

**REVIEW OF PAST MASTER PLANS AND PERFORMANCE
EVALUATION OF PLANNING AND DEVELOPMENT
AGENCIES, GWALIOR**

A DISSERTATION

*Submitted in partial fulfilment of the
requirements for the award of the degree
of*
MASTER OF URBAN AND RURAL PLANNING

By

AJAY KUMAR VINODIA



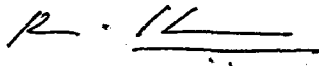
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OCTOBER, 2005

CERTIFICATE


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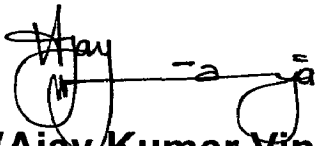
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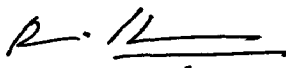
I hereby certify that the work which is being presented in this thesis entitled ***"Review of Past Master Plans and Performance Evaluation of Planning and Development Agencies, Gwalior"***, in partial fulfillment of the requirement of the award of the Degree of Master of Urban and Rural Planning submitted in the Department of Architecture and Planning, Indian Institute of Technology, Roorkee, Roorkee, is an authentic record of my own work carried out during the period from January 2005 to June 2005 under the supervision of **Prof. R. Shankar**, Professor, Department of Architecture and Planning, Indian Institute of Technology, Roorkee, and **Dr. Ashutosh Joshi**, Associate Professor, Department of Architecture and Planning, Indian Institute Technology, Roorkee, Roorkee.

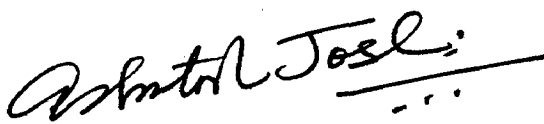
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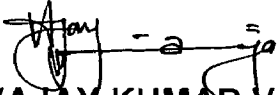
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CHAPTER 1: THE RESEARCH CONTEXT

1.1 INTRODUCTION

Planning is a continuous process and the planning system should ensure this continuity. Commencing from 1915, when Bombay Town Planning Act was passed which enabled preparation of land use plan within the city limits, town planning practice in India has come a long way. During the early periods planning was piecemeal and such approach continued to be the practice for about four decades.

After independence, city planning experienced tremendous changes in its approach due to need for resettlement of displaced persons as consequences of political changes.

Several resettlement colonies were added in existing cities and many new towns with industrial base were developed. Town and Country planning laws were enacted by various states and master plans of many towns were prepared and plans of some urban centers are currently in different stages of preparation or approval. Implementation of these plans however, has greatly been poor and they have been criticized to be rigid and static having little regard to investment planning efforts and taking very long time in the process of plan formulation and approval.

There is a general conclusion that land use plans are needed to guide development of urban centers but it should not only remain an instrument of control but a tool to promote an orderly development.

1.2 NEED OF THE STUDY

Review of plans is defined as critical examination of the implementation of development plan. The basic objective of this exercise is to assess the progress of work done so far and identify the areas of success, failure and conflicts, to guide the future course of action.

Gwalior is the one of the major city of the Madhya Pradesh. Identification of Gwalior as Counter Magnet to NCR and its development adjacent to the existing city has raised the prospects of the city's growth.

Gwalior has two master plans, the first efforts in the direction of planned development of the city was done in the year 1978 (First statutory development plan of the Gwalior.) this plan was made applicable up to 1991. The second plan period was 1991-2005.

~~Preparation of master plan and its successful implementation is a critical issue in~~ the most of the cities in India. It has been visualized that both the plan of the Gwalior city were not implemented successfully. There may be many reasons for the failure of the plan implementation.

So, there is a need to review the plan and evaluate the performance of various concern agencies.

1.3 AIMS & OBJECTIVES

The main aim of the study is to critically examine the lacunas in development process and provide framework or recommendations for preparation and successful implementation of master plan.

Objectives

- I. To study the urban structure of the city.
- II. To critically review the master plan proposals and implementation status of master plan of Gwalior (1978 and 1991)
- III. To analyze the lacuna and other urban governance problems hampering the growth of the city.
- IV. To provide framework for master plan preparation and implementation.

1.4 SCOPE & LIMITATIONS

In Indian context of our development plans of urban areas are not getting success in terms of plan proposals and implementation. Gwalior is also suffering from failure of development plans, the present study attempts to evolve some specific guidelines so that future plans may have significant success. This study will provide opportunities to understand the whole process of development of the city and also to know the factors responsible for increasing or hampering the growth of the city.

LIMITATIONS

Due to the availability of organized planning materials and documents of first master plan 1978, the study restricts itself on the development initiatives of various Government and other organizations during 1978 to 2005.

1.5 METHODOLOGY

The main focus of the study is on following components of urban planning and its implementation process.

Stage 1

Study of planning and development mechanism

Stage 2

Study of urban structure and problems of the city

Stage 3

Review of plan performance based on secondary and field survey

Stage 4

Analysis, findings and recommendations

The input to the project database are derived from literature study, data from source and field survey and the inferences from data analyzed are used to evolve the proposed guidelines for planning and development mechanism for the city.

The complete methodology is shown in *figure no. 1.1*

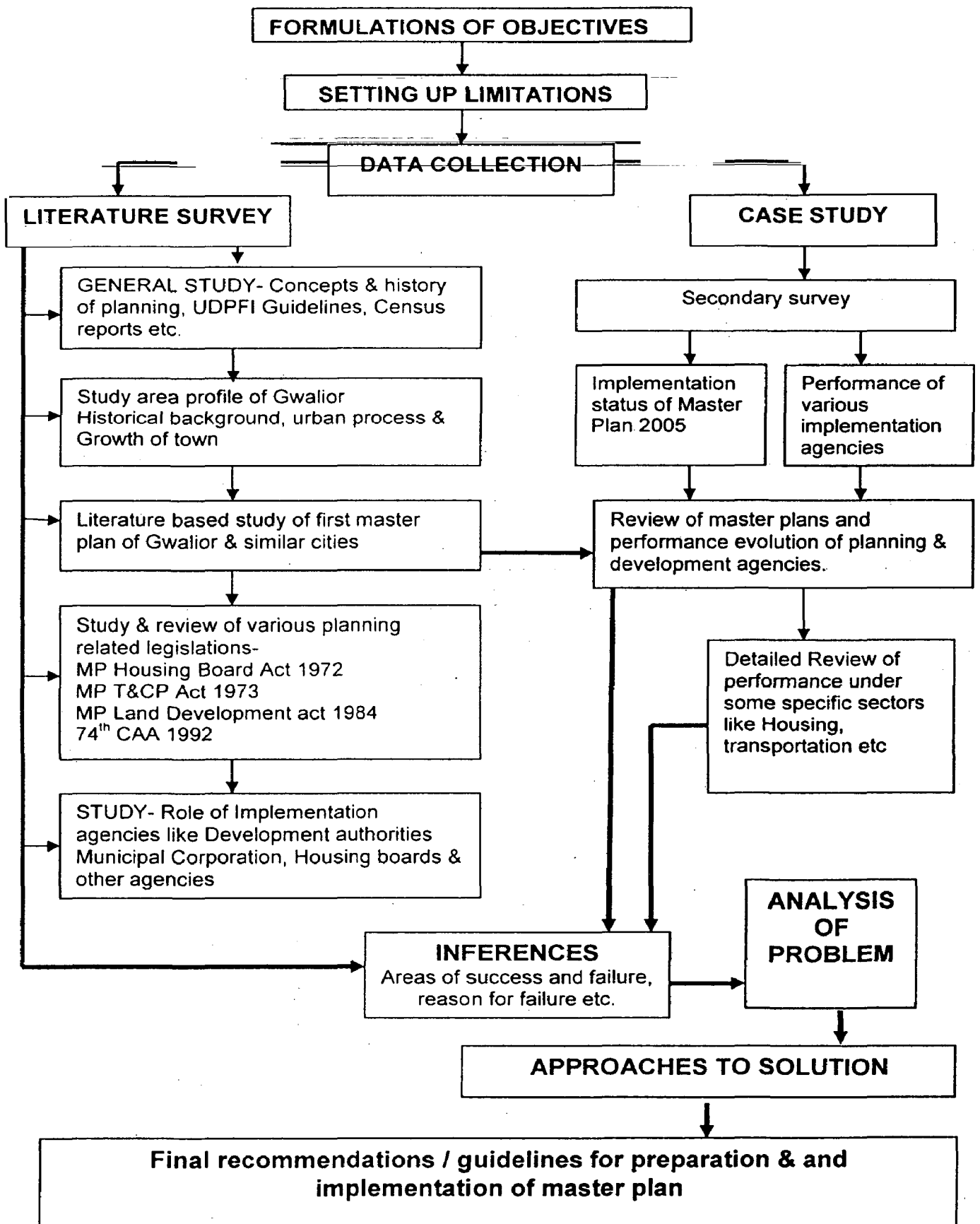


Figure: 1.1

Source: Author

CHAPTER 2: LITERATURE REVIEW

The basic objective of literature review is to know various aspects of urban planning with a focus towards development plan approach. The attempt has made to know what various authors, books and other relevant literature said all about the urban planning. Literature has collected from various sources and tried to summarize in a chronological sequence. This chapter has three parts; first part includes various aspects of planning like definition, type, modals, plan formulation process and history of town planning in India. Second part deals with the development mechanism in Madhya Pradesh and an introduction to implementing agencies of Gwalior. Third part has a detailed review of M.P. Town and Country Planning Act, 1973, done by Mr. Prakash M. Apte.

2.1 URBAN PLANNING

2.1.1 Understanding of Planning

“Planning is primarily a way of thinking about social and economical problems”; planning is oriented predominantly towards the future, is deeply concerned with relation of goals to collective decision and strives for comprehensiveness in policy and program. Wherever these modal of thoughts are applied, there is a presumption that planning is being done” (Friedman, J., 1964)

“Planning is the process of evolving a sequence of actions, which are designed to achieve certain goals, may be related to the development or to solve problems in the future” (John Glasson, 1978)

The planning period also varies according to the type and level of planning; but all planning involves a sequential process, which can be conceptualized into a number of stages. Planning problems may vary but tend to be primarily economic and social. The comprehensive planning process consists of different stages they are Research, Clarification of goals and objectives, Plan formulation, Plan implementation, Review and revision.

A human settlement is a living organism. It has an origin, growth, and decay and re- growth. It is a dynamic entity, rather than a static phenomenon. A settlement is subject to various types of forces, physical, economic, social and

administrative, which influence its form and structure. It is necessary to canalize these forces in a planned manner to create the total environment, which is healthy, efficient and satisfying for working, living, recreating and worshipping. A comprehensive plan is an instrument to achieve these objectives. "Speaking generally, planning is deciding in advance what is to be done; that is, a plan is a projected course of action" (Nowman, W.H., 1956)

2.1.2 Concept of Town Planning

Town or city is a place of urban living. Urban means an environment in which natural surroundings have been dominated by artificial or man made surroundings, which man builds for himself – for his living, working and recreation.

"Town planning is considered as an art of shaping and guiding the physical growth of the town creating buildings and environments to meet the various needs such as social, cultural, economic and recreational etc. and to provide healthy conditions for both rich and poor to live, to work and to play or relax, thus bringing about the social and economic well being for the majority of mankind". (John Glasson, 1978)

2.1.3 Goals and Objectives of Planning

Goals are desired outcomes to be achieved. Objectives are ways to achieve goals. Evaluation Criteria are impacts or factors to consider in the planning process and to incorporate into an evaluation framework, which may range from general to very specific. Performance indicators are practical ways to measure progress toward objectives. During a planning process, it is helpful to ask regularly, "What are we trying to achieve?"

Goal is an articulation of values, formulated in the light of identified issues and problems, towards the attainment of which policies and decisions are directed. Goals may be considered as a set of rules for action and they have to be considered well in advance.

- To ensure the value of the life and eliminate the causes of physical and mental suffering

- To foster personal involvement in decision making on economic and environmental issues
- To safe guard the interest of the society and its environment against exploitation.
- To reduce the inequalities not merely of opportunity but of material, condition of life.
- To reduce dependence on wasteful form of production and development and to develop greater responsibility by Government, private, institutions and individuals

Objective is a specific statement denoting a measurable end to be reached or achieved for a particular group of people, usually in a particular span of time.

2.1.4 Significance of Planning

The life inside the town often seems to close to being snuffed out completely. The people therefore have to go far off in the countryside to get open air, breeze. The people will have to take long uncomfortable journey from place of residence to the place of work. As such, there is waste of time, money and energy.

- Indiscriminate setting of industries in the heart of the city has resulted in producing smoke, dangerous gas, bad smell, etc. improper disposal of industrial waste has caused pollution of water, air etc.
- Insufficient open spaces, parks, playgrounds have caused unhealthy conditions of living.
- Lack of public amenities

The serious problems of urban regions and large cities of India are basically created by the migration of population from rural to urban areas, mostly because of disparity of income, resulting in exodus of rural population primarily for employment. The industrial revolution, the population explosion and the pollution have changed the quality of environment.

City and town plan and in a sense general planning for a country's growth – industrial or otherwise, is now a concept well recognized all over India. The

imbalanced development pattern and the process of urbanization in India need to be dealt with carefully by adopting suitable strategies for development for ~~correcting such imbalance in the overall national perspective~~. This has led to a number of undesirable features in India's urban life – a rapid deterioration of the physical environment, growth of slums acute shortage of water and electricity and deterioration in other civic amenities, sanitation, housing etc.

There are many human settlements, which have grown in a haphazard and chaotic manner, and it is often said that the planning is ineffective. In fact in such, situations, the problem is lack of planning - there was no planning but there has been an unplanned development. Therefore, necessary in our situations is plan development.

2.1.5 Types of Planning

Within the general planning framework, there are wide varieties of types of planning like:

(a) **PHYSICAL**: Physical planning is the planning for an area's physical structure-land use, communications, and utilities and so on, and has its origin in the regulations and control of town development, which outstripped the ability of the market mechanism to cope.

(b) **ECONOMICAL**: Economic planning is more concern with economic structure and it's over all levels of prosperity.

(c) **ALLOCATIVE**: "Area of concern" Allocative planning is concern with co-ordination, resolution of conflicts that the existing system is ticking efficiently over a period of time by evolving policies. Hence, it is sometimes known as regulatory planning.

(d) **INNOVATIVE**: Innovative planning on other hand is not merely concern with the planning for the efficient functioning of the existing system, but is More concern with improving the system as a whole.

(e) **INDICATIVE**: Advisory in nature, merely lays down general guidelines for implementation of plan proposals

(f) **IMPERATIVE:** Command planning involves specific directives for implementation of plan proposals.

(g) **OBJECTIVE:** Achieving goals by setting single or multi objectives

2.1.6 Levels of Planning

Broadly there are three levels of planning in India, planning at national level is economic in nature done through the preparation of five year plan for development. Central ministry of urban development & planning commission of India acts as apex institutions for spatial development of the country. Planning at Regional has economic and social character, State ministry of urban development and planning & State T & CP department are the intermediate institution mainly deals with Inter and intra regional planning while planning at local level has physical or spatial nature. District planning boards and Development councils are the bodies which deal with the planning at this level while for the Village level- three-tier systems has been adopted for the development of rural areas these are: Gram panchayat, Block development and Zila parisad.

2.1.7 Types of Plan

(a) *Perspective Plan:* This plan presents to the state govt. and people, the intentions of local authority regarding development of the urban center in the next 20-25 years.

(b) *Development Plan:* Prepared within the framework of approved perspective plan. It is a medium term comprehensive plan (5 years) of Spatio-economic development of the urban center.

(c) *Annual Plan:* Prepared by local authorities to undertake schemes during the year.

(d) *Plans Of Schemes / Projects:* Conceived within the framework of development plan Schemes / projects are the working layouts supported by written reports, providing all necessary details for execution including finance, administration and management.

2.1.8 Plan Formulation Process

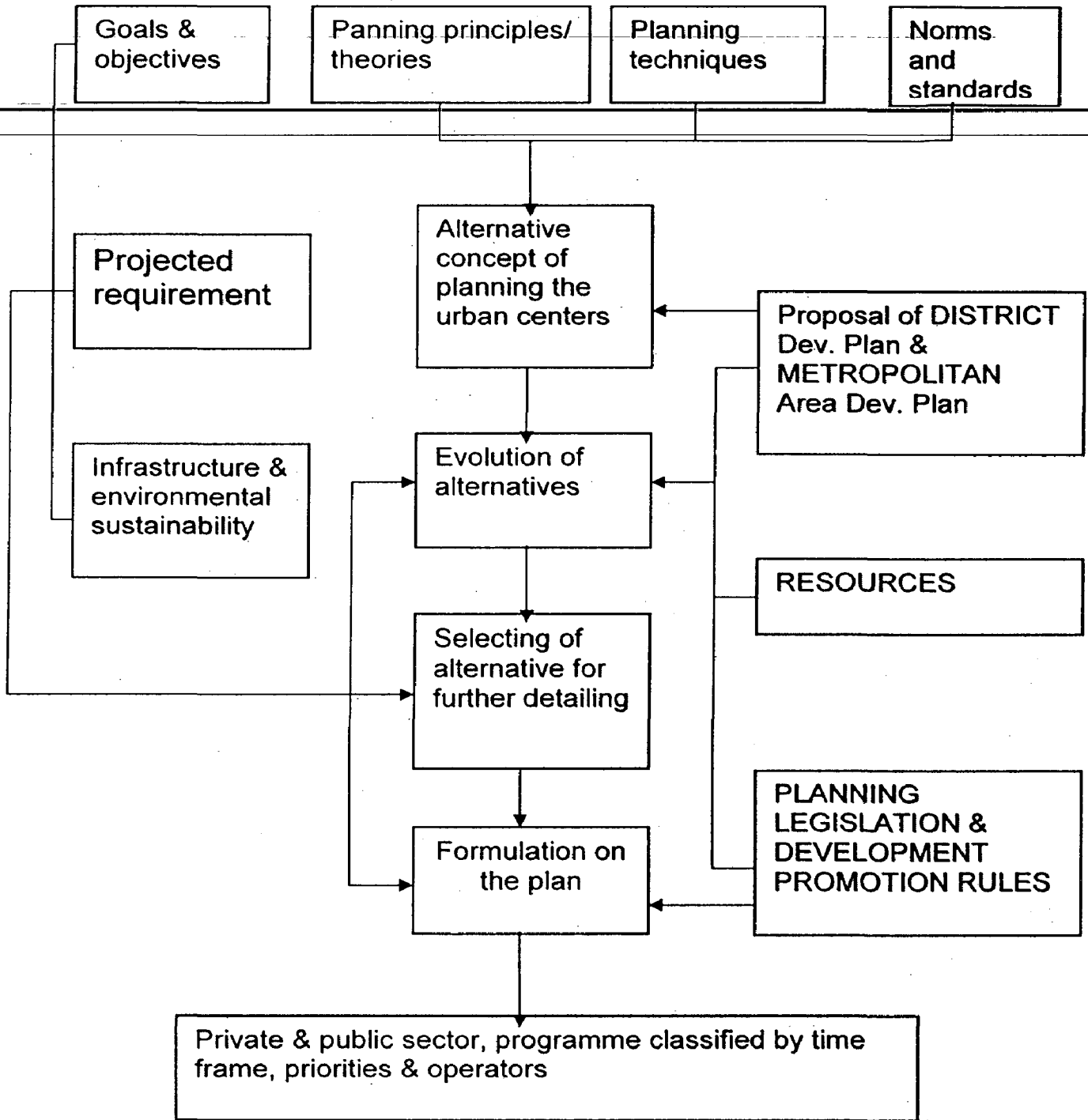


Figure: 2.1

SOURCE: *UDPFI GUIDELINES*

2.1.9 Process of Plan Preparation & Implementation

A development plan or **master plan** can be defined as a **general plan** for the future layout of a city showing both the existing and proposed streets or roads

open spaces public buildings etc. thus, a development plan aims at controlling the future growth of a town along preconceived and predetermined paths.

A development plan is an ideal plan showing the full development of the town at some future date. At the same time, it should be sufficiently elastic. It is, therefore, not a fixed plan.

Master plan serves two purposes

1. Solution for the present
2. Guide the future development along the desired lines

(i) Objective of preparation of master plan

- To regulate the growth that document is called master plan
- It is prepared by scientifically for comfort and integral development of different areas of the town.
- To start with helpful living and adequate work opportunity
- To evolve the plan pattern for future development of the town/city, by providing basic needs of urban community
- To have a good system of roads
- Channeling and urbaning (harmonize) the current trends of developments in self content sector along the line of communication

Based on the function master plan perform and technical nature of design that master plan express it should have three essential qualities

1. Master plan should be comprehensive, long range and general.
2. It must be understandable to public and available to the public.
3. It must be flexible/ amendable, depending upon the requirements.

(ii) Preparation of master plan

The master plan, which is perceived to be a process rather than a conclusive statement, provides guidelines for the physical development of the city and guides people in locating their investments in the city. In short, Master Plan is a design for the physical, social, economic and political framework for the city, which greatly improves the quality of Urban Governance also. The functions of the Master Plan / Development plan are as follows:

- i. To guide development of a city in an orderly manner so as to improve the quality of life of the people
 - ii. Organize and coordinate the complex relationships between urban land uses
-
- iii. Chart a course for growth and change, be responsive to change and maintain its validity over time and space, and be subject to continual review
 - iv. Direct the physical development of the city in relation to its social and economic characteristics based on comprehensive surveys and studies on the present status and the future growth prospects; and
 - v. Provide a resource mobilization plan for the proposed development works.
 - It may be small regional plan to large city plan
 - It guides the future development in a balanced way to fulfill the needs of the people.
 - It utilized both types of resources man made and natural.

(iii) Process involve in preparation of master plan

(a) Study of existing development plan: The city that is under going in preparation of master plan if already has any previous plan must study toughly. Therefore, that planner may get a wide idea regarding the previous development, which was proposed.

(b) Data collection and survey: Data on the existing situation needed to accessing the requirements of the present and the future. It includes demographic data and physical data. Surveyed map of the city is an essential document to proceed with planning. If it is not available physical survey, require to be done before planning.

(c) Identification of problems: Existing problems should be identified through proper survey so that it can be considered during plan preparation.

(d) Data analysis: analysis of collected data is important aspect to project the present and future needs of the society.

(e) Projection of need: Identifying the population that is going to be benefited and the facilities, which are in short supply, different land uses, their relationships with each other, transportation facilities, infrastructure services and financial position, etc.

(f) Setting goals and objectives: Goals are desired outcomes to be achieved. Objectives are ways to achieve goals. Evaluation Criteria are impacts or factors to consider in the planning process and to incorporate into an evaluation framework, which may range from general to very specific. Performance indicators are practical ways to measure progress toward objectives.

(g) Formulation of draft plan: The long-term Perspective Structure Plan could be prepared by the MPCs broadly indicating goals, policies and strategies for spatial-economics development of the urban settlement. The perspective plan may include:

- Physical characteristics and natural resources:
- Direction and magnitude of growth and development – area and population (Demography) Arterial / grid road network and mass transit corridors with modular development block.
- Infrastructure network – water, sewage, drainage, roads, bus and truck terminals, rail network, etc
- Broad compatible and mixed land use packages and zones:
- Community open space system and organization of public spaces:
- Environmental conservation and preservation of areas of architectural, heritage and ecological importance;
- Major issues and development constraints;
- Financial estimates and fund flow patterns; and
- Policy and plans for EWS housing.

(h) Public opinion: People's participation in preparation of policies, perspective plan, development plan and annual plans should be ensured through elected representatives in the municipal council / corporation and ward committees.

(i) Modified plan: Modified draft plan should be prepare after getting response from the public. It must carry out within specified period.

(j) Legislative approval: It is necessary to build effective legislative support for the implementation of Development plans.

(k) *Plan implementation:* Within the framework of Development Plan, Annual Action plans for the urban areas should be prepared by the ULBs specifying the projects and schemes with costing and cash flow for both on-going and new projects. The Annual action plan should provide and in-built system for implementation of the Development Plan. In this plan various urban development schemes should be integrated spatially and financially.

(iv) Basic elements of the master plan

Master plan consists of text and drawing which shows the physical element of the community i.e. Land use maps, circulation pattern, transport systems, and other infrastructure facilities, etc. It should also support with regulation of land use, standards for various factors like density, setbacks, etc. procedure and method employed in planning. The general feature of any master plan is the action in a sequence, which is design to solve the future problems of the city or settlement.

Some basic elements of the master plan are:

- Historical background and growth of town
- Various study of city
- Data collection
- Various projection and growth trends
- Existing land use plan
- Plan concept
- Proposed land use plan
- Infrastructure planning
- Development regulation
- Plan implementation policies
- Monitoring policies

(v) Implementation

Implementation of development plans is generally through annual plans and projects. The various steps for effective implementation includes –

- a) Formulation of annual plans and identification of projects for implementation within the framework of approved development plan.
- b) Identification of various agencies responsible for:

- Development, promotion and management; the local authority will perform this function in case of infrastructures like post and telegraph, telephone, National and State Highways, Seaports, Airports, Power Supply etc. The agency for this activity may be relevant departments of Central and State Governments.
- Execution of action projects and schemes: Agencies for this function could be:
 - Private individuals, Groups, Promoters
 - Private Cooperative Societies
 - Non Governmental organizations
- c) Actions for Implementation, which includes:
 - Public Sector interventions
 - Private Sector actions and
 - Joint venture or public private partnership

(vi) Review of Plans:

Review is defined as critical examination of the implementation of development plan during the given period. The basic objective of this exercise is to assess the progress of the work done so far and identify the areas of successes, failures and conflicts to guide the future course of action. This is the important step in the dynamic planning process.

(vii) UDPFI Guidelines for Plan Preparation

(a) To develop realistic and effective urban development plans following steps are needed:

- Spatial development plan.
- Resource mobilization plan.
- Defined institutional mechanism for implementation.
- A set of comprehensive and simplified development management and promotion rules & regulations which can be easily understood by the public; and a mechanism to involve the public participation especially the poor, social disadvantaged groups, women, NGOs and CBOs in planning process.

(b) The plan formulation exercise must be completed within a specified period and the time schedule for the plan preparation, public notification, and approval must be statutory prescribed in the relevant act.

(c) The periodic review and revision of the plan are very essential component of the planning process and mid-term review of the plans should be under taken at

regular intervals to impart flexibility to the planning process and necessary statutory provisions to be made in the relevant act in this regard.

(d) Application of the concepts of land swaps, land pooling, town planning schemes, accommodation reservation transfer of development rights etc., which are innovative plan implementation techniques, should be explored and relevant act may be amended to accommodate such practices.

(e) Latest techniques and tools like remote sensing aerial photography, geographic information system (GIS) and other must be utilized for the preparation of development plan and continuous updating the growth pattern.

(f) Greater transparency should be developed in the interest of public awareness and coordination.

(g) Appropriate management information system (MIS) and database should be developed by state and central Govt. to assist planners in developing realistic plans and programmes. (*UDPFI Guidelines, 1996*)

2.1.10 Various Models and Approaches to Urban Development

Urban development implies progressive upgrading of socio-economic and cultural standards, i.e. the total living condition of a population under consideration. The most popular approach to urban development is the Master Plan or the Development plan approach.

(a) Master Plan or Development Plan

Master plan is a future land-use plan and normally comprises a written statement and a land use map indicating the development scenarios of a city and a set of zoning regulations. Based on the experiences certain infirmities in the Master Plan approach have become subject of debate and deliberation. It is a necessary document but is not flexible enough to absorb policy shifts affecting development programmes, which are inevitable in a developing economy. It has not been projective and programmed and has not been executed properly and incorrectly implemented. It spans over a time horizon (usually 20-25 years) with a provision for a mid term appraisal, review and updating once in 5 or 10 years which is hardly followed.

In the absence of effective control and implementation, there have been large areas of unintended growth, development of unauthorized colonies, and development of areas with poor levels of physical and social infrastructure. Master Plan approach has come under criticism as being too complex, rigid, static, excessively bureaucratic, time consuming and elitist.

Because of these shortcomings, this is argue that urban planning which is largely based on techniques taken from the developed countries has been unable to adequately address the rapid urbanization processes, which characterize the majority of developing countries.

Alternative approaches for urban development and planning are; Advocacy Planning, Adaptive Planning, Disjointed incrementalism, mixed scanning, Structure Planning and Strategy Planning. Their concepts and approaches for development vary as described below:

(b) Advocacy Planning

This is a technique of planning where different professional planners outline development patterns protecting the interests of their clients. The final development pattern based on arguments placed and accepted in general optimizing all the interests together. The development policies are determined through open debates so this strategy also known as "Plural Planning". The choices for plan implementation made after the presentation of several agencies plans instead of a single agency plan. This type of strategy is mainly applicable to the developed democratic system. India can have only a modified form of such strategy with the objective of involving more interest groups and expert opinions of planners on their behalf.

(c) Adaptive Planning

This is a technique of planning where the strategy of development keeps changing according to the forces of development. The strategy "implies that the planners will be steering the forces of development and chance in the society in desired direction. The nature of forces being different in space and time, the strategy is a great challenge to both the planners and implementation agencies. Such strategy in India is not workable under the present legal frames.

(d) Dis-jointed Incrementalism

This is a technique of planning where planner needs not to be comprehensive at the beginning the strategy allows him to be segmental or incremental in working out development policies as and when problem arises in a disjointed manner. In other words, this type of strategy can be even 'Ad-hoc Problem Solution

Strategy'. This is based on the science of muddling through or the method of successive limited comparisons. Planning is remedial, serial, fragmented and disjointed. The disjointed incrementalism is also a difficult strategy of planning and development to carry through for a long time properly in the administrative and political system like India where changes are unpredictable and development emphasis varies from one administrator to another administrator.

(e) Mixed Scanning

This is a technique of planning where the strategy is a mixture of the rational comprehensive planning and disjointed incrementalism drawing good features from both the strategies the procedural steps for this strategy being followed are shown in Illustration No.

(i) On strategic stage

(a) List all relevant alternatives:

(b) Examine briefly the alternatives and reject those that reveal a crippling objection; and

(c) Repeat (b) in detail and continue until only one Alternative is left.

(ii) Before Implementation

(a) Fragment implementation into several sequential steps

(b) Divide the commitments to implement into serial steps

(c) Divide the commitment of assets into several steps

(d) Costly and less reversible decisions to appear later than more reversible and less costly; and

(e) Time schedule for additional, collection and processing of information, Return to more encompassing when such information becomes available

(iii) Review while implementation:

(a) After the first sub-set of increments is implemented scan on a semi-encompassing level. If these increments "work" continue to scan, after long intervals, on a semi encompassing level, and in full over all review still has frequently.

(b) Scan more encompassing whenever a series of increments although each one seems a step in the right direction results in deeper difficulties; and

(c) Resume to scan at set intervals in full, overall review even if everything seems all right.

(d) Formulate a rule for *the* allocation Of assets and time among the various levels of scanning

(f) Structure Planning:

This is a technique of planning where emphasis is on development of activities rather than land use in advance for a long period. The strategy is more concerned with implementation and decision making factors. The strategy is in use in U.K. for more than a decade with full legal support. As defined, officially structure planning is prepared at higher/ regional level with the detailed / action planning at lower/local level. The structure plan procedure has identified the aspects to be dealt in detail at two levels. This strategy has potential for Indian conditions while technological transformation, economic development and social changes are very fast. Nevertheless, the structure plan strategy as being used in U.K. needs to be changed for Indian conditions.

(g) Strategy Planning:

This is a technique of planning where selected key catalytic sectors or areas developed to lead the total development of the planning area. This strategy is an improvement over structure planning envisaged in U.K. as the latest approach to Region and urban development works. On experimental basis, some plans are already prepared using this strategy. This approach may try in India when even structural development task may be too huge to handle under government sector. The strategy planning can help others to get involved in the development process. This may include development of accessibility, public utilities, facilities and some institutions in selected areas.

2.1.11 HISTORY OF URBAN & REGIONAL PLANNING IN INDIA

(a) **Ancient Period:** Remains of ancient structures and writings of antiquity reveal that town planning is so historical in India that its origin is lost in the hoary past. From Mohenjo-daro and Harappa to Chandigarh, there is history of the art and technique of planning human settlements, spanning a period of nearly five millenniums in space and time.

The Indus Valley cities were centers of a rich and varied urban culture and civilization, comprising various types of buildings namely dwellings, market places, public offices, religious halls, well laid out streets, public baths and drainage systems.

During the Vedic period, the Indo-Aryan builders laid out many cities such as Ayodhya, Indraprastha, Pataliputra, Varanasi and Mathura, with royal palaces, gardens, temples, tanks arched gateways, forts and wide streets.

During the Buddhist period, many towns such as Nalanda and Taxa-Shila were built around viharas and they were seats of learning and piety. During the Medieval Period, many towns developed into cities as they were centers of small-scale industries and handicraft Dhaka in Bangladesh known for muslin Krishnanagar, renowned for clay-models, Murshidabad famous for silk clothing, Golconda for diamonds and Agra for perfumes and marble works, are a few examples.

During the Moghul Period, extensive gardens and parks were laid out, imparting a new scale to the Indian city and developing a dynamic spatial concept. Moghul rulers built many new towns (Shahjahanabad, Fatepur Shikri) and monumental edifices such as forts, palaces, mosques and mausoleums.

(b) The Colonial Period: With the advent of the British Rule, planning traditions of India suffered. There was very little town planning activity, except laying out cantonments and parade grounds and building military barracks for strategic purpose (Dehradun, Secunderabad, Bangalore Cantt., Barrackpore); Railway Junction Towns (Londa, Moghul-Sarai, Guntakal); developing hill-stations (Shimla, Darjeeling, Udakamandalam). The exception to this situation was the building of new capitals (New Delhi designed by Sir Edwin Lutyens, and New Patna). The colonial period witnessed growth of capitals of British Provinces (Calcutta, Bombay, and Madras) and seats of Governments of princely states (Baroda, Thiruvananthapuram, Mysore, Indore, patiala, Hyderabad, Jaipur). However, this was at the expense of small and medium-size towns, which stagnated.

Throughout the 19th and the 20th Centuries, the industrial Revolution had tremendous impact on the form and structure of cities in Europe. Due to rapid industrialization and intense mechanization of agriculture, there was massive urbanization in Europe; and Town and Country Planning took great strides. However, in India, the colonial rulers deliberately reversed this process. Therefore, the pressure on agricultural land increased, while indigenous industries were discouraged. With the increase in population, villages remained stagnant and cities grew in a disorderly and unplanned manner.

“One positive aspect in the dark cloud was the visit of Prof. Patric Geddes to India (1914-1919). His tours, lectures writings, exhibitions and planning suggestions for Bombay. Calcutta, Madras, Nagpur, Indore, Baroda, Kanchipuram and many other cities were revelations”. (Gandhi, N.K., 1973)

(c) The Early Period of the Post-Independence Era: With the advent of Independence (1947), there was a renaissance of Town and Country Planning in India, in all aspects - policies, programmes, education, legislation, professional practice; and at all levels-Central, State and local, and in the corporate as well as the private sectors.

(d) National and State Development Plans: The formation of the National Planning Commission and the formulation of the First National Development Plan (1951-56) were significant beginning and a landmark. India became planning conscious. The Economic Development plans at the national and state levels gave a precise meaning and content to the social goals, economic objectives and physical imperatives of our development endeavors. The eight successive Development Plans of India have generally enunciated goals and objectives of development; formulated policies and programs to realize them; assessed material and human resources available; set priorities and targets to be achieved; and made fiscal allocations for implementation. For instance, the First Plan highlighted the problems of development and redevelopment in both rural and urban areas. It pointed to the need for linking up housing with town and Country Planning. The Second Plan laid stress on provision of infrastructure in the rapidly expanding urban centers. The Third Plan made, for the first time, specific provision for the preparation of development plans for major cities and regional

development plans for resources regions. In pursuance of this policy, the Union Government established a Town and Country Planning Organization (TCPO) in the Ministry of Health to advise State Governments and earmarked funds for urban development schemes. In the Fourth and the Fifth Plans, the emphasis shifted to schemes under the Integrated Urban Development Programme (IUDP) and integrated Development of Small and Medium-size Towns (IDSMT).

These two plans also gave importance to improvement of slums by provision of physical infrastructure. The Sixth and the Seventh Plans laid further emphasis on augmenting urban infrastructure and on projects aimed at improving the living conditions of the economically weaker sections.

The Eighth Plan laid stress on the importance of mitigating the rural-urban dichotomy developing small and medium-size towns; formulation of action programmes for decongestion of metropolitan cities through decentralization of industries and dispersal of industrial population; generating employment and income opportunities through rural and urban development programmes; and discouraging further growth of metropolitan cities.

Though the National and State Development Plans have given some direction to planning and housing policies and programmes, the spatial organization of economy is lacking even after eight Five year Plans. A comprehensive national urban policy is yet to crystallize. Such a policy should include national population policy, urbanization policy, land policy, land use policy, settlement structure policy, shelter (housing) policy industrial location policy and urban management policy. The Successive Development Plans seem to lack consistency and continuity in their policies and strategies. Projects and programmes appear to be ad-hoc and piecemeal. However, there is much talk about decentralization and multi-level planning the approach in planning seems to be from the top down rather than from the bottom upwards. At both the national and state levels, the plan outlays on urban development and housing have been grossly inadequate. In brief, urban development and housing have not been allowed to play their due roles in the planned economy, during the past fifty years.

(e) Industrial Estates: Immediately after independence, attention was given to establishment of small and medium-size industries. Industrial Estates were laid out in major cities in a planned manner (Okhla in Delhi, Guindy in Madras. Sanath Nagar in Hyderabad and Rajaji Nagar in Bangalore). Many more industrial estates have come up since then in the public as well as the private sectors. Though the objectives of designing and developing industrial estates were laudable, there were, however, many lapses. Instead of locating the industrial estates in less developed regions, they were located on the fringes of metropolitan centers, rather than placing them in and around small and medium-size towns. Thus, defeating one of the important purposes of building industrial estates, preventing further concentration of industries in large urban places. The locational decisions seem to be arbitrary. The development cost of most of the industrial estates was rather high; the designs and layouts were lavish; provision of infrastructure was inadequate; industrial zoning based on nuisances and hazards was lacking; there was inadequate coordination between industrial estate development and industrial housing for employees; and the visual and environmental qualities were not inspiring.

(f) New Towns: One of the most significant developments in India since independence lies in the designing and building of new towns to serve various purposes. For instance, Faridabad, Nilokheri, Rajpura and Kalyani were laid out as self-supporting communities for rehabilitating displaced persons; Bhilai, Rourkela, Durgapur, Chittaranjan, Bokharo, Bhadravathi and Neyveli to receive major industries in the public sector; Chandigarh, Bhubaneswar, Gandhinsgar and Bilaspur to serve as capital cities; Kandla and Paradeep as Port towns. The establishment of new towns is indeed, a bold and great experiment in physical and social planning in India since independence. Speaking about Chandigarh, Prime Minister Nehru has said that it is symbolic of the freedom of India, unfettered by the traditions of the past. Though many mistakes have been committed in the location, design, layout and management of the new towns, they have made a significant contribution to the art and technique of town building in India. What India needs is a rational and comprehensive New Towns Policy.

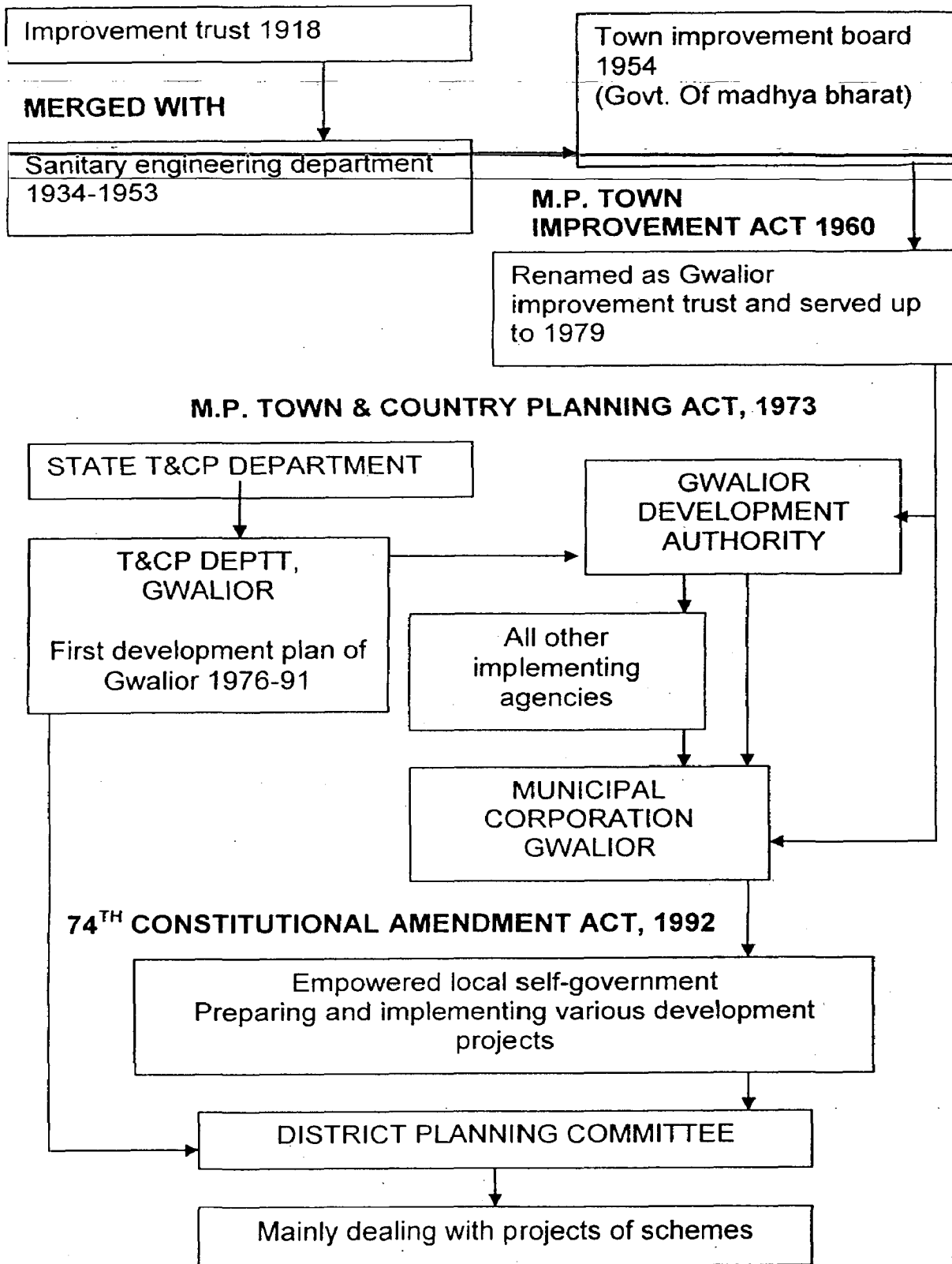
(g) Planning Legislation: The first planning legislation to be enacted during the British regime was the City of Bombay improvement Act - 1898, following the Bubonic plague in 1896. Subsequently, Improvement Trust Boards were established in other provincial capitals, notably, Calcutta, Madras and Lucknow. The Bombay Town Planning Act (1915) and the Madras Town Planning Act (1920) were the first two pioneering town-planning acts. These were followed by Town Planning legislation enacted by several Provincial and State Governments, all designed basically on the model of the Town and Country Planning Act of UK - 1947. These acts provided for preparation of 'Development Plans' and 'Town Planning Schemes. The Institute of Town Planners, India made a significant contribution by preparing and suggesting a '**Model Town and Country planning Act,**' in 1962. Since independence, Indian town planning legislation has developed a distinct pattern and individuality of its own and progressed, though slowly, on a new track, not being a mere replica of the British Town Planning Law.

