision for internal roads, open and green spaces, essential areas for educational and health facilities, utilities and services and unusable land in shape of cut up land, existing vegetation. The locations and area spread of such provisions in residential zone are therefore not shown in the map.

4.4.2 The structures permitted by the Competent Authority and existing in any use zone are proposed to be retained in its present form and for the use the structures are used at present.

4.4.3 The residents of jhuggis are the service population for work centres and residential areas, distributed in all use zones. Relocation of jhuggies in the use zones, except in catchment areas of lakes and recreational area and area of proposed roads, shall be permissible.

4.4.4 The map of the Development Plan report is not to be used for calculation of areas and leniar measurements. Such exercise shall be conducted on actual survey map on a scale of 1:4000. The map printed and enclosed in the Development Plan report is the machine reduction of Khasara map.

4.5 The zoning plan preparation is a similar process to that of Development Plan preparation. Separate development zoning regulations may be necessary depending upon the character of development. Till such time the zoning plans are not published and adopted, the planning permission shall be granted under the regulations prescribed in this chapter. The Zoning Plan preparation shall have to be taken up for the areas indicated in the first phase development and areas around upper lake in village Halalpur and Khanooagaon immediately after the adoption of plan.

The agencies identified by the State Govt. shall continue to undertake preparation of zoning plans as a continuous process.

4.6 The location and boundaries of each use premises given in the detailed layout plan/zoning plan shall have reference to the existing road/drain and other physical features as obtaining on the site.

4.7 Approval granted to layout plans, by the competent authority under either M. P. Nagar Tatha Gram Nivesh Adhiniyam, 1973 or recommended for diversion u/s 172 of MPLRC by Deputy Director, Town & Country Planning, Bhopal Division and if its validity still holds good on the day of publication of this Development Plan, shall be deemed to have been approved in conformity with the development plan proposals.

4.8 Under exceptional, circumstances involving public purpose, development permission could be granted by the State Govt. involving developments of National, State level and city level activities benefiting the city population collectively.

4.9 Any structure or activity connected with utility infrastructure shall be permissible in any of the use zone as per requirement of site and utility infrastructure planning and design duly to be approved by the competent authority.

4.10 In specific areas where certain restrictions are to be imposed from security angle, the State Govt. will be competent to pass such orders, in consultations with the Home Department. The height restriction and restriction of openings may be used as a tool in developed areas. The northern slopes of Shamla hills shall be totally prohibited for development.

The act here means M. P. Nagar Tatha Gram Nivesh Adhiniyam, 1973

4.11 In case if corrections in the drawings, submitted for approval, are found essential, the sanctioning authority should mark all such corrections and return the duly corrected drawings for resubmission. The approval shall be recorded on the corrected drawings only.

4.12 DEFINITIONS

USE ZONE	Use zone means an area for any one of the specific dominant uses of the Urban functions as provided for in Table 4-T-1.
USE PREMISES	Use premises means one of the many sub divisions of a use zone, designated at the time of preparation of the layout plan, for specific main use or activity and includes the use premises described in Schedule-I.
LAYOUT PLAN	Layout plan means a sub division plan indicating configuration and sizes of all use premises.
LAND USE PLAN	Land use plan means the plan indicating all the use zones as defined in 4-T-1.
ZONING PLAN	Means a plan for one of the zones of the Planning Area containing detailed information regarding provisions of social infrastructure, parks and open spaces and circulation system. Such detailing shall include all such uses which can be permitted or permissible vide table 4-T-17, 4-T-18 and subsequent provisions made in paras 4.58, 4.59, 4.60, 4.61 and 4.62 of Development Control Regulations.
MIXED LAND USE ZONE	Mixed land use zone means a use zone in the land use plan consisting of more than one use zones, in such case use premises/use activities permitted in both the use zones shall be applicable.
URBAN VILLAGES	Urban villages means the village Abadi falling within the proposed use zones indicated in the land use plan.
URBAN HERITAGE AREAS	Means the premises occupied by historic buildings of archaeological importance and the area around such buildings.
PLOTTED DEVELOPMENT FOR SINGLE/JOINT FAMILY ONLY.	Plotted development with all its literal and grammatical variations, would mean the sub-division of a piece of land (Layout) emerging in a No. of carved premises (plot) for Urban use, predominantly for single family/joint family residential use. Such premises will have the provision of additional accessory block for garage/ garages.

GROUP HOUSING

Group Housing means group or multistoried housing for more than one dwelling unit, where land is owned or held under or legal right jointly (as in case of Co-operative Societies or the public agencies such as local Authorities or housing board) and the construction by one Agency/Authority.

MULTIUNIT PLOTTED DEVELOPMENT.

Plotted development in new areas, especially designed to accommodate the number of families based on rule 82 of Bhoomi Vikas Niyam, with the provision of adequate utilities and services and amenities and facilities to be implemented after approval of the Competent Authority. Minimum size of plot for such development shall not be less than 288 sq. m.

HIGH RISE APARTMENT DEVELOPMENT

High Rise Apartment Development would mean Housing Development in multiple unit apartment or group housing form, with the exception of the height restriction being enhanced to 30m height. This type of Development shall have to satisfy the norms for high rise buildings as specified in M. P. Bhumi Vikas Niyam 1984.

COVERED AREA

The area of the land covered by the plinth of the building at the ground floor level shall be counted as the ground coverage. This shall exclude the area covered by projections at slab level and area of the plinth not covered by roof at top. Cantilevered projections upto an extent of one third of the set back shall be permissible on the upper slab level with a clear height for vehicular/pedestrian movement. These projections cannot be made at heights below 2.5 meter from the ground level. This projection shall not construe to be covered area. In group housing, areas, covered on the second and third floor levels with at least 5.5 meter clear space below for movement, but not within the setback/marginal open space, shall not be counted in covered area. All areas in the building shall be counted in covered areas except for service ducts, lift wells.

BUILDABLE AREA

The buildable area, with all its literal and grammatical variations, would mean the total area buildable on a piece of land on all floors inclusive of wall thicknesses, corridors, toilets, stair case area on ground floor. Ducts, cutouts with railing or parapet on all sides, lift wells shall not be counted in the buildable area. Basements if used for parking with appropriately sloped ramp for approach and discharge of vehicular traffic and column spacings in co-relation to parking geometrics shall not be counted in the buildable area. Basements found inappropriately designed for parking function shall be construed to have been designed for other uses and shall be counted in the buildable area. Mezzanine floors, not sub-divided by walls or partitions

with at least one side open without walls and to an extent of one third of the floor below shall not be counted in the buildable area. Mezzanine with more than one third of the floor area of the floor below and/or sub-divided with walls or partitions, and/or enclosed on all sides would constitute an independent floor, such areas shall be included in the buildable area. Machine rooms and stair case, mumtee at the top floor shall be excluded from the buildable area along with terraces open to sky.

FLOOR AREA RATIO

The floor area ratio shall be the ratio of total buildable area in a building on all floors, (inclusive of basement if not used for parking) to the total plot area of the land in question. The ratio stipulates the maximum of built quantity and no variations or latitudes or exceptions are to be given on that, except specifically provided in this chapter.

HEIGHT OF A BUILDING

The Height of the building shall be measured from reference level which shall be the level at the centre of the approach road from which the access is being taken. This level shall be construed as the ground level and the height of the structure shall be calculated from this level to the top of the slab of the topmost floor. Spaces below this level shall be considered as basement. If the built form below the road level is used as habitable accommodation, because of the advantage of existing topography such area shall be permitted as habitable area and shall be counted in FAR. Machine rooms, mumtee, lift and AC structure on topmost floor shall be exempted from height calculation.

SENSITIVE AREAS

An area delineated as sensitive zone on ecological and heritage considerations.

CONTROLLED AREA

Area delineated on the basis of drainage divider in respect of catchment area of lakes and areas of potential visual qualities.

ESTABLISHMENT OF USE ZONE AND USE PREMISES :

4.13 The Planning area Bhopal is divided into 39 use zones as mentioned in table 4-T-1.

Each use zone shall be further sub-divided into number of use premises. Each use premise shall be permitted to have specific uses/use activities with or without conditions.

An area in respect of which there is no approved layout plan shall be governed by the provisions of the Development Plan/Zoning Plan for Land use delineation.

USE ZONES DESIGNATED :

4.14 There shall be 39 use zones classified in 9 categories namely; Residential, Commercial, Industrial, Utilities, Public and Semi-public, Recreational, Transportation, Agriculture and Water bodies.

USE ZONE/USE CATEGORY

4-T-1

S. No.	Use Categories	Use Zones	
1.	Residential (Housing)	RD	Residential (Including village Abadi.)
		LD	Low Density Housing (10 DUS or less per hect.
2.	Commercial	C 1	City Centre
		C 2	Sub-city Centre.
		C 3	General Commercial Including Business and Service establishment.
		C 4	Wholesale Mandi Ware Housing, Cold Storage.
3.	Industrial	I 1	Light and Service Industries (Including flatted groups of factories).
		I 2	Industrial Estate and Major industrial establishment.
		I 3	Obnoxious Industries.
4.	Utilities	U 1	Water (Treatment Plant ect.)
		U 2	Sewerage (Treatment Plant etc.)
		U 3	Electricity (Power House, sub-station etc.)
		U 4	Solid Waste (Sanitary land fill etc.)
		U 5	Fire Station
		U 6	Communication
		U 7	Cremation/Burial ground
5.	Public and Semi Public	PS 1	Administrative (Complex)
		PS 2	Other Administrative Establishment/Institute.
		PS 3	Educational and Research

S. NO.	Use Categories	Use Zones
6.	Recreational	PS 4 Health
		PS 5 Central Exhibition Ground
		R 1 Regional Park/Botanical Garden
		R 2 City Park.
		R 3 Play Fields/Stadium
		R 4 city Forest/Afforestation
7.	Transportation	R 5 Picnic Spot
		R 6 Lake front
		T 1 Airpot
		T 2 Railway Station
		T 3 Inter-state Regional Bus Stand
		T 4 Bus Stand.
		T 5 Transport Nagar/Truck Terminals/Mechanic Nagar/Ware Housing.
8.	Agriculture	T 6 Roads
		T 7 Railway lines
		A 1 Forest
9.	Water Bodies	A 2 Green Belt/Agriculture
		A 3 Rural zone (Villages abadi as residential area)
		W 1 Lakes
		W 2 Rivers, Nallahas and Canals.

SUB-DIVISION OF USE ZONES INTO USE PREMISES :

4.15 The objective of these regulations is to guide the preparation of layout plans for different use zones. These regulations also include norms for provision of facilities and circulation system.

The service plans corresponding to these layout plans for provision of physical infrastructure like water supply, sewerage drainage, etc., shall conform to municipal byelaws.

4.15. A The width of plot and depth of plot, preferably shall be in a ratio of 1: 1½ or 1:2 or maximum up to 1:3.

4.16 The norms for residential development in respect to plot sizes, type of plot, Far, Ground coverage, height of building and permissible dwelling units are required by the builders/Architects to conceive their building plans. The schedule of coverage and set backs for Residential areas are given in the table No. 4-T-2. The plots sizes indicated in the table must be a part of approved layout and site must be fully developed for grant of building permission.

4.16. A The layout (in new areas) designed to accommodate more than 4 dwelling units in one plot shall be permitted provided the adequate provisions are made for water supply, sewerage, parking facilities and are physically ensured before grant of such permission.

4.16. B The area developed as plotted development situated in the existing developed areas, excluding low density area fully or partially developed, at present identified as as family/joint family unit may be permitted for conversion as multi unit plotted development construction, only after augmentation of utility and services are physically ensured.

4.16.C The State Govt. has issued circular for reservaton of 15% area for informal sector of the society. The minimum area of layout for such reservation is 4000 Sqm. 15% area, out of the layout area above 4000 Sqm. shall have to be reserved and handed over to slum clearance Board for providing housing site/dwellings to the informal sector of the society.

4.16.D The layouts, exclusively for low income group housing shall be prepared as per the requirements of APPENDIX-M (Rule 94) of Madhya Pradesh Bhoomi Vikas Niyam, 1984. The table 4.T.2 provides for additional categories of developed plots.

-- Sindhi Colony	1.25
-- Kaji Camp	1.25
-- Regiment road	1.25

Arera Colony E-1 to E-5/Shamla Hills/Char Imli/Kolar Road upto river and Vijay Nagar areas falling in catchment of Upper Lake:

The holding capacity of the above areas is extremely conditioned by the available physical infrastructure and constraints in respect of water pollution. The FAR in these areas shall be 0.75 with height restriction of 12 meters.

Other Conditions :

Area listed above, the control for building/buildings within the use premises as follows :—

- (i) maximum ground coverage and FAR shall be same as for residential plot in plotted development.
- (ii) the building shall be permitted to be constructed in the same form and style as existing as far as possible.
- (iii) multi-unit plotted development shall not be allowed in these areas, on pooled plots and individual plot.

Commercial Area :

4.22 The commercial activities in the metropolices area classified in the form of five tier system as follows :

BHOPAL : FIVE TIER SYSTEM OF COMMERCIAL AREAS

4-T-3

I	II	III	IV	V
City Centre	Sub-city centre	Community Centre	Local Shopping centre	Convenience Shopping centre
	Population Served			
City Level	About 5 lakh	about 1 lakh	about 15 thousand	about 5 thousand
	Area			
	44 ha (for 5 Lakh population)	5.40 ha.	0.46 ha.	0.11 ha.
	Land Requirement per Thousand Persons			
	880 Sqm.	540 Sqm.	306 Sqm.	220 Sqm.
	Activities			
All activities of tier II	Whole sale markets.			
	Shopping (retail, service, repair and limited whole-sale) Informal shopping Commercial Offices, Cinema, Hotel,	Shopping (Retail service repair) Informal shopping, Commercial Offices, Cinema, Hotel, Guest House, Nursing homes.	Shopping (Retail service, repair) Informal shops, Commercial Offices.	Shopping (Retail service, repair). Informal shopping.

Guest house,
Nursing Home.

Service Industries.

Service Industries.

Auditorium,
Museum, Library,
Science Centre,
Art/Craft/Music/
Dance School/
Mela/Book Bazar,
Weekly markets
(on close days)
Dev. Authority
and Municipal
Offices.

Community Hall
and Library.

Bus stop,
Fire Post, Police
Post, Telephone
Exchange, Electric
Sub-station, Post
and Telegraph
Office, Petrol
Pump conveniences residential.

Post Office,
Dispensary, Petrol
Pump (filling station
only) Weekly Market
(on close days),
Sub-station
conveniences.

Electric sub-station
conveniences.

Electric sub-station
Conveniences.

Note : Besides the above, retail shopping of desired level shall also be provided in all work centres and transportation nodes.

Design Guidelines for Commercial Areas

4.23 The City/Sub-city has the following components :

Retail Shopping

Commercial Offices

Service Centre

Facilities

Cultural Complex

Hotel

Landscape (Component)

Wholesale (Where provided)

4.24 In certain situations it may be possible to prepare an integrated plan for all of the above components. In other cases because of factor like the time required between the land development and disposal, tenure conditions or even certain design requirements such as solution may not be possible. The components like facilities, hotel and wholesale may be required to be demarcated separately for development. Possibly the other group i. e., retail, office, cultural complex and residential could be more easily integrated in the same building space or area through landscape

and circulation. Thus it would be desirable to leave it to the designer to prepare an integrated plan for all or some of the components.

