CHAPTER – 6

CONCLUSION & SUGGESTIONS

CONCLUSION OF THE STUDY
Urbanisation can be regarded as a phenomenon which is accompanied by more negative points than the positive ones. On account of rapid urbanisation, both the developed as well as developing countries have been facing more or less the same problems and turmoil in the process of urban development. The positive role of the urbanisation has been overshadowed by the evident deterioration in the physical environment and quality of life in urban areas caused by a widening gap between demand and supply of essential services and infrastructure referring to India, A.K. Sen has remarked, “Industrialisation has led to a sharp rise in urban population, and thus, in turn has created shortfalls in housing, public utilities and community facilities.” The speed with which the urban population is growing, overflowing the boundaries and forming sprawling agglomerations of building has created difficulties and the tasks of city government have become formidable. Lust for urban life and quest for better living has accelerated the pace of urbanisation and the municipal institutions have been finding it difficult to meet the challenges posed by the urbanisation. In fact, people come from rural areas to urban areas in search of better economic status; employment opportunities, facilities of urban life like education, health, prosperous and glorious future. They consider urban life more comfortable and easy going than the rural life and moreover they feel that urban life is more progressive, independent and free from shackles of orthodoxy. For most of the people, the city is a place full of opportunities and avenues and a place of enlightened and vigilant people. The city is a multi-layered unit of civilization – a fulcrum of economic activities, a propeller of social revolution and steering wheel for the political machine and centripetal force of cultural aspirations and development.
So far as the phenomenon of urbanisation is concerned, it is not always that the rural people migrate to urban areas in search of employment opportunities or for better economic status, rather agricultural prosperity has also been contributing in a significant way towards urbanisation, especially in Punjab. Now the affluent farmers have been moving from rural to semi-urban or urban areas. After green revolution, the process of urbanization has further got accelerated in Punjab. For instance, urban growth rate in Punjab has been much more as compared to other states. Similarly, industrialisation can also be stated as one of the most important factor contributing towards the problem of urbanisation not only in India but in all the developed countries. From that point of view it can be said that India and urbanisation are two inseparable terms. During the span of 100 years (1801 to 1900) Britain transformed into an urbanised society due to intensive industrialization. Obviously, in a country like India where the growing magnitude of poverty and unemployment has been the major problem for the government, industrialisation is the only alternative left with the government. To run the industries huge manpower, workforce is needed which is adequately available in the rural areas. Hence industrialisation results in urbanisation. Above all, the overall infrastructural development in the country like, available means of communication, transport, construction of roads, bridges and linkage of remote areas through railway, road and air has been instrumental in bringing urbanization, especially in developing countries. Thus, urbanisation has been increasing at an accelerated rate. These days underdeveloped and developing countries are urbanizing more rapidly than the industrial countries did in the heydays of their growth.

From the above analysis, it is amply clear that the processes of urbanisation continue unabated and neither can it be stopped nor reversed. The basic inference is being felt by new way of life, new form, habitation and a new social structure with divergent civic and social needs hitherto never experienced during the entire history of mankind. The abrupt shift from agricultural and rural based
economy to industrial and urban based economy has brought a plethora of new problems of civic, social and economic nature. Thus, urbanisation, on the one hand, has made the urban dwellers fully alive and conscious about the modern amenities and benefits of civic life and, on the other; it has given birth to problems of multi-dimensional nature and made the urban life miserable.

MAJOR ISSUES AND STRATEGIES FOR DEVELOPMENT

1. Indiscriminate and excessive conversion of agriculture land into Urban activities:

Meerut has a very rich and fertile agriculture land. Development agencies and colonisers have gone in to the large scale conversion of agriculture land to residential use in spite of the fact that a large part of land earmarked for residential use is still either semi developed or vacant. Sporadic under development of residential areas leads to speculative land market, unauthorised construction and non contiguous development of the town. It is against the concept of compact development of the town.

2. Unauthorised and Unplanned Residential Colonies

The city of Meerut has experienced the development of many unplanned and unauthorised residential colonies in different parts leading to unhygienic conditions, lack of infrastructure and open spaces and many a times law and order problems in these areas.