2.2 DEVELOPMENT MECHANISM IN MADHYA PRADESH

2.2.1 Introduction: There are three agencies, which prepare city plans. The State Directorate of Town and Country Planning is the nodal organization in all States, which deals with the subjects of city planning. In some States, for example, Madhya Pradesh, Himachal Pradesh and Rajasthan, the Directorate is the sole planning agency responsible for preparing city plans of all urban settlements in the State. The Municipality is also a planning agency and, as in the case of Maharashtra, it is the municipality, which is legally required to prepare city plans. A third genre of agencies has been developed, following upon the experience of the Delhi Development Authority, and that is the Development Authority. The State Directorates and the Development Authorities are professional bodies appointed by the State, and whereas their plans have a degree of technical excellence, participation at local level is minimal. As far as the municipalities are concerned, mostly, they operate on a scale, which does not permit them to employ multi-disciplinary teams, and, therefore, generally they fall back upon the State directorate to provide the technical expertise. The principal benefit of planning at local level through the municipality is that there is, or should be, a degree of public participation.

The Madhya Pradesh Town and Country Planning Act, 1973, was the first legislation in India, which took away planning functions from local bodies and transferred them to a State level organization. (Refer figure 2.2) When the Act was being drafted, the argument advanced was that the existing legal provision of municipalities preparing city plans was very impractical because the municipalities did not have the resources for planning. However, the planning process became so lengthy, because firstly the municipalities had to notify their intention to prepare a plan and thereafter, transfer the work to the State Directorate or Government for getting directives in this behalf after waiting for the legally prescribed period, when city plans were just not being prepared. Therefore, the legal powers to prepare the plans were transferred formally to the organization, which in fact, was the planning agency in the State. Because Madhya Pradesh had a low level of urbanization this arrangement made good sense and resulted in a number of city plans being prepared.

"The obvious drawback in such centralized planning is that whilst on the one hand it tends to become mechanical, on the other there is a lack of people's participation. No doubt, efforts are made to involve the local bodies, but the degree of involvement is bound to be in direct proportion to the responsibility for planning vesting in the local body. Where the responsibility does not exist, the involvement will also be almost nil. At the other end of the spectrum are the local bodies. Some are large enough to be able to afford a full-fledged planning team. However, municipal priorities tend to be overtaken by the almost overwhelming problems of routing municipal management and, therefore, the planning team is given a low priority". (*Buch, M.N., 1987*)



Development Mechanism in Madhya Pradesh

Figure: 2.2

Source: Author

2.2.2 Town & Country Planning Department, Gwalior

(a) Origin and Establishment:

The Town and Country Planning Department Gwalior were set up by the Government of Madhya Pradesh In 1975 "to evolve a plan for Gwalior Region; under the provision of M.P. Nagar Tatha Gram Nivesh Adhiniyam 1973.

Initially it was started in a small building and was responsible for the development of the Gwalior-Chambal region including- Bhind, Morena, and Shivpuri.

The development plan of Gwalior in 1978 was the first statutory exercise for planned development of the Gwalior district.

In 1995-second development plan was prepared including the guidelines of M.P. Bhoomi Vikas Niyam 1984.

In 1999-2000, this organization was split into three various departments for better control on the region. Which give the birth to town & country planning Departments of following districts: Gwalior, Bhind and Shivpuri.

Recently this Deptt had coordinated with the T & CP Deptt Bhind and prepared development plan for Bhind region. This was published on 3rd July 2004.

(b) Aims and Objectives:

In the changing national and state level liberalization scenario following criteria is considered for policy formation:

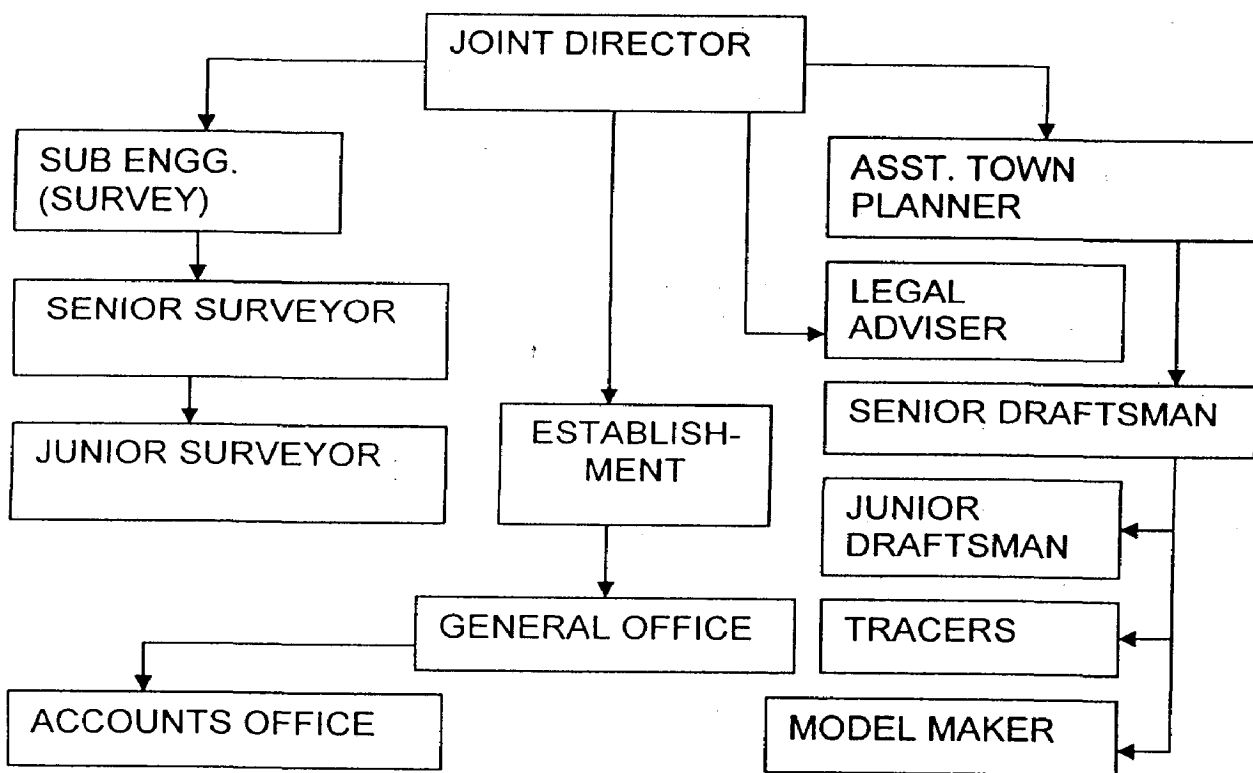
- Planned balanced development of the region
- Development of Gwalior as counter magnet to NCR
- Fulfilling the pressure of local and regional requirements
- Development of industrial growth centers like- Malanpur, Banmore and Ghirongi.
- Development of central Govt. sector

(c) Role and Function:

As a technical arm of the Directorate of Urban Administration and development, Govt. of M.P. T & CP functions as the technical advisory and consultancy organization in the field of urban and regional planning and development.

The major functions of TCPO are:

- Policy formulation and guidance at regional and local levels in the field of urbanization
- Preparation of deployment plans for the districts.
- Controlling the development activities
- Granting the permission for the development
- Monitoring and evaluation of projects/programmes and schemes;
- Assistance and advice to Development Authorities, Nagar Nigam and other Departments in the areas of Urban and regional planning;
- Innovative and applied research in areas of topical interest;
- Advice in formulation of appropriate legislative framework to support planned development activities;
- innovative and applied research in areas of topical interest;



ORGANIZATION SET-UP
OF
TOWN & COUNTRY PLANNING DEPARTMENT GWALIOR

Figure: 2.3

Source: Author

2.2.3 Gwalior Development Authority

Introduction: Town improvement trust was established on June, 1st, 1918 as a separate department for the development of the Gwalior city. This trust was merged with the sanitary engineering department in 1934 provided its services up to 1953. Government of Madhya Bharat established a separate town improvement board as a semi government organization in the year 1954. This board was constituted under the provision of Madhya Bharat Town Improvement act. After the constitution of Madhya Pradesh as a state in 1956, this board continued to work under Madhya Pradesh Improvement Act 1956.

In the year of 1960, MP Town Improvement Trust Act was passed and the town improvement board was renamed as Gwalior Improvement trust, which established under the provision of this act, and provided its services up to 1979.

Gwalior development authority was come into existence after the publication of first master plan of the city in 1976. This organization was established under the provision of M.P. Town & Country Planning Act, 1973 article 38(1).

So previous Improvement boards, trusts etc. were merged with newly constituted organization.

2.2.4 Madhya Pradesh Housing Board

Introduction: Madhya Pradesh Housing board was constituted in 1972, under the provisions of the M.P. Housing Board Act, 1972. The main objective of its constitution was to provide built houses especially poor people of the society. Land acquisition for the development is carried out through collector. MP Housing Board usually provides affordable built houses for all income group people in most of their schemes. Most of their houses are independent type with all required neighborhood facilities. This is the one organization which strictly follows the guidelines and other zoning regulations in their development as provided by the town & country planning organizations and land records departments of the concern area. Housing Board provides maintenance services to their developed colonies until transferred to local administration. Housing Board started their work with a rotating fund while HUDCO, NHB, LIC and HDFC are the loan providing

agencies for them. Housing Board also acts as a consulting firm and provides their services to Govt., public and private organizations for preparation, execution and supervision of schemes.

~~Major projects of Housing Board, Gwalior. Madhav Nagar, Thatipur & Darpan Colony, Deen Dayal Nagar, CP Colony etc Sanjay Complex, Cancer Hospital, various schools, Highway projects, OHT, and some multistoried complexes~~

2.2.5 MUNICIPAL CORPORATION, GWALIOR

Introduction: Municipal Corporation of Gwalior has long history of development of the city. This was constituted in 1961, under the provision of Municipal Corporation act, 1961. All previous developmental agencies like improvement trust were merged with this organization to carrying out further maintenance of existing areas of the city. Municipal Corporation is playing a vital role in the development and maintenance of the city. It deals mainly with following matters:

Regulation of building construction and its enforcement

Lightening public roads, buildings and other public spaces

Maintenance and construction of public places and sewer lines/ drains

Providing water supply and water works

Removal of encroachments

Construction and maintenance or roads, buildings and public gardens/ spaces

2.2.6 AKVN & DIC, GWALIOR

Introduction: Audhoyogik Kendra Vikas Nigam is a state level organization; it has main function for the development of Industrial Growth centers in the district. AKVN Gwalior has developed following industrial base in the region like Malanpur, Banmore, Baraghata and Ghirongi etc. land acquisition, preparation of proposal, development of land, distribution and promotion of industrial activities lies under their duties.

While, District Industrial Center, Gwalior involves themselves in the promotion of small scale industries and implementation of various schemes of promotion of employment opportunities projected by central or state Govt. like Jawahar Rojgar Yojana, Sampurna Gramin Rojgar, Guaranteed employment etc. this organization is also responsible for the development of the industrial activities within the growth centers developed by AKVN.

2.2.7 PWD, CPWD & PHED GWALIOR

Introduction: These are some technical organizations playing good role for the development of the city. Most of them are involved in construction and maintenance of urban infrastructural service.

CPWD is a central level organization mainly engaged in the planning and construction of the buildings and other development projects funded by the central Govt. which is located in the district.

PWD usually deals with the construction and maintenance of roads, bridges and buildings funded by state Govt. while, PHED deals with construction and maintenance water supply and sewage/ drainage etc.

2.3 REVIEW OF M.P. TOWN & COUNTRY PLANNING ACT, 1973

2.3.1 Various acts related to Town planning in Madhya Pradesh

- MP Municipal act 1956
- MP Municipal corporation act 1961
- MP Housing Board Act 1972
- MP T&CP Act 1973
- MP T&CP Regulations 1975
- MP Slum Improvement act 1976
- MP Land Development act 1984
- MP District Planning Committee act 1995

2.3.2 The Madhya Pradesh Town and Country-Planning Act, 1973

Development plans for any district of Madhya Pradesh is prepared under the provision of MP T&CP, Act 1973. A detailed review of this act is done by Mr. prakash, M. Apte he has highlighted various lacuna of the act along with their

impact on development plan and also suggested possible modifications. For example:

Chapter 1: Section 1

The area of jurisdiction of the act and also such areas that shall not be covered by the provisions of the act are described in this Section (1).

Objective: To clearly define the geographical boundaries within which the act will operate so that the authority concerned and the procedures to be followed for development in these areas are clearly understood.

Impact/Results: The impact or the result of this section is to bring all lands in the state within the operation of various provisions of the act, excluding land within cantonments, owned, hired or requisitioned by the central government for defence purposes, and those under the control of the railway administration for the purposes of construction and maintenance works.

Operation/Lacuna: The jurisdiction of this act extends to all areas that come within the limits of local self-government authorities such as municipal corporations, municipalities, panchayats etc. Inherent in the act therefore are the seeds of conflict between the planning proposals of a local authority and those that are possible under this act. However it is apparent that in Madhya Pradesh unlike in the neighbouring states of Maharashtra and Gujarat, the development planning function is centralized in the state town planning department. The provisions in Maharashtra and Gujarat which stipulate that the state town planning department can take-over the planning function only if the local authorities lack the necessary means and/or the will, would appear to be a better alternative than imposing centralized planning on all local authorities. The area of jurisdiction of the act therefore could be left, more flexible so that apart from the lands mentioned earlier, the government could, by an executive order, exclude areas that come within the jurisdiction of the local municipalities/municipal corporations from the operation of the act.

A major lacuna is the exclusion of the lands of the central government, cantonments and railways from the operation of the act. In all these cases, development on such lands generally depends on and draws upon the resources

of the nearby urban settlement or the region. This requires a certain amount of control by the local authorities on the planning of these areas also. Therefore to completely exclude such lands from the operation of the act would not be desirable. Instead, planning on such lands should be required to be approved by the competent authority. Such a provision could also be applied to planning in the municipal areas so that, while training and overall perspective, detailed planning functions could be delegated and decentralized at the local level.

Possible Modifications: *The provision exempting lands under the control of the central government, cantonments and railways from the operation of the act should be subject to their development plans being scrutinized and approved by the competent authority. (Prakash M. Apte, 2003)*

This review is been incorporated in this dissertation to highlight the fact that MP T&CP, Act 1973, has various loopholes and lacuna, which directly affects the development plans conceived within its provision. A copy of detailed review attached at the end of this chapter for reference.

2.3.3 CONSTITUTION (74TH) AMENDMENT ACT, 1992

The Constitution (74th) Amendment Act, 1992 provides for a democratic and participatory planning process so as to incorporate the needs of the people, particularly the poor and socially disadvantaged, in the planning process. The act stipulates the setting up to District planning Committees (DPCs) and Metropolitan Planning Committees (MPCs) for integration of spatial and economic development and rural and urban planning. This is in recognition of the need for integrated regional planning with due attention to regional and local infrastructure, environmental conservation and investment planning and their spatial and other impacts. The DPCs / MPCs need to be constituted under the State Zilla Panchayat / Regional and Town Planning Acts. A three tier planning structure is envisaged in the states – Panchayats / Municipalities level, district and metropolitan level and state level. Under this framework, Panchayats/ Municipalities would prepare plans for their areas, which would be consolidated at the district level in the form of draft district development plans. The metropolitan development plan would be prepared by the MPCs. All district and

metropolitan development plans would then lead to the formulation of a plan at the _____ state _____ level.

A. District Planning Committee

~~The constitution of DPCs recognizes the need for integrated regional planning~~ based on the investment patterns, its spatial impact and development. The DPCs should be vested with enough powers to undertake the following functions, besides preparation of draft development plan for the district.

- i. Preparation of draft development plans including spatial plan for the district, keeping in view matters of common interest between Panchayats and municipalities.
- ii. Advise and assistance to local bodies in preparation of development plans and its effective implementation.
- iii. Coordination and monitoring of the implementation of District Development plans.
- iv. Allocation of resources to local bodies for planning and implementation of local level projects contained in the District Development plans.

B. Metropolitan Area planning committee

The constitution of MPCs in every metropolitan area under Article 243 ZE of the 74th Amendment accords constitutional recognition to metro-regional planning when seen in the context of agglomeration economies, a metro region is the most preferred area for investment in economic activities and infrastructure but these areas are normally deficient in spatial planning inputs. The functions to be assigned to MPC are as follows:

- i. Preparation of draft development plan for the metropolitan areas.
- ii. Spatial coordination of plans prepared by the municipalities and panchayats in the metro area and recommending modifications in local area plan, if any taking an overall view.
- iii. Advise and assistance to local bodies in preparation of development plans.
- iv. Monitoring effective implementation of approved development plan of the region.

- v. Undertaking formulation and implementation of projects involving provision of infrastructure such as major roads, trunk services, electricity, telecommunications, etc.

The 12th Schedule of the Constitution (74th Amendment) Act lists the 18 functions of the municipalities, which among others include:

TWELFTH SCHEDULE (Article 243-W)

1. Urban planning including town planning.
2. Regulation of land use and construction of buildings.
3. Planning for economic and social development.
4. Roads and bridges.
5. Water supply for domestic, industrial and commercial purposes.
6. Public health, sanitation conservancy and solid waste management.
7. Fire services.
8. Urban forestry, protection of the environment and promotion of ecological aspects.
9. Safeguarding the interests of weaker sections of society, including the handicapped and mentally retarded.
10. Slum improvement and up gradation.
11. Urban poverty alleviation.
12. Provision of urban amenities and facilities such as parks, gardens, playgrounds.
13. Promotion of cultural, educational and aesthetic aspects.
14. Burials and burial grounds; cremations, cremation grounds and electric crematoriums.
15. Cattle ponds; prevention of cruelty to animals.
16. Vital statistics including registration of births and deaths.
17. Public amenities including street lighting, parking lots, bus stops and public conveniences.
18. Regulation of slaughterhouses and tanneries

2.3.4 INFERENCES FROM LITERATURE SURVEY:

- There is need to review the planning related legislations and made suitable amendments.

-
- ~~Over all development, mechanism is ambiguous which is needed to be made clear~~
 - Need of integration among various planning and development agencies
 - Improvements in existing organization set-up of various planning and development agencies are required
 - Emphasis should be given to use of advanced technologies for planning and development like GIS and REMOTE SENSING

REVIEW OF THE MADHYA PRADESH TOWN AND COUNTRY PLANNING ACT, 1973 (The Madhya Pradesh Nagar Tatha Gram Nivesh Adhiniyam, 1973)

As reviewed by Mr. Prakash M. Apte

Preamble: "An Act to make provision for planning and development and use of land; to make better provision for the preparation of development plans and zoning plans with a view to ensuring that town planning schemes are made in a proper manner and their execution is made effective; to constitute Town and Country Planning Authority for proper implementation of town and country development plan; to provide for the development and administration to special areas through Special Area Development Authority; to make provision for the compulsory acquisition of land required for the purpose of the development plans and for purposes connected with the matters aforesaid."

Though this preamble to the main act mentions one of the proposes as "with a view to ensuring that town planning schemes are made in a proper manner and their execution is made effective", in the entire act there is no section that describes the manner of preparation and execution of town planning schemes. In fact the words "town planning schemes" do not appear in the entire act except in this preamble.

Chapter 1: Section 1

The area of jurisdiction of the act and also such areas that shall not be covered by the provisions of the act are described in this Section (1).

Objective: To clearly define the geographical boundaries within which the act will operate so that the authority concerned and the procedures to be followed for development in these areas are clearly understood.

Impact/Results: The impact or the result of this section is to bring all lands in the state within the operation of various provisions of the act, excluding land within cantonments, owned, hired or requisitioned by the central government for defence purposes, and those under the control of the railway administration for the purposes of construction and maintenance works.

Operation/Lacuna: The jurisdiction of this act extends to all areas that come within the limits of local self-government authorities such as municipal corporations, municipalities, panchayats etc. Inherent in the act therefore are the seeds of conflict between the planning proposals of a local authority and those that are possible under this act. However it is apparent that in Madhya Pradesh unlike in the neighbouring states of Maharashtra and Gujarat, the development planning function is centralized in the state town planning department. The provisions in Maharashtra and Gujarat which stipulate that the state town planning department can take-over the planning function only if the local authorities lack the necessary means and/or the will, would appear to be a better alternative than imposing centralized planning on all local authorities. The area of jurisdiction of the act therefore could be left, more flexible so that apart from the lands mentioned earlier, the government could, by an executive order, exclude areas that come within the jurisdiction of the local municipalities/municipal corporations from the operation of the act.

A major lacuna is the exclusion of the lands of the central government, cantonments and railways from the operation of the act. In all these cases, development on such lands generally depends on and draws upon the resources of the nearby urban settlement or the region. This requires a certain amount of control by the local authorities on the planning of these areas also. Therefore to completely exclude such lands from the operation of the act would not be desirable. Instead, planning on such lands should be required to be approved by the competent authority. Such a provision could also be applied to planning in the municipal areas so that, while training and overall perspective, detailed planning functions could be delegated and decentralized at the local level.

Possible Modifications: The provision exempting lands under the control of the central government, cantonments and railways from the operation of the act should be subject to their development plans being scrutinized and approved by the competent authority.

Section 2: Definitions

Objective: To clearly indicate the meaning of common terms used in the development planning process so that there can be no cause for ambiguity.

Impact/Results: The definitions normally relate to the kind of activity envisaged under the act and may not necessarily be in harmony or compatible with similar terms in other acts.

Operation/Lacuna: Since the definitions relate to those terms which are normally used under the act, their meaning and terminology may differ from one act to another. It is necessary to bring uniformity in the definitions given in all acts related to development planning in the state so that there is no conflict in their interpretations. Moreover, certain terms that are very important are used in some acts and not in others. For example, in this particular act, there is a definition for "Building" as well as "Building Operation" which is very useful and should be incorporated in the development control regulations as well as in the building by-laws under the municipalities acts.

Possible Modifications: It is suggested that a glossary should be prepared of all definitions in all acts pertaining to development planning in the state and the relevant definitions be included in the relevant acts, or alternatively, this glossary could become a standard appendix to all acts pertaining to development plans.

Under Section 2(k) it is necessary to add the name of one more local authority, that is, Special Area Development Authority.

Chapter III:**Section 5: Director to Prepare Regional Plans**

Objective: To define the various functions to be carried out in the preparation of regional plans.

Impact/Results: Since very specific items of work are prescribed under this section, there is a tendency to carry these out as unrelated functions and not necessarily as part of an evolutionary process.

Operation/Lacuna: In the specific functions, there is no mention either of the mechanics of implementation or the implementability of the plans in terms of the money or manpower resources required.

Possible Modifications: It would be desirable to amplify this section and define each function as an evolutionary process towards not only the preparation of regional plans but also their phasing, budgeting, resource identification and mobilization and machinery for implementation. This will help to identify institutions and departments which are to be responsible for implementing the specific components and the subsequent monitoring (which should be essential part of the section), and also the revision of such plans in the light of the feedback received.

Section 6: Survey**Section 7: Contents of Regional Plans**

Both these section need modifications in the light of suggestions made under Section 5

Section 8: Preparation of Regional Plans

Objective: To describe not so much the preparation of the regional plans as the method of their finalization by inviting objections and suggestions.

Impact/Results: This method of preparation and finalization of regional plans leads to centralized planning devoid of any public participation.

Operation/Lacuna: In practice, not enough copies of the plan are available, or they are displayed at such places where it is almost impossible to study them. The publicity about the plans is inadequate, inefficient and through a media which does not reach the common man. As a result the preparation of a regional plan is more in the nature of a governmental exercise rather than one reflecting the needs and aspirations of the people.

Possible Modifications: In a country such as India, the general awareness about physical and development planning is low, except among the few affluent people who

are affected by such plans. Poverty is so widespread, that the general populace has very little time or inclination to participate in the developmental planning process. The present system of preparation and approval of regional plans as evolved by the British, and which is suited to the developed countries is not directly adoptable in a country such as India. Positive efforts have to be made to involve at least representative organizations and institutions in the basic plan making itself. It would therefore be appropriate if under this section, the Director of Town Planning were required to send complete sets of the regional plan to the members and key officials of all local authorities within the region, non-governmental organization, government departments and undertakings, associations and federations of professionals and other organizations, and all those involved in the final implementation of the programmes so that their comments could be elicited. It would, also be, desirable to organize public discussions where all these representatives could be invited so that a consensus could be arrived. Unless such a procedure is adopted in a developing country, regional plans or development plans will continue to be made by a few officials and commented upon only by the few affluent people whose properties are involved in the development process.

Section 12: Review of Regional Plans

The subject matter of Section 12 come under Section 8 (Preparation of Regional Plans), and in such a review, greater public participation should be provided for.

Chapter IV: Planning Areas and Development Plans

Section 14: Director to prepare Development Plans

Objective: To define clearly the contents and the process of preparing a development plan. The same observations as in case of Sections 5 and 8 of Chapter III therefore apply.

Possible Modifications: In the town and regional planning acts of Maharashtra and Gujarat, the responsibility of preparing a development plan for its areas of jurisdiction is vested in the concerned local authority such as the municipality or municipal corporation and only if it fails to prepare such a plan within the time limit prescribed is the Director of Town Planning to step in to do in the job. It is necessary to have such a provision so as to reduce the centralization in planning which is inherent in the entire act.

Section 16: Freezing of Land Use

Objective: To ensure that no development or change takes place in land use during the period that the development plan is under preparation, on the assumption that such a development may go against or be contrary to the planning proposals.

Impact/Results: Such a provision would result in the stoppage of all developmental works leading to all kinds of malpractices, as it gives tremendous power to the director who is authorized to give permission for such works. This is the basic source of corruption.

Operation/Lacuna: Since the section provides for development to take place with the permission of the director, in effect all such permissions are given at the behest of politicians and bureaucrats and the very purpose for which this section is provided gets defeated.

Possible Modifications: It would be desirable to provide in the act itself for the director or the competent authority to quickly publish an interim development plan on the basis of which permissions for development could be granted.

Section 17: Contents of Development Plan

Objective: To define what a development plan should contain.

Impact/Results: Such a provision results in a strait jacket situation where the specific points are taken to be the only things to be provided for in the plan and not as indicative of a broad-based proposal.

Operation/Lacuna: This specification results in a mechanical approach to the preparation of the plan which basically should be people oriented and not a physical map showing various features.

Possible Modifications: It would be desirable to include an additional clause which should be all-inclusive to incorporate all such aspects of the development plan which are necessary to achieve its basic objectives.

Section 18: ~~Publication of Draft Development Plan.~~ ...

Objective: To describe the contents of the draft development plan and the process by which it is to be finalized by inviting suggestions and objections.

~~**Impact/Results:** The end result of this kind of procedure is to effectively exclude participation by the people at large.~~

Operation/Lacuna: The exercise prescribed under this section, suffers from the basic flaw that there is no participation by organizations in the preparation and finalization of the plan. Moreover, the plan does not take into consideration the existing resources, the future requirements and strategy for its implementation. Also the specific works and projects to be included in the budgets of the concerned departments, the mechanics for monitoring progress and the review of the plan on the basis of the feedback which has to be properly documented are not considered.

Possible Modifications: The draft development plan should be widely circulated among organizations, institutions, associations and federations as well as eminent persons concerned with the development process. Seminars should be organized to elicit their views. The plans should also provide for resource identification, mobilization and defining of the implementation-mechanics and machinery, breakdown of programmes into works and projects for their inclusion in the budgets and monitoring and review machinery.

Section 19: Sanction of Development Plans

Objective: To give the procedure for obtaining the approval of the state government of the draft development plan, with or without any modifications, and its subsequent notification in the State Gazette.

Impact/Results: This stage in the preparation of the development plans is the most time-consuming and results in long delays in the publication of the Final Development Plan.

Operation/Lacuna: By the provision of Section 16, any planning permission in an urban area for which the development plan has not been sanctioned, is given only by the director of the Town and Country Planning Department using his discretionary powers. This process often leads to long drawn out objections and hearing sessions and at times, ending in a court of law, thus resulting in further delays.

Possible Modifications: The draft development plans should be approved by the state government within six months from the date of its submission. In case of a government order to prepare a fresh development plan, an interim development plan should be published as suggested earlier in Section 16, or the draft development plan should be deemed to be final excluding those areas for which drastic modifications are required.

Chapter V: Zoning Plan

Sections 20 to 23: Process and Component of the Zoning Plan

Objective: To provide further details of the development plan in terms of land-use allocations as well as of traffic and transportation.

Impact/Results: It is at this stage of planning that most of the physical adjustments are made within the broad land-use pattern. Shifting of a road or its alignment, adjusting boundaries of different land-use zones etc. can make a great difference to the fortunes of the concerned property owners. This stage of preparation of the plan is a source of corruption.

Operation/Lacuna: Since this function again is centralized, those who can gain access to the director can manage to get the required changes made (which are well within the sanctioned development plan and the competence of the director). As a result, the small property owners, social workers and those without the general awareness of the planning process suffer.

Possible Modifications : It is therefore necessary that even the zoning plans, though conforming to the development plan, should be prepared in consultation with the representatives of the people as far as possible, and be publicly discussed and suggestions and objections invited before their finalization.

Chapter VI: Control of Development and Use of Land

Section 27: Development Works Undertaken on Behalf of the Union or State Government. The provisions of section 27, which require the state and union government's to inform the director about the proposed development of lands and seek his permission are desirable.

Section 28: Development by local Authority or by any Authority Constituted under this Act.

Objective: To ensure that the development is in conformity with the Provisions of the development plan.

Impact/Results : It brings about a peculiar situation wherein an authority such as a local body, without whose resources and active involvement, the development plan proposals cannot be implemented, has to be constantly seeking permission from the director to implement the proposals prepared by him.

Operation/Lacuna: This keeps the local authorities in an unhappy position being required to implement a proposal not of their own making and yet to seek the permission of the director to implement it.

Possible Modifications: It is necessary instead to designate the local authorities or the concerned authority as the implementing arm of the development plan proposals. Government should only depute an officer of the town planning department to be a member of such an implementing agency in some capacity or other, and allow the agency a free hand to implement the proposals prepared by the director.

Chapter VII: Town and Country Development Authority

Section 38: Establishment of Town and Country Development Authority

Objective: To enable the establishment of a development authority for any area by a notification. This is a very unique provision in this act. Normally in most other states a separate act has to be enacted to establish any such development authority.

Impact/Results: As a result of this provision in the act, a new authority can be created by a simple government notification. It would mean that depending upon the political and other requirement even a very small area could be designated as a special planning area and an authority created for its development. The viability of such an authority in terms of resource mobilization and implementation capabilities would not necessarily be a determining factor. This can result in a multiplicity of authorities being created for various purposes, for example, for conservation, religious purposes, specific industrial development, tourism etc.

Operation/Lacuna: The functioning of such multiple authorities, their relationship with the existing local authorities, and their mechanics of operation could lead to various problems. These authorities might not be viable in terms of their jurisdiction or the resources at their command.

Possible Modifications: It would be desirable to specify under this section the specific purpose for which such an authority could be established, a minimum physical area of jurisdiction, and minimum resource and other such parameters that will ensure that there is no proliferation of such authorities. Otherwise a good and sensible provision in the act can get misused and defeat its very purpose.

Sections 39 to 63 deal with various aspects of the establishment of such development authorities.

Chapter VIII: Special areas

Section 64: Constitution of Special Areas

Objective: To constitute a special area on the basis of any specific requirement for the purpose of its development. It empowers the government to exclude such areas from the limits of local authorities or to designate the local authority to perform the

function and duties which a special area development authority is competent to exercise and perform under this act.

Impact/Results: As already discussed, such a provision can result in constitution of a special area development authority based on political and other consideration, whether or not such an authority is viable.

Operation/Lacuna: Because of the provisions in this section, a small area can be carved out from the jurisdiction of any local authority to be designated as a special area with a separate development authority, resulting in conflict right from the beginning. There does not appear to be any specific reason for the inclusion of this section in the act because under Section 38, the act already provides for the establishment of a Town and Country Development Authority by such name and for such areas as may be specific in the notification.

Possible Modifications: Under the circumstances, this section appears to be redundant.

Sections 65 to 71 which deal with the special area development authority area also redundant or can be suitably incorporated under Chapter VII

Chapter IX: Control

Sections 72 to 76

Objective: To provide for various devices of control by the state government on the authorities created under this act. The purpose is to ensure that the authorities work towards their objectives.

Impact/Results: The various provisions of this section could result in constant interference in the working of these authorities by the state government. It is paradoxical that these authorities that are created to implement the development plans sanctioned by the government are required to submit them to the government for review! This constant tossing back and forth of development plans would ultimately ensure that no development at all takes place!

Operation/Lacuna: The provision of this section would give a good handle to politicians and bureaucrats to constantly direct the authorities to do their bidding particularly because of their power to review the plans.

Possible Modifications: It is desirable to provide for the inclusion in the constitution of the various authorities, for the inclusion of a member nominated by the state government who may be a representative of the town planning or urban development department, so that the state government is aware of and exercises control on the activities of the authorities.

Chapter IX (A): Development Authorities Services

Section 76(A)

Objective: To provide a unified service cadre for the various development authorities.

Impact/Results: The provision of this section would result in building up a cadre of personnel imbued with development planning culture and aware of the requirements of planning at the development authority level.

Operation/Lacuna: It must be ensured under the provisions of this section that officers/staff are easily transferable. Then only can the entire development process benefit from the experience gained by the personnel in working in different situations.

Possible Modifications: The provisions of this section could also be made applicable to or included in the Municipalities Act so that there could be a common cadre separately for the local authorities or a single cadre wherein the local authorities may be included.

CHAPTER 3:

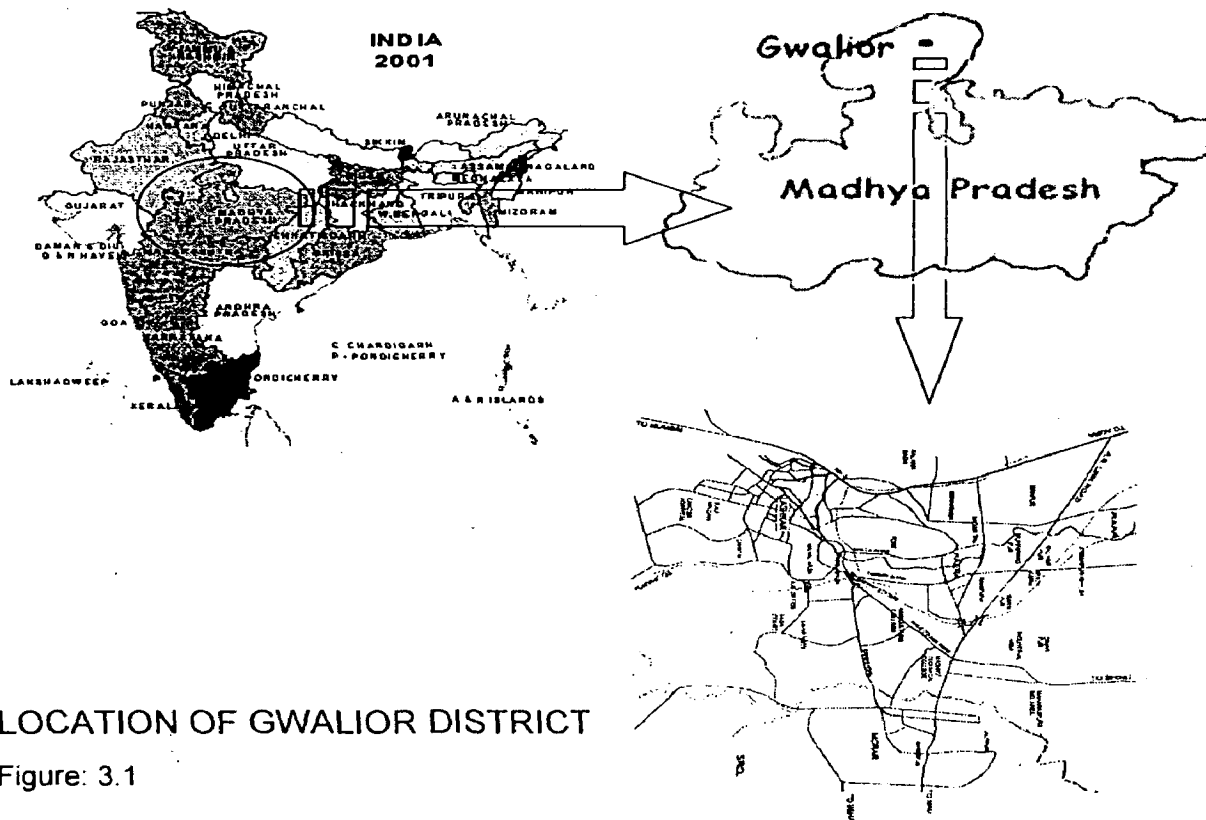
STUDY AREA: PROFILE OF GWALIOR

As the dissertation topic has a focus on the review of development plan of a particular city of India, so the objective of introducing this chapter is to provide useful information regarding the city for better understanding of the study area. This chapter mainly deals with the origin, growth and urban process of the Gwalior city. It also contains location, geo-climatic, demographic and socio-economic characteristics of the city, followed by historical background and chronological urban growth process of the city since from ancient periods.

3.1 PROFILE OF GWALIOR

3.1.1 Location And Accessibility

Gwalior the capitol of former State of Scindia's and the premier city of erstwhile Madhya Bharat still continues to maintain its status as an one of the important regional center of the state and the country. Its cardinal points are latitude 26°-12' N and 76°-18' E. Altitude of the city is 212 meters above mean sea level (at Railway station)



LOCATION OF GWALIOR DISTRICT

Figure: 3.1

Accessibility

- The city is well linked by road, rail and air with other major cities of the country.
- National highway no.3 (Agra- Bombay) passes through the city connecting it with Delhi, Agra, Bombay etc
- State highway and other roads connect it with state capitol Bhopal and other important towns of M.P & U.P.
- Being situated on main railway line of the country the city is most conveniently connected with most parts of the country some except in the west.
- The city is also connected by regular daily air services with Delhi, Bombay, Bhopal and Indore.

3.1.2 Planning Area and Regional Setting

Planning area of Gwalior was notified under Sub-section (1) of section 13 of M.P. T & CP Act, 1973.

The planning area covers approximately **206.99 Sq. Km** of land which includes all the 60 villages and municipal area, but excluding Morar cantonment area.

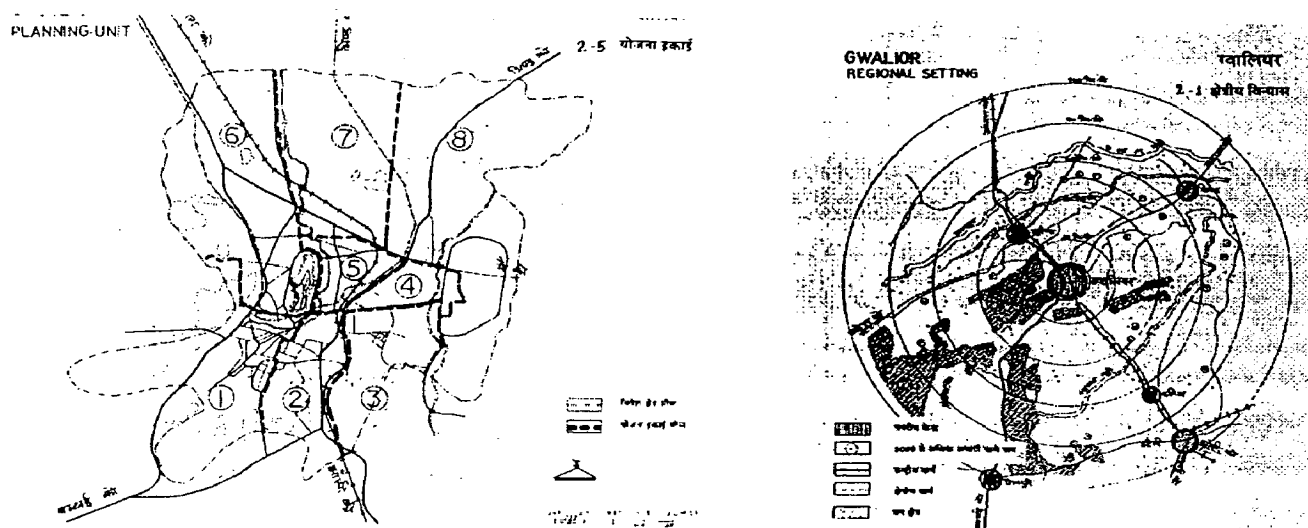


Figure: 3.2

Source: Gwalior development plan 1991

3.1.3 Climate

(a) Temperature:

Gwalior presents extreme temperature variations between summer and winter. The city's habited area situated around the rock and hilly surroundings Faces very low variation of day and night temperature variations.

The minimum temperature ranges between 1.3°- 2.9° in December while maximum temperature ranges between 45.5°- 47° in may/ June.

(b) Rainfall:

The rainfall in the area is relatively low, the city comes within rain shadow zone. The average annual rainfall is around 577 mm, and the trend shows that 92% of annual rainfall occurs during monsoon season (June – Sept.).

(c) Wind:

Predominant wind direction is North – West, with wind flowing between west and north during the major part of the year.

During past monsoon and winter season wind is weak and blows generally from north to north – west.

The highest wind speed is 7.9 km / h in June and lowest 2.1 km /h in December.

3.1.4 Topography

Gwalior is located in a rock basin of Vindhyan hill in the west and Bijawar hills in the south-east. In between these two hills there are numerous residual hills such as Hanuman hill, Gupteshwar hill, Satyanarayan hill, and fort hill etc.

The natural slope of the city is from south-west to north and north-east. Gwalior is situated within two natural divisions the plain in the north east and hilly in the south-east.

3.1.5 National Monuments:

The tomb of tansen and mohammad ghaus

Gujri mahal, Man singh Palace

The Sas- Bahu ka mandir and teli ka mandir

Other Interesting Features:

Legendary fort, Jain sculptures, Suraj Kund, Jai vilas palace, Moti mahal, Maharaj Bada, Kampoo Kothi, Chhataris, Jiyaji Chowk, Jama Masjid, and various Gardens etc.

3.1.6 Historical Background

Ancient period:

The period of first settlement in Gwalior is matter of debate, from historical point of view, this is one of the oldest cities of India with a glorious past, with rich spiritual and cultural heritage. Some archeologist has discovered implements of Paleolithic age in Gwalior. Many cave paintings of the Middle Stone Age have also been found in the area. Pottery of Iron Age has been excavated in Gwalior and adjoining areas. Old name of Gwalior was Gopadri or Gopgiri. In the Mahabharata Gopalkaksh has been mentioned as the place of victory of Bhima. Probably Gopalkaksh is same Gopadri.

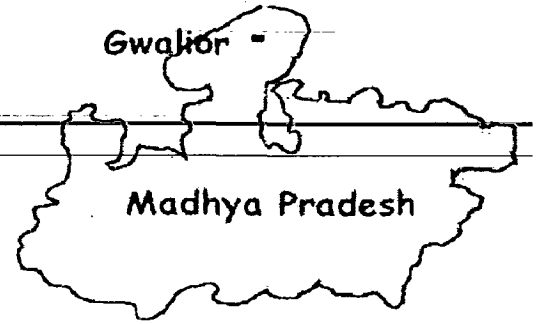


FIGURE: 3.3

During the later period of 2nd Century a new dynasty called Nagvans (vans means clan) took roots in Vidisha-Gwalior region. Vrashnath was the founder of the Nagvans. A coin has been found of this ruler in Vidisha during Veshnagar excavations.