The area provided for landscape as part of the city/sub-city should weave through the entire district centre to create a pleasant environment.

A city/sub-city should be accessible from the surrounding residential areas through the pedestrian approach or by subways etc.

BHOPAL : NORMS FOR SHOPPING AREAS

4-T-4				
S. No.	Category	Location	Coverage*	FAR
(1)	(2)	(3)	(4)	(5)
1.	City Centres	Walled city, Maharana Pratap Nagar	80%	2.5
2.	Sub-city Centre	Misrod and Neori	80%	2.0
3.	Community Centre Location	as per proposals of Zoning Plan.	80%	1.75
4.	Local Shopping ; Centre	—do—	80%	1.50
5.	Convenience** shopping	—do—	80%	1.00

* % of premises formed out of land sub-division.

** In areas where the FAR for residential development is 0.75 the FAR for commercial development will be 0.75 only.

Note : For planning and development purposes the provision of table 4-T-3 shall be followed. For building, erection purposes on approved developed plots, building bulk shall be controlled by the provisions of Table 4-T-5.

Commercial Area : old city

4.25 Maximum coverage in existing built up commercial areas will be 80% of the area of premises delineated for commercial use on the ground floor. On subsequent upper floors the coverage and other stipulations shall be regulated in conformity to the premises occupancy. Floor Area Ratio permissible for various commercial sites is given below :—

Centreal Core	2.00
Inner Ring Road (Central area)	2.50

Commercial Roads in between inner rings with 18 mts. and above width.	2.50
Other roads less than 18 mts. width	2.00
Commercial areas outer ring road	2.50
Gurubux-Ki-Tallaiya area	2.50

4.26 In case some areas are left by the owner of his own plot for public use such as road, footpath or parking etc., two times of normally permissible F. A. R. in respect of the area left for public use, will be permitted to be added to the structure on the remaining plot. This will offset the loss of area to great extent and will encourage leaving of some area in front of the building plots.

Non-formal Sectors Shops/Thelas

4.27 While planning new commercial centres, space reservations for street vendors, hawkers and other such activities should be made. Following norms in retail trade community level, local level and convenience shopping.

Retail trade :

- | | | |
|-----|--|--|
| (i) | City Centre, Sub-City Centre, Community Centre, Local shopping, Convenience shopping | 3 to 4 units per 10 formal shops or as specified in the norms separately |
|-----|--|--|

Informal shopping in other premises :

- | | | |
|--------|---|---|
| (ii) | Government and Commercial offices | 5 to 6 units per 1,000 employees. |
| (iii) | Wholesale trade and freight complexes | 3 to 4 units per 10 formal shops. |
| (iv) | Hospital | 3 to 4 units per 100 beds. |
| (v) | Nursing Home | 2 Units. |
| (vi) | Bus Terminal | 2 units per 1 bus bay. |
| (vii) | Schools
Primary Secondary/Senior
Secondary/Integrated | 3 to 4 units
5 to 6 units. |
| (viii) | Parks Regional/District Parks
Neighbourhood parks | 8 to 10 units at each major entry.
2 to 3 units. |
| (ix) | Residential | 1 unit/100 population |
| (x) | Industrial | 5 to 6 units per thousand employees. |
| (xi) | Railway Terminus | To be based on surveys at the time of preparation of the project. |

**BHOPAL : LAYOUT NORMS FOR WHOLE SALE COMMERCIAL
DEVELOPMENT**

4.T.5

S. No.	Category	Percentage of total area
(1)	(2)	(3)
1.	Area under plots	50% Max. of the total area
2.	Area under circulation & parking	40% Max.
3.	Areas under facilities including open spaces	10%
4.	Road widths :	
	— Minimum width of major through fare within the market.	15 meters
	— Minimum width of truck bay strip & driveway combined in front of shops	18 meters
	— Minimum width of pedestrian ways abutting shops.	3 meters
5.	Shop Sizes :	
	— Shop sizes	Depending upon demand survey and projections.
	— Auction platform	10x30 m (Preferably)
	— Block length	Between 100—200 m
6.	Parking	1.50 car space per 100 Sqm. floor area.

4.28 Norms for Fuel Filling and Filling-cum-service stations :

The following regulations are recommended for locating the petrol pump-cum-service stations.

1. Minimum distance from the road inter-section.
 - (a) for minor roads having less than 30 mts. R/W 150 m
 - (b) for major road having R/W of 30 m. or more 250 m
2. The distance of pump pedestal from the centre line of the road shall be as per stipulation of I. R. C. norms.
3. Minimum plot size :—
 - (a) Only filling station 30m x 17m
 - (b) Filling-cum-service station minimum size 36m x 30m and maximum 45m x 33m.

(c) Frontage of the plot should not be less than 30m.

(d) Longer side of the plot should be the frontage.

4. New petrol pump shall not be located on the road R/W less than 30m.

4.29 Norms for Cinema Halls :

Road width	The road width on which the cinema plots is abutting should not be less than 18m wide.	
Parking	The parking requirement in addition to marginal open spaces, should be 1.67 ECS per 100 Sqm. of floor space or one ECS per 150 seats which ever is minimum.	
Area requirement	The area requirement shall be worked out @ 2.3 Sqm. per seat.	
Plot Coverage	The maximum permissible coverage shall be 33% of the plot area.	
Set back	Front	15m min.
	Side/sides	4.5m
	Back	4.5m

Norms for Hotels

4.30 Recommended norms for Hotels are as follows :—

(i)	Maximum ground coverage	30%
(ii)	Maximum FAR	1.20
(iii)	Maximum Height	12m
(iv)	Other Controls	

- 5 % of the FAR can be used for the commercial space related to hotel function.

- Basement below the ground floor and to the maximum extent of ground coverage shall be allowed and if used for parking and services shall not be counted in FAR.

- Parking shall be provided as per Table 4-T-16

Norms for Industrial Development :

Layout Norms :

4.31 Recommended norms for Industrial area's layout are as follows :—

(i)	Area under plots	Max 65%
(ii)	Area under roads, parking, open	Min 25%
(iii)	Area under shops, other amenities and facilities.	Min 10%

BHOPAL : COVERAGE, FAR AND SET BACK FOR INDUSTRIAL AREAS

4. T. 6

S. No.	Plot Range	Coverage	Set back			FAR
			Front	Side	Rear	
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1.	upto .05 Hect.	60%	3	3/2.5	1.5	1.0
2.	Above .05 Hect. to .1 hect.	55%	5	4/2	2.0	0.8
3.	Above .1 to .2 Hect.	50%	9	3/4.5	3.0	0.75
4.	Above 0.2 Hect. to 1.0 Hect.	45%	10	6.0/6.5	3.0	0.75
5.	Above 1.00 Hect. to 2.00 Hect.	45%	12	6/6	4.5	0.75
6.	Above 2.0 Hect.	33%	15	6/6	4.5	0.75
7.	Flatted factories- Minimum Plot Size 1500 Sqm. (0.15 Hect.) Coverage 50% FAR 1.5 M. O. S. (Set back) as per site conditions/Layout norms with Parking facility.					

4.32 The provision of requisite facilities in industrial development shall be conforming to the following table for an industrial estate of 20,000 employment size. In an industrial sub-division plan minimum area reserved for provision of facilities shall be @-2.05 sqm. per worker. The employment in industrial estate shall be worked out @ 300 workers per hectare of the gross area.

BHOPAL : RECOMMENDED NORMS FOR SERVICES IN INDUSTRIAL AREA

4. T. 7

S. No.	Use Premises	Area in hect.
1.	Sub-Fire station	0.60
2.	Police Station	1.00
3.	Industrial Area Centre (Commercial Centre) to accommodate essential commercial and other facilities required for industrial estate.	1.00
4.	Electric Sub-stations (as necessary)	0.50
5.	Parking area for trucks, tempo, taxi and three wheelers etc.	1.00

Note : For water polluting industries the effluent shall be treated at common treatment plant before it is discharged into regular sewers.

Flatted Factories

4.33 Maximum coverage and F. A. R. for flatted factories will be as follows :

Coverage	30%
F. A. R.	1.20
Minimum Plot Size	1500 Sqm.

The coverage and F. A. R. of residential in central core shall be applicable for household industries permitted in central area.

Norms for Re-use of Industrial Site After Relocation of Industrial Unit

4.34 The norms indicated in this chapter for occupancy, occupancies shall be followed, for preparing redevelopment plan. If the area is more than 1000 Sqm. the FAR stipulation shall be worked out after deducting efficiency areas i. e. circulation areas, parking spaces and open spaces. The use of the adjoining land on the basis of compatibility shall be allowed on such relocations by the State Govt. as per the procedure stipulated in para 2.70.

Norms for Social Infrastructure

4.35 Norms for social infrastructure are as follows :—

BHOPAL : COVERAGE, FAR FOR PUBLIC AMENTITIES/FACILITIES

4-T-8

S. No.	Category	Max. size coverage	FAR
1.	Educational Buildings		
	a) Nursery School	40%	0.75
	b) Primary School	33%	1.00
	c) H. S. School	30%	1.00
	d) College	25%	1.00
	e) Educational & Reasearch Centre	20%	0.8
2.	Health		
	a) Health Centre/Nursing home	33%	1.00
	b) Primary Health Centre	33%	1.00
	c) Hospital	33%	1.00
3.	Public Utilities and facilities		
	a) Police post	35%	0.70
	b) Police Station with staff quarters	25%	1.00
	c) Community Hall	30%	1.00
	d) Sub-fire station	25%	0.75
	e) Fire Station	25%	0.75
	f) Post & Telegraph	30%	1.00
	g) Electric Sub-station	-	-
4.	Religious Buildings	30%	1.00
5.	Govt. & Semi-Govt. Offices	25%	1.00

Note : Facilities not covered in the above list, shall have coverage upto 40% and FAR not exceeding 1.00

BHOPAL : STANDARDS FOR COMMUNITY FACILITIES AND AMENTITIES

4-T-9

Service/Amenity	Population served	Area recommended per facility (ha)
Education		
Nursery, pre-primary, creche	2,500 to 3,000	0.08 to 0.1
Primary School	3,000 to 4,000	0.4 to 1.0
Secondary School	7,500 to 10,000	1.6 to 2.
College	0.80 to 1 lakh	4.0
Engineering College	10 lakh	10/15
Medical College	10 lakh	7.5/10
Technical Education/	10 lakh	20
Professional College.		
University Campus	10 to 15 lakh	30
Health		
Dispensary	15,000	0.08 to 0.2
Nursing Home	45,000	0.2 to 0.5
Polyclinic	1.5 lakh	0.2 to 0.5
Intermediate hospital	1 lakh	1.0 to 3.0
General Hospital	2.5 lakh	6.0 to 10.0
Social and cultural		
Art gallery and museum	Metropolis	0.5 to 1.0
Auditorium	2 to 3 lakh	0.5 to 1.0
Central library	Metropolis	0.5 to 1.0
Club	1 to 3 lakh	0.5 to 1.0
Community hall and library	15,000	0.2 to 0.4
Religious building	5,000	0.04
Religious/spiritual centre	1 to 3 lakh	0.5
Security		
Police post	40,000 to 50,000	0.16
Police station	0.75 to 0.9 lakh	1.15 to 1.50
District Office (Police)	10 lakh	4.0 to 5.0
Police lines	10 lakh	4.0 to 6.0
District Jail	10 lakh	10.0
Home guards zonal office	10 to 20 lakh	2.0
Fire station	10 lakh	2.0
Others		
Milk booth	5,000	0.002
Telephone exchange	3 to 5 lakh	0.8 to 1.0
Telegraph office	5 lakh	0.2 to 0.5
Head post office	2.5 lakh	0.06 to 0.1

Head post office (Admn)	5 to 10 lakh	0.25 to 0.3
LPG godown	40,000 to 50,000	0.5 to 0.6
Taxi & Three wheeler stand	15,000	0.05
Burial/cremation ground	1.5 to 2.0 lakh	2.0
Elec. sub-station (66 KV)	1 lakh	1.0
Elec. sub-section (11 KV)	7,500 to 10,000	0.05

Note : Higher value be adopted for low value sites and lower value for high value sites.

Education and Research Centres (Large Campus-Above 8 ha)

4.36 Large campuses of Universities, Medical and Engineering Colleges and other educational and research institutes shall be covered under these regulations. The campus will be divided into three parts and the regulations shall apply, given as follows :

- (a) Academic including administration (45% of the total land area) including circulation

Maximum ground coverage	20% of 45% area
Maximum floor area ratio	0.80

Basement below the ground floor and to the max. extent of ground coverage shall be allowed and if used for parking and services should not be counted in F. A. R.

- (b) Residential 25% of total land area _ including roads

This will be developed at a density of 400 pph. gross. The land shall be reserved for residential facilities @ 9.2 sqm. per person. Sub-division and regulations as given for group housing shall apply.

- (c) Sports and cultural activities (15% of the total area)

Maximum ground coverage	10% of 15% area
Maximum floor area ratio	0.15

- (d) Parks and land scape (15% of the total land area); suitable land scape plan to be prepared for this area.

- (e) Where specific regulation have not been given, following norms will be adopted for public and semi-public premises.

Maximum ground coverage	25%
Maximum floor area ratio	1.00

Other Controls

Basement below ground floor to the maximum extent of ground coverage shall be allowed and if used for parking and services should not be counted in FAR.

BHOPAL : STANDARDS FOR OPEN SPACES AND RECREATIONAL AREA

4-T-10					
Facility	Minimum land area (ha. per 1000 persons)	Minimum area per Unit (ha.)	Minimum width (m)	Population served	Maximum Radius of service (Km)
(1)	(2)	(3)	(4)	(5)	(6)
Tot lot	0.03	0.03	15	1,000	0.15
Play area	0.06	0.30	48	5,000	0.3
Play field	0.10	1.5	138	15,000	0.5
Neighbourhood park	0.20	0.75	60	5,000	0.3
Sector Park	0.20				
District Sports Centre	0.04	4.0	175	1,00,000 to 3,00,000	1.50
City Park	0.03	4.0	150	1,00,000 to 3,00,000	1.00
Regional Park	0.02	20.0	300	10,00,000	5.0
Divisional Sports Centre	0.02	20.0	300	10,00,000	5.0
Others*	0.10	20.0	300	3,00,000	5.0

Note : Except for tot lot, play field and the two levels of local parks, the include circulation and parking requirements.

Other : facilities include parade ground, botanical garden, exhibition ground etc.

Norms for Transport Nagar/Mechanic Nagar.

4.37 The layout plan shall make provision as per following norms :

BHOPAL : NORMS FOR TRANSPORT/MECHANIC NAGAR

4-T-11

Type of Function	Number of units per 100 trucks	Recommended ranges of areas per Unit (Sq. m.)
1. Goods booking office and godown.	30 to 40	29 to 450
2. Spare parts shop	10 to 15	9 to 72
3. Mechanics and electrician workshops.	15 to 25	7.5 to 135
4. Tyre and tube mending and selling.	12 to 20	7.5 to 90
5. Eating places (dhabas)	5 to 7	30 to 90
6. Tea, snak stall	8 to 19	9 to 14
7. Pan, Cigarette stall	10 to 14	2 to 5
8. Barbere, Tailor	1	10 to 15

Note : Gross area : approximately 1.1 to 1.5 hectares per 1000 trucks during peak hour.

