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This chapter sets out the conclusions reached by the researcher as results of his enquiries. They are given with brief abstracts of the facts on which they are based. The research undertaken by the researcher has concentrated upon the city attributes related to their spatial structure and living conditions in term of quality of life or well-being in Barabanki city.

The present study of Urban Structure and human well-being of Barabanki city, despite its limitations has succeeded in highlighting certain specific features of the organization of city space in the Indian setting. It has led to certain interesting finding, substantive conclusions and broad generalizations.

The present work is a study of the spatial structure of land use pattern and well-being of Barabanki city which is located in central part of Uttar Pradesh state, India. The physical, economic and cultural features have great bearing on the land use pattern and spatial variation of well-being of the city. Barabanki city is the district headquarters of Barabanki and situated at eastern part of the capital city of Lucknow. It covers an area 3.63 square kms over which 75271 persons live according to 2001 census report of India.

The city of Barabanki doesn’t have much of a past. It first grew up as a small settlement around the two villages of Faizullahganj and Rasoolpur. But the city started growing steadily only after it became district headquarters. This area and its neighborhood constitute the most crowdy part of the city because they have been
occupied ever since growth of the city. The location of all the major offices, school and commercial establishment near by also led to population concentration here. During British rule western part of the city was developed and it was confined by civil lines area and further North West was the cantonment area. The city started growing towards the south after the laying out the national highway no.28. Settlement in different parts of the city started coming up which had to be connected to the old city by roads and as roads were built people started settling in the different parts of the city. The city started developing fast after being made municipal board. This was because of the expansion of facilities for education, health care and other community based services. The rate of immigration to Barabanki has increased considerably after the establishment of various facilities in the city. The increased population resulted in much crowding in some areas.

The historical growth of the city has resulted in city area being classified into four sub-divisions:

(i) The core areas of the city which have come up since the origin of the city.

(ii) The areas in the south of the core which came up during the growth of amenities facilities and which was then mainly inhabited by migrated population than people of city itself.

(iii) The area that developed western of the core and which were built up by the Britishers in a planned way. These areas came up during the early part of the twentieth century.
(iv) The areas in the peripheries are comparatively recent settlements.

The city of Barabanki came into being 1869 when it contained 10,606 persons which increased to 14,033 in 1891. It increased to 14,736 persons. Thus, the total population of the town has increased by four times within span of hundred years. It has recorded an increased about 419.90 per cent between 1901 and 2001 of the city. This high rate of growth has been due to influx of population into the town for employment, education, and trade and commerce. The rate of growth of population over these years has not been uniform. Between 1901 and 1921 the rate of growth was negative and from 1921 onwards the rate was moderate with some high rate of growth in successive decades. During 1971-81 was highest growth rate in the hundred years. In 1981 Barabanki itself got the status of second class city. The fall of growth rate have been seen in last two decades due to expansion of medical facilities, awareness towards the family planning in the city.

With an area 3.63 square kms and population of 75271 persons the density of population of the city is 20735 persons per km. The population is very unevenly distributed in the city. Sex ratio of city is 911 females per thousand of males. The standard of literacy in Barabanki city is 64.54 per cent. Among the city wards, the literacy rates range between a minimum of 41 per cent (ward no. 20) and a maximum of 82 per cent (ward no. 24). The high literacy wards include the commercial, historic core and also newly developed areas. Literacy rates also moderate away from the core of the city. Low literacy areas are lying along the
fringe of the municipal boundary in north-eastern part of the city. It is noted that age composition of Barabanki by four age groups. The percentage of the people under 14 years of age is 27.05 per cent, the percentage of young men and women (15-34) is 45.06 per cent, percentage of middle aged men and women (35-59) is 24.90 per cent and percentage of elderly persons (Above 60) is 2.99 per cent. These figures bring out one clear picture that the number of dependants is large for persons between 0-14 and above 60 years make 30.04 per cent of the total population. The occupational structure of population shows cultivators and agricultural labours consisted in very small proportion and on other hand in household industry only 5.46 per cent workers were engaged. But maximum workers were employed in other work, which constitute 93.69 per cent.