Bhimnag was the next ruler of this clan who shifted it's capital from Vidisha to Padmavati (modern Pawaya near Gwalior). Coins of descendant of Bhimnag, Skandnag, Vashunag, and Vrahaspatinag have been found in Pawaya. According to a pillar inscription found in Allahbad, Samudragupta had defeated last ruler of Nagvans, Ganpatinag. (Quarashi, 1985)



Figure: 3.4

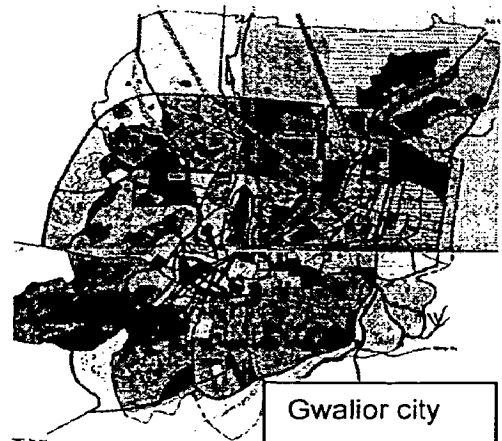


Figure: 3.5

Pawaya is some 68 kms from Gwalior. The life-size statue of Chaksha Manibhadra has been found here. The Parmars built the fort and the nearby Dhoomeshwar Mahadeo temple, which are the main attractions of Pawaya. Beginning of legendary Gwalior fort found its roots in the 5th Century during the rule of a **Kachhwaha Rajput prince, Suraj Sen.**

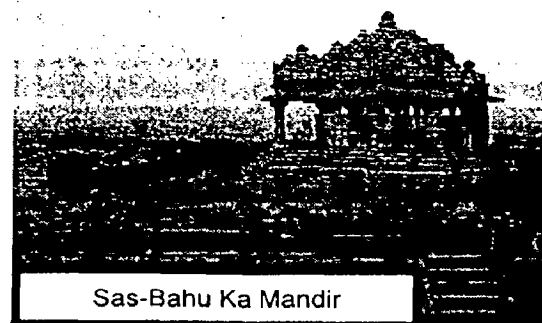


Figure: 3.6

It is believed that Gwalior was also under the rule of Mihir Bhoj (836-882 AD). In the 10th Century, second ruler of Kachapghat Rajvans, Vrajdaman had taken over Gwalior after defeating king of Kannauz. Mangleraj and Kirtiraj were the subsequent rulers of Gwalior.

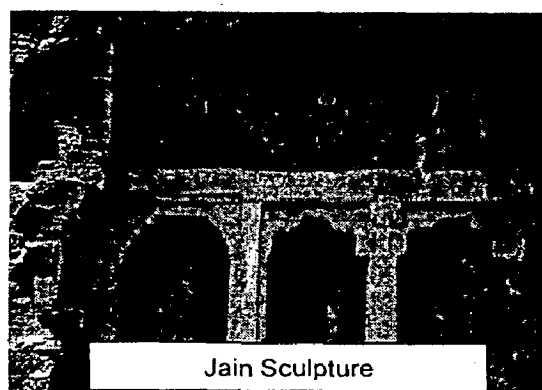


Figure: 3.7

In 1021 AD Mahmud of Gazni attacked on Gwalior. One of his lieutenants Malik Bahauddin Tughluq won Gwalior fort after lot of hard work.

Medieval:-In 1195-96 AD Mohammad Ghauri on Gwalior and its ruler Sallachan accepted the supreme command of Mohammad Ghauri so Ghauri allowed him to be the ruler of Gwalior. Later on Qutbuddin Aibak appointed Iltutmish as its Kiledar (In-charge of Fort). Iltutmish was the most famous ruler of Slave dynasty who, after winning Sindh in 1228 AD, expanded his empire by taking over Mandu, Gwalior, Malwa and Ujjain. Later on various rulers of Slave and Tughlaq dynasty ruled here.

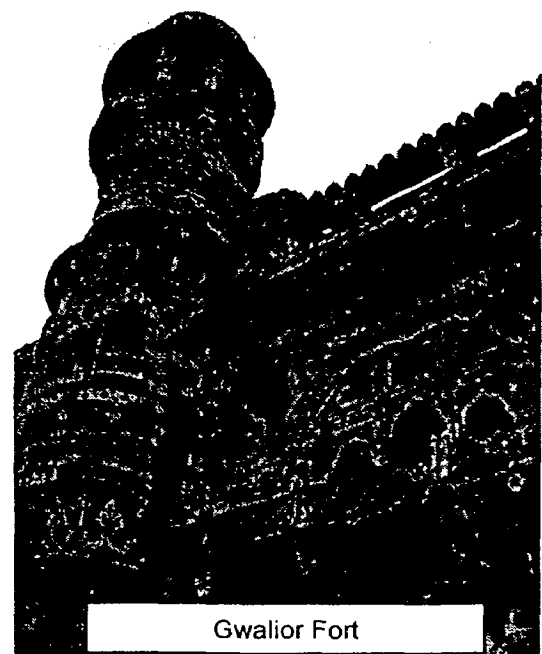


FIGURE: 3.8

During the later period of 14th Century Tomar clan took advantage of weak position of Islamic rulers, and Vir Singh Dev established Tomars as rulers of Gwalior. Udhwaraddev, Vikramdev, Dūngrandra Singh were the subsequent rulers of Gwalior.

Dungrandra singh is famous for his support for Jain Dharma (Religion). Kirti Singh, Kalyanmal and Man Singh were the descendants of Dungrandra Singh. Tomars ruled Gwalior from AD 1486 to AD 1526. The most famous of its kings was

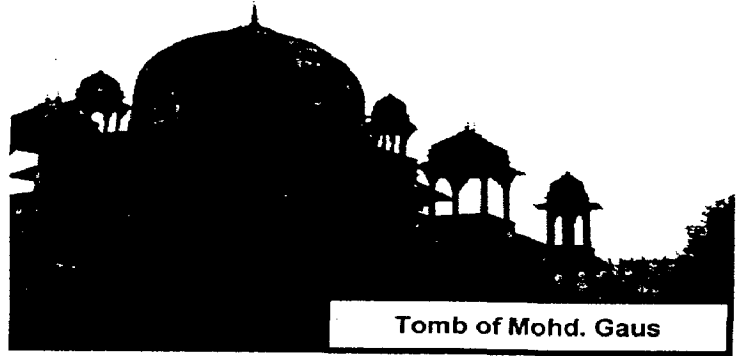


Figure: 3.9

Man Singh Tomar who rebuilt many important parts of Gwalior fort. Ibrahim Lodhi had defeated son of Man singh, Vikramaditya. Vikramaditya was killed in the first battle of Panipat. Thereafter Gwalior was mostly a part of the Mughal Empire.

Babur has given beautiful description of Gwalior in his autobiography "Babarnama".

Modern:-During the third battle of Panipat, 1761, Maratha Empire received a severe jolt. Jat ruler Lokandra singh took over Gwalior after the battle of Panipat. Yet again in 1765 an able Scindhia ruler Mahadji scindhia regained Gwalior.

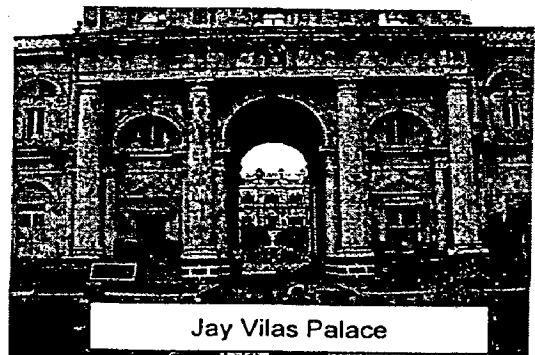


Figure: 3.10

Dulatrao (1794-1827) was successor who in 1810 shifted capital from Ujjain to Gwalior. Soldiers of Morar cantonment took part in the first freedom struggle of India. On 14th June 1857 soldiers cut off the communication between Gwalior and Shivpuri. Frightened Maharaja Scindhia sent British and his family members to Agra.

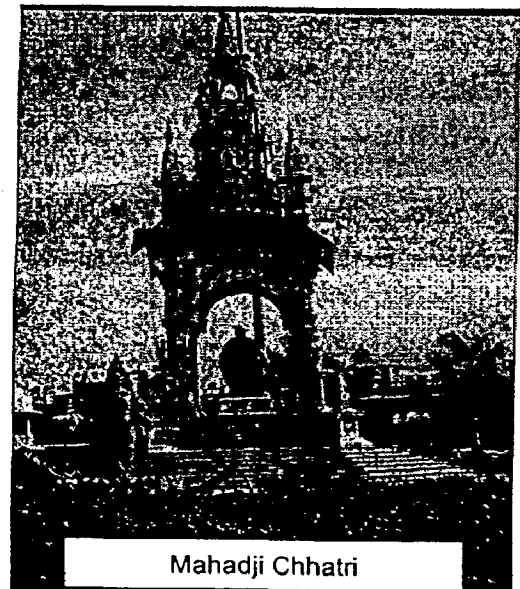


Figure: 3.11

Rani (Queen) of Jhansi, Laxmibai came to Gwalior when general Huroz of British army defeated Laxmibai in Kalpi. Maharaja Scindia of Gwalior betrayed Laxmibai. He gave her a weak horse. Sensing something fishy Laxmibai decided to leave Gwalior. She laid down her life, while fighting British, on 18th June 1858. After merging Gwalior, Indore, Malwa and other small states, Madhya Bharat State was formed in April 1948, during the meeting of rulers of Madhya Bharat in Delhi. On May 28, 1948 Pt. Jawahar Lal Nehru inaugurated this State and Jiwaji Rao Scindia took oath as the chief of the State.

3.1.7 Urban Process: Growth of Town

Beginning of legendary Gwalior fort found its roots in the 5th Century during the rule of a Kachhwaha Rajput prince, Suraj Sen. the first settlement in Gwalior was started on the plateau of the centrally located fort having size around 100 M high, 3.2 KM. Long and 823M wide and a tiny seasonal river to sustain life.

During Rajput kindom (1500 A.D.) Maharaja ManSinghTomar selected Gwalior as one of its capitol due to its geographical condition to control the central region of India. This area had potential to be have a settlement because it has centrally located hill which can provide protection from enemies. They built many buildings and palaces on the fort like man singh palace, gujari mahal, karan and vikaran mahal, etc.

Similar concept of settlement can be seen at ancient Athens, the acropolis and agora of Greece architecture.

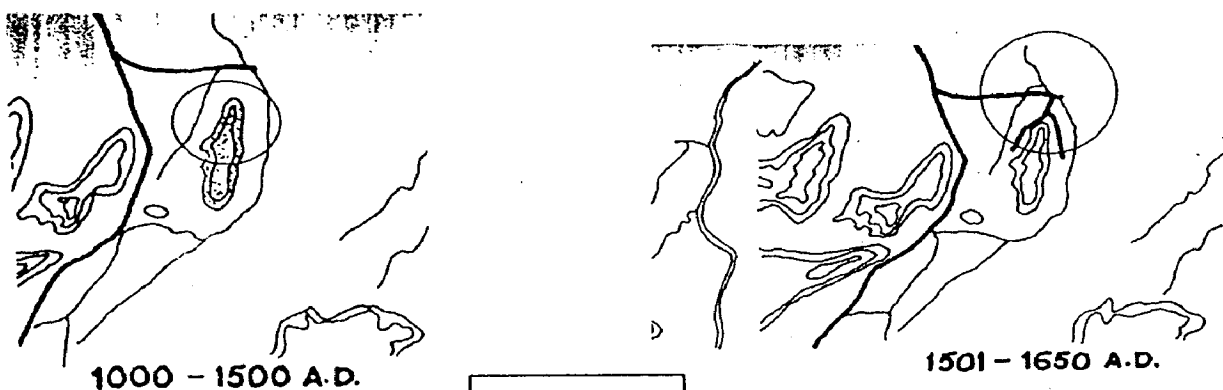


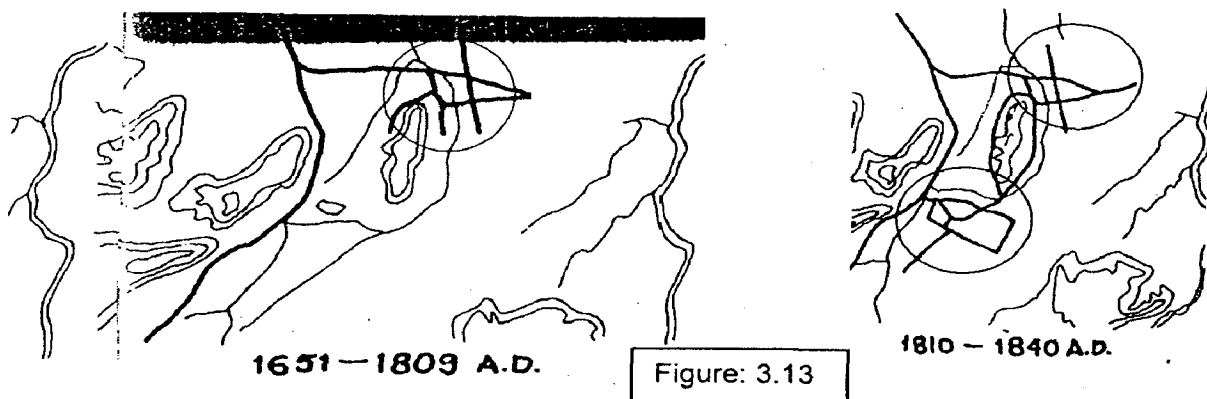
Figure: 3.12

1000-1500 AD: Fort was the main center of growth. All the activities were concentrated in the fort and the northern part of the present town (HAZIRA). It was the first pocket to be developed.

During Mughal period, several other monuments were added to it. The Fort of Gwalior, described to be as one of the best and invulnerable forts of India and, according to the Mughal Emperor Babar "the pearl amongst the fortresses of Hind." The royal family of Scindia dynasty is known as architect of the modern Gwalior.

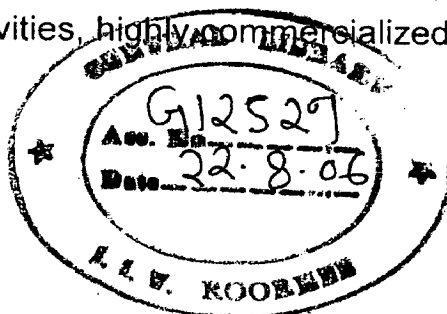
~~In the 1768, during the Maratha king Ranoji Rao Shinde, city started to expand.~~
The first settlement below the hill was experienced. Unplanned irregular growths of settlement begin at north-east side of the fort. This area is known as old Gwalior.

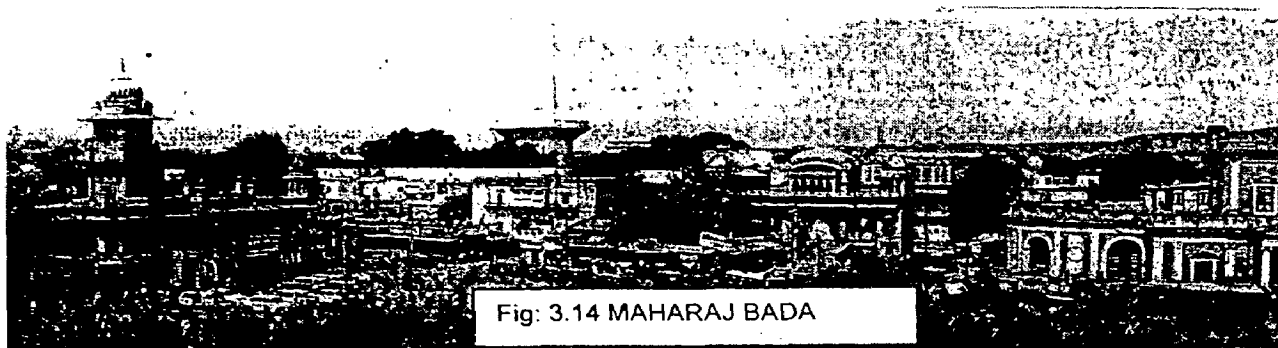
In due course of time, the area of old Gwalior natural growth took place in concentric pattern and become dense. Than city, tend to expand in other direction.



1501-1880 AD: *The northern part of the city became denser. In the 18th century, the southern part of the town, the present Lashkar area, BADA and Shinde ki chhawani came into existence. The growth was now in the northern and southern direction.*

In 18th century, Mahadji Rao Scindia established his palace and administrative area at entirely new location at south side of the fort hill. This area is known as "Lashkar"- a remarkable hub that is planned by British architect in roman fora style. It has a central open space with a landmark feature of statue of the king. It is surrounded by many buildings like Gorkhi durbar – a justice place, Victoria palace, regal theater, government press, etc. as this area was the central place for many activities, its peripheral area expand rapidly all around so, a concentric growth took place and this area become central business district known as **MAHARAJ BADA**. Presently it has become a core area for the city housing many activities, highly commercialized and highly dansified.

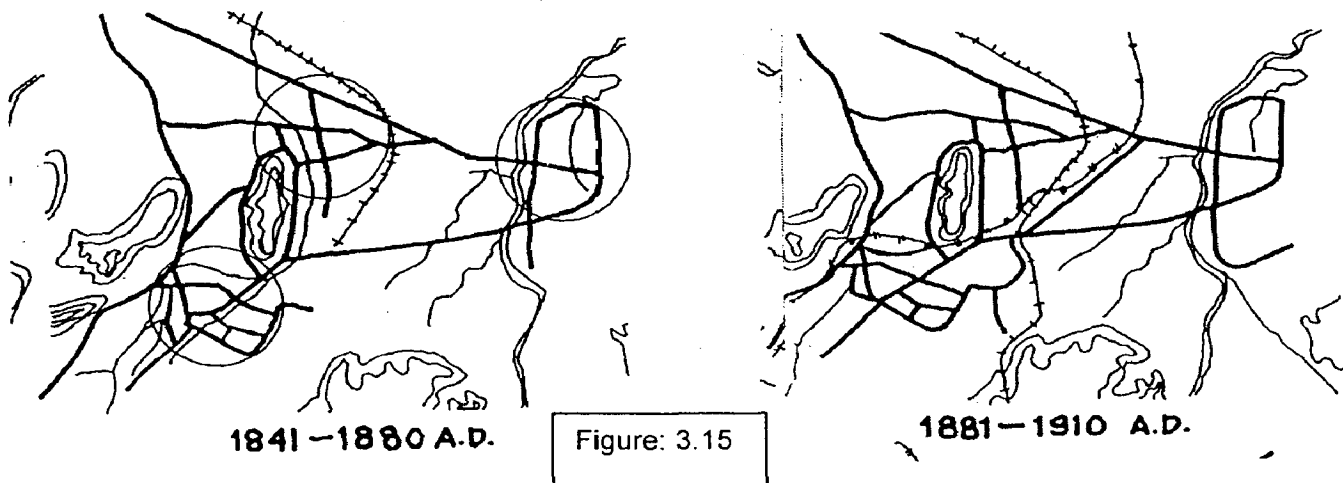




A tiny seasonal river called SWARN REKHA RIVER divides the city in two parts runs from south to north. Starts from catchments area of group of hills near hanuman hill and ultimately discharge into sank river. This river was the main source of the water supply which enhanced the urban growth. Due to this river a ribbon strip development was came into existence.

During the British period they established a planned developed township based on grid iron pattern. This township is known as Morar situated at western side of hill. This town ship was developed for the housing the British army. They made barracks and market places for army persons. This new settlement was away from the previous both settlements.

Up to this stage, the growth of the city was staggered in three different pockets having large agricultural area in between.



1880-1910 AD: *During the British regime Morar, the Cantonment area on the eastern part of the city came into existence. Road and rail network were developed and thus the city developed as a multinucleated town with Gwalior, Morar and Lashkar as three activity centres.*

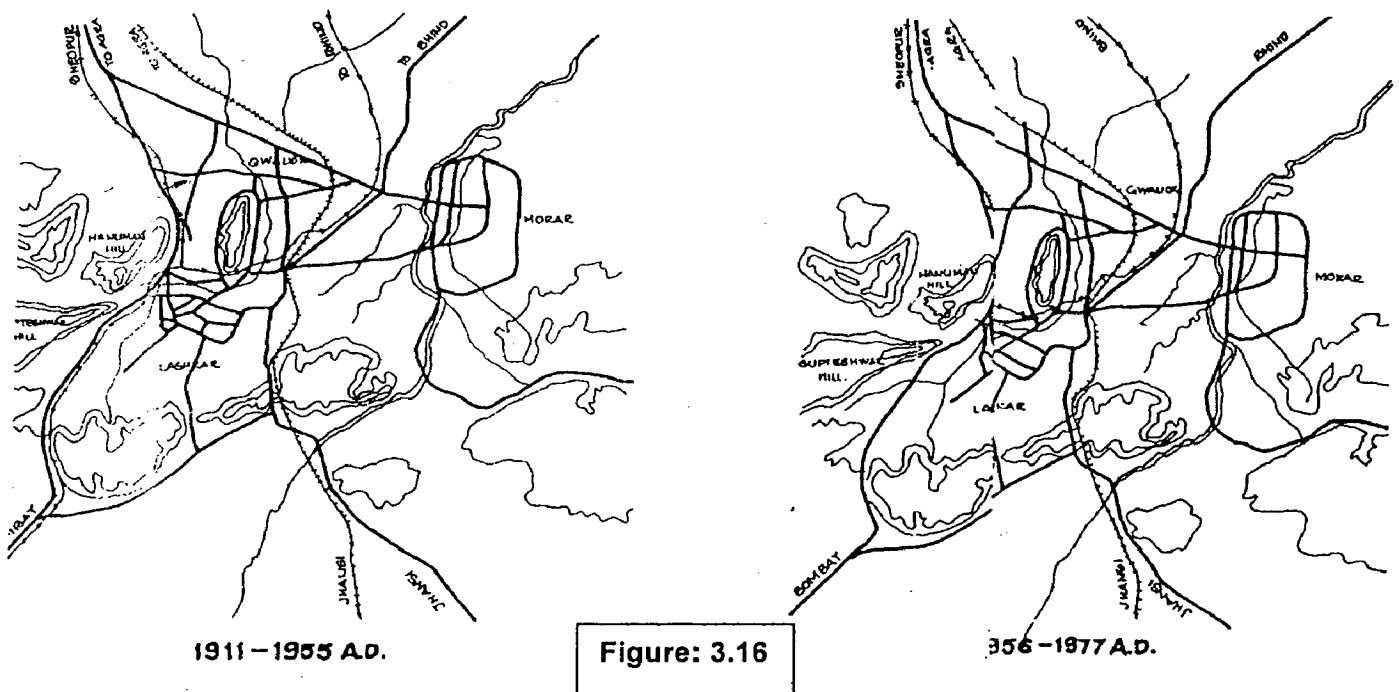
In the year 1918, Sir Jiwaji Rao Scindia started industrial development in the city and established a cotton mill, Gwalior potteries, and other industries with the help of the Britishers. These industries were placed at a new forth location of the city. Due to industrialization, rural people migrated from villages towards the city and settled in the various parts of the city.

In the year 1947, after the partition of the country some people from Pakistan and other parts were also occupied the vacant land of the city which lead to haphazard growth.

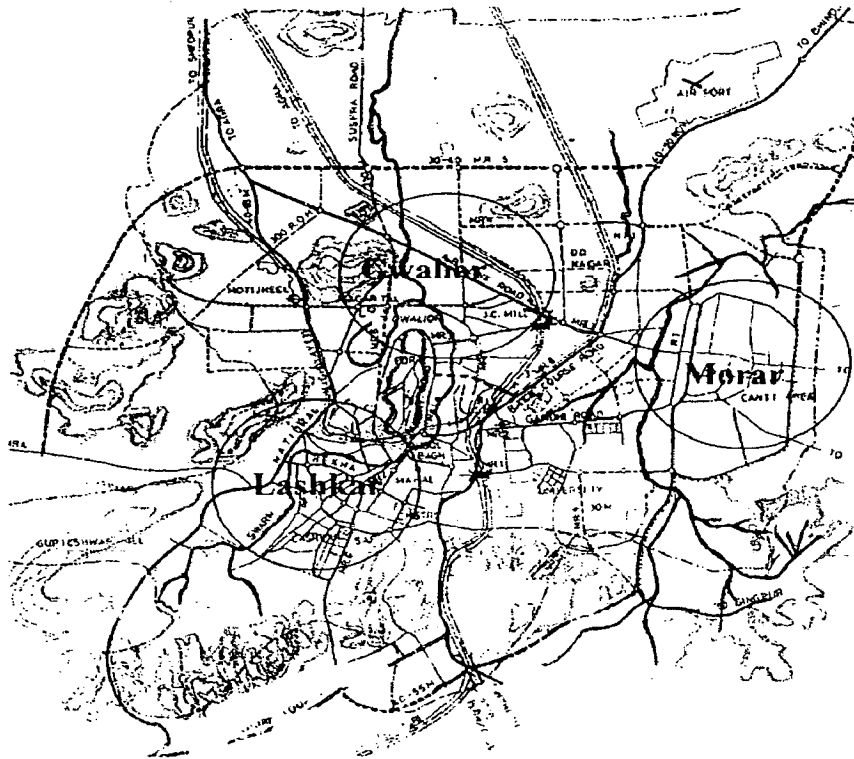
After the independence during 1970-80, an industrial area was developed near the Gwalior to promote the economy of the country. This area is act as a satellite town to the Gwalior known as Malanpur industrial area. This well planned industrial area is situated on the major route of transport Agra-Bombay road.

Industrialization further enhanced the migration so the population of the city was rapidly increased in short time and city was transformed into an urban area.

The over all growth pattern of the city reflects a combination of different types of growth theories as its some part is followed by concentric zone theory, some has ribbon or leaner development while some of the parts were well planned on gridiron pattern.



1910-1955 AD: The development mainly came up in the vacant pockets available between these three townships.



1955-2001 AD: After the formation of Madhya Pradesh state, Gwalior became the head quarter of Gwalior district. Although the growth of the city took place in all the directions, concentration of activities in the three cores namely Gwalior, Lashkar and Morar.

Figure: 3.17

3.1.8 Growth Pattern of Gwalior City

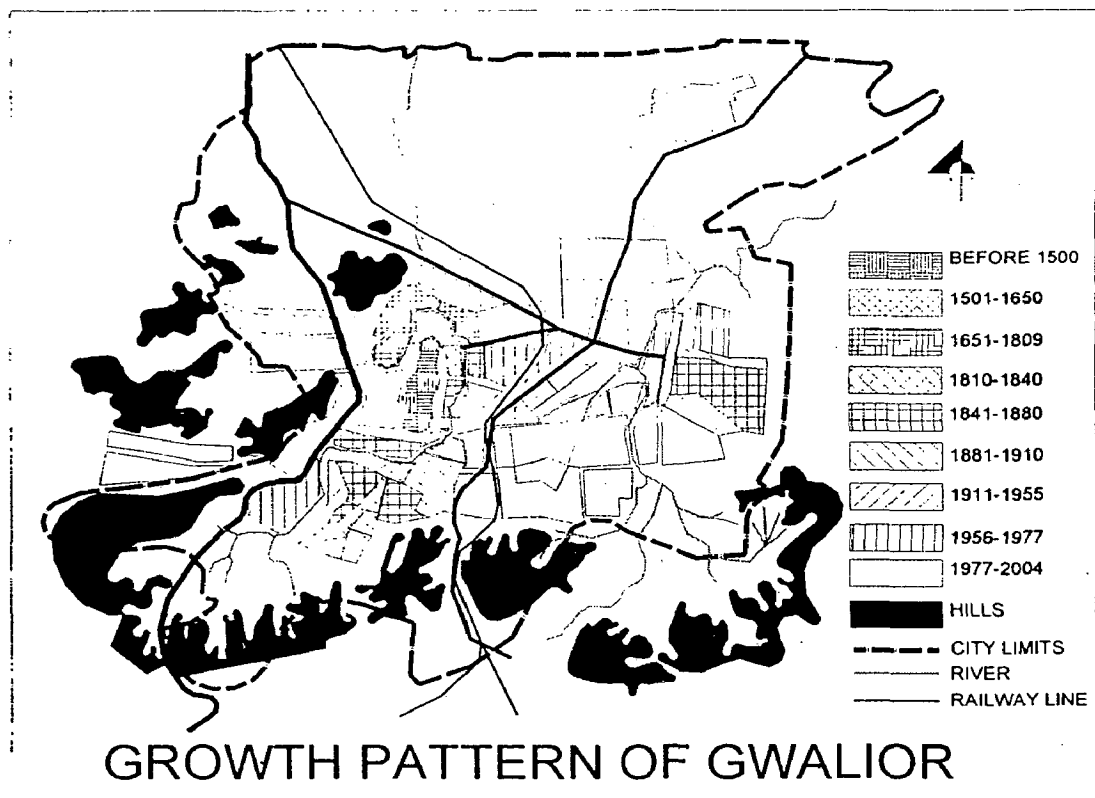


Figure: 3.18

Source: Author

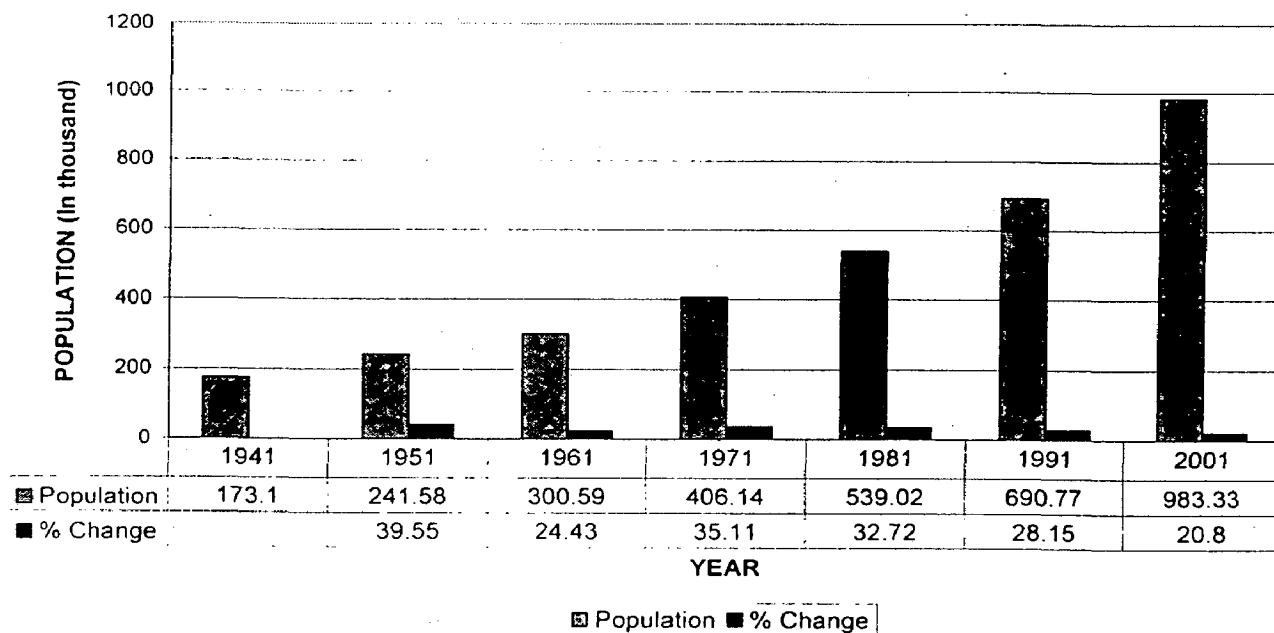
3.1.9 Population and Urbanization

(a) Population Trends

Gwalior is the fourth largest city in the state with a population of 826,919 in 2001. Within the 2001 population, 53.5% (442484) are male and 46.5% (384435) are female. (Census of India, 2001)

The city's decadal change in population in 1991-2001 decade was less than the national average and also much lower than its own growth rates in the earlier decades. Gwalior economy has been suffering since late 80's due to closure of large industrial units with no new investments forthcoming, which was the main reason for the decline in population growth rate. Actions have been initiated to revive the economy, which induces establishment of the new industrial growth centers near Gwalior. It is expected that this will lead to further employment opportunities and that in-migration will push up the growth rate in the coming decades.

URBANIZATION



TREND OF URBANIZATION

Figure: 3.19

Source: IUDMP Report 2002-03

Urban Population ('000 person) and decadal Change (%)

(b) Urbanization and Migration

The growth in the population seems to be significantly attributable to natural growth. The sample household survey conducted by GHK international shows that the majority (70%) of households have lived in the city for more than 10 years and those that have moved neighborhood have moved from another part of the city. Movements are more prevalent among amongst high, middle, and EWS households. These families are *more* likely to have moved from another urban area, while the poor too are more likely to have moved from an urban area.

TABLE: 3.1 *Percentage decadal growth, percentage of child population in the age group 0-6 by residence and percentage of urban population to total Population State and District, 2001*

State/ District	Total/ Rural/ Urban	Population			Percentage decadal growth 1991-2001	Persons	Child population in the age-group 0-6 population		Percentage of urban population
		Persons	Males	Females			Males	Females	
1	2	3	4	5	6	7	8	9	10
Madhya Pradesh	T	60385118	31456873	28928245	24.34	17.56	17.43	17.69	26.67
	R	44282528	22975256	21307272	22.02	18.77	18.64	18.91	--
	U	16102590	8481617	7620973	31.19	14.22	14.16	14.28	--
Gwalior	T	1629881	882258	747623	26.00	15.24	15.22	15.25	60.33
	R	646550	352668	293882	34.83	17.87	17.59	18.20	--
	U	983331	529590	453741	20.80	13.51	13.64	13.35	--

TABLE: 3.2 *Sex-ratio of population and sex-ratio of child population in the age-group 0-6 State, District, Tehsil, 2001*

State/District/ Tehsil	Sex-ratio of total population			Sex-ratio of child population in the age-group 0-6		
	Total	Rural	Urban	Total	Rural	Urban
1	2	3	4	5	6	7
Madhya Pradesh	920	927	899	933	941	906
Gwalior	847	833	857	849	862	838
Gird	849	819	860	834	835	833
Pichhore	839	850	820	891	900	870
Bhitarwar	847	843	873	874	873	879

Source:
District
Census
handbook
2001

TABLE: 3.3 Literacy rates by residence and sex - State, District, Tehsil,
2001

State/District/ Tehsil	Literacy rate								
	Total			Rural			Urban		
	Persons	Males	Females	Persons	Males	Females	Persons	Males	Females
1	2	3	4	5	6	7	8	9	10
Madhya Pradesh	64.08	76.50	50.55	58.10	72.10	42.96	79.67	87.78	70.62
Gwalior	69.79	80.83	56.76	53.72	69.70	34.40	79.83	87.91	70.44
Gird	73.38	82.96	62.13	52.26	67.85	33.15	80.56	88.24	71.68
Pichhore	62.41	76.49	45.43	54.51	70.60	35.33	76.92	87.14	64.33
Bhitarwar	56.87	73.19	37.49	55.69	72.35	35.78	64.37	78.57	48.07

Source: District Census handbook 2001

3.1.10 Socio-Economic Profile

(a) Introduction

Baseline data for the socio-economic profile for the six cities has been obtained using both primary and secondary data collection. Primary data collection has included an extensive sample household survey in each city. Secondary data collection has relied substantially on the Census of India and other government publications. This has been constrained by limited release of 2001 Census data and the lack of up-to-date and compatible city-level data. The baseline data for Gwalior has been presented in this volume.

(b) Employment:

The socio-economic survey revealed key employment data, including number of income earners per household, Employment in formal and informal sectors by the type of skills. The main income earner in 48% of all poor households is in informal employment compared with 12.6% amongst the non-poor. The data reveals that the intermediate households had the highest proportion (61.6%) of main income earners in informal employment compared to a city average of 21.5%. Among the transitional poor and the core poor households it was recorded at 40% and 51.5% respectively. (G.H.K. International, 2002-03)

TABLE: 3.4 *Summaries of Results from 6 Cities:*

Particulars	Bhopal	Gwalior	Indore	Jabalpur	Ratlam	Ujjain	Total
Av HH Size	5.79	6.85	6.31	6.45	5.86	6.55	
Mean HH Income (Rs/mth)	6065	7707	5273	8899	4342	4102	
BPL POP(Hr.)	15.2	9.9	17.6	10.5	22.6	28.6	5.7
Diarrhoea last rear (% HH)	18.5	12.8	15.4	12.8	8.2	11.8	14.6
No legal tenure (% HH)	21.4	17.0	25.4	17.4	21.7	13.3	20.4
No in house water (% HH)	34.1	29.6	52.5	51.6	50.0	34.0	42.3
No piped water (% HH)	4.3	18.8	21.7	16.3	26.7	4.8	15.1
No private toilet (% HH)	18.6	19.3	19.4	16.7	28.2	15.0	18.8
Flooding problem (% HH)	41.2	20.3	32.7	31.9	22.0	36.6	32.0
No paved road (%HH)	22.3	20.5	33.0	22.0	41.2	30.2	26.7
Public transport >1km	11.1	14.5	24.4	23.5	28.9	14.8	18.8

Source: IUDMP Report 2002-03

Of all the households, only 6.7% reported that the main income earner had more than one job. In the poor households, 4.4% of the main income earners had more than one job. Among the intermediate poor households, it was recorded around 7.9%, which was the highest among the poor households. (Table No. 3.5)

TABLE: 3.5 *Summary Employment (Income Earners), by Income Group, Gwalior*

PARTICULARS	EWS	LIG	MIG	HIG	All Income group	All Cities Avg.
Household size	5.5	6.6	7.1	7.8	6.9	6.3
Number of persons of working age	3.0	3.9	4.3	5.0	4.2	4.0
Total income earners:						
Of which: Formal %	44%	65%	84%	95%	77%	61%
Of which: Informal %	56%	35%	160%	5%	23%	39%
% HHs with main income earner female	6.8%	2.8%	3.0%	1.5%	3.2%	5.2%
% HHs with main income earner in informal employment	54%	29%	10%	6%	21%	36%

Source: IUDMP Report 2002-03

Of all the households surveyed, women as the main income earner were observed among 3.2% households. In the poor households, 3.1 % had women as

the main income earner. Among the; poor households who had women as the main income earner 8.7%, 10.9%, 4.5% belonged to the transitional, intermediate and core per households respectively.

TABLE: 3.6 *Percentage of total workers, main workers, marginal workers and non-workers to total population by residence and sex: State and Districts - 1991 and 2001*

State/ Districts	Total/ Rural/ Urban	Persons/ Males/ Females	Percentage to Total Population							
			Workers						Non-workers	
			Total workers		Main workers		Marginal workers			
			1991	2001	1991	2001	1991	2001	1991	2001
1	2	3	4	5	6	7	8	9	10	11
Madhya Pradesh	T	Persons	41.06	42.75	36.07	31.66	4.99	11.09	58.94	57.25
		Males	51.56	51.62	50.82	44.86	0.74	6.76	48.44	48.38
		Females	29.55	33.10	19.90	17.31	9.65	15.79	70.45	66.90
Gwalior	T	Persons	30.23	32.51	28.30	27.11	1.93	5.40	69.77	67.49
		Males	47.24	47.84	46.86	43.57	0.38	4.27	52.76	52.16
		Females	9.76	14.42	5.97	7.68	3.79	6.74	90.24	85.58
	R	Persons	35.59	38.30	30.97	28.67	4.62	9.63	64.41	61.70
		Males	50.89	50.19	50.17	44.45	0.72	5.74	49.11	49.81
		Females	16.77	24.04	7.34	9.73	9.43	14.31	83.23	75.96

Source: District Census handbook 2001.

(c) Land and Housing

Out of all the households, nearly 70% lived in the same neighborhood for the last 10 years. Nearly 14% households reported they have been living there for about 6 - 11) years while 13.2% stated they lived there for a period of 1 - 5 years, The remaining households (2.7%) lived in the same neighborhood for less than a year.

Among the different income groups 68% of the HIG and MIG, 71 % of LIG and 72% of EWS stated that they lived in their present neighborhood for the last 10 years. Nearly 83% of BPL households stated the same. Among the poor households around 73% of TP households and 83% of IP households and the core poor households resided in the same area for the last 10 years.

Of all the households surveyed only 10.6% of the households surveyed stated

that they had moved from another part of the city in the last 5 years. Only 2.6% of the households stated that they moved from another city and only 0.7% of them moved in from a rural area. None of the core poor households have reported to have moved in the last 5 years.

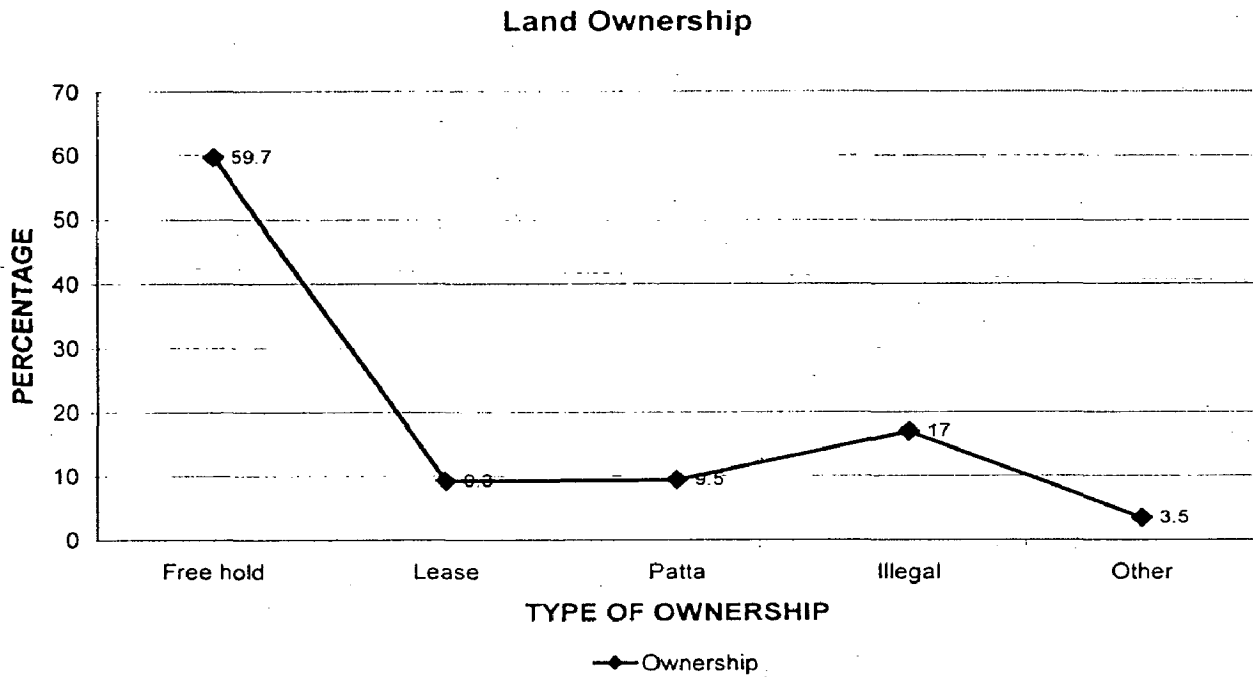


Figure: 3.20

Source: IUDMP Report 2002-03

In Gwalior, nearly, 85% owned their plot of land. Among the different Income groups, 91 % of HIG, 87% of MIG, 82% of LIG and 76% of the EWS households owned their plot of land. Nearly 85% of the BPL households reported the same. From the survey it was observed that 59.7% had a freehold title, 17% did not have any legal right, 9.5% had received pattas from the Government; the rest had it on lease or had other legal rights. Among the different income groups it was observed 75% of the HIG households and 67% of MIG, 50% of LIG and 39% of EWS households had a freehold title. It was observed that nearly 17% of EWS households had been given pattas by the government, which was recorded to be highest among all income groups. At the same time the proportion of households without any legal right was also observed to be highest among the EWS (31 %) compared to a city average of 17%.