Amenities :

4.38 Provision of various amenitites per 100 trucks shall be governed by the following norms.

BHOPAL : STANDARDS FOR FACILITIES IN TRANSPORT NAGAR

4-T-12

Type of amenity	Area per Unit (Sq. m.)	Remarks
Bank	100	One for minimum 200 trucks
Post Offices	100	One at each terminal point
Fuel filling station	800	Near the entrance/exit points
Hotel/lodge/dormitory	600	Preferably at Upper floors
Police post	200	Strategically located
Dispensary	200	—do—
Fire station	200	—do—
Weighing platform	300	Near the entrance/exit points

Note : 1. Gross area 0.25 hectare per (peak hour) 100 trucks or about 67 percent of the layout area.

2. Circulation Network.

Major through fares within the layout	: 18 m. wide
Secondary roads	: 9 to 12 m. wide
Roads abutting open lots for idle parking and repairing	: 12 to 18 m. wide

3. Parking and Open Spaces.

36 sq. m. per truck to be provided for parking in the form of open yards or parking bays parallel to the street.

Recommended Roads/Streets Widths

4.39 A 60 metre right-of-way should be the upper limit of any standard for road widths in the planning area. Such a road should consist of a six-lane carriageway with five-metre wide cycle track on both sides, a seven metre wide service street, service drains and landscaped verges on both sides. The recommended widths of different roads and streets in the hierarchy of a city's road network are given in the previous chapter.

4.40 Within residential areas, cul-de-sacs or loop streets of seven to nine metres in width are recommended. In higher-income group residential areas, where automobile onwership is likely large, road widths up to 12 metres may be preferred.

Model Split of Circulation Network

4.41 Streetwise delineation of fast-moving and slow-moving traffic would be appropriate only for streets with widty between five metres (one way traffic) and nine metres (two way traffic). Streets with widths less than five metres should be used only for slow-moving vehicles and for two-wheeler paking.

4.42 Wherever alternative motor routes are available, streets less than five metres in width should be pedestrianized, allowing only slow moving vehicles and hand carts. In central areas, shopping streets less than seven metres in width and generating pedestrain flows exceeding 4000 persons at peak hours should be totally pedestrianized, at least during peak hours.

BHOPAL : NORMS FOR ROADS AND STREETS

4-T-13

Road Classification	Recommended Width (Right of way) (m)	Remarks
(1)	(2)	(3)
Arterial-major city road/ regional road	40 to 60	Average spacing : 3 Kms Should preferably include separate cycle truck and exclusive bus ways.

(1)	(2)	(3)
Sub-arterial/sector road	32 to 40	Average spacing : 1 Km. Includes separate cycle tracks.
Collector street/Neighbourhood street/sub-sector street.	15 to 24	Upper range includes separate cycle tracks.
Local street	9 to 12	
Other access streets (Minimum Widths)		
Loop streets	9	Maximum length : 500 m.
Cul-de-sacs	7.5	Maximum length : 150 m. Turnabout radius : 9 m.
Lanes	6	Maximum length : 100 m.
In low income group residential areas.	3.0	Maximum length : 100m.
Upgradation of slum areas	0.9 to 1.5	Maximum length : 5 m to 20 m
Cycle Tracks	2 to 5	
Pedestrian paths	1.5 to 4.5	

Norms for slow-moving Vehicles

4.43 Cycle tracks should be built along roads where the number of motor vehicles exceeds 200 per hour. The minimum width of a cycle track should be two metres, with every additional lane being one metre wide. The design of these tracks should prevent abuse by other vehicles, and careful consideration has to be given to the road junctions. The capacity of cycle tracks as recommended by the Indian Roads Congress (IRC).

Access Standards for Public facilities

4.44 The access standards to be used for locating community facilities, amenities and services are given in the table 4-T-15. These are to be followed in order to minimise the necessity of using motorized modes for such activities.

BHOPAL : ACCESS STANDARD

4-T-14

Amenity/Facility	Recommended Maximum Walking Distances (Km.)
(1)	(2)
Crache/nursery school	0.30
Primary School	0.80
Higher Secondary School	1.50

(1)	(2)
Tot lot	0.30
Neighbourhood play area and park	0.30
Sector park and play field	0.50
Groceries and play field	0.50
Health Centre	0.50
Post Office	0.50
Community hall, Library, Local club etc.	0.75

Note : These access standards will not be applicable to high income group residential areas where gross densities are likely to be low.

Norms for on Street parking for Cars and Buses

4.45 Dimensions for bus bays are :—

Minimum distance form intersections	75 metres
Length of recess for each bus stop	15 metres
Taper : Disirable	1:8
Minimum	1:6
Depth of recess : Single bus stop	4.5 metres
Double bus stop	7.0 metres.

Standard for lay byes (IRC) to be provided near public conveniences, guide maps etc. away from intersections are :—

Width	: 3 metres
Lenght	: 30 metres
End tapers	: 15 metres

4.46 Angle parking should be implemented when the street is at least 20 metres wide and the traffic volume is not too high. The general dimentions for a car bay are taken as 2.5 metres by 5 metres, and for truck bays 3.75 metres by 7.5 metres.

BHOPAL : DIMENSIONS FOR ON-STREET CAR PARKING BAYS.

4-T-15

Type of parking	Clear width from Kerb (m)	Length Required for each Car Measured Parallel to the Kerb line (m)
Parellel	2.5	5.9
30 Degrees	4.66	5.0
45 Degrees	5.31	3.54
60 Degrees	5.58	2.89
Right angle	5.00	2.5

BHOPAL : PARKING STANDARDS

4-T-16

Use/Occupancy	City Size : 10 lakhs
Multi-family Residential	<p>One Car parking space for</p> <p>4 Tenements of 60 Sqm. floor space each 240 sqm./ 1 car space</p>
Commercial	<p>One car parking space per :</p> <ul style="list-style-type: none"> - 50 Sqm. of floor space where shops sizes exceed 20 Sqm. or in upper income group areas - 100 Sqm. of floor space in other areas - 200 Sqm. of floor space where shop sizes are less than 10 Sqm. <p>Other Vehicles : Additional 100 percent.</p>
Hotels and Lodges	<p>One car parking space per :</p> <p>75 Sqm. in 3 star and above grades</p> <p>200 Sqm. in others</p>
Restaurants	<p>One car parking space per :</p> <p>50-Sqm. of dining area (Luxury)</p> <p>100 Sqm. of dining area (other)</p>

Govt. Semi-public
and private Offices
and business houses.

One car parking space per :
100 Sqm. of builtup area.

Cinema Halls

One car parking space per :
150 seats.

Scooter : one per 20 seats

Bicycle : one per 12 seats

Educational

One car parking space per :

200 Sqm. of floor area upto first 1000 Sqm. of Built space

100 Sqm. of floor area above 1000 Sqm. of built space

Other vehicles : Additional 100 percent.

Nursing Homes
Hospitals

One car parking space per :

75 Sqm. floor area in private units.

150 Sqm. floor area in the Govt. units.

One ambulance space of 10m x 4m in hospitals with more
than 100 beds.

Regulations for Sensitive zones

4.47 Developmental activities within the sensitive zones shall confirm to the regulations given here under.

A. Minimum 50 meters space will be kept open from the edge of upper lake. In respect of other lake it is prescribed that 33 metres space from the lake edge shall be kept open. Lakes covered in this category are-

Kaliasote

Shahpura 3rd lake (unbunded lake edge)

Kerwa

Hatai Kheda

Laharpur and

Lower lake.

B. 33 metres of space from both edges of Kaliasote river shall be kept open for plantation.

C. 30 metres space from the centre on both sides of the main canal will be kept open.

D. 3 metres space on both sides of nallhas and branch canal will be left as open.

- Plantation and sit outs, shall be permissible within the controlled area.
- Structures of historical/heritage importance in the controlled area will be preserved. Any restoration works needed to be carried out shall be encouraged.
- Sullage sewage/septic tank effluents will not be allowed to be discharged in the upper and lower lakes.
- Agricultural operation using petroleum based fertilizers in catchment areas of water bodies mainly upper and lower lake causing growth of aquatic weeds and such other activities which causes land erosion shall be prohibited. Concerned department shall have to enforce suitable measures.
- Any works which are required to be carried out, as a part of passive recreation for tourist, or tourist promotion, or enhancement of visual aesthetics would be permissible within the control area with the permission of the competent authority. The land use outside the controlled area as open will be restricted to the buildings of following categories.
- Any utility works, required to be carried out for lake preservation and restoration of water quality shall be permissible.
- Existing building within the lake fringe areas shall be required to connect their individual septic tank effluent to the grid sewer line as and when it is ready.
- Existing buildings coming within the control area shall not be allowed to add any additional coverage or F.A.R.
- Restoration or upgradation works shall be allowed in respect of buildings in the sensitive zone of following categories :

Historical importance.

Buildings of civic and cultural significance.

Buildings period architecture even if under private ownership.

Any other heritage buildings, as may be discovered from time to time.

Regulations for Urban Heritage Areas

4.48 It is essential that a detailed study leading to proposals for restoration and conservation of heritage is taken up by appropriate authorities at the earliest. Till such study and proposals are ready for implementation, the identified and listed heritage building by the competent authority shall be covered by the following regulations :—

- That each heritage buildings shall have control area covering 100 metres from its preiphery.

- Only restorative measures shall be permissible through public agency or any other agency approved by the Government. As far as possible the architecture and other significant features of the buildings shall be conserved and preserved while permitting any restorative measures.
- Identified and listed heritage building even under private ownership will not be allowed to be demolished.
- Any structure coming within the control area will not be governed by the general building norms applicable elsewhere in the city.
- Building within control area, their height and architecture shall be such that it matches with the architecture of, the heritage buildings.
- Streets urban spaces, plazas, court yards, which form an important element of city identity in the main city may be preserved and as far as possible restore in schemes of any urban renewal or re-development.
- Landscape development shall be permitted within control area which would include characteristic landscaping, plantation, the accessibility, circulation and parking around heritage building shall be permitted as per appropriate design formulated and approved by the competent authority.

Regulations for Urban Design and Architectural Control

4.49 In all such designated Urban design and architectural Control areas the regulations shall be formulated by the professional committee appointed by the Govt. The regulations should cover Urban Design aspect. Objective of this exercise shall be to create city identity and its local characteristic.

Mixed Use Regulations

(Non-residential Activity on Residential Premises)

4.50 Mixed use here, essentially means permission of non-residential activity on residential plot or residential flat.

4.51 At the time of preparation of Zonal (divisional) plans, in residential plotted development in areas other than the old city and other urban renewal area; streets of mixed use activity shall be identified by (i) conducting a traffic study in each individual case to see whether after permission of mixed traffic circulations in the area/street and it would be build/t to take additional traffic which is likely to be generated because of the mixed use. (ii) by evaluation its impact on the municipal services and environmental needs of the area.

4.52 As a part of the traffic study, the traffic management solutions like traffic free pedestrianised streets/areas and one way traffic etc. could also be considered for introduction as a solution to the traffic/parking problems of the area.

In case it is found feasible to permit mixed use in a street/area the same would be subject to the following conditions.

- (i) The commercial activity allowed shall be only on the ground floor to the extent of 25% or 50 Sqm. Whichever is less.
- (ii) The following activities shall not be allowed.
 - (a) - building materials (timber, timber products, marble, iron & steel and sand)
 - Firewood, coal,
 - (b) - Repair shops.
 - Automobiles repairs and workshops.
 - (c) - Service Shops.
 - Flour mills (more than 7.5 K. W. power load)
 - Fabrication and welding.
 - (d) Storage, godown and warehousing.
 - (e) Manufacturing units (excluding household industry)
 - (f) Junk shop.

4.53 The front setback for these plots shall be surrendered without compensation unconditional, to the local body for use as part of the right of way, parking etc.

4.54 A layout plan of the areas shall be prepared indicating (a) parking as per standard (b) public convenience (c) landscaping (d) road carriage ways as prescribed, for approval of the competent authority.

4.55 Because of conversion of use activity the conversion fee shall be charged from the beneficiary. This would be based on :—

- (i) the cost of provision of parking and physical and social infrastructure.
- (ii) differential price of space of the residential and non-residential activity/use.

Intended Mixed Landuse

4.56 At the time of preparation of layout of residential area, at suitable location, clusters of plots shall be specially reserved for intended mixed use for shops and household industries at the ground floor and the residence on first floor and above. The buildings shall be permitted on the plot as per residential-plotted regulations.

Permissible control on other Activities

Hostel

Maximum ground coverage	33.33%
Maximum floor area ratio	1.00
Maximum height	12 m.
Maximum FAR	0.75

Other controls

- (i) Minimum R/W in front 20 m
- (ii) Basement below the ground floor and to the maximum extent of ground coverage shall be allowed and if used for parking and services should not be counted in FAR.

Guest House, Boarding House & Lodging House

Minimum plot size	500 sqm.
Maximum ground coverage	33.33%
Maximum height	12 m.
Maximum FAR	0.75

Other controls :

Minimum R/W in front	20 meters
----------------------	-----------

Dharamshala, Baratghar and Neight Shelter

Minimum plot size	800 sqm.
Maximum ground coverage	33.33%
Maximum floor area ratio	0.75
Maximum height	12 m.

Other controls :

- (i) Minimum R/W in front 16 m.
- (ii) Basement below the ground floor and to the maximum extent of ground coverage shall be allowed and if used for parking and services should not be counted in FAR.

Permission of use Premises in use zones

4.57 (As part of approval of layout plan or as a case of special permission from the Authority)

- a (i) Permission of selected use premises in Use Zone RD, C3, C4, I1, I2

BHOPAL : PERMISSION OF USE PREMISES IN USE ZONES

4-T-17

S. No.	Use Premises	Use Zones				
		RD	C3	C4	I1	I2
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1	Residential plot-plotted Housing	P	NP	NP	NP	NP
2	Residential plot-Group Housing	P	P	NP	NP	NP
3	Residence-cum-Work Plot	P	P	NP	NP	NP
4	Hostel	P	P	P	P	NP
5	Gest House, Boarding House and Lodging House.					
(i)	Bank, Govt. and Semi Govt. Departments Public and Private Ltd. Companies for transit accommodation of their employees.	P	P	P	P	NP
(ii)	All others	P*	P	P	P*	NP
6	Convenience shopping	P	NA	NA	NA	NA
7	Local shopping centre	P	NA	NA	NA	NA
8	Wholesale Trade	NP	P	P	NP	NP
9	Storage, Godown & Warehousing					
(i)	Non-inflammabel	NP	NP	P	P	P
(ii)	Inflammable (As per regulation regarding explosive material)	NP	NP	P	P	P
10	Cold Storage and Ice Factory	NP	NP	P	P	P
11	Gas Godon	NP	NP	P	P	P
12	Major Oil Depot and LPG Refilling	NP	NP	P	NP	P

(1)	(2)	(3)	(4)	(5)	(6)	(7)
13	Commercial Office	NP	P	P	NP	NP
14	Cinema	NP	P	P	P	P
15	Service centre and service Industry	NP	P	P	NA	NA
16	Industrial Plot-light & Service Industry	NP	NP	NP	P	P
17	Industrial Plot-Extensive Industry	NP	NP	NP	NP	P
18	Bus Terminal	P	P	P	P	P
19	Bus Depot & Workshop	NP	NP	NP	P	P
20	Hospital (upto 200 beds)	P	P	NP	NP	NP
21	Health Centre (upto 30 beds)	P	P	NP	NP	NP
22	Nursing Home	P	P	NP	P*	NP
23	Primary School	P	NP	NP	NP	NP
24	Secondary School	P	NP	NP	NP	NP
25	Senior Secondary School	P	NP	NP	NP	NP
26	College	P	NP	NP	NP	NP
27	Social Welfare Centre					
(i)	With Auditorium	P	P	NP	NP	NP
(ii)	Without Auditorium	P	P	NP	NP	NP
28	Auditorium	P	P	NP	P	NP
29	Religious Premises	P	P	NP	NP	NP

" The FAR and ground coverage of use/activity permitted/permissible shall be equivalent to the allowable FAR and ground coverage of the use zone/activity in which permissibility is accepted".