The morphology of Barabanki is shaped up by building structure, in proportion to built up land and the density of houses and population which determines the congestion of the urban settlement. The central part of the city has very high density of population and built up land. The density decreases outward although at varying ranks. In the central area almost the entire land is built up where the density of population is also the highest. This area is also marked by two and three story building and narrow winding lanes. The outer part on the other hand, is very sparsely built and has the scope for future expansion of residential areas. The proportion of residential land is highest just outside the central zone because central zone is predominated by commercial functions. The accommodation density is also
very high in central area which shows that there is a shortage of houses here. High accommodation density in central area shows that the living conditions are moderate to poor. The pattern of change in accommodation density is, however different from the densities of population and houses. The lowest accommodation density is found in Thasil Colony, Deshera Bagh and Police Line areas.

The distributional pattern of different functions shows that certain functions occupy particular area of the city. Commercial areas cover the central and oldest part of the city located in Ghanta Ghar area. Commercial activities have also formed ribbons on Station Road, Rajkamal Road, Dewa Road etc. Nagar Palika Market, Indra Market, Janpath Bazar and Mina Market are the commercial hub of the city. Administrative function is situated in the western part of the city. All important district level departments are located in this area and few are also scattered over the space. There are many notes worthy schools and colleges in the city, but they are also scattered. There are many hospitals and nursing home also located in different part of the city. Industrial function also does not make separate zone but most of the small scale industries particularly handloom industries are located in the eastern part of the city and large scale industries are well marked outside the municipal boundary on Dewa Road. Transportation activities are concentrated near railway station, bus and taxi stands.

The functional character of Barabanki is related to demographic structure. The area having high density of built up land is generally devoted to commercial
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and residential uses. The moderately built up area is generally residential in character. The density of population is high in central area and near the government offices in Police Line area, while the peripheral areas having agricultural function have the lowest density.

This study based on data from a small sample of 1200 households that can not be expected to represent compressive description of well-being throughout the city of Barabanki. It was found that there is considerable variation in quality of life based on twenty three variables. These variables clearly represent a comprehensive analysis of well-being in the city of Barabanki. It is important to note that there are many unnoticed dimensions of the environmental structure in the present study. Using the factor analysis or component analysis all the environmental characteristics can be resolved into the three dimensions of amenities and infrastructure, material, and health and education were extracted from rotated factor matrix which explains 76.03 per cent of the total variables. Amenities and infrastructure contributes almost half of the variance (41.91 per cent), material contributes twenty five per cent of the variance (19.67 per cent), and third factor contributes approximately twenty per cent of the total variance. Amenities and infrastructure and material which are dynamic one of all the three factors give a clear picture of the city in terms of its well-being. On the other hand, health and educational factor support in shaping and identifying the typology and variance of socio-economic level.

The spatial pattern of well-being in Barabanki city derived from a composite index which takes the scores of all the dimensions into consideration while
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determining the well-being in various wards. On the basis of the scores obtained by the different wards, the composite index has been divided into three class intervals: good, moderate and poor.

The high quality residential area where upper middle class people, bureaucrats, executives, academicians and doctors live has well marked in the western and southern parts of the city. This is purely an outcome of the post colonial period. There are spacious and well planned colonies of the well designed houses mostly single storied with spacious frontage. The areas are inhabited by the people of high education and high social status group. These colonies attain highest concentration of amenities and infrastructure available in the city. The high level of education, high income, single storied houses, spacious houses, less crowded and planned colonies such as Company Bagh, Nehru Nagar, and Police Line areas come under this type of residential structure. Another characteristic of this type of areas is the dominance of high caste Hindu and Muslim in the absence of Scheduled Castes. The overall outdoor and indoor environments are relatively satisfactory and deserve to be kept into the high quality category.

The medium level of well-being areas are associated with centre of the city and radiate outward from the nucleus of the old city. Another such type of area is the eastern small scale industrial pocket, where handloom activities are running. Central part of the city dominated by Hindu businessmen (Baanias), while eastern belt is mainly dominated by the Muslims mainly belongs to other backward class. These two comparatively older settlements which were originated during medieval
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period, forms the economic backbone of the city. Here high to moderate income group as well as education, multi storied houses, crowding and congestion, lack of ventilation and semi-planned organization are some of the striking feature of the city. These areas attain higher income than the high level of education when it is compared with high quality residential area of the city. Secondly, there is dominance of multi-storied building, thirdly, these areas are very much crowded and congested as a result, ventilation problem is felt severely, while in high quality of residential areas houses are with spacious frontage and open spaces are frequent. Hence these areas attain higher degree of income, so that relatively satisfactory level of housing conditions in terms of amenities and infrastructure facilities are concerned. In this part of the city though the houses are very old and built of brick but they are high rented. Most of wards under moderate level of well-being are in the core areas of the city with extensions to the north-western and south-eastern parts of the city. Over all level of infrastructural facilities and social amenities can be said to be of moderate type.