Only 14.5% households lived in rented accommodation while the remaining 85.5% households stated that they owned their houses. Nearly 91 % of the HIG, 87% of MIG, 83% of LIG and 76% of EWS households had their own accommodation. The survey revealed that nearly 57% of the BPL households owned their houses. (IUDMP Report 2002-03)

OWNERSHIP PATTERN OF VARIOUS GROUPS

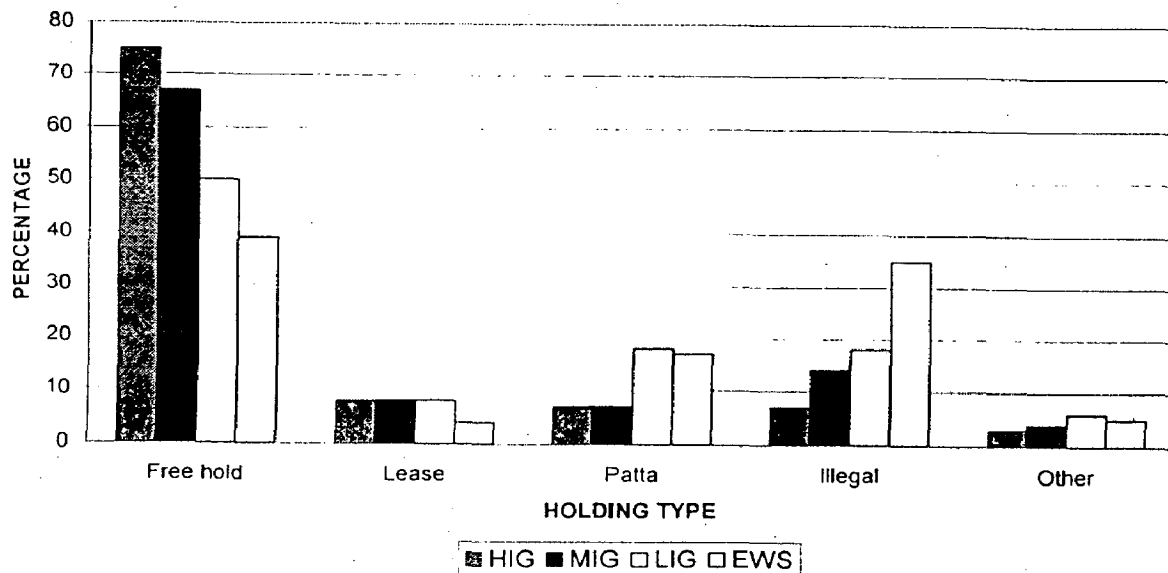


Figure: 3.21

Source: IUDMP Report 2002-03

(d) Education

In Gwalior, nearly 99% households had their children enrolled in primary schools nearly 99% of HIG, 97% of MIG and LIG, 99% of EWS and 93% of the BPL households had their children enrolled in school. Among the children enrolled in primary school 19.7% belonged TP, 10.2% were from IP and 2.1% were from core poor households. In the city nearly 97% of the households stated that all the girl children in the households were enrolled in schools. About 8% of the BPL households reported that none or some of their girl children were enrolled. For the poor households nearly 3.1% of TP, 8.7% of the IP households and 6.3% of the core poor households reported the same. (IUDMP Report 2002-03)

CHAPTER 4:

REVIEW OF DEVELOPMENT PLANS

This is one of the core chapters of the dissertation report, broadly it is divided into two parts; first, review of past development plans of Gwalior and Jaipur based on literature based case study while, second part has a detailed study of current development plan of Gwalior (2005) carried out on the basis of field survey. The objectives of study are to critically review the development scenario of the city and bring out areas of success and failure along with influencing factors.

First statutory development plans of Gwalior and Jaipur has been taken as literature based case study. These reviews were done by the concerned regional offices of T &CP, organization as a part of evaluation and published in succeeding development pan.

This chapter contains objectives and concepts of development plan along with land allocations and detailed list of development proposals under various sectors, followed by statistics of development implementation carried out during plan period and analysis of development statistics.

4.1 REVIEW OF DEVELOPMENT PLAN (1991) OF GWALIOR.

4.1.1 Introduction

The first statutory development plan of the city was come into existence in the year 1978 for planned and coordinated development of the region.

The plan was conceived for a period of 13 years ending in 1991 for a projected population of 8 Lacs.

In the changing national and state level liberalization scenario following criteria was considered for policy formulation:-

1. Development for regional and local requirements.
2. Impact of development of industrial growth centers.
3. Impact of development in the central Govt. sector.

4.1.2 Planning Area

Planning area of Gwalior was notified under Sub-section (1) of section 13 of M.P. T & CP Act, 1973.

The planning area covers approximately 206.99 Sq. Km of land which includes all the 60 villages and municipal area, but excluding Morar cantonment area.

4.1.3 Major City Functions:

The city has gained following major functions in course of its growth:

1. Regional service centre
2. Tourist centre
3. Administrative centre
4. Educational and socio-cultural centre
5. Centre for trade and commerce and industries

4.1.4 Major Problems of the City

- a) Misuse and inefficient use of urban land (incompatible uses)
- b) Abnormal growth of one urban centre on the cost of other two settlements
- c) Need of integration and strong linkage among all three nodes
- d) Excessive travel trips for various centers
- e) Lack of balanced distribution of city level amenities
- f) Loss of relationship between work center and residential areas
- g) Imbalanced residential densities and slum formation
- h) Environmental up gradation of Swarna Rekha River
- i) Conservation of heritage and promotion of tourism activities
- j) Lack of exploitation of economic activities.

4.1.5 Objectives of Development Plan (1978-1991)

- a. Coordinated development of the Gwalior in national and regional perspective
- b. Development of inert city transport and communication network to discharge the national and regional functions efficiently
- c. Conservation and restoration of urban heritage
- d. Shaping the urban structure of city functions
- e. Efficient and judicious use of land

- f. Harmonious interrelation between various use zones
- g. Functional distribution of work centers to minimize travel distance
- h. Compact city development
- i. Hierarchical city structure in terms of self contain planning units
- j. Gradual removal of existing disorders by relocation of incompatible land uses
- k. Efficient conservation and management of natural resources

Basic consideration of the plan:

1. Development of regional city centre to help in integration of three townships
2. Development of industries at suitable locations
3. Development of Administrative centers in shape of office complex
4. Development of infrastructure for organized tourism
5. Development of organized transport center serving city's trade and commerce and industries
6. Revitalization of main civic center "BADA"
7. Development of new sites for housing particularly for EWS and L.I.G
8. Ensuring healthy and aesthetic urban environment

4.1.6 Evaluation of Plan Performance

Plan implementation status is an important aspect in the total review of development plan. It is essential to review what was proposed and to what extent it could be translated on ground for adopting corrective measures for future urban expansion.

Analysis of development statistics

The status of development of the city during 1978-1995 (first plan period)

Planning area delineated to accommodate future growth and controlled area was 20699 Hectares (31128 acres)

Before 1978, existing developed land was accounted nearly 3056 hectares an additional 3344 hectare land was allocated for urban development during first plan period. Thus total area proposed for urban development up to 1991 was anticipated as 6400 hectare under different uses.

But implementation status reveals that only **1275 hectare (38.12%)** of land could develop during first plan period so the total land consumption has been limited to 4331 hact. Over a period of 17 years, from 1978 to 1995

The land consumption rate work out to 5.41/1000 person against the anticipated rate of 8/1000 as per development plan 1991.

Agencies involved in the implementation of plan proposals:

- Gwalior Development Authority
- M P Housing Board and other autonomous bodies
- Private agencies / Co-operative Housing societies
- Other Govt. department e.g. PWD, PHE, SEB D, CPWD etc.

TABLE: 4.1 *implementation status of Gwalior development plan during 1978-1995*

S.N.	LANDUSE CATAGORY	EXIST DEVLOP -ED 1976	ADD. ALLO- CATION 1991	NET AREA DEVELOPED DURING 1976-95	VARIATI -ON 1976-95	VARIATI -ON %	LAND UTILIZATION RATE	
							ACHIEV- ED	ENVISA- GED
1	RESIDENTIAL	1342	1378	+738	-640	53.55	2.60	3.40
2	COMMERCIAL	105	215	+155	-60	72.09	0.32	0.40
3	INDUSTRIAL	238	322	+35	-287	10.89	0.35	0.70
4	PSP	330	230	+90	-140	39.13	0.52	0.70
5	PUF	166	154	+45	-109	29.22	0.26	0.40
6	RECREATION	189	531	+23	-508	4.33	0.27	0.90
7	TRANSPORT	686	514	+189	-325	36.77	1.09	1.50
	TOTAL	3056	3344	+1275	-2069	38.12	5.41	8.00

Area in Hectares

Source: Gwalior development plan 2005

Table: 4.2 *Land allocation and implementation status (First plan period)*

S. N.	LANDUSE	Existing as on 1978 EXISTING AREA	Adopted in 1991 plan			Implemented up to 1995		
			PROP AREA	%	L.U. RATE Ha/1000p	AREA	%	L.U. RATE Ha/1000p
1	Residential	1342	2720	42.50	3.4	2081	48.04	2.60
2	Commercial	105	320	05.00	0.4	260	06.04	0.32
3	Industrial	238	560	08.75	0.7	273	06.30	0.35
4	P.S.P	330	560	08.75	0.7	420	09.69	0.52
5	P.U.F	166	320	05.00	0.4	210	04.84	0.26
6	Recreational	189	720	11.25	0.9	212	04.89	0.27
7	Transportation	686	1200	18.75	1.5	875	20.20	1.09
	TOTAL	3056	6400	100	8.0	4331	100	5.41

(Areas in Hectare)

Source: Gwalior Development Plan

4.1.7 Plan Performance:

(a) Areas of success

(b) Areas of failure

(a) Areas of success:

Gwalior development plan 1991 was the first attempt in the direction of orderly development of the city.

Provided direction to the future growth of the city

The performance under the residential land use development was around 55% but it can be said satisfactory because of less pressure of population.

The plan was succeed to develop around 72% of commercial land use.

Integration among various development agencies was initiated through this plan

Some well planned industrial base was started under this plan to provide economic opportunities to their habitants.

(a) Areas of failure:

- The development plan (1991) of Gwalior has been suffered on many fronts, in quantitative term as well as qualitative.
- Total area proposed for urban development up to 1991 was anticipated as 6400 hectare under different uses but the land consumption has been limited to 4331 hectare over a period from 1978 to 1995 (17 years)
- Plan could not address some specific problems of the city like ENVIRONMENT IMPROVEMENT OF SWARNA REKHA RIVER.
- Some problems were addressed briefly but could not initiate like HARITAGE CONSERVATION AND TOURISM DEVELOPMENT, CITY CENTER etc.
- There were many proposals which could not implement like relocation of incompatible and inefficient uses like TRANSPORT AGENCIES, WHOLESale MARKETS, VEGITABLE MANDI, and DAL MILL etc.
- Some proposals were suffered for delay in execution like TRANSPORT NAGAR
- Some of the residential projects were not completed in prescribe time limits like Vinay nagar, Laxmi bai colony etc.
- Development of infrastructure facilities and public and semi public utilities was relatively low

The plan was also suffered for want of adequate management in following areas;

1. Urban land management
2. Institutional coordination
3. Non availability of timely and adequate finance.
4. ~~Absence of system to monitor plan implementation~~
5. Inadequacy of laws to control real estate development

The goals and objectives set out in the development plan 1991 were intended to be accomplished during its implementation process.

But it is felt that the plan proposals were often vitiated at various stages of implementation mostly in qualitative terms.

This is reflected in the disordered 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 network and inability to provide effective mass transport system.

3.1.9 INFERENCES:

- I. Development agencies have not taken up schemes in right direction to develop incompatible uses listed in development plan 1991
- II. Transport Nagar was started in 1986, but activities were not shifted.
- III. Absence of infrastructure and unwillingness of transporter's to move are other factors for delay in implementation.
- IV. Development agencies have given full attention to residential schemes only. They have not conducted any survey to assess demand and potential to shift incompatible uses in organized way.
- V. Location of shifting incompatible use to other places was usually away from habitated area which created inbuilt resistant from users.
- VI. Lack of co-ordination between different agencies and different priorities by different departments was another factor for non implementation of plan proposals efficiently.

4.2 REVIEW OF DEVELOPMENT PLAN (1991) OF JAIPUR.

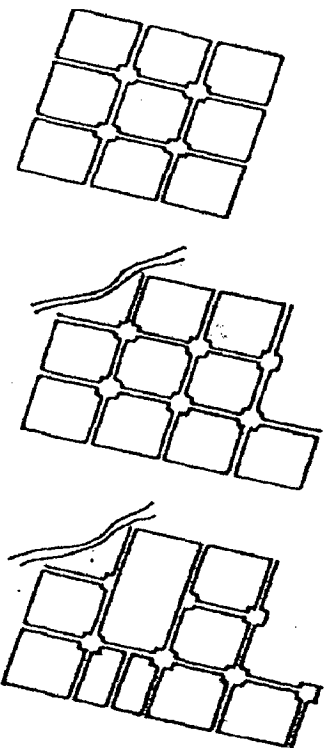
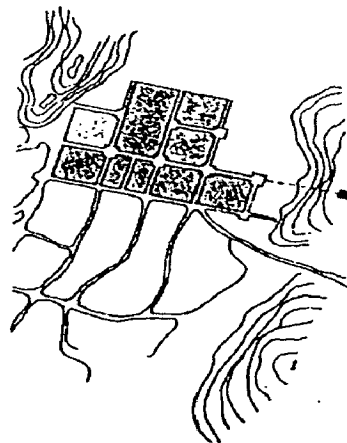
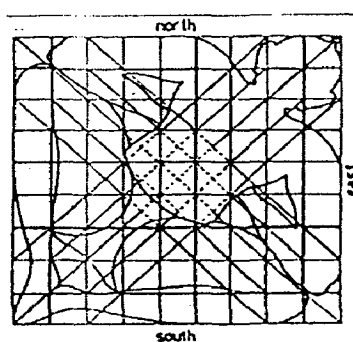
4.2.1 Selection Criteria for Case Study:

There are some similarity between Gwalior and Jaipur like:

- Origin point Hill top Amer fort and Gwalior fort
- Founder Kachhawaha Rajput
- Planned Jaipur was planned city while Gwalior was partly planned
- Heritage both are having many historical monuments
- First plan period 1978-1991
- Capitol Gwalior gained the status of state capitol of Madhya Bharat up to 1956

4.2.2 Introduction:

Two hundred and seventy six year old Jaipur is an excellent example for understanding the traditional architecture and planning concepts of India. Its founder, King Sawai Jai Singh (1700-1743), was well versed in the arts and sciences, especially astronomy. He wished to establish a new capital city reflective of his wider consciousness. Assisted by Vidyadhar Battacharya, his able architect, Jai Singh founded Jaipur on November 17, 1727.



PLANNING CONCEPT OF THE JAIPUR CITY

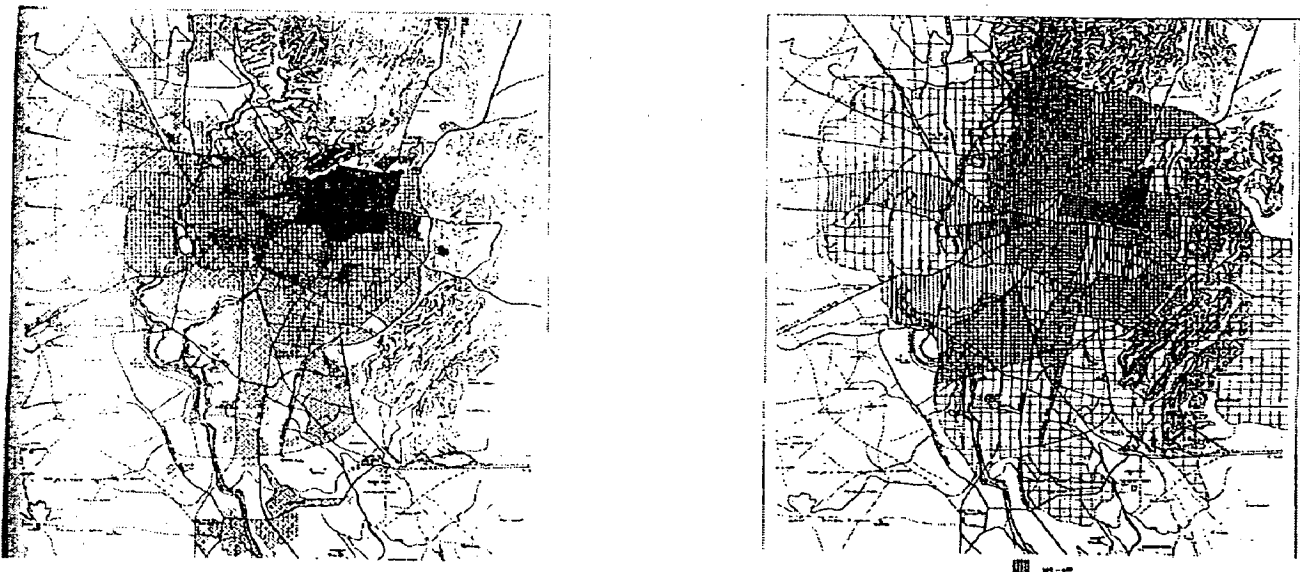
Figure: 4.1

Source: ITPI, Regional chapter, Jaipur.

The adoption of the basic nine-square diagram for the site of old Jaipur city was based on vastu. The northwest block is shifted to the southwest on account of the Nahargarh Hills and two squares combined for the observatory and palace complex.

4.2.3 Growth Trend

Till the turn of the 20th century, most of Jaipur's population was contained within the walled city, with very little spillover beyond. In the 1930s, several major residential schemes were proposed in the areas outside the walled city. They were planned according to British town planning concepts rooted in the garden city principles. In stark contrast to the old city, these schemes had large residential plots and sprawling bungalows, and consequently very low-density development. They seemed to have drawn their inspiration from Edwin Lutyen's New Delhi plan without realizing that this region has severe water scarcity.



Jaipur city – Physical growth in 1880. Jaipur city – Population density in 1983.

GROWTH PATTERN OF THE JAIPUR CITY

Figure: 4.2

Distinct class patterns developed almost simultaneously with the residential development. Out migration of the elite from the old city to these new areas began and resulted in settlement mainly in the areas south of the walled city because of the status and prestige accorded to the area. The middle classes and the newer population generally concentrated in the area west of the walled city. A

socio-economic study of Jaipur city, conducted by the University of Rajasthan between 1956 and 1966, indicates that "the city has grown and developed only in the southern and southwestern direction. This can be attributed to the physiographic factors, since the remaining three sides of the city are surrounded by hills, which restrict the physical growth of the city only to that side. It is also in this direction that expansion of administrative, cultural and upper and middle class residential zones has taken place." Draft Master Plans based on the Western garden city concept prepared for Jaipur in 1969 and 1976 have also emphasized new development in the south and southwestern direction. The only substantial proposal for the northwest region is an industrial zone that was subsequently revised to regularize unauthorized residential development.

In 1981, the population of Jaipur Urban Agglomeration, 180 sq. km in size, was 1,015,160 with a growth rate of 59.4 percent over the previous decade. The general trend of population growth in Jaipur has followed a pattern similar to that of Rajasthan State as a whole. Between 1941 and 1951 there was a large influx of people seeking refuge in the city after partition. In the last 40 years, the city's population growth has been fairly high due to Jaipur's importance as the state capital and newly industrializing center of Rajasthan. In addition, the city limits have been extended and now it incorporates the rapidly growing villages of the periphery.

3.2.4 Analysis of Existing Conditions

(a) Demographic characteristics:

According to the 1971 census, Jaipur Urban Agglomeration had a population of 6.36 lacs as against 3.04 in 1951. the growth rate during 1951-61 was 34.82% whereas during 1961-71 it was 55.17%. The Master Plan prepared for the horizon year 1991 envisaged population of Jaipur by 1981 to be 9.27 lakhs and by 1991 to be 12.54 lakhs. Thus a decadal growth rate of 35.3% was envisaged.

The population figures of 1981 census indicate that growth of Jaipur has been faster than envisaged in the Master Plan notified in 1976. The population of urban agglomeration in 1981 was 10.15 lakhs and in 1991 15.18 lakhs.

The growth rate of satellite towns and rural areas has been higher in comparison to the average National growth rate.

(b) Socio-Economic Structure

The economic profile predominantly is Trade and Commerce, Tourism and Tertiary sector for the urban area and Agriculture for the rural areas. These activities have grown in size and output, without indicating a noticeable change in participation ratio and percentage of workforce.

The result of liberalized economic policy and unigauge system of Indian Railways has not yet shown its impact in terms of increase in the pace of Industrial Development. The only noticeable change relevant to spatial planning during the last decade has been the investments by the urbanites in agricultural lands in the rural areas and in the fringes of urban areas.

(c) Urban Sprawl and Settlement Pattern

In the Jaipur Region, the urban sprawl of Jaipur city has registered the fastest growth and most of the increase besides ribbon development has been along the highway corridors.

The satellite towns and rural settlements have not enlarged much in physical terms. The various transportation nodes in between Jaipur city and satellite towns indicate potential of emergence s important nodes for economic activities.

Sectoral investment at various locations in the region especially development of Industrial Areas by RIICO without providing the rest of the urban infrastructural facilities which are otherwise essential and incidental to principal activity have haphazard growth of these activities around the industrial estates developed by RIICO.

3.2.5 Analysis of Developed Area

The Master Plan notified in 1976 envisaged the population of Jaipur to be 9.27 lacs by 1981 and to be 12.54 lacs by 1991. An average annual growth rate of 3.53% was envisaged while making projections. The population figures of 1981 and 1991 censuses indicate that growth of Jaipur was faster than as projected in the Master Plan. The population of urban agglomeration in 1981 was 10.15 lacs and 15.18 lacs in 1991. Participation ratio in Jaipur was 26.87% as against 20.9% in Rajasthan (urban as per 1971 census). The Master Plan envisaged that it might increase to about 35% by horizon year of 1991. Census figures of the same year indicate that the participation ratio has not experienced the increase as projected in the Master Plan.

TABLE: 4.3 *Development statistics of Jaipur development plan*

LAND USE	MP PROPOSALS 1991			ACTUAL 1991		
	EXIST. 1971	PROPOSED	TOTAL AREA FOR DEV.	TOTAL DEV.	DEV. AT RIGHT PLACE	DEV. AT WRONG PLACE
RESIDENTIAL	5000	12200	17200	15880	12014	3866
COMMERCIAL	340	1260	1600	950	684	266
INDUSTRIAL	710	3750	4460	2490	1767	723
GOVT.	210	230	440	390	287	103
RECREATION	330	670	1000	530	487	43
P & SP	1680	900	2580	2120	1751	369
TOURIST FACI.	-	200	200	-	-	-
CIRCULATION	1730	4290	6020	2910	2909	1
TOTAL	10,000	23,500	33,500	25270	19,899	5371

(AREAS IN ACRES)

*SOURCE: Jaipur development authority***TABLE: 4.4** *Comparative statements of areas under different land uses per 1000 population*

LAND USE	AS EXISTED IN 1971	AS ENVISAGED FOR 1991	AS DEVELOPED IN 1991
RESIDENTIAL	8.13	13.76	10.46
COMMERTIAL	0.55	1.28	0.63
INDUSTRIAL	1.16	3.57	1.64
GOVERNMENTAL	0.34	0.35	0.25
RECEATIONAL	0.54	0.80	0.35
PUBLIC & SEMI PUBLIC	2.73	2.06	1.40
TOURIST FACILITY	-	1.16	-
CIRCULATION	2.81	4.82	1.92
TOTAL	16.26	27.80	16.65
POPULATION	6.15 LACS.	12.50 LACS.	15.18 LAC

(AREAS IN ACRES)

SOURCE: Jaipur development authority

Thus, it can be seen that the projections made out in the Master Plan prepared in 1976 with reference to demographic profiles have been significantly different from what had been envisaged.

The break-up of occupational structure indicates that the Master Plan envisaged substantial increase in the industrial workers (Three times increase). It is observed that the assessment of total workforce in Industrial sector was also incorrect.

The Master Plan suggested a total land envelope of 38,400 acres for population of 12.54 lacs. Out of this, the assigned developed area was 33,500 acres. This was expected to accommodate different urban activities.

~~The developed area in the city in 1991 was only 25,270 acres and it accommodated a population of 15.18 lacs. This is a clear indicator of growth of the city accommodating itself in lesser quantum of land than as envisaged in the Master Plan and consequently the city has grown at a density higher than what was stipulated in the Master Plan.~~

A look at the Table which enumerates the figures of Urban Land parcels under different uses per 1000 population reveals that the scenario of quality of urban spaces has not changed from the level which existed in 1971. In fact, it has deteriorated in certain spheres.

Analysis of land use 1991 indicates the extent of implementation of the Master Plan. The table gives the quantitative analysis of different uses in terms of envisaged and actual area. This table also reflects the successes & failures of the Master Plan in terms of development of various land uses at the locations prescribed in the Plan. This to some extent is also a confirmation of existence of certain economic forces which are working in developing any land use at a different location than envisaged in the Master Plan.

The entire urbanisable area was contained in the 8 planning units. Each of these districts was envisaged to be more or less self-contained in the matter of employment, habitation and recreation. A Peripheral Control belt was considered as 9th Planning District. Four out of eight districts encompassed more or less the existing urbanized area of 25,000 acres of area earmarked for development was placed in four districts. The situation as it exists today is that these specified districts have no distinct identity. They have also not developed as self-contained communities.

4.3 REVIEW OF DEVELOPMENT PLAN (2005) OF GWALIOR

4.3.1 Introduction

The first statutory development plan of the city was came into existence in the year 1978 for planned and coordinated development of the region.

The plan was conceived for a period of 13 years ending in 1991 for a projected population of 8 Lacs.

The second development plan was supposed to be in effect just after the first plan period that is 1991. But due to some reasons which will be discussed later this plan delayed by five years. The second statutory development plan of the city was come into existence in the year 1995. The plan was conceived for a period of 10 years ending in 2005 for a projected population of 12.5 Lacs.

The revised development plan for Gwalior 2005 was evolved based on experience gained on implementation of Gwalior development plan 1991 and envisaged a system of self-contained planning units to accommodate future growth of the city.

4.3.2 Planning Area

Planning area of Gwalior was notified under Sub-section (1) of section 13 of M.P. T & CP Act, 1973. The planning area covers approximately **206.99 Sq. Km** of land, which includes all the 60 villages and municipal area, but excluding Morar cantonment area.

4.3.3 City's Major Functions

The city has gained the following major functions in course of its growth;

- A. Counter magnet to the national capitol
- B. Regional administrative center
- C. Regional service center
- D. Commercial cum industrial center
- E. Educational and socio-cultural center
- F. Tourist center

(A) Counter Magnet to the National Capital

Gwalior has been playing the role of mother city of the industrial growth centre of Malanpur, Ghirongi, Banmore and Sitholi areas, with its selection of as one of the

five counter magnet towns of the National Capital Region and formation of a special Area Development Authority, further more expectations of development opportunities with up to date infrastructure for the whole area, have come up. There by increasing the pressure on the town and it's out spread to cope up with these requirements.

The basic objective of development of counter magnet is to divert undesired development inputs and migratory population to National Capital to the nearest Counter magnet town. Therefore provision of qualitative residential accommodation and sites for desired economic activities supported by physical and social infrastructure is proposed to be provided at Gwalior and its surroundings.

Due care has been taken to make adequate provisions for the aforesaid requirement. The integrated approach of urban development is envisaged.

(B) Regional Administrative Centre

Presently Gwalior is the commissioner's headquarter of Gwalior as well as Chambal revenue divisions and collector's headquarter of the district, but it also functions as head quarters of some of the departments of the state and regional office of some of the central Govt. and business organizations of all India importance. Development plan will have to ensure organized space for development of office complex for efficient administrative functioning of areas within jurisdiction.

(C) Regional Service Centre

The city always enjoyed the status of regional service centre. Vast region around Gwalior always looked towards Gwalior for collection and distribution of goods, services, skills, education, health industrial development; and development of culture.

(D) Commercial cum Industrial Centre

Strategic location of Gwalior along the main Transport system of the country and the establishments of industrial units in Gwalior and near by Growth Centers of Malanpur and Banmore has made Gwalior as a important centre of Regional Trade and Commerce-cum Industrial Centre. It is already serving as a centre of

manufacturing and collection and distribution centre for the region. These activities are likely to grow extensively as well as intensively. The Development Plan will have to make provisions for organized development of these activities

(E) Educational and socio-cultural center

Gwalior is also a major educational and cultural centres in the region providing facilities for studies in various disciplines ego Medical and Engineering. It has privilege of having institutes of national level e.g. N. C. C. College for women and the Institute of Hotel Management & Catering and Laxmi Bai College of Physical Education; which has been given a status of University recently. Institute of Tourism and Travel Management are some of the prominent institutes at Gwalior. The Scindia's Boys School at Fort and Scindia's Girls School in the town are some of the good public schools of the country. From Cultural point of view the city has a glorious heritage. It is a centre of teaming for music and even at present. The Gwalior school of Music occupies a prominent place in the country. It is also a seat of oriental learning, paintings and fine arts, which have nourished from ancient times.

(F) Tourist Centre

The city attracts large number of tourists. The majestic Fort buildings of architectural elegance the city square" BADA" the buildings of historical importance such as Tansen Ka Makbara, Tombs of Mohammad Ghaus, Gigantic Jain sculptures, Museum, Zoological park, Agriculture Mela, Tansen Samaroh draws large number of tourists to Gwalior.

Other tourist attractions such as Agra, Mathura, National Park of Shivpuri, and Jain Pilgrimage centre of Sonagir, Orchha are with-in two to two and half hours journey from Gwalior. Gwalior always finds key place in the excursion tours of school and colleges. Deptt of tourism has all ready included Gwalior in its tourist circuit of Agra-Gwalior, Orchha-Shivpuri and Chanderi. Developments Plan will have to make provision for essential tourist-infrastructure for development of tourism with Gwalior as its focal centre. The tourism will have to be considered as one of the predominant function for which the city has to cater for.

4.3.4 Plan Concept

City is a growing organism, during process of city expansion the surrounding village gradually got merged with the main city. In this process of city expansion there is need to control and Co-ordinate the development in and around the city so that it fits in with the future urban system.

The present city structure of Gwalior is agglomeration of three townships. i.e. the Lashkar, Old Gwalior and Morar. The counter magnet on the logic of its continuity sub-city structure theme, it is considered appropriate to perpetuate the present sub-city structure in' the shape of self contained sub cities to regulate the future growth of the town. As such the basic plan concept and strategy was to integrate these three townships and yet maintain their individual identities. The proposed plan concept has been conceived which win provide for the city spread over such areas which are most suited for the urban purpose taking care of build able terrain, drainage pattern, forest, agricultural suitability and other natural features, ensuring approach to sustainable development.

4.3.5 Planning Structure

The development plan for the city has been envisaged based on relatively self-Contained planning units. Each unit is meant to function as a single entity in respect of shopping, educational and health amenities, work centers. Earlier the planning units' were confined to developed area only, but now in the plan review their individual limits are extended up to the planning area boundary. These planning units are effectively linked to the activity

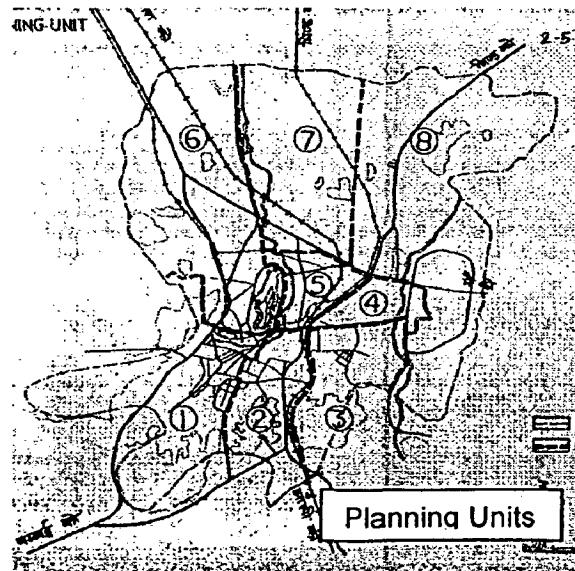


FIGURE: 4.3

centers and work centers of higher order city level amenities, and terminal centers through the major Transportation along major roads. Each planning unit is further composed of sectors and sub-sectors, which provides for sectoral level amenities.

4.3.6 Land Allocation

The land utilization rate during the first plan period was 5.41 hectare per 1000 persons. In the second plan proposal the land utilization rate was envisaged around 7 hectare per 1000 persons for the additional population of 4.5 lacs. This will have gross density of 168 person per hectare. Based on this the total land requirement for the city was worked out to be 7481 hectares against the 4331 hectare of previous plan. Thus, nearly 3150-hectare additional land was required during second plan period.

TABLE: 4.5 Land allocation planning unit wise

Plan Unit	LAND USE (Areas in hectare)															
	Residential		Commercial		Industrial		P.S.P.		P.U.F.		Recreation		Transport		Total	
	EXT	PRO	EXT	PRO	EXT	PRO	EXT	PRO	EXT	PRO	EXT	PRO	EXT	PRO	EXT	PRO
1	562	70	57	16	28	-	24	05	2	6	10	30	160	18	843	145
2	202	160	39	28	38	60	98	30	3	14	57	63	120	32	557	387
3	234	240	47	58	9	-	48	45	10	5	32	50	105	79	485	477
4	206	80	24	05	07	-	84	08	05	12	66	10	101	30	493	145
5	259	35	41	05	94	26	157	13	04	08	24	10	89	32	668	129
6	324	380	14	30	11	-	05	60	45	05	15	96	99	106	513	677
7	87	200	07	36	-	26	-	45	86	48	-	45	89	40	369	440
8	207	270	31	11	86	64	04	47	55	67	08	82	112	209	503	750
TOTAL	2081	1435	260	189	273	176	420	253	210	165	212	386	875	546	4331	3150
G. TOTAL	3516		449		449		673		375		598		1421		7481	

LAND ALLOCATION P.U. WISE

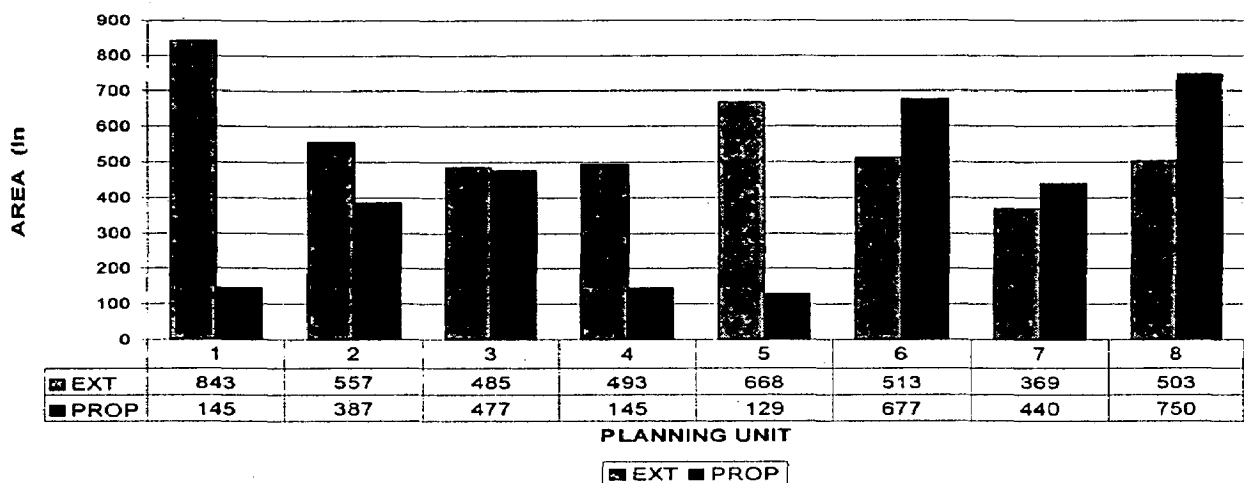
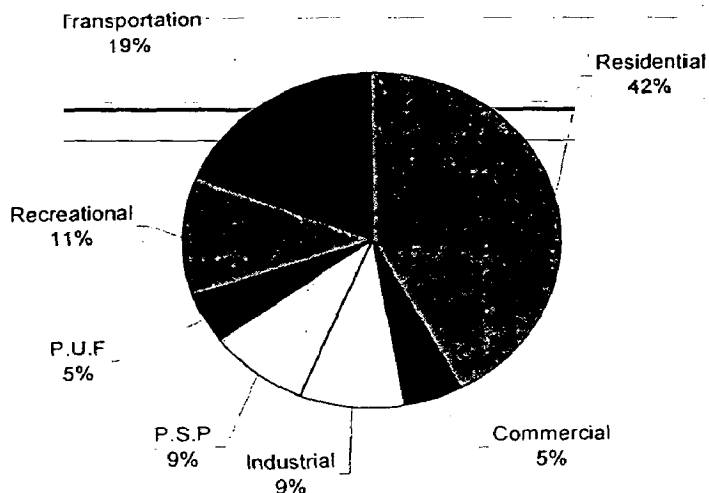


Figure: 4.4

Source: Gwalior Development Plan 2005

LAND ALLOCATION IN 1991 PLAN



Residential	42.50
Commercial	05.00
Industrial	08.75
P.S.P	08.75
P.U.F	05.00
Recreational	11.25
Transportation	18.75
TOTAL	100

Figure: 4.5

EXISTING LAND USE IN 1995

Residential	48.04
Commercial	06.04
Industrial	06.30
P.S.P	09.69
P.U.F	04.84
Recreational	04.89
Transportation	20.20
TOTAL	100

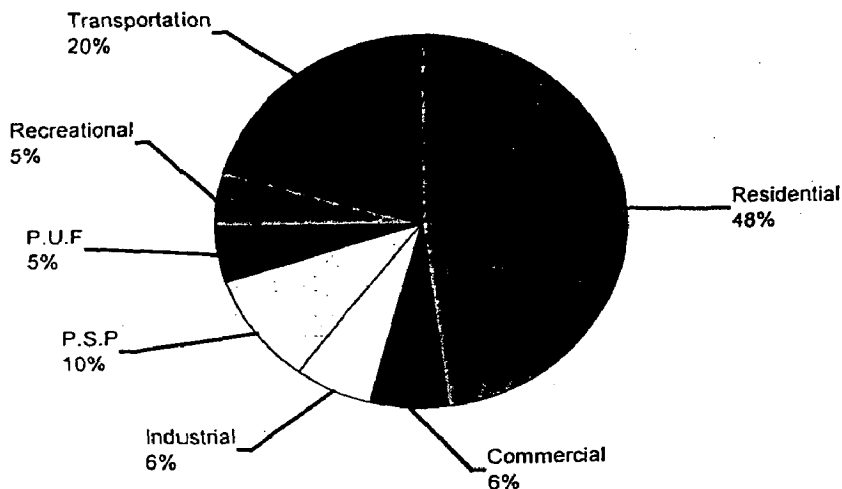
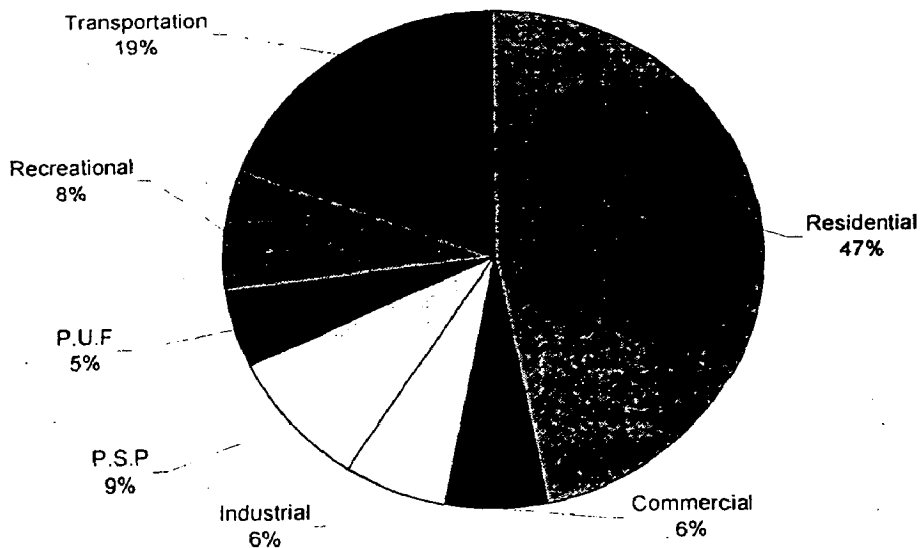


Figure: 4.6

LAND ALLOCATION FOR 2005 PLAN



Residential	47.00
Commercial	06.00
Industrial	06.00
P.S.P	09.00
P.U.F	05.00
Recreational	08.00
Transportation	19.00
TOTAL	100

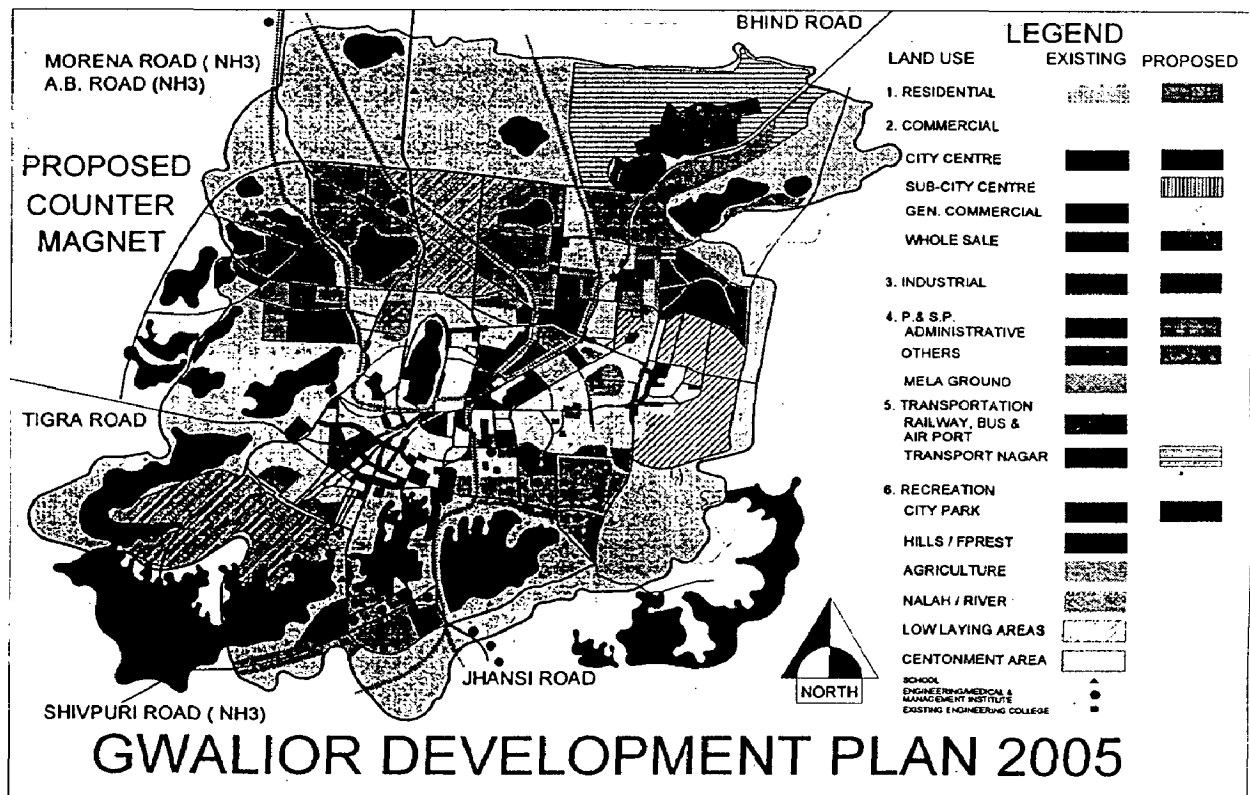
Figure: 4.7

TABLE: 4.6 Land allocation use wise

S.N.	LANDUSE	Existing as on 1995			Adopted in 1991 plan			Proposed for 2005 plan		
		EXIST. AREA	%	L.U. RATE Ha/1000p	EXIST. AREA	%	L.U. RATE Ha/1000p	PROP. AREA	%	L.U. RATE Ha/1000p
1	Residential	2081	48.04	2.60	2720	42.50	3.4	3516	47.00	2.82
2	Commercial	260	06.04	0.32	320	05.00	0.4	449	06.00	0.36
3	Industrial	273	06.30	0.35	560	08.75	0.7	449	06.00	0.36
4	P.S.P	420	09.69	0.52	560	08.75	0.7	673	09.00	0.54
5	P.U.F	210	04.84	0.26	320	05.00	0.4	375	05.00	0.30
6	Recreational	212	04.89	0.27	720	11.25	0.9	598	08.00	0.48
7	Transportation	875	20.20	1.09	1200	18.75	1.5	1412	19.00	1.48
	TOTAL	4331	100	5.41	6400	100	8.0	7481	100	6.00

Source: Gwalior Development Plan 2005

(Areas in Hectare)



PROPOSED LAND-USE PLAN

Figure: 4.8

4.3.7 Proposed Land Use Pattern

Generally, cities in India do not contain single use zone. Commercial areas invariably have residential use and household industries functions in residential areas. The concept of mixed land use zoning has, therefore been adapted to suit Indian way of life. Only such uses which adversely affect city life has been proposed for relocation besides work centers.