PERMISSION OF SECONDARY USE PREMISES IN USE ZONES RD, C3, I 1, I 2

4-T-18

S. No.	Use Premises	Use Zones				
		RD	C3	C4	I 1	I 2
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1	Residential Flat	P	P	NP**	NP	NP
2	Central Govt. Residential Area	P	P	P	P	NP
3	Dharamshala	P	P	NP	NP	NP
4	Baratghar	P	P	P	NP	NP
5	Night Shelter	P	P	P	P	P
6	Weekly Market					
	(i) Existing locations if not obstructing traffic circulation till such time these areas are utilised for designated use.	P	P	P	P	P
	(ii) Parking and other open spaces within commercial centres to be used for weekly markets during non-working hours only.	NP	P	NP	NP	NP
7	Junk Yard	NP	NP	P	P	P
8	Motor Garage & Workshop	NP	P	P	P	P
9	Flatted Group Industry	NP	P	P	P	P
10	Industrial Plot-Industry Specific Type	NP	NP	NP	P	NP
11	Railway Freight Godown	NP	NP	P	P	P
12	Clinical Laboratory	P	P	NP	NP	NP
13	Voluntary Health Service	P	P	P	P	NP
14	Nursery and Kindergarten School	P	P	NP	NP	NP
15	Vocational Training Institute	P	P	P	P	P
16	Research and Development Centre	P#	P#	P#	P	P
17	Library	P	P	NP	NP	NP
18	Technical Training Centre	P	P	NP	NP	NP

(1)	(2)	(3)	(4)	(5)	(6)	(7)
19	Music, Dance and Drama Training Centre	NP	P	NP	NP	NP
20	Motor Driving Training Centre	NP	P	NP	NP	NP
21	Children Traffic Park	P	P	NP	NP	NP
22	Museum	P	P	NP	P	NP
23	Exhibition Centre and Art Gallery	P	P	NP	P	NP
24	Open Air Theatre	P	P	NP	NP	NP
25	Community Hall	P	P	NP	NP	NP
26	Cultural and Information Centre	P	P	NP	NP	NP
27	Social and Cultural Institute	P	NP	NP	NP	NP
28	Orphanage	P	NP	NP	NP	NP
29	Yoga Centre, Meditation, Spiritual and Religious.	P	NP	NP	NP	NP
30	Plant nursery	P	p	NP	NP	NP

Note :—"The FAR and ground coverage of use/activity permitted/permisible shall be equivalent to the allowable FAR and ground coverage of the use zone/activity in which permissibility is accepted".

P : Permitted. NP : Not Permitted. NA : Not Applicable

** Only 20% of the FAR permitted on the top floor.

Excluding contagious and hazardous activities.

RD Residential Use Zone.

C3 General Commercial including business.

C4 Wholesale mandi, ware housing, cold storage.

I1 Light and Service Industry.

I2 Industrial Estate and Major Industrial establishment.

(ii) Use permits which are permitted in the Use Zone RD, C3, C4, I1 & I2

4.58 Vending Booth, petrol Pump, Park, Play Ground, Indoor Games Halls, Swimming Pool, Recreational Club, Fair Ground, Dispensary, Clinic, Creache & Day Care Centre, Police Post, Police Station, Fire Post, Fire Station, Post Office, Post & Telegraph Office and Telephone Exchange.

—In commercial use zones and commercial centres in Residential & Industrial use zones, Govt. offices, Local Govt. Offices, Public Undertaking Offices.

—In Commercial use Zones and in commercial centres residential and industrial use zones as mixed use policy.

—Retail & Personnel Service Shop, Bank, Restaurant, Cargo Booking Office, Road Transport Booking Office, Commercial & Secretarial Training Centre.

Hotel is permitted in residential use zone, commercial use zone and commercial centre and in industrial use zone, Hotel shall not be permitted in recreational areas, catchment areas of lakes and low density residential areas and areas prohibited for urban development. The max. ground coverage and FAR in such cases shall in no case exceed permissible coverage and FAR of that use zone. This is further subject to the provision of parking norms.

(iii) Use Premises which are not permitted in the Use Zones RD, C3, C4, I1 & I2

4.59 Outdoor Games Stadium, Indoor Games Stadium, Shooting Range; Zoological Garden, Bird Sanctuary, Botanical Garden, Planetarium, Picnic Hut, Extractive Industry, Motel, Drive-in Cinema, International Conference Centre, Reformatory, District Battalion Office, Forensic Science Laboratory, Jail Burial Ground, Cremation Ground, Cemetery, Electric Crematorium, Dairy Farm, Poultry Farm, Piggery.

Permission of Use premises in Low Density Use Zone Residential.

4.60 Residential Plot/Plotted Housing @10 DUS/Hect.

Hostel, Bus Stop, Pickup station, Health Centre, Nursing Home, Pre primary, Primary School, Secondary, Higher Secondary School (For rural area), Religious premises, Dharamshala, Night Shelter, Weekly Market/Voluntary Health Services, Vocational Training Centre, Research and Development Centre, Technical Training Centre, Museum, Exhibition Centre and Art Gallery, Open Air Theater, Community Hall/Cultural and Information Centre, Social and Cultural Institute, Orphanages, Yoga Kendra, Meditation, Spiritual and Religious, Plant Nursery, Milk Booth.

4.61 Permission of use premises in the remaining use zones.

R1 Regional Park

Regional Park, Residential Flat (For watch & work) Picnic Hut, Park, Shooting range, Zoological Garden, Bird Sanctuary, Botanical Garden, Local Government Office (Maintenance) Open Air Theatre, Police Post, Fire Post, Orchard, Plant Nursery and Forest. Agricultural operations not based on use of Chemical Fertilisers, Stud farm.

R3 Play Ground, Stadium and Sports Complex

Play Ground, Outdoor Stadium, Indoor Games Stadium, Indoor Games Hall, Swimming Pool, Recreational Club, Residential Flat (for watch & ward and maintenance staff), Boarding & Lodging House, Restaurant, Local Government Office (Maintenance), Library Sports, Training Center, Auditorium, Police Post, Fire Post, Post & Telegraph Office and Health Centre (for players and concerned officials).

T5 Truck Terminal

Truck Terminal, Motor Garage and workshop, Retail and Repair Shop, Night Shelter, Boarding House, Bank, Restaurant, Road Transport Booking Office.

PS1 and PS2 Administrative/Institutions

Central/State Government Office, Local Government Office, Public Undertaking Office, Conference Hall, Courts, Commercial Office (In commercial centres only), Retail and Repair Shops, Bank, Restaurant, Watch and Ward, Vending Booth, Indoor Games Hall, Dispensary, Library, Museum, Cultural and information centre, Social and Cultural institute, Auditorium, Police Post, Fire Post and Post and Telegraph Office. Health Club.

PS4 Health

Hospital, Health Centre (Including family welfare centre), Nursing Home, Dispensary, Clinic, Clinical Laboratory, Voluntary Health Service, Residential Flat and Residential Plot-Group Housing (For students of medical college and staff), Dharmshala, Night Shelter, Retail and Repair Shop (In commercial centres only). Bank, Restaurant, Indoor Games Hall, Recreational Club, Swimming Pool, Library, College (Medical profession and like), Forensic Science Laboratory, Police Post, Fire Post and Post & Telegraph Office.

PS3 Education & Research

University and Specialised Educational Institute, College, Nursery and Kindergarten School, Integrated Residential School, Creche and Day Care Centre, Research and Development Centre, Library, Social Welfare Centre, Auditorium, Open Air Theatre, Health Centre, Play Ground, Outdoor Stadium, Indoor Games Stadium, Indoor Games Hall, Swimming Pool, Recreational Club, Botanical Garden, Planetarium, Zoological Garden and Aquarium, Residential Plot-Group Housing (For Staff and Employees), Hostel (For Students), Guest House, Convenience Shopping, Bank, Museum, Fire Post, Police Post and Post & Telegraph Office.

PS2 Administrative Establishments/Institute

Social and Cultural Institute, Conference Hall, Museum, Exhibition Centre, Art Gallery, Auditorium, Open Air Theatre, Community Hall, Cultural and Information Centre, Residential Flat (Watch and Ward Staff only), Hostel, Indoor Games Hall, Recreational Club, Planetarium, Library, Police Station, Fire Station and Post and Telegraph Office.

PS1 Administration

Police Headquarter, Police Post, Police Station, District Battalion Office, Civil Defence and Home Guard, Forensic Science Laboratory, Jail, Fire Post, Residential Plot-Plotted & Group

Housing, Hostel (Staff and Employees), Guest House, Bank, Convenience Shopping, Motor Garage and Workshop, Restaurant, Play Ground, Indoor Games Stadium, Indoor Games Hall, Swimming Pool, Recreational Club, Hospital, Health Centre, Dispensary, Voluntary Health Service (Like Red Cross), Nursery and Kindergarten School, Integrated Residential School, Library, Fire Post and Post & Telegraph Office.

Tele-communication Centre, Transmission Tower, Wireless Station, Telephone Exchange, Radio and Television Station, Observatory and Weather Office, Fire Post, Residential Flat (For Watch and Ward).

U5 Fire Station and Head Quarter

Fire Station, Fire Post, Residential Flat (For Staff Employees), Hostel (For Staff), Guest House, Convenience Shopping, Bank, Motor Garage and Workshop, Restaurant, Play Ground, Indoor Games Hall, Swimming Pool, Recreational Club, Health Centre, Primary School, Library and Post & Telegraph Office.

R-6 Lake Front

All public and Semi Public recreational areas, where the ratio of open within premises to allowable built up in the premises is 90 : 10, Parks, Nurseries, Amusement Park, Yoga Kendra, Health Club, Tourism based emporium, Museum, Golf Course, Swimming pool, Art gallery, Open Air Theater, Restaurants, Dwellings incidental to recreation, Rosary, Nursery, Commercial forestry, Sericulture.

1. The minimum size of plot shall be. 2 Hectares.
2. Allowable ground coverage 10% or 4000 Sqm. whichever is less.
3. Maximum FAR 1:0.15
4. Maximum height of the building. 6 meter with sloping roof.
5. Parking requirement. One car space (min. 20 sqm) per 300 Sqm area of built up area
6. Area of incidental residential dwelling units. 25 Sqm. max. per hectare.
7. Chowki dar huts 20 metres maximum
8. The area shall not be sub divided after grant of planning permission.
9. The sewerage disposal shall be connected to existing city level Sewerage system.
10. The broad policy is indicated below :—
 - (i) The use capacity to permitted should be areas base and the structural component should be bare minimum in its horizontal spread and volume.

- (ii) The areas abutting the state highway and the VIP Road may be considered for restricted tourism orientated built form on extensive areas.
- (iii) Major percentage of areas be devoted for vegetative cover.
- (iv) These developments shall be permissible only after physically ensuring sewerage disposal system.

A3 Rural zone (including A-2)

Uses permitted and Permissible

Rural Centre, public & semi-public facilities (within 0.5 km of the settlement), orchard, plant nursery, wireless and transmission, forest and extractive industry in zones (except Bhoj wet land area).

Horticulture, dairy and poultry farming, milk chilling centres, Golf course and sports fields, market gardens, orchards, nurseries, land under staple crops, grazing pastures and a forestation.

Institutional Land use for Educational Activities :

Educational institutions along with essential staff housing shall be permitted in Agricultural Zone, on both sides of the regional roads viz Bhopal-Berasia, Bhopal-Vidisha and Bhopal-Raisen Road. An area of 100 meters from the edge of the right of way shall be permitted for such institutional use. Such use shall be permissible up to a distance of 1 Km. from the outer ring roads proposed in Bhopal Plan 2005. The permissible ground coverage and FAR shall be same as provided in Development Control Rules.

A strip of 10 m. width between the edge of the proposed right of way of regional road and the proposed use premises shall be reserved for Tree Plantation.

4.62 USES/USE ACTIVITIES PERMITTED IN USE PREMISES

Residential Plot

Residence, mixed use activity as per the recommendations in the para, on mixed land use.

Residential Plot-Group Housing

Residential Flat, Retail Shop of Confectionary, Grocery & General Merchandise, Books and Stationary, Chemist, Barber, Laundry, Tailor, Vegetable Shop (On ground floor with an area up to 15 sqm each).

Creche and Day Care Centre

On ground floor with an area upto 50 sqm.

Residential Flat

Residence Professional Activity (As given Residential Plot)

Residence-cum-work plot

Residence, Ground floor area may be used as work-space for Retail Shop, Household Industry and Personnel Service Shop.

Hostel, Guest House, Boarding House and Lodging House

Hotsel, Guest House, Boarding House and Lodging House, Watch & Ward Residence (20 sqm), Personnel Service Shops of Barber, Launderer, Soft Drink & Snack Stall (15 Sqm).

Dharmashala

Dharamshala, Personnel Service Shops of Barber & Launderer, Soft Drink & Snack Bar (upto 15 sqm).

Barat Ghar

Barat Ghar, Soft Drink & Snack Bar (upto 15 Sqm).

Night Shelter

Night Shelter.

Retail, Repair and Personnel Service Shop

Retail Shop, Repair Shop, Personnel Service Shop.

Vending Booth

Vending Booth.

Convenience Shopping

Retail, Repair and Personnel Service Shop, Restaurant, Clinic.

Local Shopping

Retail, Repair and Personnel Service Shop, Commercial Office, Industry as per M.P. Bhumi Vikas Niyam, 1984, Clinical Laboratory, clinic & Poly Clinic, Restaurant, Soft Drink & Snack Stall, Post Office and Bank Extension Counter, Nursing Homes and Guest Houses.

Weekly Market

Weekly Market, Informal Retail Trade, Soft Drink and Snack Stall (All structures will be either temporary or mobile, only for one day in a week).

Wholesale Trade

Wholesale Shop, Godown & Storage, Commercial Offices (restricted to 25% of the total floor area).

Storage, Godown & Warehousing

Storage, Godown & Warehousing, Watch & Ward Residence (Upto 20 sqm), Wholesale Outlet, Administrative & Sales Office.

Cold Storage

Cold Storage, Watch & Ward Residence (Upt 20 sqm), Administrative Office.

Gas Godown

Gas Godown, Watch & Ward Residence (Upto 20 sqm), Care Taker Office.

Oil Depot

Oil & Gas Depot, Residential Flat (Watch & Ward and maintenance staff only), Administrative Office.

Junk Yard

Junk Yard, Watch & Ward Residence, Sales Office.

Commercial Office

Commercial Office, Retail & Service shop, Restaurant, Bank, Post and Telegraph Office.

Bank

Bank, Watch & Ward Residence (Upto 20 sqm), Commercial Office, Canteen.