Despite development of many residential areas by AVP and MDA, there has been unauthorized construction in many parts of the city which is mainly because of geographic location of MDA’s residential colonies, land acquisition disputes and non-completion of development works. Low cost housing in the unauthorized areas near the urban population attracts the weaker section of the society. There were 69 unauthorized colonies till 31.3.2001 and later on, 43 more colonies were declared unauthorized. Out of above 112 unauthorized colonies, only 10 colonies have been regularized. 28 unauthorized colonies
were also regularized by MDA before that. It is obvious that there has been extensive development of unauthorized colonies in the urban area which is a challenge for the properly planned development. Development policies of the city need a re-look by AVP and MDA.

3. **Ribbon Development on Major Highways**

All the cities of India are facing the problem of ribbon development. Transport corridors tend to attract the urban activities. Quite often, these activities are unplanned and unauthorised. It has been observed that Commercial, Residential and Institutional activities have come up along the major roads. It leads to the pressure on roads and unbalanced development in the other areas.

4. **Encroachment of the Public Property**

Encroachment of public land for various activities is a major issue common to almost all the urban areas in the developing countries. Meerut is no exception to this phenomenon. It is observed that encroachment of the road sides and open spaces is the most common feature in Meerut City. Encroachment along the drainage path of existing nalas has resulted in the degradation of city environment. In appropriate regulation and lack of control by the development agencies has created this kind of situation.

5. **Ground Water Exploitation**

Meerut is situated in the plane of Ganga and Yamuna river having good quality of ground water for drinking purposes, irrigation and for other industrial / Bio-usages.

Because of Plane Land, there is no source of water, streams etc. Ganga Upper Canal is main water channel for irrigation purpose feeding quit a vast area of Meerut region which remain the main source of water for irrigation purposes throughout the year apart from that ground water exploitation through pumping sets are common everywhere, resulting which the water table is becoming deeper, about 20 years ago water table was available at a depth of 20-22 feet and
now it is appx. 40-45 feet and bore well for drinking water is appx. 70-80 feet deep.

The present system of ground water use for various purposes poses the threat to the reliability and sustainability of the ground water sources in longer perspective. Conservation and Judicious use of water is imperative for the future generation.

6. Poor Sewerage

Sewerage is being disposed off without treatment in the nalas which pollute the river Kali. All the waste water through small water channels- Nali connecting the road side main Nala, finally connected to a big Nala which ultimately connects with the three big Nalas – Abu Nala, Roorkee Road Nala and Hapur Road Nala.

These three Nalas are main water channels which take all the waste water runoff to Kalinadi met at different points to the main stream.

Proper cleaning of old Nalies and Nalas is impossible manually/mechanically due to unauthorised construction over the Nalies and Nalas in the Builtup areas of the city resulting water congestion occasionally and worse in the rainy season. Less coverage both in terms of population and area results in the opening of sewerage and drainage in the open nala, which aggravates the problem during the rainy season. It leads to unhygienic condition and breeding grounds for water borne diseases.

There is no proper arrangement of waste water disposal system in the newly developed unplanned unauthorised residential colonies. The sewerage systems cover only 25% of the city area. Somewhere rain water disposal is also attached with the sewerage system. 23 KM trunk line and 132 KM branch sever line has been laid Nagar Nigam in the city and 7 pump stations are working. The colonies developed by UP Vikas nigam Parishad and MDA have the sever lines but not functioning well. There is no sewage treatment plant in the built up area having a population of 11 lakhs. UP Avas Vikas Parishad made a small sewage
treatment plant in the Jagriti Vihar but still it is not functioning. It is very much important to maintain proper sewage disposal and treatment plants in the city, requiring three plants minimum for East-South area, Eastern area and Western area geographically.

7. **Poor System of Solid Waste Collection and Disposal**

Unscientific method of solid wastage collection and disposal creates many problems in the city. The main source of solid waste comes from households, institutional commercial establishments and industrial operations and in few tourist places, tourist may also be considered to some extent as a source. In general, Solid waste contains putrescrible organic matter such as kitchen refuse, combustible matter such as paper, textiles, on and grease and plastics and insert materials such as metals, soil and ash. The waste generated from hospitals, dumping of wastes and faeces in drains/canal have greater potential for causing epidemics.