The general consideration kept in view while evolving land use pattern of the town are as under:

- Mixed land use zoning.
- Development of trade based commercial areas.
- ~~Introduction of flatted factories and small scale industries in commercial areas.~~
- Decentralization of work centers.
- Preservation of environs of the architectural elegance and historical importance.
- Minimum dislocation of present land use pattern.
- Close relation ship between work place and residential areas.

4.3.8 Proposed Land Allocation under Various Uses

4.3.8.1 Proposed Land For Commercial Work Centers:

The master plan 2005 was envisaged 189-hectare area for commercial activities. The break up of land requirement for different commercial activities has been given below:

TABLE: 4.7 Proposed Commercial Work Centers

S.N.	DESCRIPTION	PROPOSED LOCATION	AREA (in ha)	Plng. Unit
1.	Wholesale & Specialized market	Hazira (Sub city center)	10	7
		Morar(Sub city center)	05	3
2	Ware housing including cold storage	Singhpur road	8	3
		Kalyan bagh	2	6
3	Mini city center	Thatipur	5	3
4	Mandi			
	Grain mandi	Behat road	8	3
		Char sahar ka naka	8	7
	Vegetable & fruit market	Hazira	5	7
		Morar	5	3
	Timber Market	Chandra Badni Naka	12	2
		Behat road Morar	8	3
	Grass & cattle Market	A.B. loop Road	10	3
		Behat road Morar	10	7
	Loha Mandi/ Hardware/ Auto parts	Near transport nagar	15	6
	5	Categorized Market		
	Building Material Yard	Shivpuri- Jhansi loop road	12	1
		A.B. road	10	6
		Behat road	5	3
	Kabadi market	Chandra Badni Naka	5	2
	Cold & Fiel depot	Shivpuri loop road	5	1
		A.B. road	5	6
		Behat road	5	3
6	Transport nagar	Shivpuri- Jhansi loop road	8	2
		Bhind road (maida mill)	8	8
7	Planning unit center	P.U. No. 2,3,6,7,& 8	15	-
	TOTAL		189	-

Source : Development Plan 2005

4.3.8.2 Proposed Land for Public & Semi Public Areas (Education & Health)

The city life is influenced by the nature and character of amenities which it offers to its inhabitants and the regional population dependent on it. These amenities include education, health, institutions, and social and cultural activity centers. These activities should be located at appropriate locations right time and right type. The break up of land requirement for different PSP uses is given below:

TABLE: 4.8 Proposed Public & Semi Public Areas

S.N.	DESCRIPTION	PROPOSED LOCATION	AREA (in hectare)	Plng. Unit
1	EDUCATIONAL	IITTM University road	30	3
		Science Center	2	3
		IHM Bhind road	2	8
2	HEALTH	Mental hospital	15	2
		I.G. HOSPITAL	8	5
		Medical complex, Moti jheel	20	6
3	SOCIAL & CULTURAL	Vivekananda Kendra	2	3
		Sharda Bal Gram	4	3
		Multi Art & Cultural Center	4	3
4	OTHER	High Court	5	3
		Central Jail	15	6
		Planning Unit Center for P.U. No. 2,3,4,6,7, & 8.	25	-
	TOTAL		132	

Source: Development Plan 2005

4.3.8.3 Proposed Land for Industrial Areas

City is having diversified industrial structure. Malanpur and Banmore industrial growth centers are likely to boost industrial activities in the region. An immediate possibility of industrial development with regard to small scale industries, house hold industries and agro-based industrial units exists in planning area. The city will require 166 hectare land for industrial activities. The break up of land requirement for different industrial zone is given below:

TABLE: 4.9 Proposed Industrial Areas

S.N.	Description	Proposed Location	Area (hact)	P.U. No.
01	General industries	Jhansi- Shivpuri loop road	60	2
		A.B. Loop road	26	7
		Bhind road	32	8
		Maharajpura	32	8
		Near J.C. Mill	26	5
		TOTAL	176	

Source : Development Plan 2005

4.3.8.4 Proposed Land for Public Utility and Facilities

Functioning of any city essentially depends on the availability of basic infrastructure like; water supply, sewerage and drainage offered to its residents and the region. The quantity and quality of urban services influences the cities life in many ways. The break up of land requirement for different public utility and facilities are given below:

TABLE: 4.10 *Proposed Public Utility and Facilities*

S.N.	Description	Proposed Location	Area (In ha.)	P.U. No.
01	Sewerage	Expansion of sharma farm	40	7
		Expansion of morar sewage farm	60	8
02	Solid waste	Compost plant (Guda Gudi road)	2	2
		Slaughter house (Shivpuri loop road)	2	2
		Trenching ground (Tigra, behat & Shivpuri looproad)	6	1,3,6
03	Other	Telephone exchange		Sectoral level
		Police station		
		Fire station		
		P & T Office		
		Electric sub station		
		Dhobi ghats		
		Cremation & Burrial ground		
	TOTAL	160		

Source : Development Plan 2005

4.3.8.5 Proposed Land for Residential Uses

Housing is one of the key sectors, which offers tremendous opportunities and activate spinning effect over the growth of urban economy. It also acts as a vehicle for social and cultural change. The provision of affordable housing for all is the most important goal for any urban and rural area. Besides providing shelter, it has importance in terms of socio-economic upliftment of society. Housing bears strong spatial relationship with various work centers, socio-cultural and recreational centers. As per census 1991 Gwalior accommodates nearly 1.19 lacs households spread in 8 planning units. It has various housing topologies like individual houses, flats, squatter settlements, unauthorized colonies, and traditional houses in old areas.

The pattern shows that it has 60% ownership housing and 40% Govt. housing. Housing shortage was estimated as about 2.3 Lacs DU up to 2005.

TABLE: 4.11 *Housing Shortages and Requirement*

YEAR	Housing Shortage (D.U.)	Additional Requirement (D.U.)	Total (D.U.)
1991	1,10,000	40,000	1,50,000
2001	-	40,000	40,000
2005	-	40,000	40,000
TOTAL	1,10,000	1,20,000	2,30,000

Source : Development Plan 2005

TABLE: 4.12 *Distributions of Dwelling Units*

S.N.	HOUSE TYPE	NOS.	PERCENTAGE
01	EWS	1, 28,000	56.0%
02	LIG	46,000	20.0%
03	MIG	34,500	15.0%
04	HIG	20,700	09.0%
	TOTAL	2,30,000	100%

Source : Development Plan 2005

4.3.8.6 Proposal for Recreational Area

(I) City parks: Phool bagh, which is the main park, is been proposed to be preserved and suitably landscaped. In addition to this following city level parks were proposed:

1. Adjoining Bhind road (near Gole ka Mandir)
2. Near Moti Jheel
3. Adjoining Mela Ground
4. Near Maharajpura

(II) Peacock garden: Area around Janak tal and west of fort was proposed to be developed as peacock garden.

(III) Stadium / swimming pool: Additional site for mini stadium is been proposed near Mahadji Chhatri.

TABLE: 4.13 *Exhibitions and Mela Site*

S.N.	LOCATION	DESCRIPTION
01	Gwalior mela	The existing mela site should be retained.
02	S.A.F. Ground	The existing site should be retained for multipurpose activity.
03	Chhatri chowk	The site is proposed to develop as mini stadium
04	Other Fairs	The existing mela sites should be retained.

Source : Development Plan 2005

The provision for the recreational amenities envisaged in the plan has been based on following considerations:

- Natural endowment of the city
- Need for tourist potential
- Need of the regional city.
- Provision of entire range of recreation for all age and sex groups
- To improve micro climate

TABLE: 4.14 *Proposed Recreation Areas*

Category	Place	Description	Remarks
Regional / city	Tigra dam	Water reservoir	Good potential for developing as city level recreational area.
	Gwalior Fort	Centrally located historical monument	Hill slop and base is barren and could be develop as open recreational belt
	Chhatri	Located on procession road	The open area around Chhatri can be developing as city level park.
City parks/ open spaces	Gandhi park	Located in heart of three townships	The site has a very good potential for developing city level park.
Places of interest	Deo Khow	16 Km from Lashkar on tigra road	Good potential to develop as picnic spot.
	Sagar tal & Janak tal	Water tank	Good potential to develop as picnic spot.
	Sakhiya vilas	Historic monument	Good potential to develop as picnic spot.
Places of historic importance	panihar	25 Km from Lashkar on AB Road	All these places are of tourist importance need to be developed accordingly.
	Himmat garh	Known for hill forest	
	Behat	Birth place of sangeet samrat TANSEN	
	Pawaya	67 Km south west of lashkar	
	Sujwaya	16 Km from the city known for group of temples of 11 th century.	
	Devari	Famous for remarkable stone sculpture & carvings.	
	Mastura	Known for Chhatri and small fort of 18 th century.	

Source: Development Plan 2005

4.3.9 Proposed Area for Redevelopment

In the process of city expansion, certain existing built up areas becomes central for the city growth acquiring high land values shall be identified as redevelopment areas. The plan envisaged redevelopment of such up market areas which are inefficiently utilized.

TABLE: 4.15 *Proposals for Redevelopment*

ACTIVITY	OBSERVATION	PROPOSED USE
J.A. Group of hospital	Organic growth without overall plan for campus	Hospital complex
Hujrat Kotwali	The site is very close to central activities.	Commercial cum terminal center
Gorkhi	Building in bad shape and under utilized	Commercial cum civic center
Rajput & Maratha hostel	The site has great potential for extensive use	Commercial cum office complex
Taksal building	The site has potential for institutional use	Public and semi public use
Deffarin sarai	The site is inappropriately utilized although it falls along one of the major road of the city	Shopping center
Indusrial estate in Birla nagar	The buildings are in bad shape and unplanned growth	Industries

Source : Development Plan 2005

4.3.10 Proposals for Regeneration, Relocation and Conservation

(A) Proposed area for regeneration

In the process of city expansion certain existing built up areas becomes central for the city growth acquiring high land values and which are subjected to land use pressure due to adjacent commercial areas are proposed to be treated as regeneration areas.

Area vacated by incompatible uses defined in the development plan 1991 i.e. Jail Printing press, Mental hospital, S.P. Office etc

Modernization of industrial areas ,

Jhuggi settlements occupying high land value

Dilapidated areas within the city

(B) Proposed relocation of incompatible and inefficient uses

TABLE: 4.16 *Proposals for Relocation*

S.N.	Use to be shifted	Existing location	Proposed location	Use after vacation
01	Transport agencies	Naya bazaar, bijlighar	Transport Nagar AB Road	Retail shopping
02	Wholesale market	Dal bazar	Jiwaji ganj & Transport Nagar AB Road	Retail shopping
03	Wholesale cloths market	Naya bazaar	East of telegraph office	Retail shopping
04	Kabadi market	Daulat Ganj	South of Sakhiya Vilas palace	Parking
05	Saw mill	Daulat Ganj	South of Sakhiya Vilas palace	Road improvement and Parking
06	Fire works	Daulat Ganj & Hujrat	Industrial area in P.U. 5 or 8	Road improvement and Parking
07	Wholesale fruit market	Bada	Near Laxmi Ganj mandi	Play ground and parking
08	Auto repair shops	Kampoo	Jinsi nalah road near bridge	Retail shopping and parking
09	Govt. & semi Govt. office	Gorkhi	City centre P.U. 3	Specialized commercial activities
10	S.P. Office	Taksal road	City centre P.U. 3	P.S.P

Source : Development Plan 2005

(C) Proposed conservation areas:

TABLE: 4.17 *Proposals for Conservation*

CONSERVATION AREA	RECOMMENDATIONS
Civic square of BADA	Conserve from encroachment and needed to be revived in its original form
KAMPOO kothi	Need to be conserve and freed from encroachment
Palace complex- Phool Bagh, Jaivilas palace, Moti Mahal, etc.	The entire complex is proposed to be conserved
Cenotaphs, Laxmibai statue	Conservation and development of park in around the open spaces.
Water bodies- Sagar, Janak and Katora tal	Development of picnic spot and city parks.
Cultural centers- Mela sites	Open areas around these sites needed to be reserved for occasional activities.
Historical buildings- fort, tombs, temples	These areas needed to be conserve and development around these monuments proposed to be controlled.

Source : Development Plan 2005

4.3.11 Proposed Transportation Infrastructure

TABLE: 4.18 *Proposals for Transportation*

S.N.	ROAD SECTION	AVR. WIDTH	PROPOSED WIDTH	REMARKS
01	Patankar bazar	17.80	24.25	Removing encroachment
02	Dal bazar	29.30	18.20	Mandi activity should be relocated
03	Bada-Kampoo	14.50	15.20	Govt. office & commercial activities should be relocated
04	Laxmi bai marg	10.32	30.40	New link from nadi gate should be develop
05	Jayendra ganj road	18.00	19.20	encroachment should be Removed
06	Raj paiga	9.8	16.20	Mandi activity should be relocated
07	Janak ganj	13.40	15.20	encroachment should be Removed
08	Daulat ganj	8.9	24.20	Kabadi market should be relocated
09	Phalka bazar	10.50	12.20	encroachment should be Removed
10	Naya bazar	16.40	16.20	cloths market should be relocated
11	Nai sadak	14.00	15.20	Parking site should be developed near cinema
12	Hazira road	14.40	35.50	Road widening
13	Fort road	12.80	15.20	encroachment should be Removed
14	Hujrat road	12.80	15.20	encroachment should be Removed
15	Madhav Ganj	7.80	9.10	encroachment should be Removed

Source : Development Plan 2005

(A) Proposed mass transport system (RAIL)

Gwalior is in the process of metro status. All three sub cities, counter magnet and all major work centers will be required to connect with mass rapid transport system in near future. Since Gwalior-Bhind and Gwalior-Sheopur narrow gauge is

~~functioning this will required up gradation for provision of intra-city passenger movement. Second railway station situated at Birla nagar should be up graded by providing all necessary facilities.~~

(B) Proposed mass transport system (ROAD)

Proposed road network has been designed to cater the regional, intra sub-city and local traffic needs. This includes National Highway (NH3 AB ROAD) and State Highways (Bhind and Jhansi Road)

TABLE: 4.19 *Proposals for Road Width*

Types of road	R/W in existing areas	R/W in proposed areas
PRIMARY ATERIAL ROAD	30-50M	60M
SECONDARY ATERIAL ROAD	30-40M	60M
SUB ATERIAL ROAD	25-30M	40M
SECTOR ROAD	20-25M	30M
SUB SECTOR ROAD	15-18M	18M
LOCAL STREET	15-20M	20M

Source : Development Plan 2005

(C) Bus station

At present Gwalior has one bus station near railway station which accommodates fleets of MPSRTC and other states buses. Private busses depart from an unorganized bus stand located at Amkho. This plan envisaged for-

- Decentralizing the city bus stand at least three locations Morar, Hazira and Lashkar.
- One organized bus stand
- An appropriate location for traveling agencies

(D) Proposed new links

- Kampoo bridge to sikandar kampoo
- Katora tal to Hospital road
- Telephone exchange to Jhansi road

(E) Proposed terminal centers

Gorkhi, Kampoo, Nadi gate, High court, Padav, Chhatri, Shri Ram Colony, City centre, Thatipur, Morar, Gole ka Mandir, C.P. Colony, Hazira, Gwalior, Tansen nagar, Khedapati, Phool bagh, Sinde ki Chhawani, Jayendra Ganj.

(F) Proposed over bridge / fly over

Over bridge- adjoining to shastri bridge joining Gandhi road and Moti Mahal road

Fly over- joining Patankar bazaar and High court road

Under pass- Hazira road and Moti Mahal through Sastri bridge

(G) Proposed parking sites

At crossing of Kampoo Bridge, Maharaj BADA civic square, Daulat Ganj, Sarafa Bazar, Gust ka Tazia, High court, Roshnighar etc

4.3.12 Basic Considerations for Central Area Proposals

Central area problems needs for revitalizing the central area to enable it to function efficiently. City centre being eccentrically situated, it is necessary to suggest new activity centres at central location i.e. Morar and Gwalior. This would facilitate integrated development of all the three towns. City centres functioning around Maharaj Bada Hazira and Sadar Bazar in Lashkar, Gwalior and Morar respectively continue to function as second order city centres (city sub-centres) to the new centre being envisaged for the greater Gwalior.

In order to achieve efficient functioning of city centre and city sub-centres, it will be necessary to link these centres with efficient road system. The proposal for revitalization of city centre and sub-centres shall be framed keeping in view the consideration of adequate space for parking, circulation, traffic mobility, along with space for growth of activities. The proposals based on these considerations will have to be practical and capable of implementation within the scope of cost benefit analysis, at the same time causing least hard ship to the people by way of dislocation. These considerations and constraints form the basis of central area proposals based on these the following units have emerged which also work as basic guide within which the formulation of detailed zoning plans for the central area and sub-centres will have to be framed :

- Retaining mixed-land-use in the central area only redevelopment to be restricted to present form and height

- Decentralization of commercial activities by developing alternative commercial nodes in other parts of the city
- Creation of open spaces and parking spaces in the central area
- Relocation of incompatible and inefficient uses to suitable sites and appropriate use of land so vacated
- Retaining only such market lanes which can give easy traffic mobility and convenient accessibility
- Persons affected by relocation and clearance be given priority or rehabilitation.
- Grave yards in central area are to be closed for further use and could be suitably landscaped.
- A traffic management plan needs to be prepared separately for central area
- Improvement of junction and removing bottlenecks.
- Restoration of movement space and original road width of road particularly within the central core

4.3.13 Proposals for Physical Infrastructure

(A) Water supply

Gwalior has only one major source that is Tigra dam , subsequently two other source Pehsari and Karketo which feeds Tighra also added additional water source of the city. The total water source capacity in normal rainfall is about 140 mgd. At present production capacity is limited to 29 mgd only.

The water requirement has been worked out @ 180liter / day with break up of 135 lpcd for domestic, 40 lpcd for industrial and commercial, 30 lpcd for irrigation and 50 lpcd for floating population. Minimum water supply in residential area should be at-least around 100 Liter/per Capita per day.

(B) Sewerage

Gwalior had an underground sewerage scheme to cover Lashkar, which was further extended to cover Morar town. Old Gwalior is not covered by it. New areas of city urban spread are not covered by it there by relying on septic tank for disposal of sewerage. Although more areas have been added to the city urban

spread, yet these have not been connected with the sewerage system with the result that sullage water from these areas flows into the nullah effecting adverse sanitary conditions. PHE has taken up new scheme of sewerage, which has been funded by LIC. This will cover rest of the city.

The Development Plan envisages comprehensive sewerage & Sewerage disposal scheme so as to cover the existing habited area as well as the proposed developed area within the planning system and shall cover the estimated population of 15.0 lakhs. Present site of the sewerage farm located at Ranipura and Morar is proposed to be retained. Additional area in continuation to the present sites is also earmarked so as to cater to the future population envisaged during the plan period.

The capacity of treatment plant will have to be augmented as per the system designed and envisaged for various areas.

(C) Drainage

City's topography provides for well-drained habited areas. The hebetated area is drained through Swam rekha and Morar river through system of nullah's. Only at few points along the Swamrekha River the river side habitation which is located in the low lying area gets flooded particularly at the time of heavy rains. The drainage system in the east of railway line however, presents problem of soil erosion, rendering large tracts of land unsuitable for urban use.

At present the entire city is not covered by underground drainage, water from the inhabited area is drained through the open surface drain, which finally flows into the river. As such a composite drainage scheme for the entire city is of great importance in view of the existing and envisaged development of the city.

(D) Solid waste

Collection and disposal of domestic and other area's solid waste is another important area, which requires immediate attention. There are economical aspects of dealing solid waste management issues, which require careful attention, requiring installation of an efficient solid waste management system including waste recycling.

There is one compost plant newly created 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.

Special care is required for the collection and disposal of waste from Hospitals, Nursing homes, Fruit and Vegetable Market's dairy farms and congested areas from old city. Provision of dustbins at convenient locations should be planned taking in consideration the norms of solid waste around 6 Kg. per capita per day.

(E) Power

The city is linked with Chambal Hydel Grid through Rajasthan Distribution system and covers all the major areas. The trend at power consumption has been increasing steadily in the city. As Gwalior is now connected to the national grid, the present source would fulfill the growing power need of the city.

The capacity of the present source will have to be augmented as per the local requirements. To cover all the areas included in the proposed plan.

The city suffers from the erratic voltage fluctuations. It appears that shortfalls in the electric supply is due to the break down in the over all electric grid to which the city is linked.

The planning for augmentation of power supply will have to be met by framing suitable schemes. The distribution network of the H. T. lines within the city and planning areas will have to be in conformity to the road pattern and conservative green proposed in the Development Plan.

A Gas based Power Plant in private sector is proposed in Bhandar district Gwalior, work on which has started. This will help to meet out increasing demand of power in future.

Land requirement for power supply: Land requirement for the proposed sub stations is around 4 Hectares for 132 K V. and 1.00 Hectare for 33/11 KV

TABLE: 4.20 *Proposed Electrical Substations*

S.No.	Sub Station Capacity	Number of Sub-Station	Area Requirement (in Ha).
1	132 KV	3	12 Ha.
2	33/11 KV	22	25 Ha.

Source: Development Plan 2005

4.3.14 DEVELOPMENT STATISTICS: *Implementation status*

Total Development done during (1996-2004)

TABLE: 4.21 *Residential Developments*

S.N.	SCHEME	DEVELOPED BY	AREA (ha)	REMARK
01	Rajiv Gandhi Transport Nagar Oxidation pond area	G.D.A.	3.82	Initiated in 2001 Around 50% developed
02	Rajiv Gandhi Transport Nagar (PARAS Phase II)	G.D.A.	0.60	Initiated in 1996 almost developed
03	Rajiv Gandhi Transport Nagar (VINDHYANCHAL)	G.D.A.	2.23	Initiated in 1996 almost developed
04	Satabdipuram	G.D.A.	250	Around 30% developed (out of 510 ha.)
05	Vidhya Grih nirman (City center)	G.D.A.	23.83	Under process
06	Mahadji Nagar	G.D.A.	20.68	Initiated in 1996 Around 80% developed
07	Deen Dayal Nagar	Housing Board	67	Developed
08	Darpan colony	Housing Board	8.79	Developed
09	Central / state Govt. agencies	G.D.A. Housing Board	20.37	Initiated in 1996 almost developed
10	Co-operatives / individuals	Private developers	145.8	Around 1000-1200 D.U. per year
		TOTAL	543.12	

*SOURCE: Secondary & Field survey***TABLE: 4.22** *Commercial Developments*

S.N.	SCHEME	DEVELOPED BY	AREA (ha)	REMARK
01	City centre commercial scheme	G.D.A.	9.71	Developed
02	Madhav Plaza (Redensification scheme)	G.D.A.	0.98	Developing proposal stage
03	G.D.A. Complex (Redensification scheme)	G.D.A.	0.66	Initiated in 1996 almost developed
04	Private commercial complexes	Private individuals /	72	Developed as staggered locations
05	Sectoral shopping in each residential colony	@ 5%	27.15	
		TOTAL	110.50	

SOURCE: Secondary & Field survey

TABLE: 4.23 *Industrial Developments*

S.N.	SCHEME	DEVELOPED BY	AREA (ha)	REMARK
01	GOSPURA	D.I.C.	265	Developing
02	MAHARAJPURA	D.I.C.	41	developing
03	BARAGHATA	D.I.C.	25	Developed
04	BIRLA NAGAR	D.I.C.	07	Developed
		TOTAL	338	
	Development during up to 1995		273	
	Development during 1996-2004		65	

SOURCE: Secondary & Field survey

TABLE: 4.24 *Public & Semi Public*

S.N.	SCHEME	DEVELOPED BY	AREA (ha)	REMARK
A	HEALTH			
1	Indira Gandhi hospital	Private	8	Under construction
2	Private nursing home / clinics come up at staggered locations	Private	9	developed
B	EDUCATION			
1	Institute of hotel management	Central Govt.	3	Developed
2	IITTM	Central Govt.	30	Developed
3	Private engineering colleges (05 nos.)	Private	40	Developed
4	Homeopathic college	Private	10	Developed
5	Dental college	Private	4	Developed
6	Pharmacy colleges (02 nos.)	Private	2	Developed
7	Computer education 05 nos.	Private	3	Developed
8	Higher secondary schools 4 nos.	Private	4	Developed
C	SOCIAL AND CULTURAL			
1	Vivekanand kendra	State Govt.	2	Developed
2	Sharda bal gram	State Govt.	4	Developed
3	Shilp gram	State Govt.	4	Developed
D	OTHER			
1	High court	State Govt.	5	Developed
2	S.P. Office, C.I.D., Traffic police, Forensic lab etc	State Govt.	5	Developed
3	Regional offices for LIC, SBI, BSNL, AIRTEL etc.	various	10	Developed
		TOTAL	143	

SOURCE: Secondary & Field survey

TABLE: 4.25 *Transportation*

S.N.	SCHEME	DEVELOPED BY	AREA (ha)	REMARK
01	Road widening and provision of dividers for prime corridors 63km	P.W.D.	185	Developing
02	Improvement of junctions 18 nos.	P.W.D.		Developing
03	Construction of grade separator at jincy road	P.W.D.		Developed
04	Construction of UNDER PASS	P.W.D.		Developing
05	Terminal at Amkho		5	Developing
06	Development of parking stretches at various locations	M.CP	25	Developed
		TOTAL	215	

TABLE: 4.26 *Public Utilities and Facility*

S.N.	SCHEME	DEVELOPED BY	AREA (ha)	REMARK
01	Redevelopment of Swarna Rekha river 16km	P.H.E.D.		Developing
02	Construction of trunk and branch sewer line 108 KM	P.H.E.D.		developing
03	Expansion of water supply grid	P.H.E.D.		Developing
04	Expansion of sewage farm	P.H.E.D.	40	Developing
05	Trenching ground	P.H.E.D.	02	Developing
		TOTAL	42	

TABLE: 4.27 *Recreations*

S.N.	SCHEME	DEVELOPED BY	AREA (ha)	REMARK
01	Redevelopment of existing parks 40 nos.	M.CP	15	Developing
02	Development of open spaces in neighborhood units	M.CP @10%	55	Developed
03	Development of regional park at mela ground	Mela pradhikaran	2	Developed
04	Landscaping of area around international cricket stadium	M.CP	5	Developed
05	Hanuman talkies	Private	2	Developed
06	Development of craft center at Behat	State govt.	5	Developed
07	Development of facilitation center, public amenities, open air theater, shilp bazaar and water amusements park within mela ground	Mela development authority	10	Developed
		TOTAL	94	

SOURCE: Secondary & Field survey

4.3.15 Analysis of Development Statistics

Planning area delineated to accommodate future growth and controlled area was **20699 Hectares (31128 acres)**. Total area proposed for urban development up to **2005 was anticipated as 7481 hact.** Under different uses but the land consumption has been limited to **5543 hact.** Over a period from **1996 to 2004.**

The land consumption rate work out to 4.43/1000 person against the anticipated rate of 6/1000 as per development plan 2005.

TABLE: 4.28 Analyses of Development Statistics

S. N.	LANDUSE CATAGORY	EXIST. DEVELOPED	ADD. LAND ALLO.	NET AREA DEVELOPED DURING	VARIATION	VARIATION	LAND UTILIZATION RATE	
		1995	1996	1996-2004	1996-2004	%	ACHIEVED	ENVISAGED
1	RESIDENTIAL	2081	1435	+543	-892	37.83	2.09	2.82
2	COMMERCIAL	260	189	+110	-79	58.20	0.29	0.36
3	INDUSTRIAL	273	176	+65	-111	36.93	0.27	0.36
4	PSP	420	253	+143	-110	56.52	0.45	0.54
5	PUF	210	165	+42	-123	25.45	0.87	0.30
6	RECREATION	212	386	+94	-292	24.35	0.20	0.48
7	TRANSPORT	875	546	+215	-331	39.37	0.24	1.14
	TOTAL	4431	3050	+1212	-1838	39.73	4.43	6.00

TABLE: 4.29 Status of Development during 1995- 2004

S.N.	LANDUSE	Existing as on 1995	Adopted in 2005 plan			Implemented up to 2004		
		EXIST. AREA	PROP AREA	%	L.U. RATE Ha/1000p	DEV. AREA	%	L.U. RATE Ha/1000p
1	Residential	2081	3516	47.00	2.82	2624	47.33	2.09
2	Commercial	260	449	06.00	0.36	370	06.67	0.29
3	Industrial	273	449	06.00	0.36	338	06.09	0.27
4	P.S.P	420	673	09.00	0.54	563	10.15	0.45
5	P.U.F	210	375	05.00	0.30	252	04.54	0.87
6	Recreational	212	598	08.00	0.48	306	05.52	0.20
7	Transport	875	1412	19.00	1.48	1090	19.66	0.24
	TOTAL	4331	7481	100	6.00	5543	100	4.43

(Areas in Hectare)

SOURCE: Development plan, Secondary and Field survey

4.3.16 Implementation Status of Development Plan (2005) Proposals

TABLE: 4.30 *Implementation Status of Development Plan*
Proposals: COMMERCIAL WORK CENTERS

S. N.	DESCRIPTION	PROPOSED LOCATION	Implementation status	Remarks/ REASONS
1.	Wholesale & Specialized market	Hazira (Sub city center)	Not developed	Finance Less demand suitable land
		Morar (Sub city center)	Not developed	
2	Ware housing including cold storage	Singhpur road	Not developed	Under consideration
		Kalyan bagh	Not developed	
3	Mini city center	Thatipur	Not developed	Proposal stage
4	Mandi			
	Grain mandi	Behat road	Not developed	Lack of interest in traders for shifting
		Char sahar ka naka	Not developed	
	Vegetable & fruit market	Hazira	Not developed	Suitable land not available
		Morar	Not developed	
	Timber Market	Chandra Badni Naka	Not developed	Under consideration
		Behat road Morar	Not developed	
	Grass & cattle Market	A.B. loop Road	Not developed	Less pressure
		Behat road Morar	Not developed	
	Loha Mandi/ Hardware/ Auto parts	Near transport nagar	Not developed	Under consideration
	5	Categorized Market		
	Building Material Yard	Shivpuri- Jhansi loop road	Not developed	Lack of fund
		A.B. road	Not developed	
		Behat road	Not developed	
	Kabadi market	Chandra Badni Naka	Not developed	Under process
	Cold & Fiel depot	Shivpuri loop road	Not developed	Lack of fund
		A.B. road	Not developed	
		Behat road	Not developed	
6	Transport nagar	Shivpuri- Jhansi loop road	Developed	Low occupancy maintenance
		Bhind road (maida mill)	Not developed	Less pressure
7	Planning unit center	P.U. No. 2,3,6,7,& 8	Partly developed	Finance Less demand suitable land

SOURCE: Secondary & Field survey

TABLE: 4.31 *Implementation Status Of Development Plan**Proposals: PUBLIC & SEMI PUBLIC AREAS (Education & Health)*

S.N.	Description	Proposed Location	Implementation status	Remarks/ Reasons
1		IITM University road	Developed	Funded by Central Govt.
	EDUCATIONAL	Science Center	Not developed	Not directed by Govt.
		IHM Bhind road	Developed	Funded by Central Govt.
2	HEALTH	Mental hospital	Not developed	Not directed by Govt
		I.G. HOSPITAL	Partly Developed	Financial
		Medical complex, Moti jheel	Not developed	Proposal shifted to JA Hospital under proposal stage
3	SOCIAL & CULTURAL	Vivekananda Kendra	Developed	
		Sharda Bai Gram	Developed	
		Multi Art & Cultural Center	Not developed	Land has been acquired
4	OTHER	High Court	Developed	State funded
		Central Jail	Not developed	Not directed by Govt
		Planning Unit Center for P.U. No. 2,3,4,6,7, & 8.	Partly Developed	Problems of fund

SOURCE: Secondary & Field survey

TABLE: 4.32 *Implementation Status Of Development Plan Proposals:*
PUBLIC UTILITY AND FACILITIES

S.N.	Description	Proposed Location	Implementation status	Remarks
01	Sewerage	Expansion of sharma farm	Not developed	Sewer project is under progress Lack of fund Interrupted flow of money Land acquisition Encroachment Public attitude Lack of coordination
		Expansion of morar sewage farm	Not developed	
02	Solid waste	Compost plant (Guda Gudi road)	Not developed	
		Slaughter house (Shivpuri loop road)	Not developed	
		Trenching ground (Tigra, behat & Shivpuri looproad)	Partly Developed	
03	Other	Telephone exchange	Partly developed	Developing
		Police station	Partly Developed	Developing
		Fire station	Not developed	Finance, land
		P & T Office	Not developed	Less pressure
		Electric sub station		Payment dues
		Dhobi ghats	Not developed	Under process
		Cremation & Burrial ground	Not developed	Lack of Fund, and problems of encroachment

SOURCE: Secondary & Field survey

TABLE: 4.33 Implementation Status Of Development Plan Proposals:
INDUSTRIAL AREAS

S.N.	Description	Location	Implementation status	Remarks
01	General industries	Jhansi- Shivpuri loop road	Not developed	First Priority has given to develop existing centers, than after new areas will be considered.
		A.B. Loop road	Not developed	
		Bhind road	Not developed	
		Maharajpura	Not developed	
		Near J.C. Mill	Not developed	

SOURCE: Secondary & Field survey

TABLE: 4.34 Implementation Status Of Development Plan Proposals:
RESIDENTIAL USES

S. N.	SCHEME	DEVELOPED BY	IMPLEMENTATION STATUS
01	Rajiv Gandhi Transport Nagar Oxidation pond area	G.D.A.	Initiated in 2001 Around 50% developed
02	Rajiv Gandhi Transport Nagar (PARAS Phase II)	G.D.A.	Initiated in 1996 almost developed
03	Rajiv Gandhi Transport Nagar (VINDHYANCHAL)	G.D.A.	Initiated in 1996 almost developed
04	Satabdipuram	G.D.A.	Around 30% developed (out of 510 ha.)
05	Vidhya Grih nirman (City center)	G.D.A.	Under process
06	Mahadji Nagar	G.D.A.	Initiated in 1996 Around 80% developed
07	Deen Dayal Nagar	Housing Board	Developed
08	Darpan colony	Housing Board	Developed
09	Central / state Govt. agencies	G.D.A. Housing Board	Initiated in 1996 almost developed
10	Co-operatives / individuals	Private developers	Around 1000-1200 D.U. per year

SOURCE: Secondary & Field survey

(A) Implementation Status of Stadium / Swimming Pool:

Additional site for mini stadium was proposed near Mahadji Chhatri. The foundation stone was laid by former chief minister of Uttar Pradesh Mr. Raj Nath Singh on Jan 2003 and central govt. was accepted to provide grant of Rs. 38 lacs. But it could not develop because: As per Nagar Nigam they could not get fund from state sports department while sports department says that they should have initiate the work than after should send the proposal for central grant.

Tender for the same was called on 2002, and the work was allotted to contractor. The contractor made two attempts to start the work but could not succeed due to the opposition by the local sports club of the ground assuming some misconduct against Nagar Nigam because Nagar Nigam proposed to construct some shops on the periphery of the ground to compensate the development cost which was reaching up to one corer.

TABLE: 4.35 *Implementation Status of Development Plan Proposals:*
CITY PARKS

S.N.	PROPOSED LOCATION	Implementation status	REMARKS
1	Adjoining Bhind road (near Gole ka Mandir)	NOT DEVELOPED	Under dispute
2	Near Moti Jheel	NOT DEVELOPED	Lack of Fund
3	Adjoining Mela Ground	DEVELOPED	
4	Near Maharajpura	NOT DEVELOPED	Land acquired
5	Peacock garden	NOT DEVELOPED	Lack of Fund

SOURCE: Secondary & Field survey

TABLE: 4.36 *Implementation Status Of Development Plan Proposals:*
REDEVELOPMENT

ACTIVITY	OBSERVATION	PROPOSED USE	IMPLEMENTATION STATUS
J.A. Group of hospital	Organic growth without overall plan for campus	Hospital complex	Proposal has been made
Hujrat Kotwali	The site is very close to central activities.	Commercial cum terminal center	Proposal has been made, but execution could not started due to lack of fund
Gorkhi	Building in bad shape and under utilized	Commercial cum civic center	Existing activities can not be shifted before construction of new building for relocation
Rajput & Maratha hostel	The site has great potential for extensive use	Commercial cum office complex	Proposal has made and sent for approval
Taksal building	The site has potential for institutional use	Public and semi public use	Not Developed Will be include later
Deffarin sarai	The site is inappropriately utilized although it falls along one of the major road of the city	Shopping center	Developed but came under dispute
Indusrial estate in Birla nagar	The building are in bad shape and unplanned growth	Industries	Not Developed

SOURCE: Secondary & Field survey

TABLE: 4.37 *Implementation Status Of Development Plan Proposals:*
REGENERATION

S.N.	Use to be shifted	Existing location	Proposed location	Implement status	Remarks
01	Transport agencies	Naya bazaar, bijlighar	Transport nagar AB Road	Not shifted	Public opposition to vacate
02	Wholesale market	Dal bazar	Jiwaji ganj & Transport nagar AB Road	Not shifted	Traders not willing to move
03	Wholesale cloths market	Naya bazaar	East of telegraph office	Not shifted	No registration for shifting
04	Kabadi market	Daulat Ganj	South of Sakhiya vilas palace	Not shifted	Slow developing Finance
05	Saw mill	Daulat Ganj	South of Sakhiya vilas palace	Not shifted	Enforcement
06	Fire works	Daulat Ganj & Hujrat	Industrial area in P.U. 5 or 8	Not shifted	Under consideration.
07	Wholesale fruit market	Bada	Near Laxmi Ganj mandi	Not shifted	Lack of services
08	Auto repair shops	Kampoo	Jinsi nalah road near bridge	Not shifted	Improper location
09	Govt. & semi Govt. office	Gorkhi	City centre P.U. 3	Not shifted	Land finalized
10	S.P. Office	Taksal road	City centre P.U. 3	shifted	

SOURCE: Secondary & Field survey

TABLE: 4.38 *Implementation Status Of Development Plan Proposals:*
CONSERVATION AREAS

CONSERVATION AREA	RECCOMMONDATIONS	Status
Civic square of BADA	Conserve from encroachment and needed to be revived in its original form	Partly success
KAMPOO kothi	Need to be conserve and freed from encroachment	Lack of fund
Palace complex- Phool Bagh, Jaivilas palace, Moti Mahal, etc.	The entire complex is proposed to be conserved	Maintenance Work is in process
Cenotaphs, Laxmibai statue	Conservation and development of park in around the open spaces.	Under consideration
Water bodies- Sagar, Janak and Katora tal	Development of picnic spot and city parks.	Lack of fund
Cultural centers- Mela sites	Open areas around these sites needed to be reserved for occasional activities.	Development of facilities in progress
Historical buildings- fort, tombs, temples	These areas needed to be conserve and development around these monuments proposed to be controlled.	Occasionally maintenance

SOURCE: Secondary & field survey

TABLE: 4.39 *Implementation Status Of Development Plan Proposals:*
TRANSPORTATION INFRASTRUCTURE

S.N.	ROAD SECTION	AVR. WIDTH	PROPOSED WIDTH	REMARKS
01	Patankar bazar	17.80	24.25	Movement against encroachment is in progress Some of the roads are widen Patch work and maintenance is in progress Two new links have been made One grade separator has constructed at Jinsi nalah square
02	Dal bazar	18.20	29.30	
03	Bada-Kampoo	14.50	15.20	
04	Laxmi bai marg	10.32	30.40	
05	Jayendra ganj road	18.00	19.20	
06	Raj paiga	9.8	16.20	
07	Janak ganj	13.40	15.20	
08	Daulat ganj	8.9	24.20	
09	Phalka bazar	10.50	12.20	
10	Naya bazar	16.20	16.40	
11	Nai sadak	14.00	15.20	
12	Hazira road	14.40	35.50	
13	Fort road	12.80	15.20	
14	Hujrat road	12.80	15.20	
15	Madhav Ganj	7.80	9.10	

SOURCE: Secondary & Field survey

TABLE: 4.40 *Implementation Status of Development Plan Proposals:*
BUS STATION

S.N.	PROPOSED LOCATION	STATUS	Reason
1	Morar	Not developed	Lack of fund Lack of Govt. initiative Poor financial base of MPSRTC Unorganized bus operator
2	Hazira	Not developed	
3	Lashkar	Not developed	
4	Private bus stand at AMKHO	Not developed	
5	An appropriate location for traveling agencies	Not developed	

SOURCE: Secondary & Field survey

(B) PROPOSED NEW LINKS:

- Kampoo bridge to sikandar kampoo
- Katora tal to Hospital road
- Telephone exchange to Jhansi road

Status: under process / Developing

(c) PROPOSED TERMINAL CENTERS:

Gorkhi, Kampoo, Nadi gate, High court, Padav, Chhatri, Shri Ram Colony, City centre, Thatipur, Morar, Gole ka Mandir, C.P. Colony, Hazira, Gwalior, Tansen nagar, Khedapati, Phool bagh, Sinda ki Chhawani, Jayendra Ganj.