Motor Garrage and Workshop

Motor Garage and Workshop, Retail Shop (Spare Parts), Soft Drink & Snack Stall.

Cinema

Cinema, Watch & Ward Residence (20 sqm), Administrative Office, Soft Drink & Snack Stall, Retail Shop & Commercial Office (Upto 20% of the total floor area).

Petrol Pump

Petrol Pump, Soft Drink & Snack Stall, Automobile Repair Shop.

Restauraft

Restaurant.

Hotel

Hotel, Retail & Personnel Service Shop & Commercial Office restricted to 5% of total floor area.

Motal

Motel.

Service Centre

Retail, Repair & Personnel Service Shop, Industriy allowed in Service Centre as given separately, Gas Godown, Commercial Office.

Light Industry Plot

Light Industrial Unit as per list given in M.P. Bhumi Vikas Niyam 1984, Administrative Office, Sales Outlet, Residential Flat to the extent of 5% of the floor space or 50 sqm. whichever is less for Watch & Ward and Supervision.

Park

Park, Soft Drink & Snack Stall (On the park with & above 1.0 hectare area).

Play Ground

Play Ground.

Outdoor Stadium, Indoor Stadium and Shooting Range

Stadium, Local Government Office (Maintenance), Watch & Ward Residence (Upto 20 sqm), Residential Flat (For maintenance staff), Retail Shop, Restaurant.

Indoor Games Hall

Indoor Games Hall, Soft Drink & Snack Stall.

Swimming Pool

Swimming Pool, Watch & Ward and Maintenance Staff Residence, Restaurant.

Recreational Club

Recreational Club, Watch & Ward Residence (Upto 20 sqm), Residential Flat (For maintenance staff), Swimming Pool, Indoor and Outdoor Games facilities.

Historical Monument

Historical Monument and area around within Compound/boundary.

Zoological Garden, Bird Sanctuary and Botanical Garden

Zoological and Botanical Garden, Bird Sanctuary, Watch & Ward Residence (Upto 20 sqm), Residential Flat (For maintenance staff), Retail shop, Restaurant.

Picnic Hut

Picnic Hut.

Flying Club

Flying Club and related activities.

Cargo and Booking Office

Cargo and Booking Office, Watch and Ward Residence (Upto 20 sqm).

Railway Booking Office and Road Transport Booking Office

Railway and Road Transport Booking Office, Storage.

Parking

Parking

Taxi & Three Wheeler Stand

Taxi & Three Wheeler Stand.

Bus Terminal

Bus Terminal, Soft Drink & Snack Stall, STD PCO, Administrative Office, Other Offices.

Bus Depot

Bus Depot, Workshop, Watch & Ward Residence (Upto 20 sqm), Soft Drink & Snack Stall, Administrative Office.

Public Utility Premises

Overhead Tank, Underground Tank, Oxidation Pond, Septic Tank, Sewerage Pumping Station, Public Toilet & Urinal, Electric Sub Station, Dhalla and Dustbin, Dhobi Ghat.

Central Government Office, Local Government Office & Public Undertaking Office

Central Government, Local Government & Public Undertaking Office, Watch & Ward Residence (Upto 20 sqm), Retail Shop of Chemist, Book and Stationery, Consumer Store (Upto 15 sqm. each on ground floor), Canteen, Bank Extension Counter, Post Office Extension Counter.

Courts

Courts, Watch & Ward Residence (Upto 20 sqm), Canteen Retail Shop of Chemist and Stationery (Upto 15 sqm each), Library, Administrative Office, Bank, Post & Telegraph Office, Police Post, Lawyer's Chamber.

Hospital

Hospital, Residential Flat (Employees and service personnel), Institutional Hostel, Medical College, Retail Shop. (Confectionery, Grocery & general merchandise, books and stationery, chemist, barber, launderer, vegetable).

Health Centre and Nursing Home

Health Centre, Nursing Home, Watch & ward Residence (Upto 20 sqm each), Chemist Shop (Upto 15 sqm each). STD PCO

Dispensary

Dispensary, Soft Drink & Snack Stall.

Clinic

Clinic.

Clinical Laboratory

Clinical Laboratory, Soft Drink & Snack Stall.

Voluntary Health Service

Voluntary Health Service, Watch & Ward Residence (Upto 20 Sqm), Administrative Office, Dispensary, Canteen.

Creche and Day Care Centre

Creche and Day Care Centre, Watch & Ward Residence (Upto 20 sqm).

Nursery and Kindergarten School

Nursery and Kindergarten School, Watch & Ward Residence (Upto 20 sqm)

Primary School

Primary School, Watch & Ward Residence (Upto 20 sqm.), Books and Stationery Shop (Upto 15 sqm), Soft Drink and Snack Stall.

Secondary and Integrated School

Secondary, Senior Secondary and Integrated School, Watch & Ward Residence (Upto 20 sqm.), Books and Stationery and Chemist Shop (Upto 15 sqm), Soft Drink & Snack Stall, Canteen, Bank Extension Counter, Auditorium, Indoor Games Hall, Swimming Pool, Post Office Counter facility.

Integrated Residential School and College (Including Professional College)

School and College, Residential Flat (For maintenance staff), Institutional Hostel, Retail Shops of area 15 sqm each (confectionery, grocery & general merchandise, books & stationery, chemist, barber, launderer, vegetable), canteen, Bank Extension Counter, Auditorium, Indoor Games Hall, Swimming Pool, Play Ground, Post Office Counter Facility.

Vocational Training Institute

Vocational Training Centre, Watch & Ward Residence (Upto 20 sqm), Hostel (Only in case of Government Centres), Books & Stationery Shop (Upto 15 sqm), Canteen, Library.

Social Welfare Centre

Social Welfare Centre, Watch & Ward Residence (Upto 20 sqm), Canteen, Exhibition-cum-sale Counter.

Research and Development Centre

Research and Development Centre, Watch & Ward Residence (Upto 20 sqm), Residential Flat (For maintenance staff), Hostel, Canteen, Bank Extension Counter, Library, Post Office Counter Facility.

Library

Library, Watch & Ward Residential Flat (Upto 20 sqm), Canteen, Exhibition and Art Gallery Auditorium.

Technical Training Centre

Technical Training Centre, Residential Flat (For maintenance Staff), Books & Stationery and Chemist Shops (Upto 15 sqm each), Canteen, Bank Extension Counter, Auditorium, Post Office Counter Facility.

Commercial and Secretarial Training Centre

Commercial and Secretarial Training Centre, Watch and Ward Residence (Upto 20 sqm), Canteen.

Music, Dance and Drama Training Centre

Music, Dance and Drama Training Centre, Watch and Ward Residence (Upto 20 sqm), Canteen, Auditorium.

Sports Training Centre

Sports Training Centre, Residential Flat (For Maintenance Staff), Retail Shop (confectionery, grocery and general merchandise), Hostel, Bank, Post Office, Canteen, Indoor and Outdoor Stadium, Swimming Pool, Play ground.

Motor Driving Training Centre

Motor driving Training Centre, Watch and Ward Residence (Upto 20 sqm), Soft Drink and Snack Stall.

Children Traffic Park

Children Traffic Park, Watch and Ward Residence (Upto 20 sqm), Soft Drink and Snack Stall, Museum, Auditorium.

Museum, Exhibition Centre and Art Gallery, Auditorium and Open Air Theatre

Museum, Exhibition Centre and Art Gallery, Auditorium and Open Air Theatre, Watch and Ward Residence (Upto 20 sqm), Canteen.

Community Hall

Community Hall, Watch and Ward Residence (Upto 20 sqm), Soft Drink and Snack Stall.

Fair Ground

Fair Ground, Residential Flat (For maintenance staff), Exhibition Centre (Temporary in nature), Restaurant, Soft Drink and Sanck Stall, Police Post, Fire Post, Bank Extension Counter Facility, Post Office Counter Facility.

Cultural and Information Centre

Cultural and Information Centre, Watch and Ward Residence (Upto 20 sqm.), Hostel, Canteen, Bank Extension Counter, Facility, Auditorium (Upto 500 seating capacity), Library Exhibition and Art Gallery.

Social and Cultural Institute

Social and Cultural Institute, Watch & Ward Residence (Upto 20 sqm.), Soft Drink & Snack Stall, Restaurant, Canteen, Bank Extension Counter Facility, Auditorium, Library, Music, Dance and Drama Training Centre, Museum, Exhibition Centre and Art Gallery.

Reformatory and Orphanages

Reformatory and Orphanage, Residential Flat (For maintenance staff), Hostel, Personnel Service Shop (Upto 15 sqm).

Religious Premises/Building

(i) Temple, (ii) Mosque, (iii) Church, (iv) Gurudwara, (v) Syngogue, (vi) Ashram, (vii) Bathing Ghat, (viii) Gaushala, (ix) Dargarh & (x) Charitable Dispensary & Library.

Yoga Centre, Meditation, Spiritual and religious Discourse Centre

Yoga Centre, Meditation, Spiritual and Religious Discourse Centre, Watch & Ward Residence (Upto 20 sqm), Hostel, Soft Drink & Snack Stall.

Police Post

Police Post, essential staff housing.

Police Station

Police Station, essential staff housing.

District Police Office and Civil Defence & Home Guard

District Police Office and Civil Defence & Home Guard, Residential Flat (For maintenance staff), Hostel, Play Ground.

Fornesic Science Laboratory

Forensic Science Laboratory.

Jail

Jail and essential residential staff housing.

Fire Post

Fire Post.

Fire Station

Fire Station, Residential Flat (For maintenance staff), Hostel (For employees), Service Workshop.

Post Office, Post & Telegraph Office and General Post Office

Post Office, Post & Telegraph Office and General Post Office, Watch & Ward Residence (Upto 20 sqm), Canteen.

Telephone Exchange

Telephone Exchange, Watch & Ward Residence (Upto 20 sqm.), Canteen.

Radio and Television Station

Radio and Television Station, Watch & Ward Residence (Upto 20 sqm.), Hostel, Canteen, Library.

Transmission Tower

Transmission Tower, Watch Ward Residence (Upto 20 sqm).

Telecommunication Centre and Observatory & Weather Office

Satellite and Tele-Communication Centre and Observatory & Weather Office, Residential Flat (For maintenance staff), Canteen, Research Laboratory.

Burial Ground, Cremation Ground, Cementery and Electric Crematorium

Burial Ground, Cremation Ground, Cementery and Electric Crematorium, Retail Shops of Wood, Flowers and related materials, Watch & Ward Residence (Upto 20 sqm).

Orchard

Orchard, Watch & Ward Residence (Upto 20 sqm). All Structures shall be temporary in nature.

Nursery

Nursery, Watch & Ward Residence (Upto 20 sqm). All structures shall be temporary in nature.

Forest

Forest

Dairy Farm

Dairy Farm, Watch & Ward Residence (Upto 20 sqm).

Poultry Farm

Poultry Farm, Watch & Ward Residence (Upto 20 sqm).

(A) Procedure to seek Development/Planning Permission

Any applicant required to seek the permission under the provision of the Development Plan following documents are required with application under the provision of the Act. Annexure I (a) & I (b).

- (1) The application for the above permission should be submitted on prescribed form under sub-section 1 of the Act.

- (2) Ownership Document : Khasra Panchsala, Khasra Khatauni, Record Registry, Namantaran of the land in question.
- (3) Exemption of land from Urban land Ceiling authority under the provision of Urban Ceiling Act 1976.
- (4) Document supporting the provision under the M. P. Vinirdisht Bharsta Acharan Nivaran Adhiniyam 1984.
- (5) Discription of land (Location with name of road/roads on/off which the property abutts and boundaries.
- (6) Khasra plan in original showing numbers of land in question and also adjoining Khasras falling within 200 metres from the outer limit of the land. The land in question shall be shown in red on Khasra map.
- (7) In case of developed area, plot number with approval, part layout, with details of approved layout.
- (8) Location plan indicating the land in question, main approach road, important building and the existng uses surrounding the land.
- (9) Survey Plan to a scale of 1:500/1000/2000 showing the boundaries of land in question, natural features like nallah, ponds, hillocks, trees, contour plans if the land is undulated, high tention line passing through or adjoining land up to distance of 200-500 mts. Existing roads showing the right of way. Position of electric and telephone polls trees and all other matters which needs to be co-ordinated with the adjoining areas.
- (10) Plan showing all development proposals with respect to the land in question with a general report. A plan showing details of utilities and services which is to be co-ordinated with the proposals of development. The plan of services and utilites must be co-ordinated with the adjoining areas. A model of proposal may be submitted to make the scheme self explanatory.
- (11) Architectural details of the building for proper scrutiny of the proposal.
- (12) A report on type of development proposed viz.-residential, commercial, industrial etc.
- (13) Fees for development/planning permission shall be deposited as per provisions of M. P. Bhumi Vikas Niyam 1984. The fees shall be deposited in the treasury under prescribed head by Challan and should be accompanied with the application for permission.
- (14) Any other document/Maps under the provisions of the Act, circulars issued by the Government shall be accompanied with the application and proposals of the development of the land in question.

(15) Proposal of the Development Plan on the land in question under provision of the Rule 49 (3) of MPBVN 1984 shall be obtained and accompanied with the application of development permission.

(16) Besides the normal Drawings which are submitted for planning permission, a proper landscape plan, a circulating plan indicating vehicular movement pattern and Urban design scheme where necessary shall be submitted duly signed by their authorised Architect/Engineer/Planner.

NOTE : (1) Directives and instructions issued by the Government from time to time under the provisions of the Act shall be strictly followed while scrutinising the plan of proposals submitted by the applicant.

(2) Provision of M. P. Bhumi Vikas Niyam, 1984, regarding development of land/ planning permission, should also be taken into the consideration.

(B) Procedure to obtain the Proposals of the Development Plan (Proposed Land use)

Following documents are required for obtaining, the proposals of Development plan on the land in question under the provision of Rule 49 (3) M. P. Bhumi Vikas Niyam, 1984.

- (1) Prescribed application form as per Annexure I(d).
- (2) Original Khasra of the land in question showing Khasra No. of land in question and adjoining Khasras upto 200 mts. The land applied for shall be shown in red.
- (3) Latest Khasra Panchsala and Khasra Khatauni record.
- (4) The application of the above shall be submitted by the owner of the land in question only.
- (5) Registry of the land and namantaran shall be produced with application, if required.

Chapter : 5

Plan Implementation

	Page
5.1-5.2 Strategy for Plan Implementation	137
5.3-5.6 Environment Management and Protection Strategy	138
5.7-5.8 City Infrastructure and Services Strategy	139
5.9 Guided Development	139
5.10-5.11 Creating Infrastructure Land Bank	139-140
5.12 Formulating Integrated Urban Development Programmes	140-141
5.13 Pragmatic Approach to Development Regulations	141
5.14-5.16 Providing framework for time bound Development Permission Procedure	141
5.17-5.19 Plans and Programmes	141-142
5.20-5.22 Critical Components involving public agency efforts	142-144
5.23-5.24 Resource Mobilisation	144
5.25-5.30 Plan Monitoring	144-146
5.31 Submission of Annual Development Report	146
5.32 Plan Interpretation.	146-147

Chapter : 5

Plan Implementation

Strategy for Plan Implementation

5.1 The sustained efforts are needed for plan implementation to improve the quality of city life. The evaluation of implementation status of Bhopal Development Plan, 1991 reflects that several critical areas which were needed to be addressed were left unattended, with the result that basic proposal envisaged in the plan could not get fully transformed into envisaged, physical frame. The critical management areas where the implementation process have suffered as already identified in Chapter I need reconsideration. It is thus, imperative that an effective plan implementation strategy needs to be evolved to achieve the following objectives :—

- Protect Natural Environment.
- Conservation of areas of cultural heritage.
- Optimise Land use and land Utilization.
- Provide services and infrastructure.
- Participatory approach for supply of land and infrastructure development.