The present arrangement for collection and disposal of solid waste is inadequate and in many areas inefficient. Presently Garbage is piled up on the sides of the roads, from where it off-loaded into handcarts and later into garbage containers. However the wastes are removed regularly only from very selected places like Railway station and VIP areas etc. Nagar Nigam estimates about 600 Tonnes of garbage is generated in the city every day. And Nagar Nigam is having capacity to dispose only 450 tonnes in the outskirts. Nagar Nigam is purchasing the new machineries to dispose 150 Tonnes garbage. Still there is no planning to commercial use/general use (recycling process) of this disposal wastes.

8. **Poor Traffic Management**

Lack of on street parking lots, encroachment along roads, presence of informal activities along the road margins, lack of Footpath, lack of public transport, lack of pedestals facilities, poor condition of road crossings etc. lead to congestion and socio-economic problems. It seems that Meerut does not have any traffic management system to regulate the smooth flow of vehicles.
Increase in population and growth of population give rise to problem of congestion and poor traffic conditions as roads are narrow without proper path for pedestrian movement and in adequate parking places are most acute problem in the walled city, which further causing problems like increased journey time due to increased traffic density coupled with inadequate road capacity and traffic bottlenecks at various stretches. Observation made as per traffic survey conducted at various important road and junctions in the walled city.

**High Traffic Volume Intersection** – Data collected through traffic volume survey at various important roads and junctions in the walled city reveals that Ghanta Ghar intersection carries the highest volume of traffic followed by Budhana Gate and Valley Bazaar intersections.

It is observed from the below table that most of the stretches especially falling on the Ghanta Ghar and Valley Bazaar road are catering to vehicular volume without sufficient road width and absence of footpath and pedestrian movement and inadequate parking places further adding to the traffic problem in this area.

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Name of Intersection</th>
<th>Peak Hour Traffic Volume (PCU)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Budhana Gate</td>
<td>3127</td>
</tr>
<tr>
<td>2</td>
<td>Valley Bazaar</td>
<td>2789</td>
</tr>
<tr>
<td>3</td>
<td>Ghanta Ghar</td>
<td>4138</td>
</tr>
</tbody>
</table>

The capacities on various stretches in the walled city area have been observed to be considerably reduced due to proliferation of commercial activity, encroachment, absence of footpaths for pedestrian, and presence of informal sector on Ghanta Ghar road. Lack of parking space resulting in on street parking further worsening the traffic movement in the walled city and intermixing of traffic of different mode further adding to the problem of congestion in the area.
9. Lack of Organised Green Spaces
Though there are some historical places in the city which acts as the multipurpose open spaces. They have not been maintained properly. Nauchandi ground, Victoria Park, Surajkund, Zimkhana Ground, Bachcha Park, Bhainshali Ground and Ramlila Ground have not been developed and maintained as open green spaces.

10. Air & Noise Pollution
There are a lot of industrial units in the residential area of the metropolitan Meerut city and near about of the city. The main causes for polluting the air/environment of meerut city are vehicles and other industrial units like Sugar factory, Alcohol, Paper, Chemical, Rubber producing units. Some units are located in the high density areas, these units are scissors manufacturing units and other Gold Jewellery manufacturing units.
In the outskirts of Meerut city, the air pollution is normal and is being in the acceptance limits. But it is crossed the limits in the city areas especially at Begum Bridge, here the air pollution is three times more than the normal. Partapur, Mohiuddinpur, and Hapur Road are also the polluted areas; here the pollution is more than normal. The western part and estern part of the city are the most sensitive in reference to pollution expansion. Here it is very essential to control the pollution generating industrial units and other polluting activities.
Depletion of ground water level, increase in water, air and noise pollution, lack of open green spaces, poor drainage, congestion etc. are the major causes for the detroiting environment of Meerut city.

SUGGESTED STRATEGIES & PLANS
After identification of major issues related to the city profile and future requirements, it is important to suggest some strategy to deal with these issues. All these issues require in depth understanding and technical knowledge.
However, some general strategies may be suggested for the development of Meerut City to make it comparatively better.