Status: No progress

TABLE: 4.41 *Implementation Status Of Development Plan Proposals:*
OVER BRIDGE / FLY OVER

S.N.	TYPE	LOCATION	STATUS
1	Over bridge	adjoining to shastri bridge joining Gandhi road and Moti Mahal road	Not developed
2	Fly over	joining Patankar bazaar and High court road	Developed But defamed*
3	Under pass	Hazira road and Moti Mahal through Sastri bridge	Not developed

* Over bridge was constructed by PWD. Due to limited space available, it was constructed with steep slope thus, this was defamed and popularly renowned as Oonth wala pul

(e) PROPOSED PARKING SITES

At crossing of Kampoo Bridge, Maharaj BADA civic square, Daulat Ganj, Sarafa Bazar, Gust ka Tazia, High court, Roshnigar etc

Status: No progress (accept Maharaj BADA civic square)

(f) PROPOSED PED WAYS

Topi bazaar, Chitnis ki goth, Khurjawala Gali, Tajendra nath Gali, Hospital Marg, Khubi ki bazaria etc

Status: No progress

4.3.17 Over All Development Scenarios

TABLE: 4.42 *Development During Both Plan Periods*

S.N.	Land use Category	Proposed in 1991 plan	Implemented during 1976-1995	Proposed in 2005 plan	Implemented during 1996-2004
1	RESIDENTIAL	2720	2081	3516	2624
2	COMMERCIAL	320	260	449	370
3	INDUSTRIAL	560	273	449	338
4	PSP	560	420	673	563
5	PUF	320	210	375	252
6	RECREATION	720	212	598	306
7	TRANSPORT	1200	875	1421	1090
	TOTAL	6400	4331	7481	5543
OVER ALL DEVELOPMENT %			67.67%		74.09%

SOURCE: Development plan & Secondary survey

4.3.18 Actual Plan Performance

However, the total development including development took place not as per the master plan proposals is found nearly **1212 hectares (39.73%)** up to 2004. The total land consumption has been limited to 5543 hectare over a period of 9 years from 1996 to 2004. The land consumption rate work out to 4.43/1000 person against the anticipated rate of 6/1000 as per development plan 2005.

The total development during both the plan periods was found nearly **40%** but this has been observed that most of the plan proposals still remain in the paper, many of them are yet not initiated and some of them are still under process. One most important finding was that large-scale development activities are taking place around urban agglomeration, which were not proposed in the development plans. This fact indicates that the actual development as per the development plan proposals is restricted just nearly **20-22%**, which can be termed as failure of development plan.

TABLE: 4.43 *Comparative Analyses of Development Plan Implementation during Both Plan Periods:*

Land Use	Add. Land allocation in 1991 plan	Implementation status during 1976-95	Add. Land allocation in 2005 plan	Implementation status during 1995-2004*
Residential	1378	738	1435	543
Commercial	215	155	189	110
Industrial	322	35	176	65
P.S.P.	230	90	253	143
P.U.F.	154	45	165	42
Recreation	531	23	386	94
Transport	514	189	546	215
TOTAL	3344	1275	3050	1212
%		38.12		39.73

*SOURCE: * Data based on secondary and field survey*

CHAPTER 5:

PERFORMANCE EVALUATION OF PLANNING AND DEVELOPMENT AGENCIES OF GWALIOR

“Development plans does not has any performance itself”

Success or failure of any development plan, basically lies with the performance of its planning and implementation agencies. Without proper evaluation of performance of these agencies, review of development plan may not be realistic. This chapter is devoted to evaluate the performance of planning and development agencies of Gwalior, who where responsible for the successful implementation of development plan proposals. This chapter includes critical review of performance of various planning and development agencies followed by outcome of their efforts “the resulted urban pattern”.

5.1 FUNCTIONING OF VARIOUS AGENCIES

5.1.1 Town and Country Planning Department, Gwalior

Town and country planning department Gwalior, was constituted under the provision of MP T & CP Act, 1973, to prepare the development plan for the Gwalior region. This has status of regional office under the state town planning department. It has duty of preparation of development plans, grant permission for development as per the plan proposal and monitor the growth of the city.

(a) Achievements of department:

- Preparation of development plan of Gwalior 1991 & 2005
- Preparation of development plan of Bhind 2011
- Preparation of development plan of Dabra 2011 (under process)

(b) Drawbacks of department:

- Gap between both the plans of Gwalior
- Absence of detailed zonal plan
- Absence of interim review
- Lack of monitoring and control over the development of the city
- Absence of updated base map
- Lack of internal coordination
- Lack of qualified staff
- Lack of advancement and modernization in office infrastructure

Since from 1992, after the 74th CAA and constitution of district planning committee Town and country planning department Gwalior has become one of the weakest links of the development chain. Because DPC has been empowered to prepare development schemes for, the district and they are doing so. This has ~~reduced the previous powerful role of the organization.~~

5.1.2 Gwalior Development Authority

Gwalior development authority was constituted under the provision of MP T & CP Act, 1973, to implement the plan proposals.

It has the duty of development of land and controls the development activities for various plan proposals to sustain orderly development of the city. In due course of time GDA restricted them selves only for development of land mainly for residential purposes and commercial for some extant.

(a) Procedure of development

- After the final notification of development plan in the gadget, first step in the direction of development is acquisition of land as per the section 50 (7) of Town and Country Planning Act.
- Land acquisition usually conducted by mutual agreement or through collector.
- Preparation of proposal for scheme.
- Approval of scheme from T& CP Department.
- Development of land for scheme as per the approved layout.
- Maintenance until transferred to Municipal Corporation.
- Transferring the scheme to Municipal Corporation.

(b) Successful schemes transferred to Nagar Nigam

Following are the successful schemes which have been transferred to Nagar Nigam for further maintenance:

Shanti nagar, Lalitpur , Laxmi Bai, Ashok and Khedapati colony, Prem, Ravi and Chandra nagar, Gandhi road scheme 2B &3B, Suresh, Trapti, Jiwaji, Mayur and Mohan nagar, Vinay nagar sector-1 & Laxmi Bai colony (Extension) etc.

(c) Schemes proposed for transferred to Nagar Nigam

Vinay nagar sector 2,3 and 4, Transport nagar, Anand Nagar, Bahodapur colony, Apna Ghar colony, City centre scheme (residential & Commercial) etc.

(e) On going projects

- Shatabdi puram residential scheme
- Mahadji residential scheme
- Oxidation pond area residential scheme
- Redensification of Aayurvedic clinic: GDA Complex
- Redensification of veterinary clinic: Madhav Plaza
- Miscellaneous works:
- Work for M.P. fund
- Work for MLA fund
- Madhya Pradesh state employee Housing Corporation scheme

(f) Proposed schemes: (2003-04)

- Colony for journalist at Mahalgaon
- Extension of city center
- Colony near JB Mangaram Industry
- Loha Mandi near Shivpuri link road
- Mini transport nagar near Jhansi road

TABLE: 5.1 Residential Developments by G.D.A.

Particulars	SCHEMES				
	Vinay Nagar sec. 2,3 & 4	TP Nagar	City Centre	Anand Nagar	Satabdi- -puram
Commencing	1979	1982	1982	1988	1990
Completion	1996	1996	-	2002	-
Status	Complete	Complete	On going	Complete	On going
Area (ha)	52.79	58.87	27.83	83.29	510
Total Plots Nos.	2195	1507	791	3222	5305
Allotted %	98	96	0	98%	90
Constructed %	75	70	0	70%	12
INFRASTRUCTURE					
Road WBM %	90	100	10	80	55
Black Top %	75	80	Nil	30	10
Water line %	100	100	20	80	75
Sewer line %	90	95	10	80	30
Electricity %	80	80	Nil	50	35
Drainage %	100	100	Nil	Nil	60
Park %	75	100	nil	50	10
Transferred to MC	Under process	Under process	After completion	Under process	After completion
Future Plan	Complex at sector 3	Natural Nalah	Infra. developme nt	Road Sewer Water	OHT Sub-stn. Roads
Remarks	Problems in transfer	Problems in transfer	Under court case	Problems in transfer	Low occupancy

Continued.....

TABLE: 5.2 Residential Developments by G.D.A.

Particulars	SCHEMES				
	SEHC Mahalgaon	TP Nagar Pitambra	TP Nagar Paras	Mahadji Nagar	TP Nagar Oxidation
Commencing	1992	1996	1996	1996	2001
Completion	-	-	-	-	-
Status	On going	On going	On going	On going	On going
Area (ha)	15.37	2.23	0.6	20.68	3.82
Total Plots Nos.	587	200	165	816	232
Allotted %	90	55	24	100	100
Constructed %	50	10	36	5	Nil
INFRASTRUCTURE					
Road WBM %	95	100	100	80	80
Black Top %	90	Nil	Nil	Nil	Nil
Water line %	90	100	100	95	100
Sewer line %	90	Nil	100	Nil	90
Electricity %	100	Nil	25	85	Nil
Drainage %	95	100	100	20	50
Park %	50	Nil	20	Nil	Nil
Transferred to MC	Under process	After completion	After completion	After completion	After completion
Future Plan	Shops below OHT	Road Sewer Electricity	Road Electricity	Sump well OHT	OHT Sub-stn. Roads
Remarks	Problems in transfer	Finance Coordination	Finance Coordination	Low occupancy	Finance Coordinati

Source: Secondary & Field survey

TABLE: 5.3 Commercial Developments by G.D.A.

Particulars	SCHEMES		
	Madhav Plaza	GDA Complex	City centre
Commencing	2003	2003	1982
Completion	-	-	2004
Status	Proposal stage	Proposal stage	Complete
Area (ha)	0.98	0.06	9.71
Total shops Nos.	441	26	48 plots
Allotted %	11	50	100
Constructed %	Nil	100	31

Source: Secondary & Field survey

(g) Major problems:

- Flow of money and resource mobilization
- Land acquisition
- Inter-agency coordination
- Lack of modernization

5.1.3 Madhya Pradesh Housing Board

(a) Procedure of development:

- Land acquisition, preparation of proposal, approval, development of land, maintenance until transferred to MC are the similar to the GDA.
- The only difference is that housing board not only sells the developed plot but, also provides constructed houses along with all community facilities.
- Housing board takes care for providing houses to the all income groups in all of their schemes.
- Their main target is providing affordable houses for all.
- Housing board is also provides consultancy to various Govt. public and private organizations for proposal and supervision.

(b) Successful schemes transferred to Nagar Nigam:

Following are the successful schemes which have been transferred to Nagar Nigam for further maintenance: Darpan Colony, Madhav Nagar, Thatipur Colony and CP Colony etc.

(c) Schemes proposed for transferred to Nagar Nigam: Deen Dayal Nagar

(d) On going projects: Darpan Enclave: multistoried apartment for MIG and HIG.

(e) Proposed schemes: (2003-04) Residential Colony near thatipur and Gole ka Mandir

TABLE: 5.4 Performance of Housing Board, Gwalior

Particulars	SCHEMES		
	Darpan colony	DD Nagar	Darpan Enclave
Commencing	1982	1990	2003
Completion	2000	2004	-
Status	Complete	On going	On going
Area (ha)	10.9	156	2
Total Plots Nos.	2000 DU	5000	72
Allotted %	100	100	100
Constructed %	100	94	Under const.
Road WBM %	Complete	100	Under const.
Black Top %	Complete	80	Under const.
Water line %	Complete	100	Under const.
Sewer line %	Complete	100	Under const.
Electricity %	Complete	90	Under const.
Drainage %	Complete	100	Under const.
Park %	Complete	75	Nil
Transferred to MC	Transferred	Under process	After completion
Future Plan		Extension	Extension
Remarks	Problems of poor maintenance	Low occupancy	

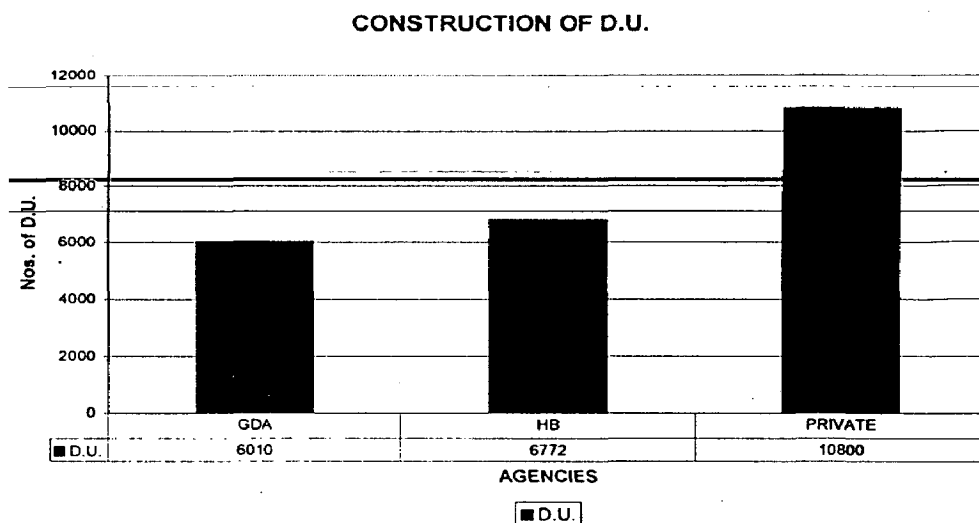


Figure: 5.1

Source: secondary & Field survey

5.1.4 Municipal Corporation and P.H.E.D.

Gwalior Municipal Corporation is playing a vital role in the development and specially maintenance of the urban infrastructural services. There are several functions which have been listed out in the chapter 2. Since from 1996 MC was given the responsibilities of maintenance of urban services, while *public health engineering department* was given the responsibilities for preparation and implementation of urban infrastructural projects, and transferred the facilities after completion of the project:

TABLE: 5.5 Major Projects

scheme	Year	Status	Remarks
Water supply			
1. Increasing water production capacity (from 77mld to 145 mld)	1986	Still continue 70% work done	Interrupted flow of fund
2. Improved distribution system:	1989		
a. Construction of 6 service reservoirs		4	Lack of fund
b. 11 KM. Water mains		Nil	
c. 275 KM. Distribution lines		15 KM. Completed	
Sanitation			
1. Sewer project	1988	55% completed (108km.)	Lack of fund
a. primary treatment plant		Completed	
b. secondary treatment plant		Not started	Lack of fund
2. Swarna Rekha project	2001	continuing	Delay in work due to: Count. Discharge Encroachment Lack of coordination

Source: Based on Secondary & Field survey

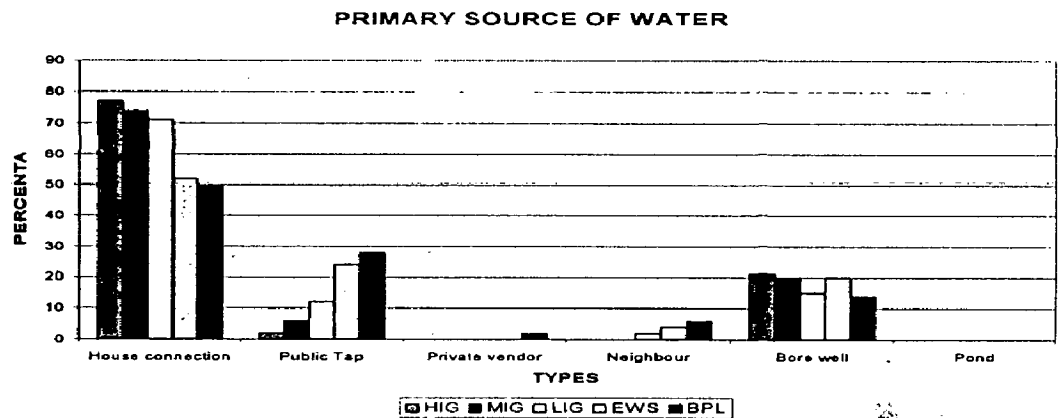
5.2.4.1 ACCESS TO SERVICES: Performance analysis

(I) Water Supply

As per the survey data, nearly 78.3% of the households used the piped water supply as its primary source out of which 70% had individual in-house connections. Nearly 18% of the households used water from hand pumps while the others depended on other sources like dug wells, ponds, and private vendors as their primary source of water.

Source:
IUDMP
Report 2003

Figure: 5.2

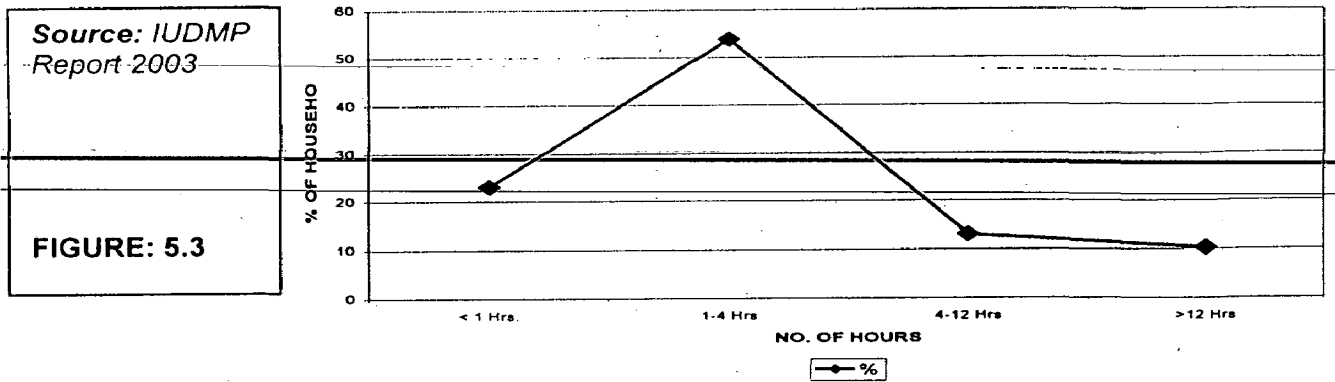


It was observed that nearly 77% and 21% of the HIG households depended on house connections and hand pumps respectively. Among the MIG household nearly 74% had an in house connection while 4% and 18% of them depended on public stand posts and hand pumps respectively.

The LIG households used water mainly from in house connections (71%) and public stand post (11%) hand pumps (13%) as their primary source. As shown in the figure, among the EWS and BPL households the trend was more or less similar except none purchased water from private vendors.

For the poor households, it was observed that 58.6% of TP, 51% of IP and only 56% of core poor had in house connections. Dependence on public stand post as a primary source was recorded to be highest among the intermediate poor households (23%) while for hand pumps it was highest for the core poor households at 20%. Only 0.2% of the TP household has reported to be purchasing water from private vendors. Households lacking access to piped water supply was reported by 18.8% of the households. (G.H.K. Internationals Pvt. Ltd., 2002-03)

DURATION OF WATER SUPPLY



Of the households who did not have access to the piped water system 27%, 33%, 21 % and 17% were from HiG, MIG, LIG and EWS households respectively. The BPL household accounted for about 9.8% who reported that they did not have access to tile piped water supply.

Nearly 68.9% of the households stated that they received on alternate days, 3.9% received water twice a day, 5.3% received water once a day, and only 1.1 % reported that water was supplied everyday. Nearly 83% and 7% of the HiG households mentioned that they received water on alternate days and once in a day respectively. A similar trend was observed among the MIG, LIG, EWS and BPL households.

The survey revealed that the duration of water supply for nearly 53.7% of the households were recorded between- 1 to 4 hours while for around 23% of them it was less than an hour. The duration of water supply for the rest of the households is over 12 hours a day.

The figure clearly shows that about 66% of the households across all the income groups received water between 1 to 4 hours a day. Nearly 26% of HiG, 30% of MIG, 27% of LIG, 30% of EWS and 29% of BPL households received water supply for: less than an hour a day. The households: who depended on the piped water system; 65% of HiG, 65% of MIG, 64% of LIG and EWS and 62% of BPL households stated that the water supply was sufficient while the rest regarded it to be insufficient. The households who depended on sources other than the piped water system nearly 27% stated that the water received by them was insufficient. Nearly 17.4 % of the HiG households, nearly 21% of MiG, 38% of LIG, 39% of EWS and 51% of BPL households stated that water from other sources was insufficient. Among the poor households, 54% of IP, 42% of TP and 33% of the

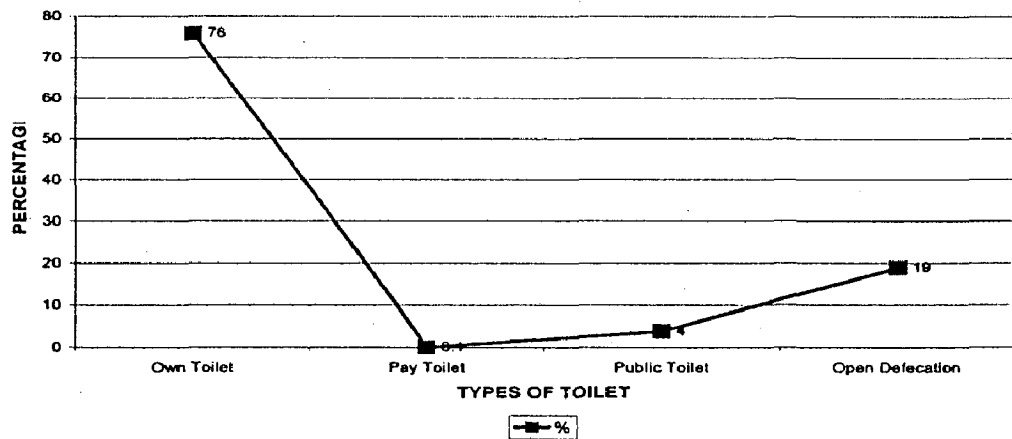
core poor households stated the quantity of water received by them was insufficient.

(II) Sanitation

The survey data on the sanitation behavior of the households revealed that. Nearly 76% of the households used toilets within the house. Nearly 4% used a public toilet. 0.1% used pay and use toilets and 19% defecated in the open. It was observed to be highest among the EVVS and BPL households at 41%.

In Gwalior, it was observed that nearly 70% of HIG, 63% of MIG, 49% of LIG, 28% of EWS had their toilets connected to the sewer system. Among the BPL households it was 22% Toilets connected to septic tanks were observed highest among the HIG and MIG households at 24% and west among the EWS households at 12%. Nearly 2% of HIG and MIG households, 4% of LIG. 2% of EWS and 7% of BPL households had toilets connected to surface drain. Pour flush pit latrines was recorded to be highest among the BPL households at 7% and so also dry bucket latrines.

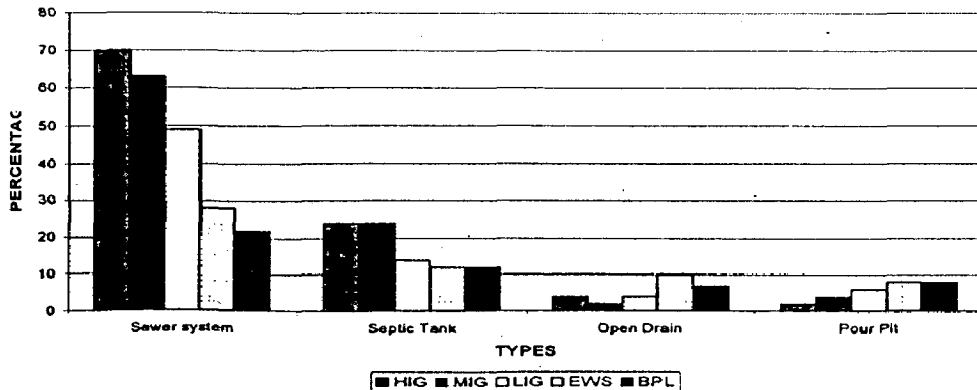
DEFECATION PRACTICE



Source:
IUDMP
Report 2003

Figure: 5.4

TYPES OF TOILET



Source: IUDMP
Report 2003

Figure: 5.5

(III) Drainage

Problems of flooding were reported by nearly 20% of the households in the last one-year. The flooding problem experienced by the MIG, EWS and BPL households was reported to be at 21 % while for the HIG households it was 17%.

When enquired about the frequency of flooding in a year, whilst an average of 82% reported no problem while nearly 14% of the EWS and BPL households and 5% of the HIG and 10% of MIG households stated that they experienced flooding more than 10 times a year.

Among the poor households 22% of the TP, 21 % of I P and 20% of the core poor households experienced flooding problems. Flooding occurring more than 10 times year was reported to be highest among the core poor households (20%) and lower at 13% for the transitional poor households.

Information was also gathered on the duration of flooding and most people were of the opinion their surrounding neighborhood got flooded for more than 3 months in a year. Damage caused to house or income due to flooding was reported by small proportion of households (5%) in the city and most stated that they spent less than RS.500 to repair the damages.

(IV) Solid Waste

Nearly 28.8% households disposed solid waste in private bins, 13.3% in community bins, and 57.2% threw them on streets and open areas. Disposal of solid waste on streets / open areas was recorded to be highest among the BPL households (71 %) followed by the EWS households (59%). Among the poor households such practice was highest for the core poor households (78%).

Of all the households surveyed, nearly 33% of the households stated that the solid waste garbage was collected regularly. 15.6% households said it was cleared 2 - 3 times in a week while 34% of them stated that it was never collected. Nearly 37% of LIG 42% of the EWS and 47% BPL households reported the same. Among the poor

SOLID WASTE DISPOSAL

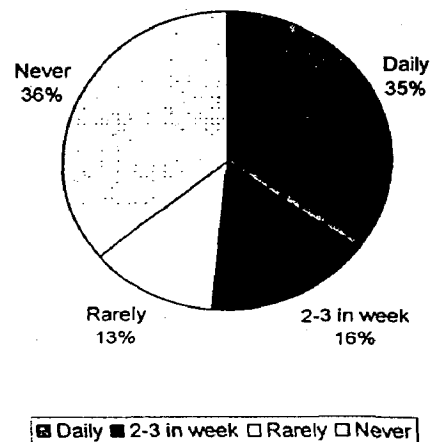


Figure: 5.6

household nearly 52% of the core poor stated that garbage was never cleared. When enquired about the regular cleaning and upkeep of the road drains 54% of the households stated that they were not cleaned. Nearly 50% of HIG, 53% of MIG, 55% of LIG and 59% of the EWS were of the same opinion. Nearly 62% of the BPL households said they were never cleaned. Among poor households 60% of TP, 61 % of IP and 73% of core poor households stated that road drains were never cleaned.

(V) Roads, Street Lighting & Access to Public Transport:

Nearly 76% of HIG, 62% of MIG and LIG, 72% of EWS and BPL households reported that their house was on a paved road with a city average of 79%.

5.1.5 Public Works Department (PWD)

During the plan period PWD was found mostly engaged with the road improvement, patch work and road widening. The road network and other proposals which were proposed in the development plan were not taken up due to lack of fund. In the year 2001, when local administration prepared a detailed report on *comprehensive traffic & transportation study done by lea associates* the improvement of traffic system was speed up. PWD started many project as proposed in the report. The development of proposals for efficient traffic movement is still continuing with a rapid pase.

Some major works:

- Construction of grade separator at Jinsi nalah.
- Construction of roads to connect missing links.
- Increasing road width of Major roads of the city
- Improvement of traffic node
- Construction of traffic island
- Construction of road dividers

5.1.6 Madhya Pradesh Electricity Board

The survey data revealed that 99.6% of HIG households, 99% of MIG, 95% of LIG, 85% of EWS and 90% of BPL households had an electricity connection. Nearly 79% of the core poor households, 91 % of IP and 90% of TP households had electricity in their houses compared to a city average of 96.5%.

5.2 RESULTED DEVELOPMENT PATTERN

5.2.1 Pressure of Urban Development around Fort:

Areas lying between the Fort hill and Hanuman hill and the area lying between fort hill and Morar are a potential

area for future growth. Land costs

are higher in these areas. The land around Gwalior city centre is predominantly steep and hilly; some urban development activities are also taking place along the Agra-Mumbai (AB road) link road. Areas on either side of the AB road

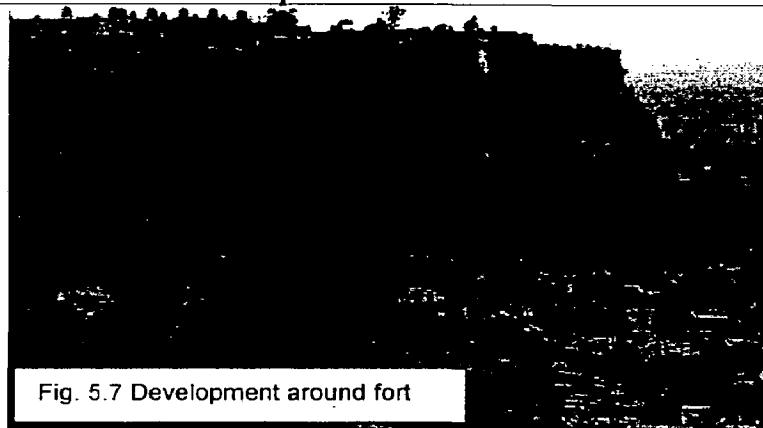


Fig. 5.7 Development around fort

include some existing development but road links will be required to open up their hinterland for further development. Most of the private developers are concentrating their activities (infill development) within the city area because of availability of infrastructure. The central urban core is dominated by commercial and public and semi-public land uses with some high density residential development. (Refer Figure no. 5.9 Point 2, 3&4)

5.2.2 Concentration of MPH and GDA's Developmental Activities between Bhind Road and Railway Line:

The area to the north of Gwalior- Bhind road and bounded by the airport (air force station) there are some restrictions on the types of development (height or use of building) in this area. MP

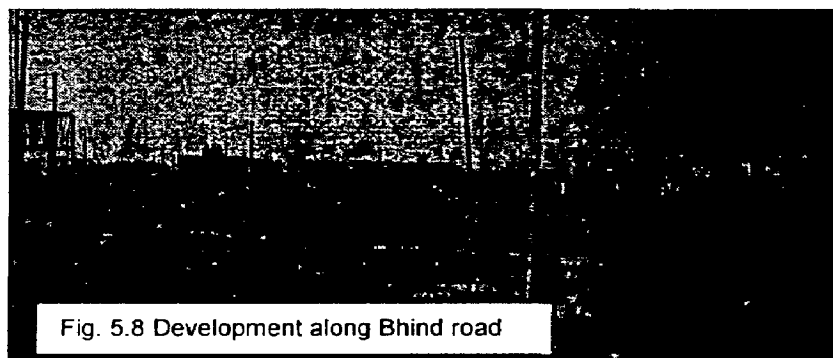


Fig. 5.8 Development along Bhind road

Housing Board and Gwalior Development Authority have residential development schemes (including housing for EWS group) in Satabadipurani I-IV, Deen Dayal Nagar. Most of the Bhind road frontage has been developed with commercial uses (informal type development) and the area behind include permanent settlements and open areas. (Refer Figure no. 5.9 Point 11)

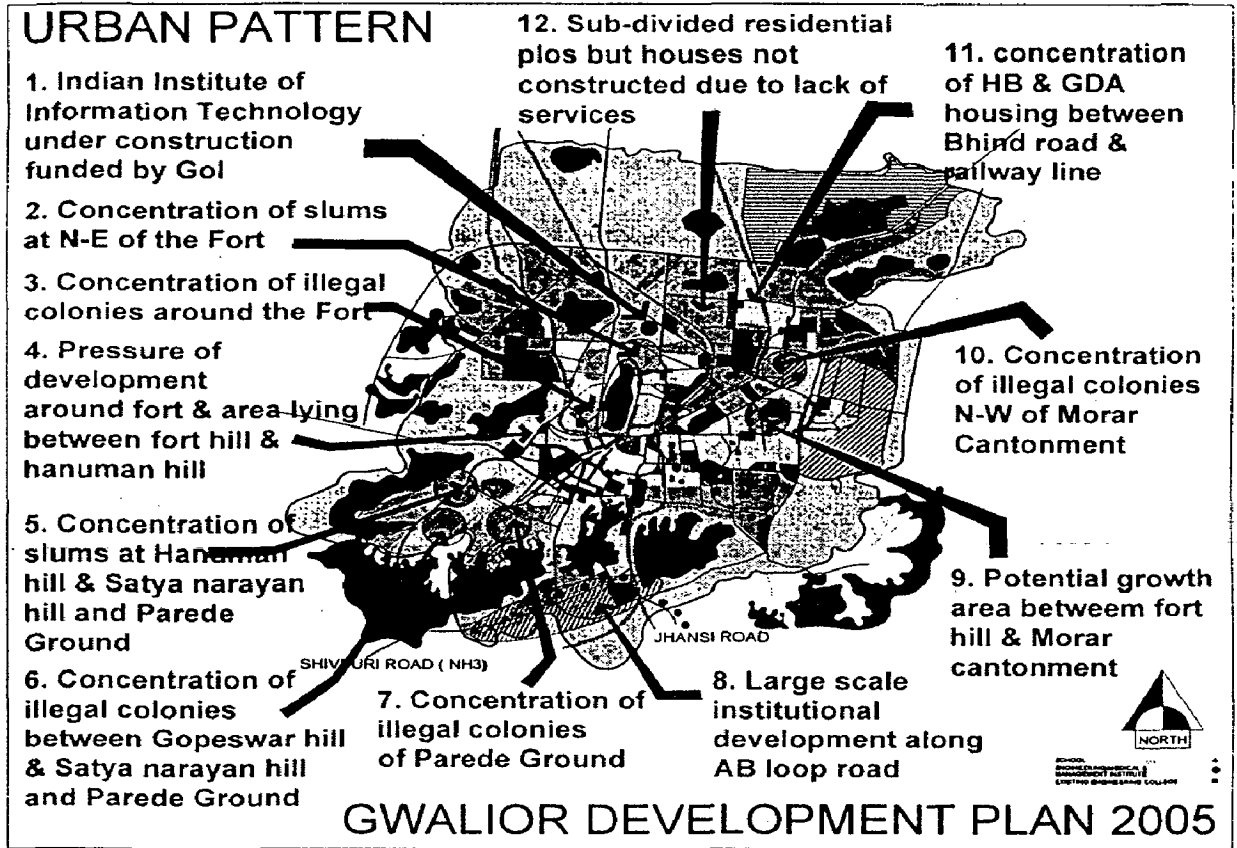
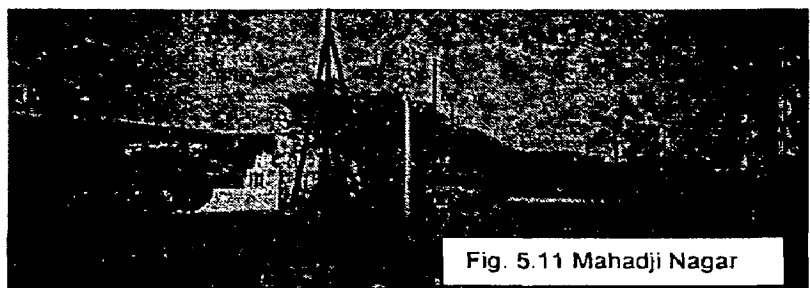
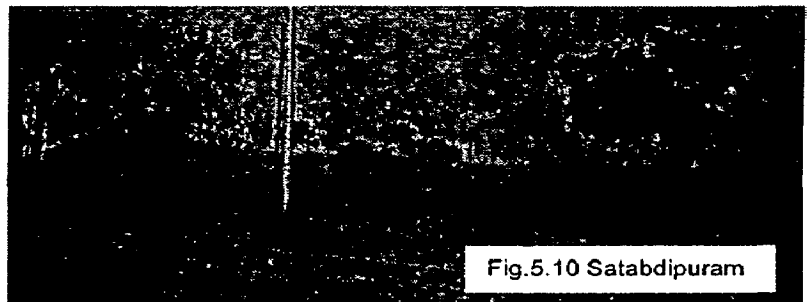


FIGURE: 5.9

Source: Author

5.2.3 Subdivided Residential Plots But Houses Not Constructed:

There are significant areas of land subdivided and sold, but not used for construction of residential buildings. The condition of infrastructure in these colonies is deteriorating. Several reasons are put forward for this: (i) non-availability of services such as electricity supply, public transport, accessibility and piped water supply; (ii) speculative purchase (iii) investment purpose. GDA feels that there is a lack of co-ordination with line agencies particularly with the MP Electricity Board. MPEB has not provided power in GDA's newly developed colonies. In newly developed areas, the water supplies are generally from the limited ground water resource. (Refer Figure no. 5.9 Point 12)



5.2.4 E.W.S. Houses Constructed But Not Occupied

Large number of housing units constructed that remain unoccupied particularly to the Northwest of the city (Satabadipuram) due to lack of services

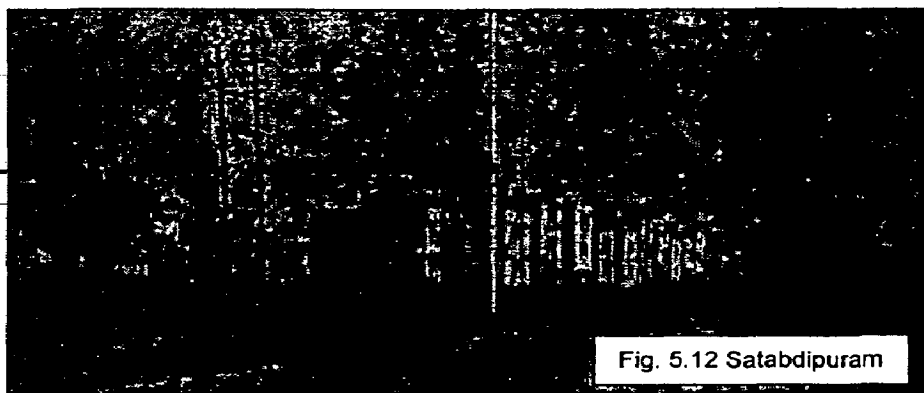


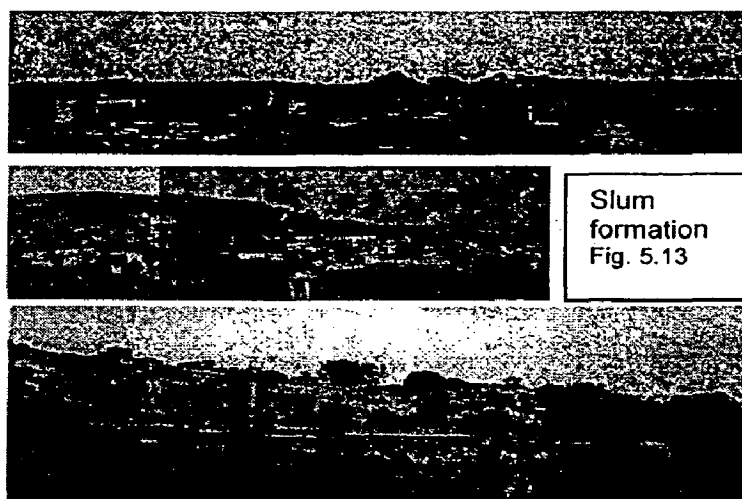
Fig. 5.12 Satabdipuram

such as electricity supply, public transport and water supply.

(Refer Figure no. 5.9 Point 12)

5.2.5 Concentration of Slums:

Gwalior has 149 notified slum areas with a population of 4.78 lakhs. Most of the slums are located between Hanuman hill, Satyanarayan hill and Parade Ground and northeast of Fort hill. (IUDMP Report 2003)
(Refer Figure no. 5.9 Point 2, 5 & 6)



Slum formation
Fig. 5.13

5.2.6 Concentration of Illegal Colonies:

Gwalior has 265 illegal colonies with poor physical and social infrastructure. Most of these are concentrated between Gupteshwar hill, Satyanarayan hill and

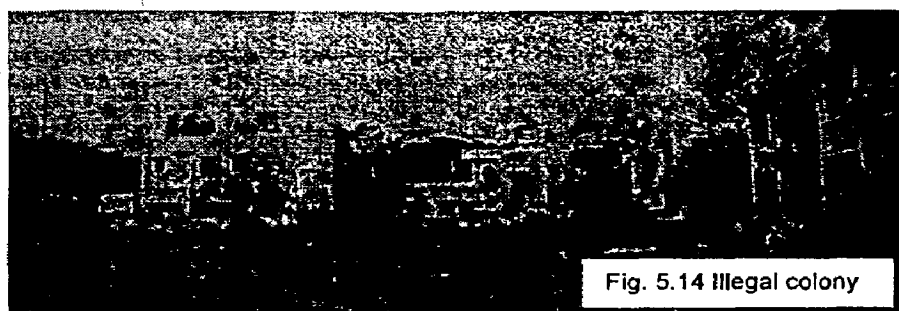


Fig. 5.14 Illegal colony

Parade Ground, north-west of Morar cantonment plus around the Fort. (Refer Figure no. 5.9 Point 3, 6, 7 & 10)

5.2.7 Industrial Growth Centers at Malanpur and Banmore:

These industrial growth centers are just outside the Gwalior Planning Area. They have tremendous impact on the economy of Gwalior.

5.2.8 Large Scale Developments:

- Institutional Development and Private Schools along the Agra-Bombay Loop Road
- Indian Institute of Information Technology under construction funded by the Central Government

5.2.9 Major Project Initiated By DPC

Swarna Rekha Environmental Improvement:

The Swarna Rekha River, originated from the Raipur Bandh in the south west direction of the Gwalior city and before entering into the city region it crosses the 5 nos of bandh in continuation which were initial deigned to full fill the drinking water need of the Gwalior city for an early period.

The increase in socioeconomic activity, urbanization, and industrialization has, had an impact on the quality of the river water. The deterioration in the quality in the Swarna Rekha river is due to the direct discharge into the waterways of sewage, solid waste, as well as very significantly the silt from erosion of the parallel hilly regions to the valley regions. The environmental quality of the Swarna Rekha River is the worst. Pollution comes from both point and non-point sources and is compounded by the presence of squatter settlements along the river.



Fig. 5.15 SWARNA REKHA: converted into nalah

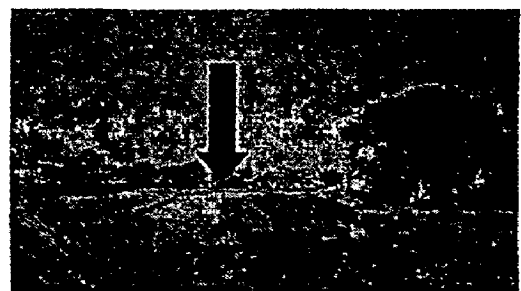


Fig. 5.16 SWARNA REKHA: canal under construction

After 1992 when local Govt. empowered they initiated one project in the year 1997 called Environmental improvement of Swarna Rekha River. At present around 100 crore has been sanctioned and work is under progress.

5.2.10 Status of Heritage Development

(I) Problems addressed but not emphasized:

Gwalior has rich cultural heritage and potential to grow as an important tourist place. Development of the city as a tourist place was one of the main objectives of the plan but, it was observed that plan has not emphasized this objective in its proposals.



Fig: 5.17 Tombs of Mohammad Gaus

(II) Contradictory proposals:

on the one hand master plan has objective to proposed the as a tourist place and also providing the norms that "no construction is allowed in around 100m of any historical site" but on other hand master plan itself proposed some commercial complex at front open space of the famous monument called **DAFRIN SARAI**.