5.2 These objectives are proposed to be served by implementing strategies in the following areas :—

- Environmental management and protection strategy.
- City infrastructure and service strategy.

ENVIRONMENT MANAGEMENT AND PROTECTION STRATEGY

Issues

5.3 Environment management and protection strategy addresses to the critical environmental problems which mainly concerns preservation of lakes, its catchment area and its water quality and landuse management in catchment areas. The other environmental issues relate to the disposal and treatment of urban waste and its re-cycling and the socio-economic problems caused by the displacement of population, in context to future city spread.

5.4 Environmental management of upper lake and other water bodies are vulnerable to urban pressure in its close vicinity. At the state level measures need to be initiated to mitigate pollution which has already taken place engulfing water bodies and other natural areas. Likewise it is also essential to enforce landuse control measures in the catchment areas to prevent further environmental degradation and there by achieve desired level of sustainability.

5.5 The efforts of promoting a programme under Bhoj wetland with central assistance followed by another programme of financial assistance with the Japanese aid are the steps in right direction. These measures and programmes to preserve and conserve upper and lower lakes and other natural areas in its vicinity need to be effectively implemented through co-ordinated approach among Public Health Engineering, Forest , Agriculture, Mining, Toursim and other utility departments.

Key Elements of Environment Management and Protection Strategy

5.6 In the light of critical issues outlined above, the key elements of the strategy are identified as under :—

- Arresting the flow of effluent into the lake and other water bodies and other measures envisaged under the Bhoj Wet Land programme and lake conservation programme.
- Enforcement of land use management measures in the catchment areas so as to prevent further pollution load in the lake.
- Arresting the soil erosion through silt check dams in the catchment area including prohibiting the use of chemical fertilizers in agriculture operation in the catchment area.
- Enforce control guidelines in lake fringe areas.
- Conduct independent check monitoring on effluent and water quality.
- Set up an institutional arrangement to enforce co-ordinated efforts to prevent pollution and other environmental degradation arising as a result of human interventions, in the catchment areas of all the water bodies.

CITY INFRASTRUCTURE AND SERVICES STRATEGY

Objectives

5.7 The main thrust of City Infrastructure and services strategy would be to provide policy frame work to achieve the following objectives :

- Institute appropriate land management practises in areas of land supply, through guided development, land contribution towards infrastructure land bank needed for city, infrastructure at appropriate location, inadequate quantity using, participatory approach to urban development.
- Guide and regulate landuse and infrastructure development to adhere to the broad plan proposals and land potentials.
- Optimise land use and efficient land utilization through planning and design of public and private sector projects to respond to physical and economic needs.
- Provide equitable access to physical, economic and social infrastructure and services for all city inhabitants and the regional economy.

5.8 Key Elements of the City Infrastructure and Service Strategy

- Guided Development.
- Creation of Infrastructure land bank.
- Formulating integrated urban development programme.
- Pragmatic approach to development regulations.
- Providing frame work of time bound development permission procedures.

Guided Development

5.9 The mechanism of guided development is intended to be achieved through active participation of land owners/developers/community groups in the development programme. Here the role of co-ordinating agency would be that of "Facilitator". The public agency would be responsible for integrated planning and designing of trunk services and peripheral network. The peripheral development would be carried out either through the joint sector participation or through partnership approach. The large chunks of land so developed, with access to peripheral infrastructure would get allocated, in proportion of the land share and other investments, taking into consideration the contribution towards infrastructure land bank. The above process needs scrutiny and approval of the State Govt.

Creating Infrastructure land bank

5.10 It is proposed to set-up infrastructure land bank which facilitates, land contribution on equitable basis in proportion of the area involved from all such schemes, private as well as public agencies, participating towards integrated urban development programme.

5.11 It is proposed to provide package of incentives on approval by the State Govt. for those who would contribute land towards infrastructure land bank for major city roads and public open spaces.

Formulating Integrated Urban Development Programmes

5.12 Integrated Development Programme is intended to be formulated and implemented within the following policy frame work.

An yearly Action Plan/Annual Development Programme has to be drawn which emerges out of rolling five yearly intergrated city development programme. It would basically a priority development investment programme covering strategic key area.

Annual Development Programme using participatory approach to city development process shall be drawn by the co-ordinating authority. The programme would highlight land procurement target, land development proposals, development of sector and sub- sector level facilities and projects in respect of Government and Semi-Government Organisations and others. The programmes in particular shall highlight city road net work, trunk utilities and facilities to be completed during the year. This integrated approach of investment planning shall strive for timely provisions of adequate finance for development of urban infrastructure in critical areas.

Strategic role of public agencies in implementation of the plan would be that of a "Faciliator". It needs to be ensured that this rule in effect is explicitly manifested through various actions initiated by the city authorities. A co-ordination mechanism therefore needs to be evolved.

In order to optimize the benefits of investment for development of city it is considered appropriate to formulate Intregrated Urban Development Programme. Through such programmes, the budgetary and other resources available with various public agencies during a particular year are intended to be pooled for investment towards Intregrated Urban Development Schemes identified. The mechanism of going about the implementation of Intregrated Urban Development Programme is proposed to be achieved through the following framework :—

1. Identification of components of Intregrated Urban Development Programme.
2. Identification of common agreed agenda for investment among co-ordinating authority and other participants of the programme.
3. Prioritisation of the development schemes.
4. Formulating integrated urban development schemes.
5. Identifying critical areas of investment towards co-ordinated development using participatory approach to development.

6. Defining implementation role of co-ordinating authority and other sectorial/online agencies.

Pragmatic Approach To Development Regulations

5.13 Need for optimising the efficient use of urban land, as well as owing to the need for adopting modern landuse management policies it has become essential to redefine the development regulations provision. Accordingly the Development Regulations have been reframed as described under chapter 4, with a view to regulate and guide the development to achieve most desirable built form to suit the Indian life style.

Providing frame-work for Time Bound Development Permission Procedure

5.14 Multiplicity of authorities have been in operation who are required to grant N. O. C./ development permission. The present procedure is cumbersome and time consuming causing serious hardship and inordinate delays running into several months reflecting adversely on the flow of investment towards urban development and ultimately on the urban economy and employment generation.

5.15 It is proposed to streamline the present procedure by Setting-up a Single Window System, where applicant would present his proposal requiring clearance of various authorities. His application shall be scrutinised prima face in respect of its completeness. Once the application gets accepted, the case shall be got processed by all the concerned departments within stipulated time frame and the decision shall be communicated on the appointed date given to him at the time of acceptance of his application.

5.16 In order to assist the applicant, a "Single Window Land Information Centre" is also proposed to be set-up, where applicant would be able to get information regarding any land situated within the planning area. The centre would provide land information such as area landuse, activities permissible, planning and design norms applicable whether covered by any approved layout, or Govt. scheme etc. Such information shall be made available on request by the applicant within a period of one week.

Plans and Programmes

5.17 The plan envisages to activate the plan implementation process in critical areas to be developed in two broad phases. The first phase will address the requirement of upto year 2000 and second phase shall address to the requirement of 2001 to 2005.

5.18 In order to implement the plan proposals, intense programme resource mobilisation and yearly development budgeting will have to be engineered through partnership approach among land owners, developers, community groups, private developers and public agencies.

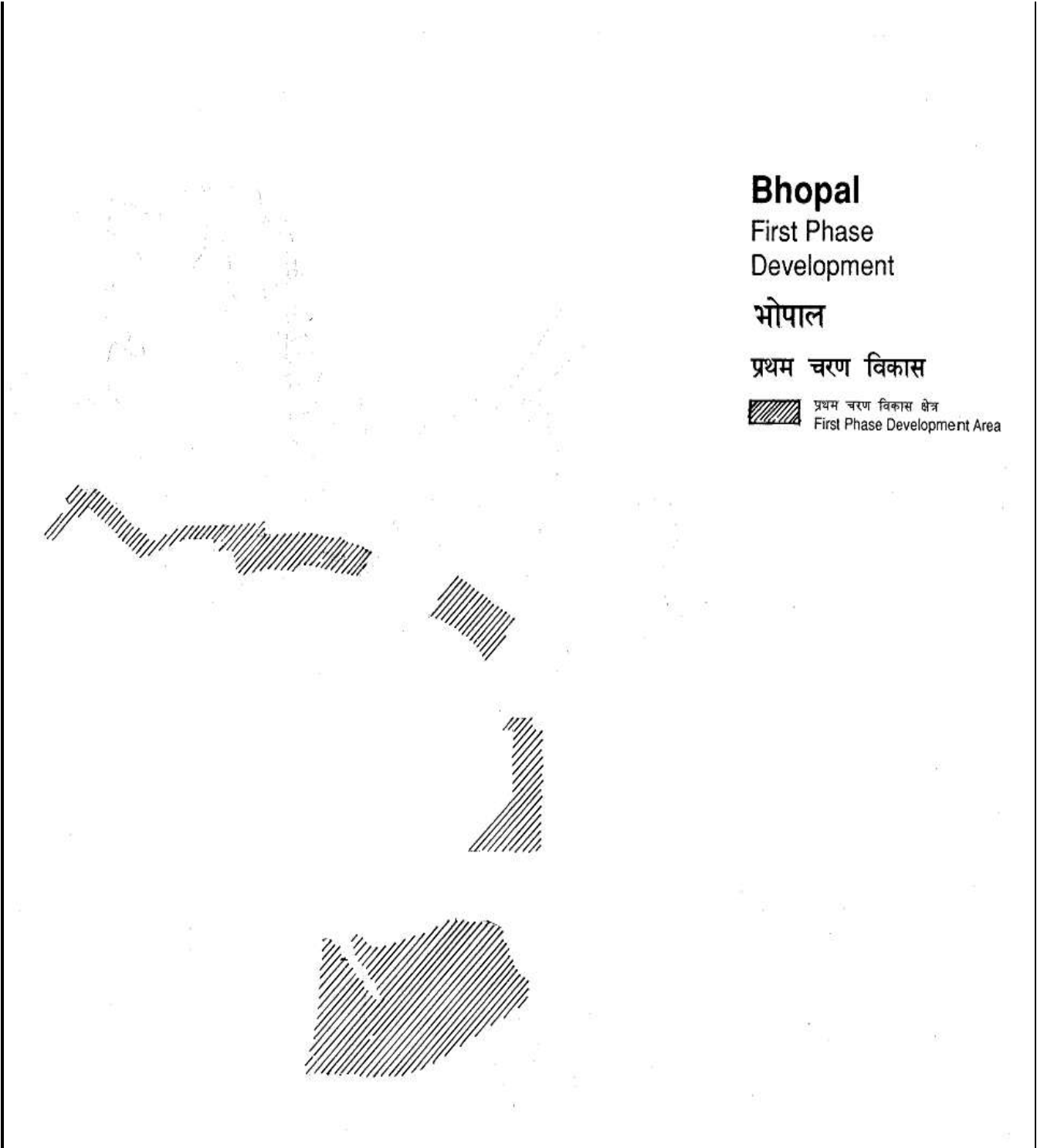
5.19 The role of the State Govt. envisaged is that of a "enabling agency" which would promote policies to facilitate development to take place as stipulated in the plan proposals. In order to achieve these objectives, the State Govt. and city Development Authority along with online agencies, will have to engineer actions for development of city level infrastructure in the following critical areas.

1. The formulation of package of policy for easy flow of land will have to be finalised to be enforced particularly in two new sub-city areas.
2. The development of critical road grids, which would activate all other activities in the two new sub-cities as a package programme.
3. Formulating policies for activating implementation of land development programme in new sub-city areas, using partnership approach with land owners, developers, community groups, and private builders.
4. Activising land development programme through public agency with a view to generate chunks of partially developed sites, of size around 5/10 hectares with provisions of peripheral infrastructure.
5. Development of utility infrastructure, power grids, trunk sewerage, to cover the phase I programme of the urban development in the two new-sub-city areas.
6. A special package of planning and development permission procedure should be conceived and enforced for undertaking land development programme, urban development schemes as well as development of housing for the target groups in proposed new sub-city areas.
7. A more pragmatic package of land disposal policy need to be instituted to motivate speedier development of sub-cities including faster pace of resource mobilisation from all the participants.
8. Extension of main water grid, and setting up of power distribution centre in the two new sub-city areas.
9. Development of core housing for the target group, special residential zones for the affluent population and development of market centre and other social facilities mainly in the new sub-city areas.
10. Expansion of mass transport system to all the habitated areas including partially developed areas.

Critical Components involving Public Agency efforts :

5.20 Guiding principles for generating integrated urban development programme are given as under :—

- Ensuring that development is not constrained by the lack of availability of land and appropriate infrastructure.
- Making full use of available diverted urban land.
- Establish linkages with disjointed urban development.
- Upgrade city level infrastructure in partially or undeveloped areas.
- Improve and upgrade mass transport network and provision of quality transport services with varying price levels within their affordability levels,
- Provide critical infrastructure for activating developments in two new sub city areas.



—Undertake land development programme using participatory approach to development with land owners, community groups, private developers.

5.21 The components in the critical areas under first phase programme, involving public agency efforts identified are as under :—

BHOPAL : COMPONENTS OF FIRST PHASE

5-T-1

Components	Coverage
(a) Extension of city roads and linkages in partially developed areas	sub-city Areas
(b) Extension of trunk utility services in partially developed areas	Sub-city Areas
(c) Development of critical road network, water mains for two new sub-areas	Two New Sub-city areas
(d) Construction of an additional carriage way lane for all heavy traffic routes covering Arterial and sub-arterial and regional roads.	-Hoshangabad, Indore road -Arterial/Sub-arterial Roads linking sub-cities
(e) Augmentation of water supply capacity to serve two new sub-city areas.	Two New sub-city areas
(f) Redevelopment programme in South T. T. Nagar.	T. T. Nagar
(g) Shelter schemes under rehabilitation programme for 60,000 zhuggi dwellers in critical areas.	In all sub-city areas
(h) Environmental protection & conservation measures for natural areas, Upper and lower lakes in particular.	Upper and Lower lake and the catchments area
(i) Upgradation of Physical and social infrastructure in partially developed areas through area upgradation programme using community participation.	Cover all under developed areas
(j) Provision/development of mass transport network and provision of quality transport services and other transport facilities, covering all the sub-city centre including areas not covered by public transport.	In all sub-city areas

Cost of First Phase Programme

5.22 Expenditure on development of physical infrastructure in critical area for the first phase programmes which covers new urban spreads over 4000 hect. mainly focused in new sub-cities areas is estimated to be around Rs. 500 crores at the rate of current price levels, excluding cost of land acquisition.

Resource Mobilisation

5.23 Urban planning is basically a Resource Generation, Resource development and Resource management exercise. At present disjointed efforts are being made towards urban development investment. This has resulted into resource drainage which otherwise could have been mobilised through integrated approach to investment planning. Likewise, Urban land is a resource in itself. The present efforts to mop up the investment towards city development using the land market have been adhoc and disjointed.