➢ **Compact & Phase wise Development**
For the proper development of Meerut city, planning should be perceivable, there should be a phase wise planning and the actual & proposed land use should be similar, the proposal of development should be the way to maximum utilisation of space for residence purpose means the structures should be compacted, low density house development should be discourage. Administrator should courage the group housing and discourages the separate housing. Development agencies have to discourage unauthorised and unplanned spread of Urban Activities. Residential colonies should be developed in contiguous areas with all infrastructure facilities.

➢ **Planned Development of Low Cost Housing**
There should be planned for development of low cost houses, development of houses vertically not horizontally, the no. of house units should be more on the same piece of land. We should try to discourage the demand of land, people should be attracted for house not for land.

➢ **Development of Highway Corridors**
The transportation is increasing day by day, so there should be increased the width of Major Highways. It should be discouraged the development of residential colonies on Highways. Commercial & Industrial settlement should be developed along the Highway.

➢ **Development of Transport Facilities**
Regional – level linkages (Railway and roads) to be strengthen. Development activities along the major transport corridors need proper planning and control
so as these corridors are not congested, No illegal construction should be allowed along major roads.

- **Proper Traffic Management Plan**
  City needs a well laid down traffic management plan identifying the phased development of major roads, ring roads, road crossings, railway overhead bridges, public transport and parking facilities.

- **Ground Water Conservation, Rain Water Harvesting and Management of water supply**
  As discussed earlier, the ground water table is going down day by day, there should be banned the exploitation of ground water or it should be minimum. Also there should be a strong action against the untreated water disposal directly to ground. It is compulsory to establish the water treatment plant in each industrial unit to treat the contaminated water. There should be banned on the untreated disposal from slaughter house and other industrial units. Alternative sources of drinking water supply needs to be developed. Govt. Agencies and Public should be encouraged to practice conversation of water and to develop ground water recharge system. Besides the very good rain fall and very near to the Gange river, it is being faced the drinking water problem. The rain water harvesting is the best & economical way to conserve & maintain the water table in Meerut city.

- **Sewerage System & Collection of Solid waste**
  Drainage and sewerage system have to be separated. Sewerage treatment plant should be constructed immediately to stop the flow of untreated sewerage in Nala and River.
Solid waste collection should be based on segregation of solid waste from different sources. Mechanisation of garbage removal collection and disposal should be encouraged.

➢ Waste Water Disposal

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➤ Health-Education - Quality of Life

Environmental problems in most of the urban centres are evident. Environment-related diseases or accidents remain among the major causes of illness, injury, and premature death. This is common in the poorer centres of urban areas. Most of these diseases are caused by pathogens in water, food, soil, or air. Burns scalds, and accidental fires are common in overcrowded shelters, especially where five or more persons live in a small room.

The city have two general categories of human environmental risk: those that directly affect health, such as pollution, and those that may not be less damaging, but operate indirectly by worsen the ecosystem that human life depends on. The link between environment and health is evident. Poor environment, housing and living conditions are the main reasons to the diseases
and poor health. Improvements in sanitation, sewage treatment and quality of food, will prevent diseases like cholera. The lack of these basic facilities is still general in developing countries. Because of this, diseases like tuberculosis and diarrhoea continuous to be common in the developing world.

There should be the policy to reduce the gap in between the residents of Jaibheem Nager and the residents of Jian Nagar & Samrat Enclave. The literacy rate of Jaibheem Nagar is near to zero, there should be emergency actions to execute the Central Govt. Policies, State Govt. Policies or world Bank Policies fot helping the BPL residents of JaiBheem Nagar and other parts of Meerut City. The Health facilities must be near to those who are in requirement and also there should be awareness in to poor people. Population growth rate must be controlled.

➢ Development of Open & green spaces

All historical open spaces should be developed in beautiful parks. Meerut city has quite a large area of forest along Delhi Road. This forest land should be preserved and developed.

Industrial houses, Educational Institutions, voluntary organisations and community at large should be made aware of the fragile nature of city environment and they should be encouraged to make the city environment conducive for the development. We all have to realize that discipline in public life is a precondition for any development. Civilized life can’t be lived in undisciplined towns.