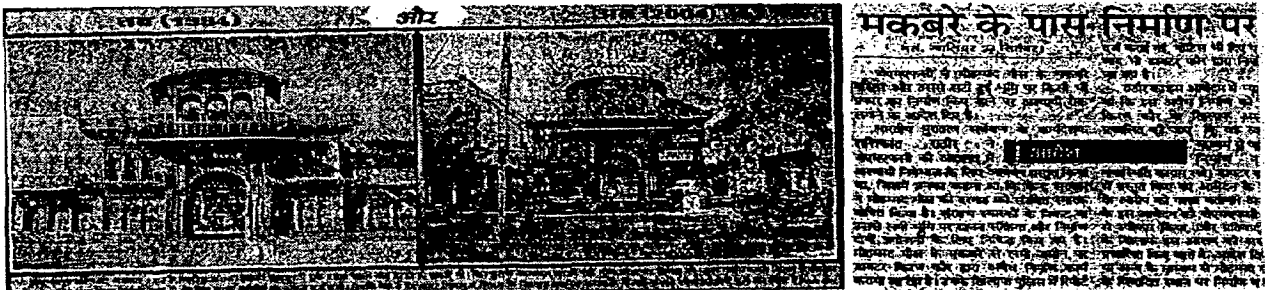


Figure: 5.18 Dafrin Sarai Complexes

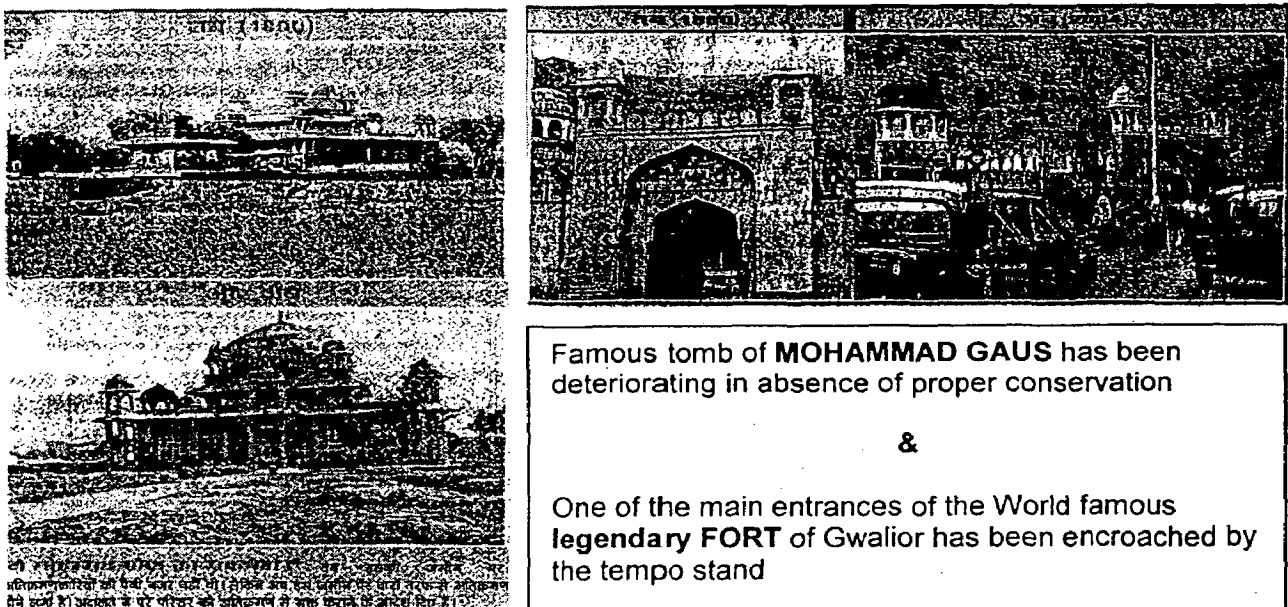


Figure: 5.19 Encroachments around monuments

5.2.11 Concentrations of Various Institutions



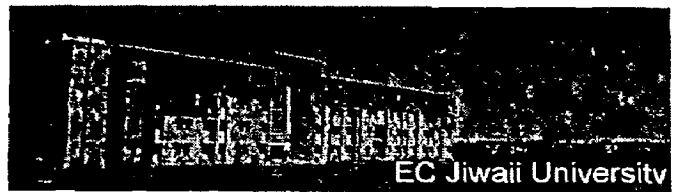
Oxford Public School



Little Angle School



GICT Gwalior



EC Jiwaji University

Interim proposal for educational institutes:
 Engineering institutes: MPCT, ITM, IITM, NRIITM, GEC, SRIEM, EC JIWAJI UNIVERSITY,
 Management institutes: PRESTIGE, BVM,
 Computer colleges: BOSTON, NIIT, GICT,
 Medical institutes: VRHMC, MPDC,
 Schools: OXFORD, GWALIOR GLORY, RADIANT, LITTLE ANGLE, RAMSHREE, KIDDIES CORNER, etc.

Figure: 5.20

5.2.12 Inter Agency Issues

There are number of evidences are available where many projects were improperly implemented or still incomplete due to absence of mutual cooperation and coordination among various implementing agencies.



काम आ चल से चल रहा है स्वर्ण रेखा को नदी बनाने का काम

Figure: 5.21

An ambitious project launched by DPC to convert Swarn Rekha Nalah into fresh water canal. But its progress rate is very slow due to conflicts between Municipal Corporation and PHE department.



Figure: 5.22

Repairing of work of padav over bridge is halted due to conflicts between Municipal Corporation and railway



Figure: 5.23

Newly developed colony does not have electrification due to conflicts between GDA and MPEB

5.2.13 Illegal and Unsatisfactory Implementation

(a) Development scenario in central area:

Maharaj Bada and its surrounding are acts as a city's core area even after located away from the spatial central location. This is highly dense populated area of the city. Special consideration has been made in the development plan to control the growth of the core and solve the existing problems of traffic congestion and environmental degradation. But, due to corrupt practice and misuse of provisions of act the problems are still continued.

(I) Reconstruction of existing building:

As per regulation: the owner of the building has to leave MOS as per zoning regulation.
Objective: Road widening & safety.

- Current practice:**
- Get the permission for building maintenance
 - Oblige the area in-charge
 - Reconstruct the structure with retaining front facade initially

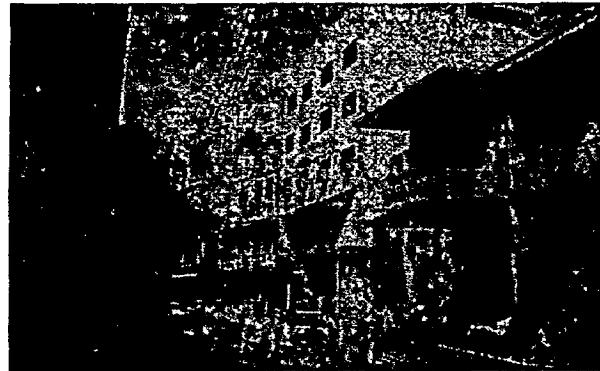


Figure: 5.24

(II) Construction of basement:

As per regulation: construction of basement is not allowed at densely populated commercial and city core areas.
Objective: Density control & safety.

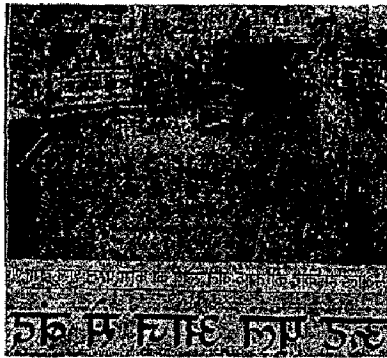
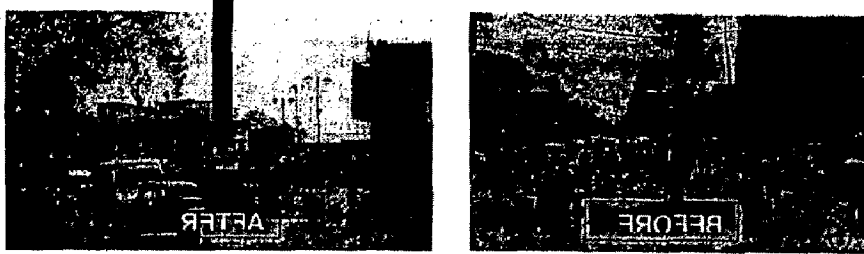
- Current practice:**
- Provide deep foundation
 - Construct the structure without digging basement
 - Oblige the area in-charge
 - After suitable time period remove the earth.



Figure: 5.25

Similarly, conversion of parking spaces of multistoried apartments and commercial complexes into shops is very common to experience throughout the city.

(B) Unsatisfactory implementation: Jincy Nash Grade separator

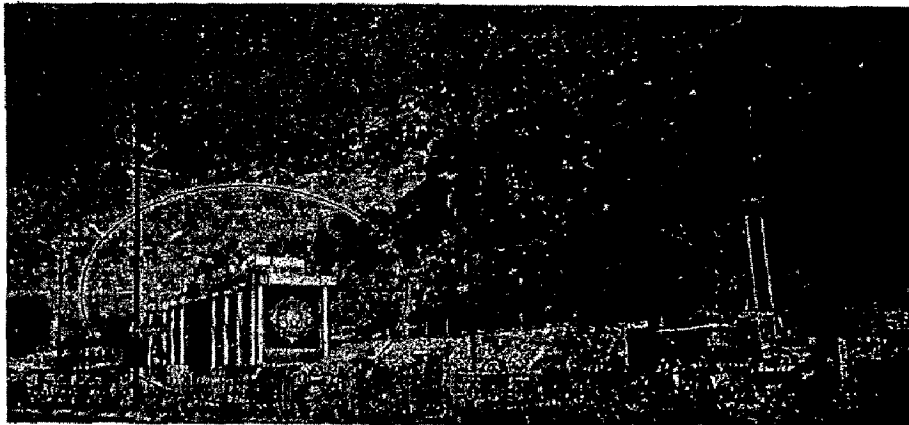


- At this node a grade separator was proposed in the master plan to provide direct and easy movement towards city core.
- Designed and constructed by MP PWD
- Due to the shortage of length and improper design it could not provide easy movement.
- Due to its steep slope it was detamed and popularly named as "conthul" (camel bridge)

Newly constructed grade separator

Figure: 8.26

(b) Lack of Enforcement: Encroachment



As per the development plan 2005, hill slopes are prohibited for any type of construction activities. It can be developing as Open Park. But construction of commercial complex on the hill slope is clear violation of the regulations and it shows the weakness of the enforcement of provisions.

Encroachments on hill slope

Figure: 8.27

5.2.14 Reaction against Encroachment: operation blast

Introduction: In the month of January 2005, state Govt. started a bold movement called "OPERATION BLAST" in selected major cities of Madhya Pradesh.

Objective: To remove the illegal construction and make the city encroachment free.

Technique: Use of dynamite for demolition

Target: Multistoried complexes were become first target of the operation

Operation:

- Local administration prepared a list of illegal construction out of 490 multistoried 112 was declared totally unauthorized and intolerable.
- On 7th Jan.2005 first building (Sugandha apartment) was demolished.
- Up to 9th Jan 05 four structures were demolished and 15 were marked to further action
- On 12th builders organization came into action and made an appeal to chief minister to stop this movement immediately.
- On 13th Jan 05 CM called local officials with relevant document
- On 17th local administration meet with CM
- ON 19TH Urban Development minister arrived Gwalior, and assure that movement will continued after review and with a change in operation style.
- Than after movement was almost stopped

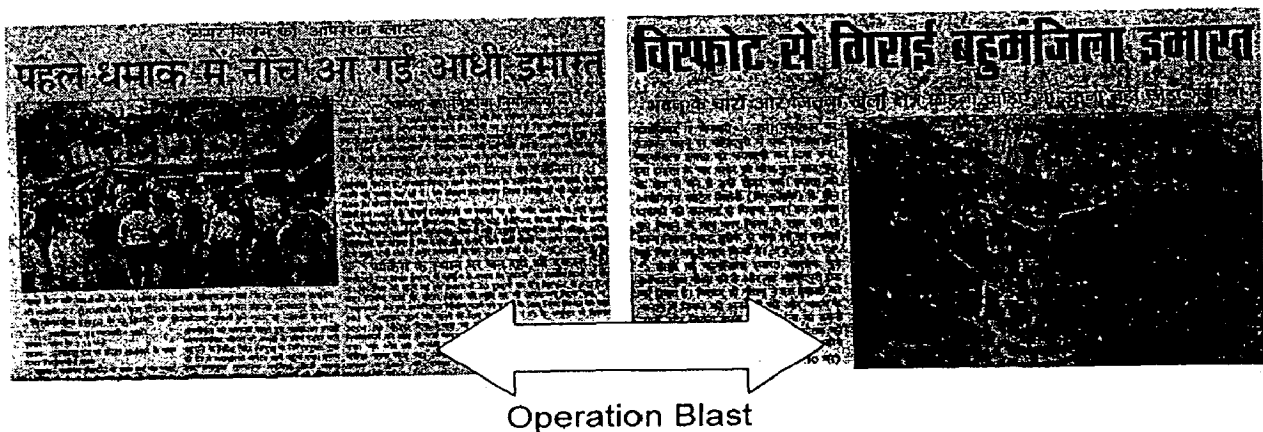


Figure: 5.28

News related to Operation Blast of Nagar Nigam, published in local news paper *Dainik Bhashkar*, on 7th & 11th January, 2004

Public response: mostly people appreciate this movement.

Accountability: implementing agencies and builder both are responsible

Impact:

- People ignoring multi storied apartments & Loss of revenue
- Strong Lesson to developers
- Flats will be costly
- Local administration succeeded to show strong will power up to an extent
- Lacuna of development mechanism was exposed
- Provided an issue for debate for improvement of development mechanism

Opportunities:

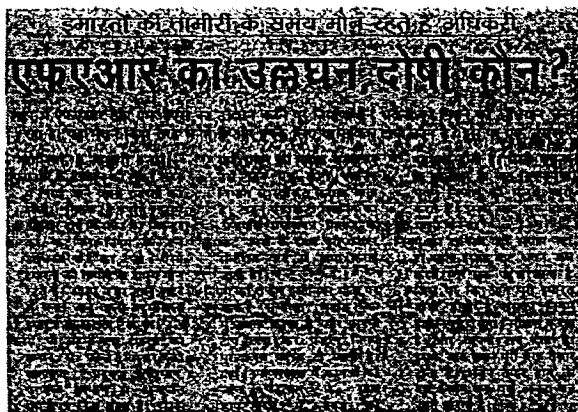
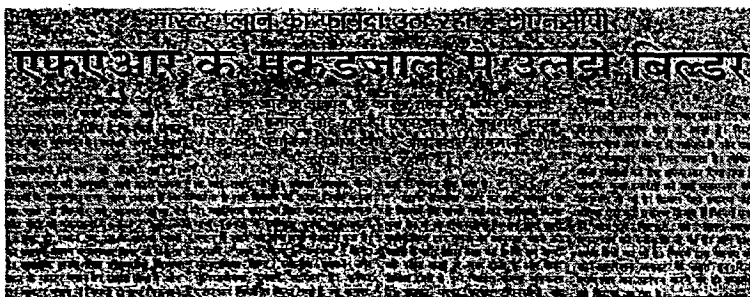
For local administration to earn revenue

For exploitation during compromise as there is no any specific rule for fixation of penalty.

For builders to learn and improve their attitude in future

End results:

Similar to other movement this was also freeze



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Operation Blast

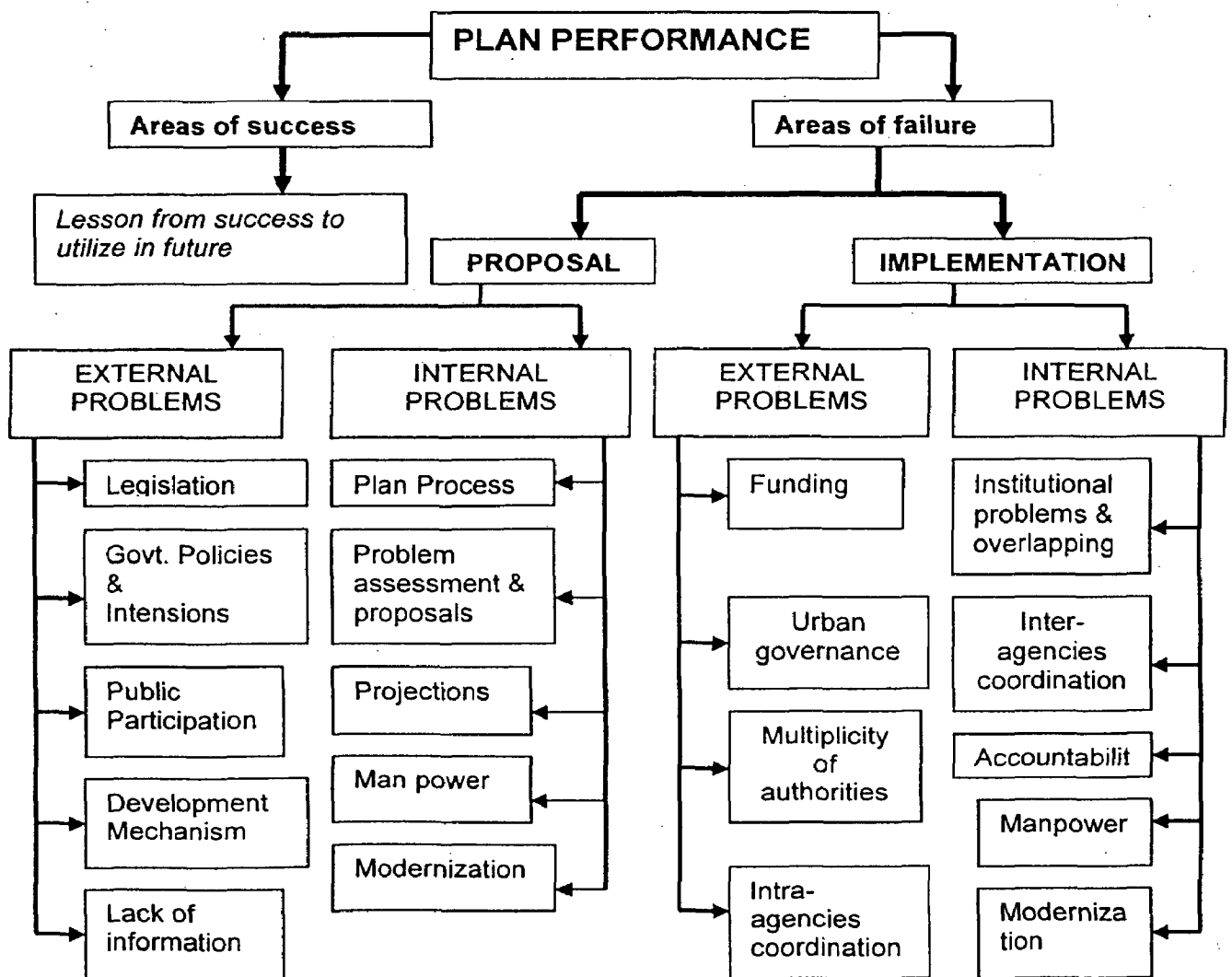
Figure: 5.29

News related to impact of Operation Blast of Nagar Nigam, published in local news paper *Dainik Bhashkar*, on 8th, 12th & 22nd January, 2004

CHAPTER 6: ANALYSIS & FINDINGS: PLAN PERFORMANCE

This is most important part of the dissertation report; objectives of this chapter are to analyze the plan performance to know the key actors and factors played critical role in the success and failure of the development plan. A framework shown below (Figure 6.1) is made to carry out the analysis. The plan performance broadly can be divided into two parts; areas of success and failure, as this is observed that success of plan is found negligible so more concentration is given to the factors responsible for hampering the growth. The analysis of various factors are tried to explained with support of photographs, relevant matters of local news papers, interviews and visual perceptions.

6.1 FRAMEWORK FOR ANALYSIS



Source: Author

Figure: 6.1

PLAN PERFORMANCE

- Areas Of Success
- Areas Of Failure

(a) Areas of success:

1. ~~The performance under the residential land use development was around 40% but it can be said satisfactory because of less pressure of population.~~ Many new residential colonies were developed during this period and some existing incomplete residential projects were completed as well. Real estate being a profitable business derived attention of many governmental, public and private agencies in this direction.
2. The plan was succeeded to develop around 60% of commercial and public and semi public land uses. Private builders played significant role to develop many commercial complexes and public utility buildings in the city.
3. In the transportation sector many existing traffic corridors were made more widen through removal of encroachments to improve traffic circulation in the city.
4. Some new link roads was also created to reduce traffic load from main roads and to improve efficient traffic circulation in the city.

(b) Areas of failure:

- I. The development plan (2005) of Gwalior has been suffered on many fronts, in quantitative term as well as qualitative.
- II. Total area proposed for urban development up to 2005 was anticipated as 7481 hectare under different uses but the land consumption has been limited to 5543 hectare over a period from 1995 to 2004 (9 years)
- III. However, the total development including development took place not as per the master plan proposals is found nearly **1212 hectares (39.73%)** up to 2004. The total land consumption has been limited to 5543 hectare over a period of 9 years from 1996 to 2004. The land consumption rate work out to 4.43/1000 person against the anticipated rate of 6/1000 as per development plan 2005.
- IV. Plan failed to address some critical issues of the city
- V. Most of the plan objectives could not be achieved
- VI. Many plan proposals still remained in paper due to lack of fund and coordination among various agencies.
- VII. Implementing agencies failed to regulate and control development activities in the city which leads to concentration of illegal construction.
- VIII. Development plan failed to access the future demand of the city for example, concentration of large scale development of educational institutions at proposed residential land.
- IX. Planning agencies failed to prepare detailed zonal plans, interim review of development plan and interim plan proposals for change of land use.
- X. Development of infrastructure facilities and public and semi public utilities was relatively low

6.2 Failure of Plan Proposal Due To External Problems

“External problems may be defined as the factors which affects the performance of any organization indirectly or influences the working from the out of their internal control mechanism. It is meant the process and formalities involving people, agencies etc. other than concerning planning or development organization and the problems faced during process may be called as external problems.”

6.2.1 Planning Legislation

There are several acts and regulations related to Town planning and urban development in Madhya Pradesh Which has been framed in different time period to regulate the development process of various types of agencies. Some of them are:

- a) MP Municipal act 1956
- b) MP Municipal corporation act 1961
- c) MP Housing Board Act 1972
- d) MP T&CP Act 1973
- e) MP T&CP Regulations 1975
- f) MP Slum Improvement act 1976
- g) MP Land Development act 1984
- h) MP District Planning Committee act 1995

It has been found that there are inconsistencies and inadequacies in the urban legal frame work of these acts. As the Master or development plan are prepared under the frame work of these acts, so the plan performance and success is directly affected by these acts. There are several examples and incidences are available which reflects the weakness and porosity of the acts. “The legal provisions and requirements regarding planning, sanctioning, implementation and maintenance of urban development and municipal services and administration of local and state-level authorities should be reviewed to bring about modifications in the acts which would impart “facilitative” qualities to the legislations and minimize those provisions that merely “control”, “prohibit” and “restrict” urban development”.(Prakash, M. Apte, 2003) The review of MP T&CP Act 1973 and possible modifications has been discussed in the **chapter 2**.

(A) Weaknesses in the Planning Framework:

Basic lacuna of the urban planning framework is that it suffers from a centralized administrative structure and characterized by polarized emphasis on sector-wise economic planning at the national level and physical planning at the urban settlement level. At no stage of the multilevel planning spectrum comprising the nation, state, district and settlement, an attempt is made to translate sectoral objectives in spatial terms. The result is that national economic planning lacks spatial dimensions and settlement level planning is done in a piecemeal manner without any spatial-economic policy framework at the regional (district/state) level. Likewise, though in reality urban and rural areas have close functional linkages with each other the institutional set-up for planning and policy formulation is such that urban and rural areas are treated as separate entities.

(B) Weaknesses in the Urban Development Framework

"A system of dual management has been fostered in urban areas under which development functions have been entrusted to urban development authorities or improvement trusts, while municipalities engage mainly in the task of maintaining essential public services. For functional administration a host of special purpose agencies such as housing boards, slum improvement boards, water supply and sewerage undertakings, infrastructure development corporations, pollution control boards, special area development authorities and similar other agencies have been established at the state, region or city level". (*Jamal, H. Ansari, 2001*)

A large number of government departments are also engaged in the task of urban development. They deal with specific sectors of development such as public works department for construction of buildings and roads, horticulture department for development of parks and gardens, education department for educational buildings, department of health for healthcare infrastructure, local-self engineering department for water-supply, sewerage and drainage networks and many others. But municipalities, unfortunately, constitute the weakest link amongst these special purpose agencies, which have proliferated during the last fifty years after independence.

6.2.2 Govt. Policies

Master plan is a ring in the chain of national development process it has strong link with local government to state and finally national plans. The master plan usually follows the state and national policies for the development of the region. As the time span of state or national Government is being less than the plan period so, the plan proposals, its implementation and priorities mostly affected due to change in the Government.

For example, during 1996 state Govt. permitted many engineering institutions within urban agglomeration to promote higher education in the state. There were only nine engineering institution in the undivided state of Madhya Pradesh. But due to change in the policy it reached up to 62 nos. within a short span of 5 years. Most of these institutions were gathered in four major cities of the state. Gwalior experienced ten additional institutes within its urban agglomeration. The master plan does not have any proposal regarding this but it was forced to accommodate.

Similar kind of activities was also found in the Chhattisgarh where state Govt. permitted many universities.

In the year of 2002-03 state govt. launched a program called **PANCH-J** (Jan, Jal, Janwar, Jangal and Jalvau). A lots of fund and Govt. machinery was directed to make proposals and implementation. But, due to change in the headship of the state suddenly this program was superseded by a new program called **GOKUL GRAM** and **AYODHYA NAGRI** and fund and Govt. machinery was diverted towards newly launched program.

"Town & Country planning, Indore has prepared first ever GIS based master plan for the Indore city which was rejected by the M.P. Govt. it was prepared for 10 years. The state Govt. has directed to prepare a new plan for 15 years".

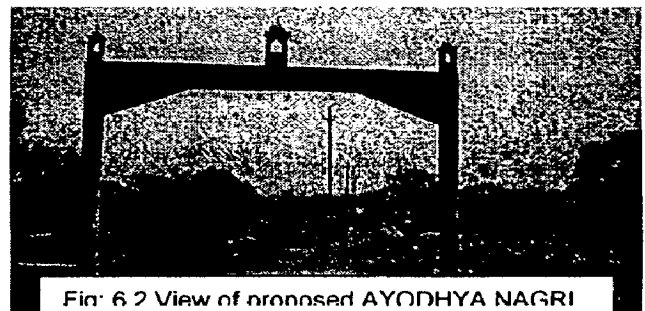


Fig: 6.2 View of proposed AYODHYA NAGRI

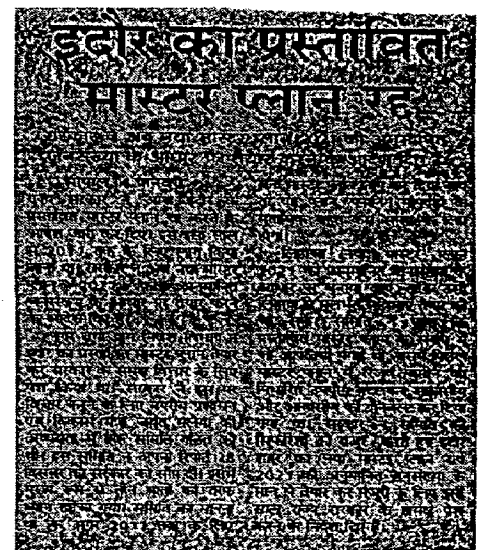


Figure: 6.3 News of Indore master plan

Changing nature of Govt. policies and priorities always creates an ambiguous

scenario of development and mostly resulted into incompleteness of projects.

There is no any special budgetary allocation for the master plan proposals. The initiation of the projects depends upon the efficiency of the related department to prepare detailed project report for budgetary allocation.

6.2.3 Public Participation: Lack of People's Involvement in Planning and Development Process

"The continued neglect of municipal bodies and emphasis on the role of special purpose agencies has thus resulted in a technocratic and bureaucratic approach to urban development and has tended to insulate urban planning from local popular will. Devoid of people's involvement, urban development agencies often pursue objectives that are at variance with people's aspirations". (Abdul Qaiyum, 2003) Till very recently most of the local bodies were superseded and put under bureaucratic control. Even today, in the cities where the elected urban governments are in place the power of administration is generally concentrated in the hands of state appointed commissioners - administrators from India's administrative services. The commissioner also has the power to finally approve the deliberative wing's decisions. Mayors hold a ceremonial position. They don't even have a uniform tenure - it varies from one to five years. It is obvious that if a Mayor's term is for one year only little time is there for him to understand the job and achieve results.

Due to this continued disregard, municipal institutions have languished. The municipalities as the principal agencies of local government would thus require strengthening and building up of their capacities in the context of the emerging challenges posed by dynamic urban growth.

6.2.4 Ambiguous Development Mechanism

(a) Highly Centralized Administrative Set-up

The highly centralized administrative set-up adopted by the Government of India after independence also militated against the interest of urban local bodies. Since the existing planning and development system in India emphasizes a top-down model of decision-making without any in-built feedback mechanism, the local bodies find themselves at the receiving end of the directives originating at the upper levels. At the same time, local bodies are not able to exercise their own decision making power because the Indian Constitution, though it defined the

powers and functional responsibilities of the Centre and the states, did not do so in respect of the local governments.

(b) Role of District Planning Committee

After the 74th constitutional amendment, which empowered the local self Govt. and constitution of District Planning Committee a new front was came into existence for the development of Gwalior urban area. D.P.C. has been carrying out development work with their own perception. Mainly they deal with the projects of schemes. Detail project report for the development of traffic and transportation and integrated urban development are the example of the work done by the D.P.C. Private consultancy has been taken for the preparation of these DPRs. Most of the proposals of the DPR are standing in contradiction with the master plan proposals. Local Govt. has been empowered for the urban planning but it seems away from their capabilities due to absence of qualified staff so urban planning is dealing in piece meal manner.

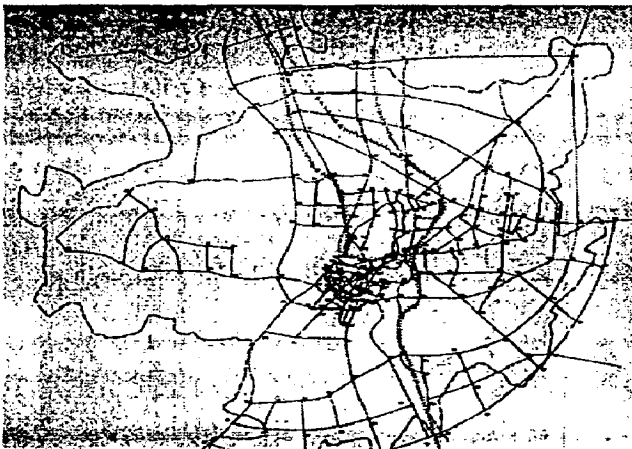


Figure: 6.4
ROAD NETWORK DESIGN BY:
LEA & ASSOCIATES (2001)

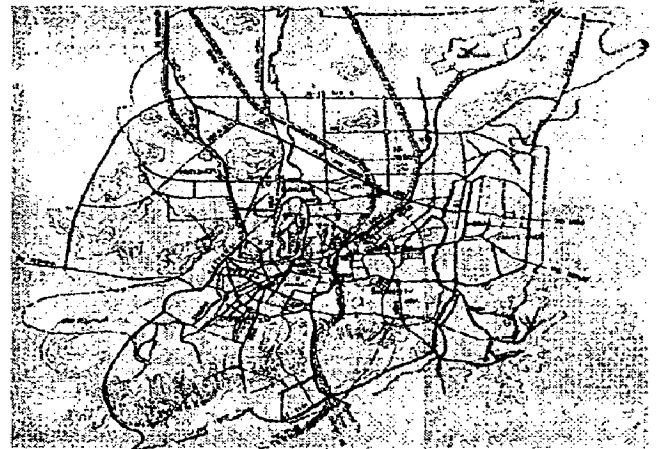


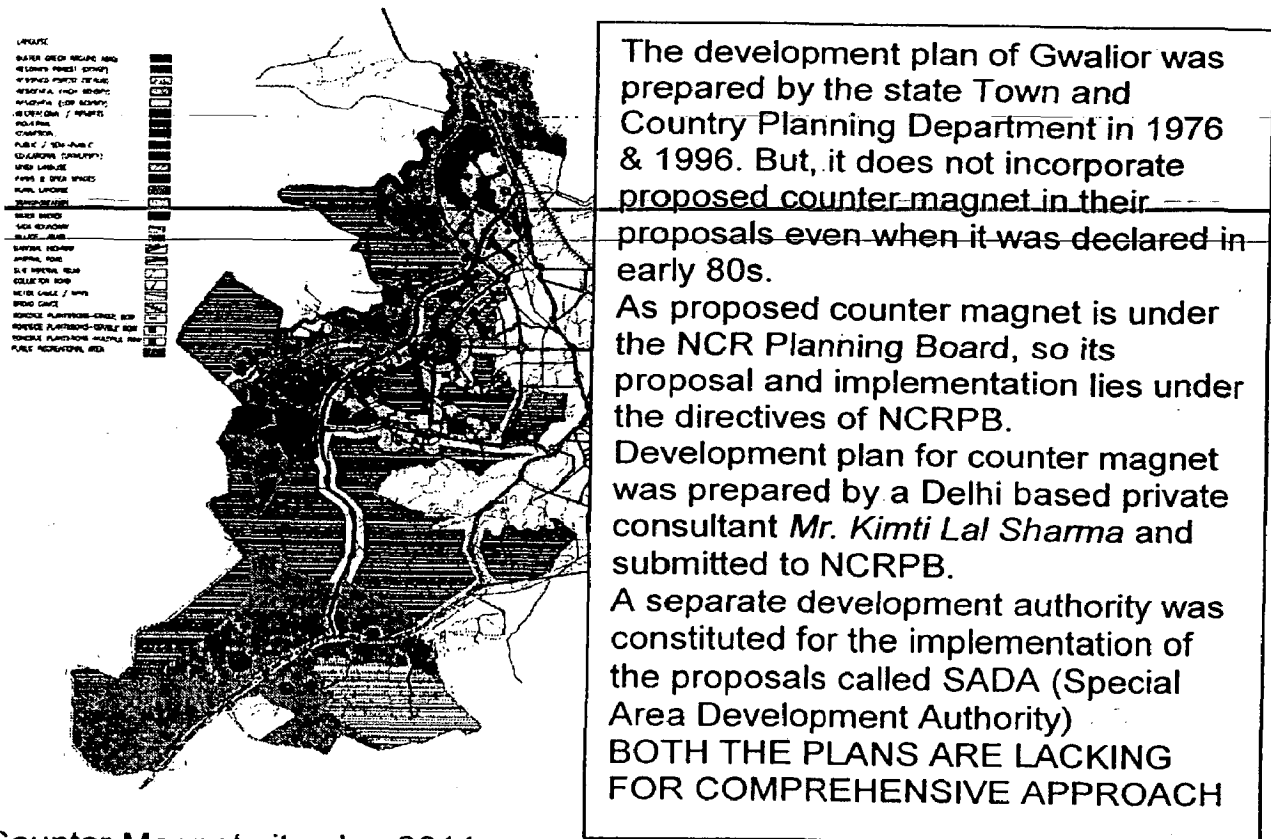
Figure: 6.5
ROAD NETWORK DESIGN BY:
T & CP, DEPTT. GWALIOR (1996)

Figure: 6.4: Lea & Associates, 2001, *Comprehensive study of traffic and transportation of Gwalior*, report submitted to Directorate of urban development and administration of Madhya Pradesh.

Figure: 6.5: SADA, Development plan for Counter Magnet city (NCR) Gwalior, 2011

(c) Special area development authority

Gwalior has been proposed as one of the counter magnet to NCR. The sub-city is proposed at the west side of the existing city. This area has its own development plan prepared by a private organization. A special development authority has been constituted to carrying out the development work.



Counter Magnet city plan 2011

Figure: 6.6

6.2.5 Lack of Information

Preparation of master plan requires detailed information regarding the development activities done so far. But most of the agencies including T&CP department does not has updated information. There is complete absence of centralized information system so; at any point of time it becomes very difficult to review the plan performance to assess the direction of city's growth. This is one of the major reasons for absence of interim review.

6.3 Failure of Plan Proposal Due To Internal Problems

"Internal problems may be defined as the factors which affects the performance of any organization directly or influenced by the working of their internal control and coordination mechanism. It is meant the process within the various sections of organizational set-up of concern planning or development agency and the problems faced during process may be called as internal problems."

6.3.1 Plan Process: Current Practice & Lacuna

In general preparation of development plan requires following certain process and defined steps. This has been observed that particularly in case of Gwalior

development plan, there are many shortcomings at every stage as describe below:

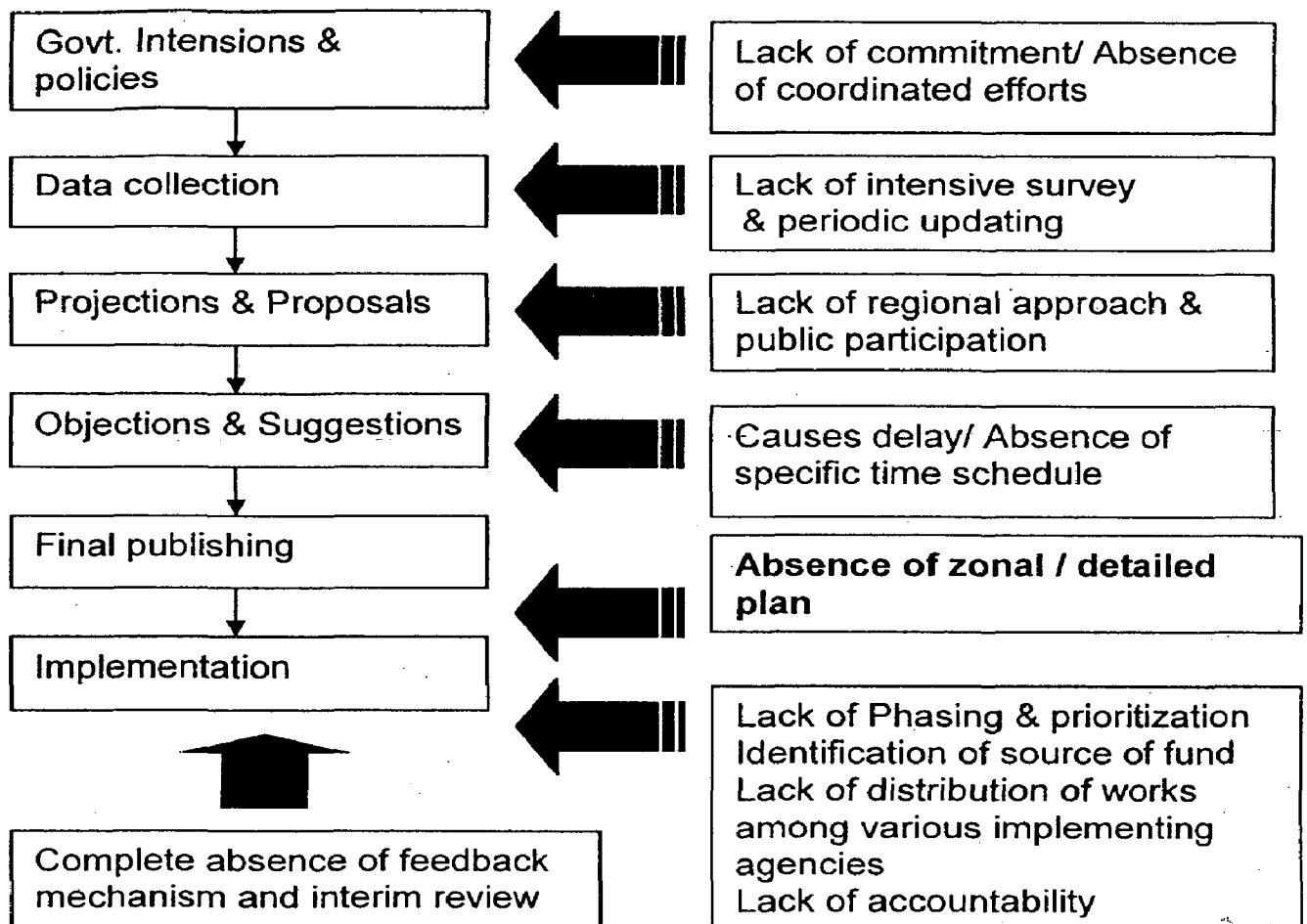


Figure: 6.7

Source: Author

6.3.2 Problem Assessment & Proposals

Master plans are prepared with the objectives of sustaining orderly growth of the city along with solving the existing problems and assessment of future problems and prospects. The failure of problem assessment leads to the failure of master plan itself. Gwalior development plan 2005 has also failed to address some of key issues.

(I) Problem Never Addressed:

There are some key areas, which have not been addressed by any of the master plan like: *Swarna Rekha environmental improvement* but, after 1992 when local Govt. empowered they initiated one project in the year 1997 called Environmental improvement of Swarna Rekha River. At present around 100 crore has been sanctioned and work is under progress. (Refer section 5.2.9 of chapter 5)

(b) Lack of regional approach:

The development plans of Gwalior have been confined to municipal boundary. There is clear absence of regional approach. Nearby village and other tehsils of Gwalior district has been ignored in its proposals.

~~(II) Problems addressed but not emphasized~~

Gwalior has rich cultural heritage and potential to grow as an important tourist place. Development of the city as a tourist place was one of the main objectives of the plan but, it was observed that plan has not emphasized this objective in its proposals. (Refer section 5.2.10 of chapter 5)

(III) Contradictory proposals

On the one hand master plan has objective to proposed the as a tourist place and also providing the norms that "no construction is allowed in around 100m of any historical site" but on other hand master plan itself proposed some commercial complex at front open space of the famous monument called **DAFRIN SARAI**. (Refer section 5.2.10 of chapter 5)

(IV) Over ambitious proposals

Some under utilized areas covering large area situated within densely populated commercial centers with dilapidated structures were proposed to relocate at suitable place to solve the problems of traffic congestion and better utilization. But, even after 30 years of the proposals for relocation most of the activities were not shifted because:

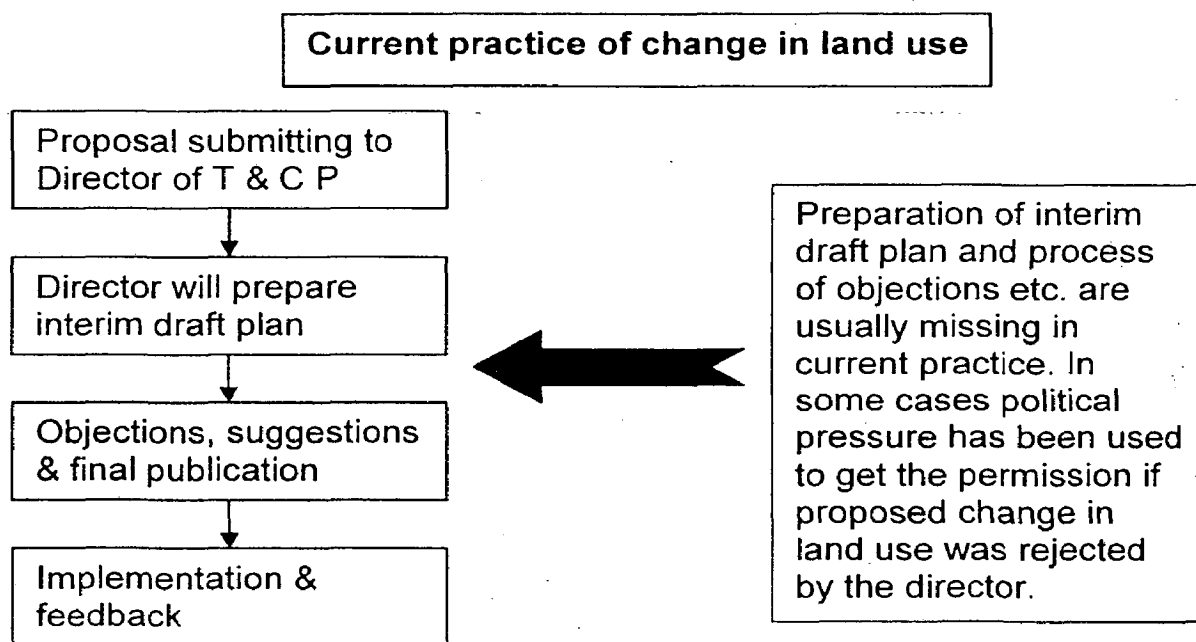
- Relocation site was not finalized.
- Source of funding was not clear.
- Phasing and prioritization was not fixed.
- No agency was made accountable for its implementation.
- Public opposition and political pressure against relocation
- Lack of will power for enforcement

6.3.3 Change Of Land Use: *Interim proposals*

Master plan is a flexible document it has provision of changes in land use in the course of development. For this, director of town and country planning has been authorized by the act. But for permitting any change director must have to prepare an interim draft plan to analyze the possible impact of proposed use on the existing area and also on the over all directional growth of the city.