There exists a great scope and potential which could be mobilised to harness the appreciated land market which is operating in the present context of urban growth and urbanisation which is quite significant in metro city like Bhopal. A well worked out mechanism need to be evolved to generate local revenues, which could help in harnessing the urban land market operating in the city. The possible measures for such resource mobilisation could be through **betterment levy, tax on vacant developed land, external development charges, land use diversion, permission fee for permitting activities other than residential, transfer fee, planning permission fee, development permission fee, lease money, charge on land/built premises premium, charge on use of open spaces etc.** The revenue so generated should be pooled towards city development fund, to be used exclusively for investment in infrastructure in critical areas.

5.24 An effort should also be made to draw such a programme which would help in mobilising, investment flow from all the participants of city development programme in defined areas to be identified on yearly basis as land development budgetted areas. This process would greatly help in pooling resources in creating physical infrastructure assets immensely and that too at a much faster pace.

Plan Monitoring

5.25 The success of Development Plan shall depend on implementation of the proposals of the Development Plan within the stipulated time frame and the resource mobilisation capacity of the first phase programme set out. This entails the need to setup a well defined monitoring mechanism for plan implementation and review, including followup action after Development Plan stands sanctioned by the Govt.

5.26 It is proposed to frame plan monitoring mechanism which shall be evolved on the following basis—

- Setting up a system of rolling five yearly integrated urban development programme.
- Setting up a Priority Action Annual Development Programme in critical areas.

- Monitoring of budgetary and other investment available with different public agencies flowing into the city development towards identified programmes under the first phase implementation plan.
- Setting out yearly physical targets and corresponding investment under critical infrastructure areas.
- Identifying developmental roles of public agency and others particularly in critical areas.
- Setting up a Coordinating Institutional Mechanism.
- Translating integrated urban development programme on annual basis.
- Transforming the integrated urban development programme in terms of project and sub-projects defining the role of public agencies and others.

Plan Monitoring Mechanism

5.27 The Plan monitoring is proposed to be achieved through following levels :—

- Plan monitoring committee at local level.
- Preparation of an annual development report by the city development authority.
- Evaluation of the development report (ADP) by the plan monitoring committee.
- Submission of report to the committee.
- Implementation of the directions issued by the Govt. on annual development report.

Frame Work for Monitoring Plan Implementation

5.28 It is proposed to monitor the plan implementation process, on the basis of targets set out as under :

BHOPAL : TARGETS FOR MONITORING PLAN IMPLEMENTATION

5-T-2

Sr. No.	Category	Target for the first phase (upto 2000 AD)	Period of Monitoring	
			State level	Local level
(1)	(2)	(3)	(4)	(5)
1.	Land supply	4000 Ha	One Year	1/2 Yearly
2.	Land development Large Chunks	3000 Ha 1000 Ha	One Year	1/2 Yearly

(1)	(2)	(3)	(4)	(5)
3.	Area Development	1000 Ha	1/2 Yearly	
4.	City level infrastructure	6000 Ha	2 Years	1/2 Yearly
5.	Housing (New)			
	(a) Plotted development Target groups	1.5 lakh units	Yearly	Quarterly
	(b) Built housing Target groups	.75 lakh units	Yearly	Quarterly
	(c) Other area	10 lakh units	Yearly	Quarterly
6.	Coverage of mass transport network and services.	50% of the dev. area,	2 Years	1/2 Yearly
7.	Development of Public open spaces.	1000 Ha	2 Years	1/2 Yerly
8.	Development of Shopping centres.	For Habitated areas.	2 Years	1/2 Yearly
9.	Development of social infrastructure.	25% of the new areas.		1/2 Yearly
10.	Development of work centres, in sub-city areas.	180 Ha	2 Years	1/2 Yearly
11.	Integrated Land scape development.	500 Ha	3 Years	1/2 Yearly
12.	Mitigation measures for			
	(a) Natural Area	50% coverage	1 Year	1/2 Yearly
	(b) Urban Heritage	50% coverage	1 Year	Yearly

Constitution of Plan Monitoring Committee :

5.29 The State Govt. may approve the constitution of monitoring committee on the local level headed by the Divisional Commissioner. The committee shall have representation from all concerned department whose budget and investment are involved in the city development process. The Member Secretary of the committee shall be the Chief Executive Officer of the

Development Authority. This local plan monitoring committee shall closely monitor the implementation status in the following areas :—

Land flow towards

- | | |
|--------------------------------------|----------------------|
| - City infrastructure | - Housing |
| - Shelter programme for target group | - Public open spaces |
| - Work centres | |

- Land Development Proposals.

- Land development with peripheral infrastructure with focus on two new sub-city areas.
- Housing and Shelter projects.
- Other social facilities, in sub-city areas.

Development of sector level and sub-section level facilities.

- Development of recreational areas and organised open spaces.
- Development of city infrastructure.

5.30 The committee shall meet quarterly to review the progress of :—

- Programme identification.
- Project preparation.
- Project financing arrangement.
- Project Implementation.
- Corrective measures needed as a result of evaluation of Implementation programme.

Submission of Annual Development Report :

5.31 An annual development report shall be presented by the Development Authority before the Plan Monitoring Committee covering all aspects of the plan implementation including recommendations for effecting corrective measures needed. The committee would submit the annual development report with their recommendations for consideration of the State Govt.

Plan Interpretation.:

5.32 Bhopal Development Plan is basically a policy plan. The proposals contained in the Development Plan are generally broad and indicative in nature. The following guidelines are therefore laid down for Plan Interpretation.

- Proposed Development Plan contents should be read with the relevant Portion of the report text along with the applicable development regulations while interpreting the proposals on the map or while taking any decisions/granting permissions.
- Activities permitted within each use zones shall be governed by the frame work stipulated as per table 4-T-1 and Chapter 4 on Development Regulations, and other relevant provisions.
- The Existing location and area spread of neighbourhood, sub-sector, sector, level activities form a part of sector level residential zone and as such not shown.

- Those use changes which are not in conformity with the major use zones, shall be treated as a case of land use change. But those uses/activities, which are listed under permitted and permissible uses in a major use zone and also those covered by the table 4.T.17 and 4.T.18 given under para 4.58 will not be treated as land use change.
 - During the course of implementation some readjustment in the alignment of major roads networks are inevitable. The decision regarding actual alignment shall have to be based on site conditions and engineering requirements. Any decision taken in this regard by the State Govt. shall be construed to be the decision taken as per Development Plan provisions.
-

SCHEDULE I

SCHEDULE TO DEVELOPMENT REGULATIONS

DEFINITION OF PREMISES

001 Residential Plot-Plotted Housing

A premises for one or more than one dwelling unit and may have on it one main building block and one accessory block for garage/garages and servant quarters.

002 Residential Plot-Group Housing

A premises of size not less than 5000 Sqm. comprising of residential flats with basic amenities like parking, park, convenience-shops, public utilities etc.

003 Residential Flat

Residential accommodation for one family (one household) which may occur as a part of group housing or independently.

004 Residential-cum-Work Plot

A premises providing accommodation for one family (one household) and its workspace restricted to ground floor. These premises are allowed only in public housing schemes.

005 Residential Premises

A premises provide residential accommodation with or without mixed use as given in regulations.

006 Hostel

A Premises in which room attached to 'Institutions' or otherwise, are let out on a long term basis.

007 Guest House, Boarding House and Lodging Houses

Guest House is a premise for housing the staff of Govt., Semi-Govt., Public Undertaking and Private Limited Companies for short durations.

Boarding houses is a premise in which rooms are let out on a long term basis as compared to hotels.

Lodging houses is a premise used for lodging of less than 50 persons.

008 Dharmashala and its Equivalent

A Premise providing temporary accomodation for short duration on no profit basis.

009 Baratghar

A premise used for marriage and other social functions and run by public agency.

010 Night Shelter

A premise providing night accommodation to individuals without any charges or with token charges. It may be run by Local Government or Voluntary Agencies.

011 Retail Shop

A premise for sale of commodities directly to consumer with necessary storage.

012 Repair Shop

A premise equivalent of a retail shop for carrying out repair of household goods, electronic gadgets, automobiles, cycles etc.

013 Personnel Service Shop

A premise equivalent of a retail shop providing services like tailor, barber etc.

014 Vending Booth

A premise in the form of booth for sale of commodities of daily needs either through a mechanical installation or otherwise.

015 Convenience Shopping Centre

A Group of shop not exceeding 50 in number in residential area serving a population of about 5,000 persons.

016 Local Shopping Centre

A group of shops not exceeding 75 in number in residential area serving a population of about 15,000 persons.

017 Weekly Market/Informal Sector Unit

An area used once in a week by a group of informal shop establishments in the form of a market. These markets shift from one area to another on different days of the week.

Informal Unit : Retail/service unit, stationary or mobile, work without roof including small khokhas on road side.

018 Wholesale Trade

A premise from where goods and commodities are sold and delivered to retailers. The premise includes storage and godown and loading and unloading facilities.

019 Storage, Godown and Warehousing

A premise for exclusive use of storage of goods and commodities in manner as per the requirement of respective commodities. The premise includes the related loading and unloading facilities by Road Transport or Rail Transport as the case may be.

020 Cold Storage

Premise where perishable commodities are stored in covered space using mechanical and electrical devices to maintain the required temperature etc.

021 Gas Godown

A premise where cylinders of cooking gas or other gas are stored.

022 Oil Depot

A premise for storage of petroleum products with all related facilities.

023 Junk Yard

A premise for covered, semi-covered or open storage including sale and purchase of waste goods, commodities and materials.

024 Commercial Office

A premise used for offices of profit making organisation.

025 Bank

A premise for offices to perform banking function and operation.

026 Motor Garage and Workshop

A premise for serving and repair of automobiles.

027 Cinema

A premise with facilities for projection of movies and still with a covered space to seat audience.

028 Petrol Pump

A premise for sale of petroleum products to consumers. It may include servicing of automobiles.

029 Restaurant

A premise used for serving food items on commercial basis including cooking facilities. It may have covered or open space or both with sitting arrangement.

030 Hotel

A premise used for lodging of 15 persons or more on payment with or without meals.

031 Motel

A premise located near main highways and outside urbanisable limit for catering to the convenience of persons travelling by road.

032 Flatted Group Industry

A premise having a group of small industrial unit as given in non-hazardous performance. These units may be located in multi-storeyed buildings.

033 Service Center

A premise essentially having repair shops for automobiles, electrical appliances, building material etc. to provide essential services to neighbouring residential areas.

034 Industrial Plot—Light Industry

A premise for industrial unit having upto 50 workers with non-hazardous performance.

035 Industrial Plot—Industry Special Type

A premise for an industrial unit within a group of such units for manufacturing of specific product like electronic goods etc.

036 Park

A premise used for recreational, leisure activities. It may have on it related landscaping, parking facilities, public toilet, fencing etc. It will include synonyms like lawn, open space, green etc.

037 Play Ground

A premise used for outdoor games. It may have on it landscaping, parking facilities, public toilet, etc.

038 Outdoor Games Stadium

A premise for outdoor games with pavilion building and stadium structure and spectators seating including related facilities for players.

039 Indoor Games Stadium

A premise for indoor games with play area and spectators seating including related facilities for players.

040 Indoor Games Hall

A premise providing enclosed space for indoor games including related facilities for players.

041 Shooting Range

A premise with related facilities for shooting practice and sports.

042 Swimming Pool

A premise with related facilities for swimming and spectator seating which shall vary with size, standard and purpose.

043 Recreational Club

A premise used for gathering of group of persons for social and recreational purpose with all related facilities.

044 Historical Monuments

A premise having structure or ruins thereof, belonging to an age gone past.

045 Zoological Garden, Aquarium

A premise in the form of a garden or park or aquarium with a collection of animals, species and birds for exhibition and study. It shall include all related facilities.

046 Birds Sanctuary

A premise in the form of large park or forest for preservation and breeding of birds with all related facilities.

047 Botanical Garden

A premise in the form of a garden with plantation for research and exhibition...

048 Picnic Hut/Camping Site

A premise for short duration stay, for recreational or leisure purpose, of a family located within a tourist and/or recreational center.

049 Flying Club

A premise used for training and fun on gliders and other small aircrafts. It may include other activities like recreational club and indoor games.

050 Cargo and Booking office

A premise used for booking offices and storage of goods by an airline.

051 Railway Freight Godown

A premise for storage of goods transported by the railways.

052 Railway Booking Office

A premise used for the offices of railways for purpose of booking for passanger's travel.

053 Road Transport Booking Office

A premise used for the offices of a road transport agency. It may or may not Include godown.

054 Parking

A premise used for parking of vehicles. The public parking lots may be run on commercial or non-commercial basis.

055 Taxi and Three-Wheeler Stand

A premise to be used for parking on intermediate public transport vehicles run on commercial basis. The parking lots may be run on commercial or non-commercial basis.

056 Bus Terminal

A premise to be used for public transport agency to park the buses for short duration to serve the population. It may include the related facilities for passengers.

057 Bus Depot

A permise used by public transport agency or any other such agency for parking, maintenance and repair of buses. This may or may not include a workshop.

058 Public Utility Premises**(i) Overhead Tank**

A premise used having a overhead tank for storage and supply of water to its neighbouring areas. It may or may not include a pump house.

(ii) Underground Tank

A premise having an underground tank for storage and supply of water to its neighbouring areas. It may or may not include pump house.

(iii) Oxidation Pond

A premise having a tank used for the oxidation process for sewage and other waste.

(iv) Septic Tank

A premise having an underground tank for collection of sewage and its consequent disposal.

(v) Sewage Pumping Station

A premise with a pumping station used for pumping sewage on to a higher gradient.

(vi) Public Toilet and urinal

A premise having latrine and urinal for use of public. It may or may not include drinking water facility.

(vii) Electric Sub-Station

A premise having electrical installation and transformer for distribution of power.

(viii) Dhalla and Dustbin

A premise used for collection of garbage for its onward transportation to sanitary land-fill.

(ix) Dhobi Ghat

A premise used for cleaning and drying of clothes/linen by washerman.

059 Central Government Office

A premise used for the office of Union Government.

060 Local Government Office

A premise used for the offices of Local Government and Local Bodies.

061 Public Undertaking Office

A premise used for the offices of a company established under the Act of public enterprises bureau.

062 Courts

A premise used for the offices of judiciary.

063 Government Land

Land owned by the Central or State Govt.

064 Hospital

A premise providing medical facilities of general or specialised nature for treatment of indoor and outdoor patients.

065 Health Centers

A premise having facilities for treatment of indoor and outdoor patient having up to 30 beds. The health center may be managed by a public or a charitable institution on non-commercial basis. It includes family welfare center.

066 Nursing Home

A premise having medical facilities for indoor and outdoor patient having up to 30 beds. It shall be managed by a doctor or a group of doctors on commercial basis.

067 Dispensary

A premise having facilities for medical advice and provision of medicines managed by public or charitable institutions.

068 Clinic

A premise with facilities for treatment of outdoor patients by a doctor. In case of a polyclinic, it shall be managed by a group of doctors.

069 Clinical Laboratory

A premise with facilities for carrying out various tests for confirmation of symptoms of a disease.

070 Voluntary Health Service

A premise having medical facilities for treatment of outdoor patients and other like blood bank etc. by voluntary institutions. This service may also take the form of temporary camp with charitable motive.