If recommendable, than further process of inviting objections and suggestions are carried out and finally it is required to publish modified plan.

Gwalior development plan has experienced such kind of interim proposal in which change of land use was required. But, in most of the cases planning and development permission was granted without following the legal process of making interim plan and impact assessment. No doubt political pressure and money power was also used to get the permission in some of the cases. (Refer section 5.2.11 of chapter 5).



Current Practice & Lacuna

Figure: 6.8

Source: Author

6.3.4 Failure of Projection

Master plans are based on the future projections. All the area under various uses is provided as per the future demands which are derived from the population projection. In case of Gwalior development plan 2005 was made its proposals assuming the projected population of 12.5 lacs up to 2005 and it was estimated that population may reached upto 10.5 lacs up to year 2001. But it fails in the population projection, as per the census 2001 Gwalior urban area experienced the population of 9.8 lacs with lowest growth rate and it is supposed to be reached around 10.5 lacs up to year 2005.

6.3.5 Lack of Skilled Manpower

Most of the govt. organizations related to planning and development has shortage of staff which results delay in work. There is tremendous shortage of skilled manpower to carrying out the task efficiently. Refreshers training for advanced knowledge are almost absent.

Town and Country Planning Department of Gwalior has only one qualified planner and rest of the post of assistant planner, economist, geographer etc has been vacant since from long time. Due to the shortage of qualified officials the department is not capable for preparing detailed zonal plans of the city as directed by the master plan. Interim review of development of the city and monitoring of plan implementation is also suffered due to lack of manpower. For most of the planning work department is dependent upon state Town planning Department.

6.3.6 Lack of Modernization

This is observed that most the department related to planning and execution has poor physical appearance and unorganized working atmosphere. Skill knowledge and efficiency of staff are not keeping pace with the growing advancement in this field. Use of advanced technologies like G.I.S. and computerized working has not been initiated in most of the departments. T & CP department has only one computer used only for daily correspondence. Draftsman's are still stick with the drawing boards only, their knowledge about computer application is not appreciable.

6.4 Failure of Plan Implementation Due To External Problems:

6.4.1 Financial Crisis:

Finance is always acts as key factor for carrying out works. It has been observed that most of the proposals has been failed due to lack of availability of adequate finance. Changing nature of Govt. policies and priorities are one of the reasons for diverting the fund from one project to another which leads to incompleteness of projects.

Community welfare projects which do not have direct or short term gain usually affected because most of the implementing agencies like GDA and Housing Boards are autonomous institute undertakes only financial viable projects which can provide them good profit.

Weak Financial Base of Local Governments

Another weakness of the local government institutions in India is that they have been outside the statutory devolution or funds and are wholly dependent on the state government's support for their activities. The consequent deterioration in the revenue base at the local level made local governments more dependent on the state government's largesse (conspicuous by its absence). Particularly deplorable is the state or the municipalities, which do not get enough funds even to pay the salary of their employees. According to one estimate, Municipalities get only 0.6 per cent of the National Gross Domestic Product (NGDP) in spite of the fact that cities contribute 90% of the government revenue and the 60% of the NDGP (Jagmohan. 2000).

6.4.2 Failure of Urban Governance

The salient issues in urban governance which have been identified in the State are:

- Decentralization below the municipal level to the wards and the mohallas has not yet been fully achieved.
- The link between urban management and decentralization on the one hand, and the district planning and governance on the other has not been established in operational terms.

- Coordination and rationalization of inter-institutional relationship has to be effected for better result between the municipal authorities and the Urban Development Authorities, Town and Country Planning Department, Housing Board, Pollution Control Board, Public Health Engineering Department, etc.
- There are inconsistencies and inadequacies in the urban legal framework municipal laws, town and country planning law, district planning etc.
- The powers, functions and authority given to the Mayors, Mayor-in-Council and the local bodies as a whole are not adequately defined.
- Planning capacity, human resource development, financial management is not developed as a result of which these are operating inefficiently.
- There is a pronounced lack of role of the civil society and the urban poor in formulation and implementation of civic plans.
- Overall there is lack of accountability and transparency.
- The cities are yet not fully equipped to take up physical planning functions.
- Given the lack of experience in formulating and implementing poverty alleviation programmes, the central / state programmes in this respect suffer from lack of data, convergence, and quality of work and community participation.
- Modernization and upgrading of systems and procedures in city management through equipment, skill-enhancement and application, and updating manuals and codes (e.g. GIS and MIS) have not been carried out to meet the current and emerging challenges.
- Functional reorganization of and delegation of powers to the departments in the cities are necessary to enable them to perform better.
- Basic element of improved financial management has to be initiated.

6.4.3 Multiplicity of Authorities

The host or agencies that were created to deal with specific components of urban development resulted in multiplicity of authorities. This phenomenon exacerbated the problems relating to urban development and management. The division of responsibilities amongst the agencies was not clearly defined and a number of issues relating to overlapping areas of interest cropped up. There is no single

authority to look into totality of services and functions of a community. The agencies whose functional responsibilities overlap after work at cross-purposes with each other. This lack of coordination amongst agencies results in considerable wastage of resources and delay in execution of projects.

TABLE: 6.1 Role of Planning and Development Agencies

S.N.	Sector	Planning & Design	Construction	Operation & Maintenance
1	Water	PHED	PHED	PHED
2	Sanitation	PHED/MC/HB/ GDA/NGOs	PHED/MC/HB/ GDA/NGOs	PHED/MC
3	Solid waste	MC	MC	MC
4	Roads/ Bridges			
	National	GoI	GoI/GoMP	GoI/GoMP
	State	Go MP(PWD)	Go MP(PWD)	Go MP(PWD)
	local	MC/GDA/HB	MC/GDA/HB	MC/GDA/HB
5	Drainage	PHED/MC/GDA	PHED/MC/GDA	PHED/MC/GDA
6	Slum Improvement	MC/DUDA	MC/DUDA	MC/DUDA
7	City planning	T & CP	GDA/HB	MC/GDA/HB
8	Environmental	MPPCB/EPCCO	MPPCB/EPCCO	MPPCB/MC
9	Public health	MC	MC	MC

SOURCE: Secondary Survey

6.4.4 Intra Agency Coordination

Within the project cities, institutional arrangements for inter-departmental coordination and free flow of horizontal information are lacking. It has been noticed that very often the engineering department is working independently, first because there is no planning department to coordinate, and second, often without the finance department remaining uniformed about the budgetary implications of the physical works being carried out. Cost and time overruns are not always reflected in the budget and the work plans of the departments. The assets creation process is often not in the knowledge of the Assessor; hence valuation of municipal properties suffers. The building department sanctions building plans without prior assessments of service availability and implications for re-densification and new area development. Basic maps relating to different uses and utilities are lacking or incomplete, and whatever is available, is not often easily accessible or up to date.

Technically speaking, as per the present structure, all information, important insignificant, relevant / irrelevant and useable / unusable, flow up to in a pyramidal fashion to the Municipal Commissioner. Since there is no proper MIS, useful information is often lost in the overload of all kinds of other information,

much to the detriment of the quality and timeliness of policy decision. Two kinds of remedial action have therefore been recommended:

- Departmental reorganization along with structural changes in the Project cities; and,
- More widespread use of computers with introduction of MIS and GIS.

6.5 Failure of Plan Implementation Due To Internal Problems

6.5.1 Institutional Problems

TABLE: 6.2 Institutional Problems

Problems	Present situations
Organizational structure & internal coordination	Lack of horizontal & vertical information flow Pyramidal structure of authority Lack of management interactions
Procedure and internal management	Manual's not updated Absence of training program MIS not developed
Staff capabilities	Knowledge, skill and application not present adequately
General inter-agency coordination	Sharing of knowledge and other relevant facts are poor Dimension of interrelationship is not fully understood Areas of cooperation & concern not identified accurately
Non realization of revenue potential	Lack of records, knowledge and updating of assets register
Civil society interface	No experience Effectively discourage in many cases
Attitude	Negative, unnecessary delay in work Corruption has deep root in the system

SOURCE: Author

6.5.2 Inter Agency Issues

At present together with the corporations, there are state agencies also operating in the same urban space, independently of the ULB. These are the Urban Development Authority" State Housing Board and the Town and Country Planning Department, etc. Similarly there is central government agencies. The activities of all these agencies impact on the same or the peripheral urban space, which affect their spatial pattern and future growth direction. The corporations only have an operational relationship with these agencies with no control or influence over the outcomes of their activities. The eventual responsibility for civic services ultimately devolves to the city authority.

(A) Municipal Corporation and PHED

PHED has been given the responsibility of planning, design and construction of the water supply, sewerage and drainage projects of the municipal corporations (MC) since 1995. Under this arrangement, the financial and administrative sanction for a project comes from the PHED.

The assets, however, have to be transferred to the MC on completion for operation and maintenance. Though the PHED staff works under the functional control of the MCs, their administrative control remains with the PHED, There is therefore duality here and accountability is blurred. Secondly, in many cases, taking over or the assets created has not been completed; the MC complains of lack of resources, and lack of details etc. and the PHED staff complain of the continuing responsibility of forced maintenance out of their limited resources. In a few cases, the optimum capacity and the quality of delivery of the services have decreased due to inadequate maintenance. *(Refer section 5.2.12 of chapter 5)*

(b) MC and UDA / TCPD / HB:

The MC-UDA relationship is such that the MC often remains ignorant or casually informed of new area development until such time when construction has started, and the time comes for obtaining various clearances like water supply, SWM, Drainage linkages access roads, etc. Often, the MCs are denied the benefit of raising property taxes since with new properties are in the peri-urban area, even though extended services are provided by the MCs for which service charges are being received. More importantly, the T&CP make many planning decisions and recommendations, which are not acceptable to the MC, or 'which the MC feels is inimical to the future growth development of the city.

A similar relationship exists between MC and HB. Handing over-taking over of assets between the MC and the GDA or HB remains a problem. *(Refer section 5.2.12 of chapter 5)*

6.5.3 Lack of Accountability

As per the survey conducted by the local administration, more than 90% of the built structure of the city has found under the violation of planning and development regulations. It has been observed that most of the organizations providing planning and development permission and monitoring the implementation of the projects and direction of city's growth are defamed due to their corrupt practice. Getting the permission for building or colonization has

become tough task for individuals as well as professional builders. One can merely get the permission with following legal procedure. A large nos. of illegal construction and encroachment clearly reflects the lack of accountability of the concern department and people involved. Only Govt. officials can not be blamed for the unauthorized development but, people are also equally responsible for the same. (Refer section 5.2.13 & 14 of chapter 5)

6.6 Comparative Analysis for Plan Preparation

S.N.	As per the UDPFI Guidelines	Author's recommendations for Gwalior
1	<p>To develop realistic and effective urban development plans following steps are needed:</p> <ul style="list-style-type: none"> • Spatial development plan. • Resource mobilization plan. • Defined institutional mechanism for implementation. • A set of comprehensive and simplified development management and promotion rules & regulations which can be easily understood by the public; and • A mechanism to involve the public participation especially the poor, social disadvantaged groups, women, NGOs and CBOs in planning process. 	<p>In addition to this following steps may be added:</p> <ul style="list-style-type: none"> • Three tier plan • Detailed zonal plan for each planning units • Detailed zoning regulations for each zone • Phasing & prioritization of proposals • Action area plan • Need for improving public participation in development process
2	<p>The plan formulation exercise must be completed within a specified time period and the time schedule for the plan preparation, public notification, and approval must be statutory prescribed in the relevant act.</p>	<p>There is need to specify maximum time limits for plan formulation</p>
3	<p>The periodic review and revision of the plan are very essential component of the planning process and mid-term review of the plans should be under taken at regular intervals to impart flexibility to the planning process and necessary statutory provisions to be made in the relevant act in this regard.</p>	<p>Although M.P. Town & Country planning act 1973, has the provision of interim review but it hardly followed so, it is recommended that this should be made mandatory through suitable amendment in the act.</p>

S.N.	As per the UDPFI Guidelines ³³	Author's recommendations for Gwalior
4	Application of the concepts of land swaps, land pooling, town planning schemes, accommodation reservation transfer of development rights etc. which are innovative plan implementation techniques, should be explored and relevant act may be amended to accommodate such practices.	This is observed that most of the plan proposals have been failed due to problems related with land. There is need to explore some innovative techniques of urban land management.
5	Latest techniques and tools like remote sensing aerial photography, geographic information system (GIS) and other must be utilized for the preparation of development plan and continuous updating the growth pattern.	Highly recommended
6	Greater transparency should be developed in the interest of public awareness and coordination.	This is the area which needs strong will power and devotion in both public and officials to improve the efficiency of the system.
7	Appropriate management information system (MIS) and database should be developed by state and central Govt. to assist planners in developing realistic plans and programmes.	In addition to this a monitoring committee at local level should be set up to coordinate with various development agencies and to control over all development mechanism
8		There is need to develop strong feed back mechanism to keep pace with changing scenario

6.7 Analyses for Plan Implementation

"The implementation should be given utmost importance by the planners and decision makers. Once the action plan is prepared several steps were required to ensure that the plan implementation will achieve their intended objectives". (Gupta, D.N., 2004) The plan implementation should be examined under the following heads:

Proposed Monitoring Committee

This aims at designing and establishing a control system so that management at different levels is not only direct and control the project but also take corrective measures.

Control system should look into specifying the suitable indicators, earmarking the responsibilities at the appropriate level to monitor the indicator to take necessary corrective measures. This committee will consist of representatives of various governmental, public and private institutions related to urban development. NGO's, CBO's, legal advisers and popular participation may also be accommodated.

(A) Organizational System:

(i) Administrative set-up:

This should be well established with defined responsibilities and functions. Proper committee should be formed for inter-sectoral coordination, and responsibility and accountability should be earmarked.

(ii) Personnel management:

The field officers and staffs should be clearly identified and necessary training should be given for required job. The system of reward and incentives can be applied in order to motivate the field efficiency.

(iii) Office infrastructure:

Lack of infrastructure in many offices is a serious bottle neck. There is need to create basic infrastructure for carrying out efficient working atmosphere.

(B) Phasing Of Plan

Most of the development activities failed due to the shortage of resources like money, manpower and machines, it is prudent that plan should be phased out over a period of time with well-defined activities to be taken during the specified time limit.

(C) Scheduling & Specifying

After phasing the plan, a time table of events for a particular phase should be designed scheme wise under each sector. This may be in form of bar chart, and each bar may be broken into pre-projects, implementation and operational phase.

(D) Clarifying Authority, Responsibility & Relationships

After scheduling, various activities, authorities and responsibilities of the concerned department should be adequately defined. Together with these, the inter-sectoral relationships should be categorically indicated.

(E) Manpower & Logistic Support

For each scheme, planning for placement of optimum nos. of persons should be done keeping in view the work load and nature of job. Need for vehicles, plants

etc. should be well-planned so as to ensure their availability will be in the time.

(F) Designing Resource Flow

The plan should include the resource flow line department, bank, people's contribution and other sources so as to help in assessment of availability of fund.

~~(G) People's Participation~~

Once the linkages are established to take up the work at ground, it becomes important to ensure link with the people. It may require formation of beneficiaries groups, and their registration and training to some of the key persons who will be closely associated in the actual implementation.

(H) Management Information System

It is a system that collects, store and process the data and provides useful information for planning, controlling and decision making. The importance of MIS is felt in the emerging complexity of development which requires collection of large data, its analysis and transmission of data in the form of information at various levels of planning, implementation, monitoring, control and evaluation of programme.

(I) Planning For Smooth Termination of Project

The termination of the project normally takes place when the required activities are completed by the departments. But it is relevant and important in the light of future maintenance and proper use by community to realize its optimum utility. In this context this becomes necessary to provide useful training to people to look after the project after its completion for its sustainable use.

6.6 Major Findings

- i. There is a need to make suitable amendments in the various existing acts and regulations related to urban planning and development. Removal of ambiguities and various lacunas, which some times misused for corruption, are necessary for improving effectiveness of development mechanism.
- ii. Role and functions of various planning and development agencies are not well defined which is one of the major cause of failure. All these agencies are required to have well defined functions and powers for achieving coordinating and efficient development implementation.

- iii. It has been observe that, many plan proposals were failed due to problems related with land. There is need to evolve some alternative approaches for urban land management.
- iv. It has been also observe that, most of the plan proposals were failed due to problems related with finance. There is urgent need to make suitable arrangements for easy flow of money for uninterrupted implementation of various plan proposals. An effective plan for resource mobilization should be evolved to exploit the available potential.
- v. Development plans which, usually have long-range policies, prepares for 15-20 years are not getting desired success in terms of implementation of various projected demands. There is need to search for an improved planning mechanism so that it may have more success.
- vi. There is also need of more specific policies and guidelines for preparation and implementation of development plan proposals.

CHAPTER 7: CONCLUSION: RECOMMENDATIONS AND POLICY GUIDELINES

Recommendations and policy guidelines given in this chapter are based on the analysis to improve plan performance in future. It has been broadly divided into two parts; recommendations to solve the external problems of plan preparation and implementation and similarly, recommendations for internal problems of plan preparation and implementation. This was observed that most of the plan proposals were failed due to problems related to land and financial resources, so some policy guidelines for urban land management and resource mobilization has also given in this chapter.

7.1 RECOMMENDATIONS FOR EXTERNAL PROBLEMS

7.1.1 Analysis & Review of planning and development Acts

The analysis should aims at removing inherent inadequacies and ambiguities in the acts which often lead to different interpretations of the rules and regulations, and to delays in developmental activities. The legal provisions and requirements regarding planning, sanctioning, implementation and maintenance of urban development and municipal services and administration of local and state-level authorities should have been reviewed in chapter 2. The purpose of the analysis must be to bring about modifications in the acts which would impart "facilitative" qualities to the legislations and minimize those provisions that merely "control", "prohibit" and "restrict" urban development.

7.1.2 Defining Role of Agencies

The roles of various agencies concerned in the development management of the city should be clearly defined. Various related acts should be altered/ amended to make the roles/ functions of Nagar Nigam, BOA, Housing Board, T &CP, etc. clear. This would ensure that there is no overlapping of roles, functions and also that no important functions are missed out. After the duties and responsibilities of agencies are defined it should be seen that there is co-ordination between them.

7.1.3 Proposal for Co-Ordination between Agencies

A Monitoring Committee at local level is proposed which would do the necessary monitoring for Development Plan implementation within the stipulated time frame and review the works done. An annual development programme should be set-up which emerges out of rolling five yearly integrated city development programme. 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 organizations and others. The programmes in particular shall highlight city road network, trunk utilities and facilities to be completed during the year.

The plan monitoring committee would be headed by the divisional commissioner. The committee shall have representation from all concern departments 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.

The committee shall meet quarterly to review the progress of:

- Programme identification
- Project Preparation
- Project Financing Arrangement
- Corrective measures needed as a result of evaluation of implementation programme.

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

7.1.4 Alternative Approaches to Land Management in Urban Development

Land is the most critical component for any development work, be it a road, building or a housing colony. Implementation of Development Plan proposals requires procurement of land either by way of private negotiation or through the Land Acquisition Act. The sluggishness experienced in terms of implementation of plan proposals is attributed to lack of land acquisition and absence of financial

resources. Hence, Land Management poses a great challenge to urban planners. Innovative techniques should be thought off to procure land in such a way which would be beneficial to the authority as well as owner. Few such techniques are listed below:

(a) Land Pooling Technique:

For development of land under private ownership in a planned and systematic manner it is necessary that development interest of all the property owners coincide. Land Pooling/ Re-adjustment technique is a solution for this here public agency like Development Authority engages separate land owners in a compulsory partnership for designing and servicing of their land holdings and prepares a plan. Showing how the project costs and benefits will be shared between land owners. After developing the selected area, the agency sells out some of the plots to the land owners in proportion to their original holdings. The scheme is rightly called 'Land Acquisition without tears.

(b) Public Participation:

External development works to be contracted to private sector through (BOT) Build-Operate-Transfer, (BOOT) Build-awn-Operate Transfer (BOOS) Build-Own-Operate-Sell, etc. Private sector has an excessive competition which has resulted in professionalism, dynamism and efficiency. It has capabilities of resource mobilization and can contribute a lot in infrastructure development process. In BOT system, the consultancy firm takes all necessary steps to build the project and to recover the cost incurred on the project, operates it for a specified period and on cost recovery and profit, relinquishes all right to the client. Many successful projects have been implemented successfully under BOT scheme.

(c) Negotiated Land Purchase:

Another alternative to compulsory land acquisition is negotiated land purchase as pursued by private colonizers. This was made possible for the first time in India; under the Haryana Municipal & Regulations of Urban Area Act 1975~ This Act permits developers to negotiate direct purchase from farmers for large scale land assembly for urban development. This land is generally located on the fringes of existing towns and the negotiated prices are 3 to 6 times higher than the government rates. The owners are therefore happier in selling the land to private

colonizers rather than having to deal with public agency under the land acquisition Act. Land Assembly is also quicker in this case relatively.

Under the aforesaid act when any owner of land wishes to convert his land into a residential or any other urban use is to apply to the State Town Planning

Department in a prescribed form for issue of license. Licenses are issued only for those chunks of land which measure 100 acres or above. This exercise has been successful in towns and cities within Haryana lying nearer to Delhi; Like Haryana, in Punjab too, colonization of private land in urban areas is regulated under Punjab Apartment & Property Regulation Act. 1995. Both the Acts envisage involvement of private developers / builders in promotion and development of planner residential colonies / group housing or private lands.

The approach to land assembly by involving private developers through negotiated land purchase has the potential for solving the problem¹ of resource crunch with the public agencies.

(d) Transfer Development Rights:

Another technique which is becoming popular in Maharashtra & used effectively for land management in Greater Mumbai area and now extended to all the cities with 2, 00,000 and above population in the state is Transferable Development Rights (TDR). Under this innovative concept of land assembly participation of land owner is sought for the purpose of implementation of the planning proposals. The plot owners of the land reserved for public purposes, instead of being compensated in cash, is issued a development Right Certificate (DRC) equal to a floor area derived in proportion to the value of property. The DRC allows the plot owner to use himself the FAR/FSI on the area of plot surrendered to the local authority for public purpose or transfer the same in full or parts to another person at any time. The purchaser of area under ORC is allowed to use it in addition to the permissible FAR/FSI. The DRC thus becomes a marketable instrument subject to market forces. To facilitate application of this technique the local body designates zones within the city in which TDR can be traded.

(e) Purchasable Development Rights:

Whenever a land use plan is approved the private lands which are indicated as being under commercial use get benefit of escalation in their values, whereas

some private lands which are shown to be under conservation areas/ green belt lose their market value. As such, those lands whose market value increases with the proposals of land use planning should be made to pay for it to the local authorities.

7.1.5 Resource Mobilization

The availability of resources especially from the budgetary sources is limited and the demand for investment on projects is very high, it has become essential to tap land as a major resource. For funding such projects some of the models / examples in different forms being used presently for various types of urban development projects are described as follows:

(a) Use of F.A.R.

It is well recognized fact that there is an immense potential of using urban land with a proper land use and permitted intensity of development i.e. FAR/FSI for raising resources to fund large development projects. However it does not imply the promotion of high density at the cost of carrying capacity of the existing infrastructure. viz, roads, sewer lines, and potable water supply For instance, Jammu Development Authority is charging higher land values for office blocks located in the 'Rail Head Commercial Area which have higher FAR and height.

(b) Land banks:

Assembling large chunks of land has been a resource for infrastructure development for a number of development authorities in the country. The best examples of this situation are Delhi Development Authority (DDA) which acquired large pieces of land in early 50s and 60s, Chandigarh and CIDCO for New Mumbai. In most of these cases, the land was acquired some 2-3 decades back at nominal prices. After development and as a result of the market forces, these lands have become quite valuable. Funds being realized from disposal of such land are being utilized for provision of urban infrastructure and funding development projects. In fact, the rail extension project between Mumbai and New Mumbai has mostly been funded by the CIDCO and Maharashtra Government, using land as a resource drawn from the land bank.

(c) Land sharing:

An experiment of slum rehabilitation is underway in Maharashtra, where under a builder is made responsible to provide shelters at subsidized rates to slum dwellers, and in the rest of the land, he is permitted to raise commercial/

residential buildings for free sale thereby enabling him to plough back part of the profit to meet the subsidy, and keep part of the profit for himself. By and large this experiment of cross subsidization has the potential to be replicated for other metros of the country as well. Cross subsidization should be encouraged to make LIG/EWS housing accessible to the urban poor as well. This should apply both to land and housing, as also to both public and private developers.

(d) Recycling of land for shifting of industries:

In recent years, to check the level of pollution in metropolitan cities like Delhi and Mumbai and also to ensure effective implementation of the Master Plan regulations, several industries are in the process of being shifted out of the geographical limits of the said mega-polises. As per the verdict of the Supreme Court of India, some 168 industrial units within NCT, Delhi have been ordered to be closed down, and another 39,000 industries falling under non-conforming areas have been asked to move out of Delhi. In order to facilitate the process of shifting, these industries have been allowed to utilize a certain percentage of their vacated land (30-40 percent) to mop up profits for their relocation outside. A part of this, vacated land is also being utilized for development of open spaces and necessary community facilities/ social infrastructure in the area

(e) Levy of vacant land tax

Although civic authorities in some states are empowered to levy vacant land tax, in others there is no explicit legal provision for levy of such tax. Experience of some states indicates that a tax rate of 1-2 percent of capital value of vacant land could be major source for financing the development of trunk infrastructure, which would, in turn, enhance the value of vacant land. Such a tax will also promote housing if the tax rate of built up land is lower than that of vacant premises. This tax could as well be mobilized for funds for infrastructure and cross subsidization of weaker section housing.

(f) Development charges

Development charges to meet the cost of infrastructure to service the development in question have not been adequately exploited. Such charges ought to include the cost of both internal (on-site) and external (off-site)

development. Haryana Urban Development Authority (HUDA) provides a good example of levy of External Development Charges. These charges may include costs of water source development, laying of trunk waterlines, development of freeways/ roads, regional parks, etc. When layouts and buildings are approved, direct and indirect charges need to be collected. In many states, the concept of external development charges is yet to be adopted.

(g) Fee for change of land use

Conversion of rural land to urban land use, residential, commercial industrial etc results in an instantaneous hike of land prices. A part of these unearned increments may be tapped for development of urban infrastructure. Similarly, appropriate fees could be levied for allowing changes in land use from that stipulated in the Master Plan. The Hyderabad urban Development Authority has introduced fees for various types of institutions and conversion of land use.

(h) Urban infrastructure development fund

An Urban infrastructure development fund should be created separately and all funds inflow from various agencies should be pooled together so that this fund is used for infrastructure development only and not diverted for other funds. This will also ensure a co-coordinated and interlined system in infrastructure development.

(i) Charges on provision of Access

The major city road network or the Development Plan roads which are developed by the government require huge investment which is mostly non-remunerative in nature.

To make such projects self sustainable, the access to the adjoining property holders or permission to link supplementary roads should be granted only after charging a proportionate fees, payable in the Urban Infrastructure Development fund.

7.2 RECOMMENDATIONS FOR INTERNAL PROBLEMS:

7.2.1 Search for an Improved Planning Mechanism

Apart from Master Plans, other approaches have also been experimented within ~~the field of city planning in India. They include Structure plan for Madras and~~ Basic Development plan for Calcutta. However, rest of the cities adopted the Master plan approach. The gap between the plan and actual growth and development needs of the urban settlements are ever widening, which has shaken the confidence of the planners and administrators in the efficiency of Master Plan as a tool for planning. A search is on for an improved planning mechanism.

Before blindly accepting any alternatives, it is imperative at this point to stop and reconsider exactly where we have gone wrong. It would be wise to make innovations in the existing Master Plan system, incorporating the plus points present in the above approaches. Recognizing this need for innovation, the National Commission on Urbanization (NCU) proposed 3 levels of plans, under a new urban planning system.

These are the Master Directive Plan (MDP), the Execution Plan (EP) and Action Areas Plan (AAP) to replace the traditional Master Plan and Zonal Plans. The differential emphasis is on both temporal and operational levels.

The MDP is conceived as the long range policy plan, the EP as medium term city development programme plan covering periods of five years corresponding to the National Five Year Plans enabling the translation of the MDP into city wide programme planning, and AAP as device for detailed planning and implementation of programmes and projects within the framework of the EP.

(a) Master Directive Plan:

Options includes incorporating some features from the current 'master planning approach' with readjustments are to reduce the present conflicts and rigidities to make it more resilient and vibrant to the various socio economic forces at work. The most frequently discussed alternative is the "Structure Plan" (also called a "guide plan" "Frame work plan" or "Indicative Plan") or "Master Directive Plan" as recommended by the national commission on urbanization (NCU). The Master Directive Plan" as recommended by the National Commission on urbanization (NCU) The Master Directive Plan of NCU model with suitable modifications can

provide a broader strategic framework for preparation of subsequent policy oriented Action Area Plans, taking into consideration the regional context, the transportation linkages and major sectors of development such as employment, housing, transport, urban infrastructure and environment.

"Master Directive Plan" would indicate reasonable amount of land to be provided with approximate population to be accommodated on it. Such Plan would be conceptual in nature and would be reflected through maps indicating the future form of the city in spatial terms allowing trade-off between land use and flexibility in use. The planning of new infrastructure could be one of the key means of influencing the pattern of land development bringing into focus issues relating to land supply and land prices.

(b) Action Area Plan

As against top down planning "action area plans" maybe prepared with a bottom up approach in consultation with communities within the broad framework of the Master Directive Plans. Such plans should also deal with the policy choices and with short term investment decisions. The action area plans could also provide the framework for planning the local capital investment programme and help suggest community priorities and investment project needed to achieve specific policy goals. Such plans need to have due regard to the institutional capacities for implementation including its strengthening.

The Master Directive Plan would thus spell out goals-setting policy statements providing a framework for development. The plan will be translated through the "action area plan" approach. The various aspects of urban sustainability environmental, economic, social and technological should be given due consideration while preparing the Master Directive Plan. The plan would thus follow an approach of integration of socio-economic, spatial and infrastructure planning with due consideration of the urban management and urban environmental planning aspects.

(c) Functional Plans

The functional plans, the coordinating link between Master Directive Plan and Action Area Plans are comprehensive multi-sectoral plans prepared with an emphasis on feasibility of implementation within the existing institutional and

financial framework. Emphasis of this plan is on prioritizing, looking for advantages from integration and balancing investments with the ability of the community to repay. The "functional Plan" process provides the necessary coordination thus cutting across the traditional physical planning process, traditional budgeting and the domain of institutions in the delivery of projects.

The main steps for the functional planning process could be:

1. Assessing community needs and incorporating this in priority setting process.
2. Preparing a list of agency wise prioritized projects.
3. Preparation of financial plans.
4. Inter- governmental setting.
5. Preparation of Community Action Programmes
6. Mobilization of local Resources.

Thus at the city level, a three-fold development planning process is suggested. viz. Master Directive Plan at the city level; Functional Plans as an instrument of coordination, a budgetary tool and implementation of public and private sector projects; and Action Area Plans to be used as a means of detailed planning for effectuating implementation. The above approach and process envisages moving away from the rigid blue print of master plans, towards a more flexible, indicative type of planning more closely linked to both sectoral and budgetary processes encompassing the approaches and strategies relating to urban management, enabling and sustainable development. This integrative framework would thus provide:

- The urban management approach placing more emphasis on broad issues of city management, with physical land use planning constitution only one segment.
- The enabling approach, in which the state provides a conducive environment for optimum harnessing of the public, private and community sectors potentialities.
- The sustainable development approach, which places emphasis on environmental issues.

7.2.2 Recommendations for Plan Preparation

Further to the observation, made in chapter 6, section 6.6; the following points may be taken into consideration:

- It would be appropriate to make changes in the existing Master Plan system, incorporating the positive points present in 'the above approaches.
- A three-fold development planning process is suggested to replace the traditional Master Plan. viz. Master Directive Plan at the city level; Functional Plans as an instrument of coordination, a budgetary tool and implementation of public and private sector projects; and Action Area Plans to be used as a means of detailed planning for effective implementation.
- A detailed action area plan for each of the planning unit should be prepared keeping in view the available infrastructure and related problems. It can be further suggested that detailed plan for an area of planning unit one should be taken up on priority bases as this is the city core and having problem of high density.
- Detailed zoning regulation should be prepared for each planning unit separately.
- At present, no evidence is available which can show the practice of phasing and priority of flagship projects. Preference or priority of different projects should be decided in advance so that orderly growth can be achieved as desired.
- Public participation in planning process particularly in Gwalior is absent while public opposition against development work has been observed thus, it is felt there is a need for the involvement of citizens in development process. This will result in getting wider view point and building up city as a cooperative and participatory venture.
- Due to the lack of fund and other resources, second development plan was delayed for five years. This kind of delays hampers the process of development of the city. Thus, there is need to specify maximum time limits for plan formulation. Ideally the next development plan should be ready within a year of completion of the previous.
- Interim review and white paper on development activities should be

published periodically. Although M.P. Town & Country planning act 1973, has the provision of interim review but it hardly followed so, it is recommended that this should be made mandatory through suitable ~~amendment in the act. It is recommended that interim reviews are taken~~ up preferably by an independent agency once in every five year.

- This is observed that most of the plan proposals have failed due to problems related with land. There is need to explore innovative techniques of urban land management.
- Latest techniques and tools like remote sensing aerial photography, geographic information system (GIS) and other computer based technologies must be utilized for the preparation of development plan and continuous updating the growth pattern. Recently Town and Country Planning Department of Indore has prepared GIS based development plan. Similar approach can be taken for Gwalior and other cities.
- Greater transparency should be reflecting in the working of planning and development agencies in the interest of public participation and successful implementation of plan.
- A monitoring committee at city level should be set up to coordinate with various development agencies and to monitor over all development mechanism
- There is a need to develop strong feed back mechanism to keep pace with changing scenario. Frequent citizens' opinion should be conducted.

7.2.3 Recommendations for Plan Implementation

Effective and timely execution of development proposal is the key factor for success of development plan. The observation made during the field study as mentioned in chapter 6, has highlighted the need of modification for implementation procedure. The following model is suggested to improve implementation of development proposals. (See Figure 7.1)

7.2.3.1 Monitoring Committee:

Overall development of any city requires active and efficient involvement of various planning and development agencies. This is observed that most of the agencies are working independently. Inter and intra agency coordination is weak.

Due to absence of proper coordination most of the development activities overlaps each other while accountability factor is not considered. To overcome these problems a monitoring committee may be formed to coordinate among various agencies. This committee should consist of heads of all relevant departments (like T&CP, GDA, HB, MCP, PHED, MPEB etc.) experts from various fields, local administration and public representatives of the public and NGO's.

7.2.3.2 Proposed Improvement for Organization System

Most of the agencies related to development activities have inadequate working atmosphere and lack of modernization. Dilapidated office infrastructure, conventional mode of working, lack of qualified and adequate strength of staff and other problems discussed in the previous chapter, directly or indirectly affects the desired output.

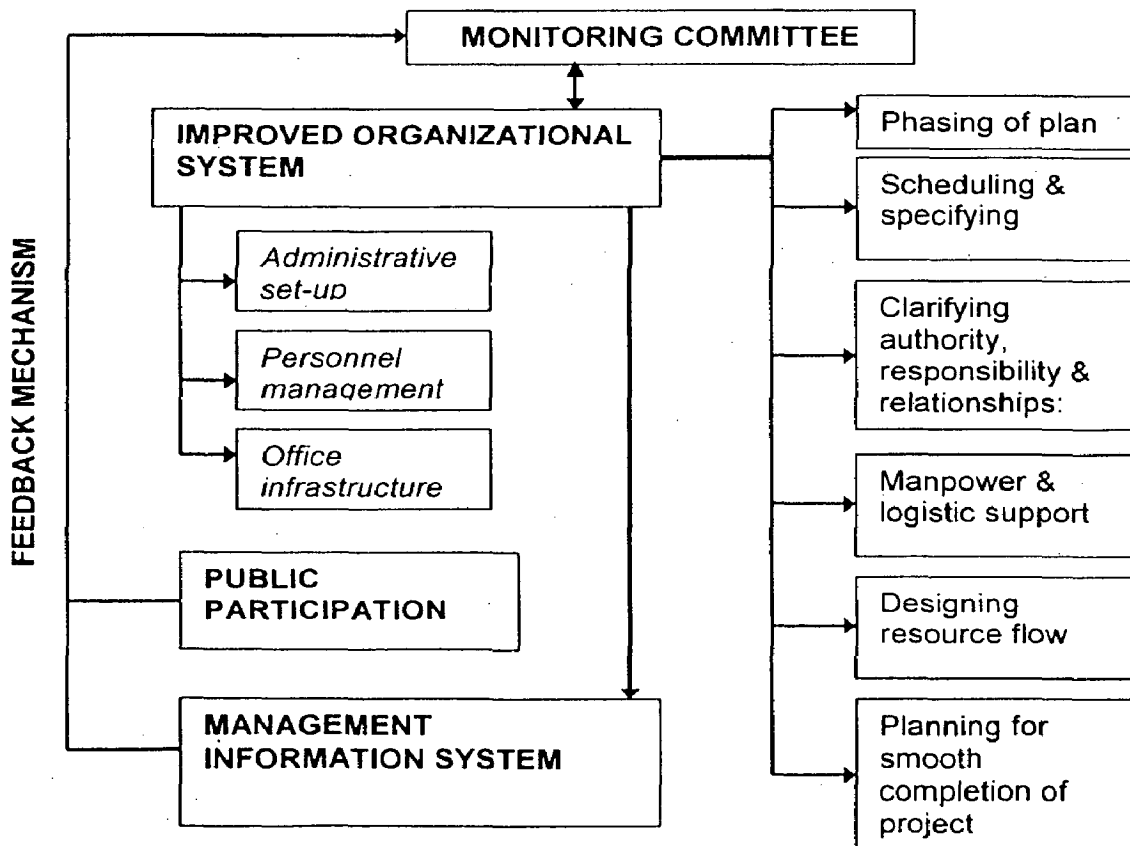


Fig: 7.1 Monitoring Mechanism for Plan Implementation

SOURCE: Author

The improvement for the organization system may be divided into three parts:

(A) Administrative set-up

Following measures can be taken

- ~~a) Need to redefined hierarchy of office structure,~~
- b) Removal and inclusion of various responsibilities as per the present and future needs for instant, post of manual draftsman can be reduced and replaced by CAD based draftsman, inclusion of GIS and MIS experts etc.
- c) Functions, responsibilities and accountability are also required to redefine.

(B) Personnel Management:

- a) Proper training to concerned staff to cope up with changing scenario of modern technologies and development.
- b) System of rewards and punishment should be introduced.

(C) Office infrastructure:

There is a strong need to improve the working atmosphere of various agencies to enable them to compete with the changing scenario. The office infrastructure and its appearance also should be altered to house advanced technologies to improve their efficiency.

7.2.3.3 Proposed Steps for Implementation of Schemes

Besides the guidelines as explained in chapter 6, each implementing agency which undertakes any project or schemes should plan its strategy before implementation, so that success of the project can be assured. Following steps may be adopted for this:

- Phasing of plan
- Scheduling & specifying various activities
- Clarifying authority, responsibility & relationships
- Provision of manpower & logistic support
- Designing resource flow
- Planning for smooth completion of project

7.2.3.4 Proposed Management Information System

Lack of "horizontal" and "vertical" flow of information is observed as basic problem for mutual cooperation and coordination. The general public always suffers from absence of information so, their involvement and interest in the

development process is essential for the success of planning and implementation related works.

It is proposed to create a management information system, so that one can get desired information easily. Updated internet website can play vital role to provide information to users and also facilitate to connect relevant departments.

7.2.3.5 Proposed Public Participation

One of the major lacunae of the centralized planning approach is lack of public participation in development process and their involvement in implementation activities, thus it is proposed to use internet facilities and allow general public to put forward their views. Some officers should be made responsible to respond to the queries and suggestions.

7.2.3.6 Feedback Mechanism

This is a very important aspect of total development process which is mostly neglected. Use of proposed internet for MIS and response of public participation can be developed as feedback, finally terminating with the monitoring committee, so that appropriate action can be taken.

It is highlighted that the growth potential and special functions performed by urban area such as marketing, industrial, tourism and institutional needed to be explicitly recognized. The planning exercise should aim at guiding the activities of public agencies as well as private and the growing informal sector while keeping the large interests of the society in view.

The overall discussion clearly suggests that the improvement in plan performance is based upon various factors. The plan can achieve great success only when all the procedure related to plan preparation as well as its implementation is followed faithfully and the proposed urban development management system works efficiently.

ABBREVIATION

AB	Agra Bombay
AKVN	Audhyogik Kendra Vikas Nigam
BPL	Below Poverty Line
CAA	Constitutional Amendment Act
CPWD	Central Public Works Department
DDA	Delhi Development Authority
DIC	District Industrial Center
DU	Dwelling Units
EWS	Economically Weaker Section
GDA	Gwalior Development Authority
HIG	High Income Group
HT	High Tension
IDSMT	Integrated Development of Small and Medium Town
IG	Indira Gandhi
IITM	Indian Institute of Information Technology and Management
IP	Intermediate Poor
IUDMP	Integrated Urban Development of Madhya Pradesh
IUDP	Integrated Urban Development Program
JC	Jiwaji Cotton mill
LIG	Low Income Group
LPR	Land Pooling and Redistribution
MC	Municipal Corporation
MIG	Low Income Group
MP	Madhya Pradesh
MPSRTC	Madhya Pradesh State Road Transport Corporation
NCC	National Cadet Core
NCR	National Capitol Region
NH	National Highway
PHED	Public Health Engineering Department
PSP	Public and Semi Public
PU	Planning Units
PUF	Public Utility and Facility
PWD	Public Works Department
SEB	State Electricity Board
T & CP	Town and Country Planning Department
TCPO	Town and Country Planning Organization
TP	Transitional Poor
UDPFI	Urban Development Plan Formulation Guideline
UK	United Kingdom
UP	Uttar Pradesh

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