071 Creche and Day Care Center

A premise having nursing facilities for infants during day time. The center may be managed by an individual or an institution on commercial or non-commercial basis.

072 Nursery and Kindergarten School

A premise with facilities for training and playing for children preparatory to the school.

073 Primary School

A premise having educational and playing facilities for students upto V standards.

074 Secondary School

A premise having educational and playing facilities for students from VI to X standard. It shall include existing cases of middle school which are upto VIII standard for the purpose of this code.

075 Senior Secondary School

A premise having educational and playing facilities for students from VI to XII standard.

076 Integrated School

A premise having educational and playing facilities for students upto XII standard.

077 Integrated Residential School

A premise having educational and playing facilities for students upto XII standard. It shall have boarding facilities for student and may have residences for faculty members.

078 College

A premise with educational and playing facilities for students of under-graduate & post graduate courses under a university. It includes all professional disciplines.

079 Vocational Training Institute

A premise with training facilities for short-term courses for discipline, preparatory to the employment in certain profession and trade. It shall be run by public or charitable institution on non-commercial basis. It includes training-cum-work center.

080 Social Welfare Center

A premise with facilities for welfare and promotion of community development. It shall be run by a public or charitable institution.

081 Research and Development Center

A premise providing facilities for research and development for any specific field.

082 Library

A premise having a large collection of books for reading and reference for general public or specific class.

083 Technical Training Center

A premise with facilities for training in discipline of technical nature. It includes technical schools, industrial training institutes etc.

084 Commercial and Secretarial Training

A premise having training facilities for stenography, correspondence, record keeping etc.

085 Music, Dance and Drama Training Center

A premise having facilities for imparting training and coaching for music, dance and dramatics.

086 Sports Training Center

A premise having facilities for training and coaching for different indoor and outdoor games including swimming. It shall also include center for physical education.

087 Motor Driving Training Center

A premise having facilities for training of driving automobiles.

088 Children Traffic Park

A premise in the form of park with facilities for introducing and educating children about traffic and signaling.

089 Museum

A premise with facilities for storage and exhibition of objects illustrating antiques, natural history, art etc.

090 Exhibition Center and Art Gallery

A premise with facilities for exhibition and display of painting, photographs, sculptures murals, ceramics, handicrafts or products of a specific class.

091 Auditorium

A premise having an enclosed space to seat audience and stage for various performance like concerts, play, recitals, functions etc.

092 Open Air Theatre

A premise having facilities for audience seating and a stage for performance and open to sky.

093 Community Hall

A premise having an enclosed space for various social, cultural activities of neighbourhood of 15,000 population.

094 Fair Ground

A premise having facilities for exhibition and display and other cultural activities for a group of participants.

095 Cultural and Information Center

A premise with facilities for cultural and information services for an institution, state and country.

096 Social and Cultural Institute

A premise with facilities for activities of socio cultural nature run by a public, voluntary or individual on primarily non-commercial basis.

097 Reformatory

A premise with facilities for confinement and reform of offenders.

098 Orphanage

A premise with facilities for boarding of children who are bereaved of parents. It may or may not have education facilities.

099 Religious

A premise dedicated to accommodations and service of God or other objectives of religious nature. It may have different nomenclature in different religion like temple (all faiths), mosque, church, gurudwara, synagogue, ashram, bathing ghat, gaushala.

100 Yoga Meditation, Spiritual and Religious Discourse Center

A premise having facilities for self attainment, achieving higher quality of mind and body, spiritual and religious discourse etc.

101 Police Post

A premise having facilities for a local police post of a temporary nature or on smaller scale as compared to a police station.

102 Police Station

A premise having facilities for the offices of local police post.

103 District Police Office

A premise having facilities for the offices of paramilitary forces.

104 Civil Defence and Home Guard

A premise having facilities for offices and other functions of civilian organisation for internal defence

105 Forensic Science Laboratory

A premise containing facilities for application of medical knowledge to legal problems.

106 Jail

A premise with facilities for detention, confinement and reform of criminals under the law.

107 Fire Post

A premise with facilities lesser degree of facilities for fire fighting. The post may be attached to a specific premises with fire prone activities.

108 Fire Station

A premise with facilities for fire fighting for a catchment area assigned to it. It may include residence of essential staff.

109 Post Office

A premise with facilities for postal communication for use by the public.

110 Post and Telegraph Office

A premise with facilities for postal and telecommunication for the use by the public.

111 General and Head Post Office

A premise having facilities for postal and telecommunication to and from a number of post office attached to it.

112 Telephone Exchange

A premise with facilities for central operation of telephone system for a designated area.

113 Radio and Television Station

A premise with facilities for recording, broadcasting and transmission of news and other programmes through the respective medium. It may include some hostel accommodation for guest artist, transmission facilities like towers.

114 Transmisson Tower and Wireless Station

A premise used for installation of a tower for communication purposes.

115 Satellite and Tele- Communication Center

A premise with facilities for research and development of satellite and tele-communication technology.

116 Observatory and Weather Office

A premise with facilities for research and development of data relating to weather and forecasting thereof.

117 Burial Ground

A premise with facilities for burying of dead bodies.

118 Cremation Ground

A premise with facilities of performing last rites of dead bodies by burning

119 Cemetery

A premise with facilities for burying of dead bodies by christian community.

120 Electric Crematorium

A premise with facilities for disposing off the dead bodies in an electric furance.

121 Orchard

A premise with a thick growth of fruits trees. It may also include garden with fruit trees.

122 Plant Nursery

A premise with facilities for rearing and sale of young plants.

123 Forest

A premise with thick natural flora. In case of capital region of Bhopal, it shall include city forest which may have partly flora of local habitat or partly naturilised.

124 Dairy Farm

A premise with facilities for rearing and processing of dairy products. It may have temporary structure for sheds of animals and birds.

125 Poultry Farm

A premise with facilities for rearing and processing of dairy products . It may have temporary structure for sheds of birds .

126 Piggery

A premise with facilities for rearing and processing of piggery products.It may have temporary structure for sheds of pigs.

127 Rural Center

A premise having facilities for different functions for a certain number of villages it caters to.

Annexure I (a)

FORM VII

[See Rule 12]

Form of Application permission under sub-section (1) of Section 29 for Development of Land

From :

.....
.....
.....

To,

The Director,
Town and Country Planning,
Madhya Pradesh, Bhopal.

Dated

Sir,

I/We beg to apply for permission to undertake/carry out the development of the undermentioned land :

(a) Description of land (location with name of Road(s) on/off which the property abuts and boundaries).

(b) Area Sq. ft Acres

2. I/We attach herewith the following documents in triplicate namely—

(i) Description of land (location with of Road(s) on/off which property abuts and boundaries).

(ii) Khasra plan showing Nos. of land in question and also adjoining Khasras falling within 200 meters from the outer limit of the land. The land applied for is shown in 'red' Khasra Maps.

(iii) Location plan including the land in question main approach roads, important public buildings like Hospitals, School or Cinema, Petrol Pump and the existing uses surrounding the land.

(iv) The existing land use is Residential/Commercial/Industrial/Public purposes/Open space/vacant land.

(v) Survey plan to a scale of 1:500/1:100 or 4 1/4" to an inch 8 1/2" to an inch scale. The plan shows the boundaries of land in question, natural features like nala, ponds, tree, slopes, contours plan at 5' or 10' interval. If high tension line passing through or adjoining land upto a distance of 200 meters existing road showing the right of way. Position of electric and telephone poles and all each other matters areas which need to be co-ordinated with adjoining areas.

(vi) A general report showing all development proposals with respect to land in question.

(vii) A plan showing details of utility and services like water supply drainage electricity, the septic tank is provided and is shown alongwith the disposal of sludge water.

(viii) Other architectural details.

(ix) A note indicating the type of development proposed namely residential, commercial or industrial.

3. The plan have been prepared by Name of the registered Planner/Architect/
Surveyor. Registration No Address

4. I have deposited a fee of Rs in accordance with scale prescribed.

Yours faithfully,

.....

Signature of the applicant

Postal Address

.....

Annexure I (b)

FORM VIII

[See Rule 12]

**Form of application for presumption under sub-section (1) of Section 29 for
Development of Land**

From :

.....
.....
.....

To,

The Director,
Town and Country Planning,
Madhya Pradesh, Bhopal.

Dated

Sir,

I/We beg to apply for permission to erect/re-erect/make addition and/or alteration to
undertake repairs to a building on piece of land measuring Sq. Yds/Mtrs. over which
I possess the necessary ownership rights, situated at Street/Road Ward
No. Block NO. Plot No.
Name of scheme (if any)

2. We attach here in triplicate—

- (a) sheet of plan, elevation and sections, stated in the enclosed schedule
- (b) a specification of the proposed building on the prescribed form.

3. The plan have been prepared by Name of the registered Architect/Surveyor.
Registration No Address

4. I have deposited a fee of Rs in accordance with scale prescribed
in rule made under sub-section (2) of Section 29 of the Act.

Your faithfully,

.....
Signature of the applicant

Postal Address

Place

Date

Annexure I (c)

SPECIFICATION SHEET

Specification of Proposed Building

1. Total plot area Sq. ft.
2. Total builtup area Ground floor existing Sq. ft. proposed
..... Sq. ft.
 Ist floor existing Sq. ft. proposed Sq. ft.
 IInd floor existing Sq. ft. proposed Sq. ft.
3. The purpose for which it is intended to use the building
4. Specifications to be used in construction of the—
 - (i) Foundation
 - (ii) Walls
 - (iii) Floors
 - (iv) Roofs
5. Number of story of which the building will consist
6. Approximate number of persons proposed to be accommodated
7. The number of latrines to be provided
8. Weather the site has been built upon before or not; if so, when did the previous building
cease to be fit for occupation.
9. Source of water to be used for building purpose.

.....
Signature of Applicant

Annexure I (d)

[Rule 49 (3)]

FORM FOR OBTAINING PROPOSALS OF DEVELOPMENT PLAN PROVISION

To,

The Authority,

.....
.....

Madhya Pradesh,

Sir,

I hereby intend to develop/redevelop the land of Khasra Noon/in plot
No. in Colony/Street in Mohalla/Bazar
in City

The proposals of the Development Plan/Zonal Development Plan pertaining to the area may
be made available for the preparation of sub-division plan for the land referred to above. The
necessary payment for procuring the proposals of Development Plan/Zonal Development Plan/
has been made and the attested copy of receipt in enclosed.

Signature of Owner/Applicant

Name of Owner/Applicant

(in block letters)

Postal Address of Owner.

.....
.....

Dated :

* Name of City/Municipal Corporation/

Municipality/Development Authority/

Town Planning Officer.

APPENDIX-I

REVISED PLANNING AREA OF BHOPAL

(Notification Published in Extraordinary
M.P. Rajpatra No. 67 dated 23.3.94)

GOVERNMENT OF MADHYA PRADESH HOUSING AND ENVIRONMENT DEPARTMENT

Bhopal the 22nd March 1993

No.F.1(37)86-XXXII-Under clause (a) of sub-section (2) of section 13 of Madhya Pradesh Nagar Tatha Gram Nivesh Adhiniyam, 1973 (No. 23 of 1973), the state Government hereby alters the limits of Bhopal Planning Area, for the purpose of this Adhiniyam, which was previously constituted vide this Department's notification No. 1776-F-I-50-XXXII-74, dated 19th June 1974. The revised limits of Bhopal Planning Area are given in the schedule below :-

SCHEDULE

Revised Limits of Bhopal Planning Area

North

Village Ratatal, Khajuri, Beenapur, Golkhedi, Ghasipura, Puramanbhawan, Sattikheda, Shampur, Develkhedi, Ghatkhedi, Chopdakalan and up to the Northern boundary of village Pipliya Jahirpeer.

East

Village Pipliya Jahirpeer, Kahasaiya, Jhiriya-kheda, Chhaoni, Adampur, Koldakhurd, Lalpura, Bansiya Amjhira, Jhagariya, Barrai, Katara and upto Eastern boundary of village Bagli.

South

Village Bagli, Bhairapur, Maxi, Misrod, Bilkhiriyakhurd, Hinotia-alam, Bairagarh Chichli, Daulatpur, Mahuakheda, Fatahpur-Dobra, Kushalpur, Barkhedi-Bazyatt, Kalkheda and up to the Southern limit of village Malikhedi.

West

Village Malikhedi, Rolukhedi, Berkheda Nathu, Mungaliyachhap, Jamoniya-chhir, Bhauri, Barkheda bodar, Badarkhansadak, Parvaliyasadak, Chandukhedi, Kurana, Dobra, Prempura, Khejdadeo, Mani Khedikot, Rojibeg and upto the Western boundary of village Ratatal.

By order and in the name of the Governor of Madhya Pradesh,
R.B.SHARMA, Dy. Secy.

APPENDIX-II

DIRECTORATE OF TOWN & COUNTRY PLANNING MADHYA PRADESH BHOPAL

No. 3681/A/MPS/T&CP/94

Bhopal, dated 30-8-94

NOTICE

The existing land use map & register for the additional villages included in the Bhopal Planning Area, was published under sub section (i) of section 15 of Madhya Pradesh Nagar Tatha gram Nivesh Adhiniyam, 1973 (No. 23 of 1973) and objection & suggestions were invited from the public and under the provisions of sub sections (2) of section 15 of the said Adhiniyam, after giving reasonable opportunity of hearing to all such persons who have filed the objection or suggestion, modifications as considered desirable, are made therein.

Now the existing land use maps and registers for the above villages are duly adopted on dated 30.8.94 under the provisions of sub section(3) of section 15 of the said Adhiniyam and a copy of this notice is also sent for its publication in Madhya Pradesh Gazette, under the provisions of sub section (4) of section 15 of the said Adhiniyam, which shall be conclusive evidence of the fact that the above maps & registers has been duly prepared and adopted.

A copy of the so adopted maps & registers are available for public inspection at the Directorate of Town & Country Planning Madhya Pradesh, Bhopal w.e.f. 30.8.94 to 13.9.94 during office hours on working days.

P. V. DESHPANDE
Director

APPENDIX-III

[Published in Madhya Pradesh Gazette (Extraordinary) No. 273 dated 9th June 1995]

HOUSING AND ENVIRONMENT DEPARTMENT

MANTRALAYA, VALLABH BHAWAN, BHOPAL

Bhopal, dated 9th June 1995

NOTICE OF APPROVAL OF THE BHOPAL DEVELOPMENT PLAN

No.3773-XXXII-95.—Notice is hereby given that the State Government has approved the Development Plan for Bhopal (Planning area) under sub-section (1) of Section 19 of the Madhya Pradesh Nagar Tatha Gram Nivesh Adhiniyam, 1973 (No. 23 of 1973) and a copy of the said plan may be inspected at the following offices during office hours, namely:—

- (1) Commissioner, Bhopal Division, Old Secretariat, Bhopal.
- (2) Collector, Bhopal district, Old Secretariat, Bhopal.
- (3) Director, Town and Country Planning, Jawahar Chowk, Bhopal.
- (4) Bhopal Municipal Corporation, Sadar Manzil, Bhopal.

2. The said Development Plan shall come into operation with effect from 9th June, 1995.

By order and in the name of the Governor of Madhya Pradesh,
ALOK SHRIVASTAVA, Dy. Secy.

GCPB-439-DSH&E-29-5-95-2,000.