The low level of well-being areas are well marked along the north and east margin of municipal boundary. The residents of these wards include variety of occupational and cultural group. A large number of them are engaged in low grade services. Many of them are in small services, vegetable vendor and hawkers, labour works and other petty businessmen with their small houses in size and areal extent. The housing conditions are very poor and other basic amenities and infrastructural facilities also lack behind. Crowding and congestion is relatively lower than core.
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area of the city. These low areas in term of well being purely dominated by wards are Gandhi Nagar, Pirbatawan East, Pirbatawan West, Bhitri east, and Kurmin Tola. Housing conditions with old dilapidated building, lack of open spaces, narrow and winding lane are main striking physical structure of these areas. Drainage is poor and water logged which breeds mosquitoes, sanitary conditions are insufficient and substandard; sharing of bath, lavatory and kitchen are the common practices. These areas in actual sense do not have urban outlook from any angle and are occupied by the poorest people of the city. Thus, over all conditions of the livability is unhygienic and unhealthy and thus can be described as substandard.

However, spatial pattern of the quality of livability presents a complex situation. Barabanki city exhibits impact of the cultural, historical and economic factors. However, this general deterioration of the livability is not spatially homogeneous. The city reveals heterogeneity of the environment or disparity over the city space which is observed to correspond with the socio-economic status of the population. On the basis of geographical zones, an intrinsic pattern of the quality of livability can be discerned over city space.

The core of the city is formed by an inner zone. The houses in this zone are unplanned and much older. This was once a wholesome residential are of the traditional elite which has now being metamorphosed into a complex environmental structure under pressure of over crowding, under development and poverty. At present, this area belongs to the houses both elite class as well as middle and low class population. The high class residential areas in the inner zone belongs to
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traditional business elite particularly Hindus. Congestion and crowding are relatively less and exclusive housing facilities are common. Owner, occupancy is common and numbers of rooms are less. Due to relative affluence these quarters are well provided with amenities as water supply, electricity, modern baths and latrines, gas etc. despite the lack of open spaces is reasonably good. The middle class residential areas also belong to the traditional elite whose economy and political power has declined over the years and it has been reduced to a middle class status. These residents of this zone include variety of occupational and cultural groups. Majority of them are engaged in services either in organized or unorganized sector. Most of them are also small shops owners and engaged in petty trade and business. Housing congestion and over crowding too is beyond permissible limits. The residential part of low income groups is located in eastern belt of this zone. Due to crowding, congestion and high density of population, the pressure on housing facilities like baths, latrines and kitchens is very high in this area. These areas can better be termed as inner slums. The business area is also included in this zone which mainly consists of business and commercial establishments. The land use character here is both residential and commercial. Thus the middle and high class residential areas are adequate in terms of basic amenities and indoor housing conditions. As a whole the habitat is livable in high and middle class residential areas while in low class residential areas it is appalling.

Surrounding the central zone is the middle zone. In largest part, the general quality of livability is better in this zone, especially in areas where the residents are
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economically well off. People prefer this zone for their residence for the reasons of unsatisfactory basic amenities in the core of the city. Basically a middle class dominating area, this zone has rather newer better housing conditions but houses are in small size. This zone has mostly newly developed areas e.g Kailash Ashram, Azad Nagar and Durgapuri where both high and middle class population reside. In Azad Nagar, agricultural activities are found on peripheral area so that low income group residents are well marked. The crowding, congestion and high density of population is the characteristic of the central zone, except in Gulariya Garda, Begumganj, and Lajpat Nagar areas of this zone. The use of good quality material in relatively better housing conditions is a characteristic feature of this zone. The housing in general is planned, except the North Western and south eastern parts of this zone where pressure upon urban facilities are certainly higher. As a whole, the habitat in middle zone is comparatively better than the central zone or outer zone.

The outer zone or the peripheral zone presents all the conditions arising in newly established part of the city. A mixed type of quality of livability exists in this zone. On the other hand the high class residential areas with large, well planned and newly built houses with very satisfactory housing conditions. The provision of basic urban amenities, crowding conditions and indoor environment are quite satisfactory resulting in less pressure on urban basic amenities. On the other hand, the middle and low class residential areas have developed on margins of this zone and where housing consists of either semi- pucca or kutcha houses or hutments of makeshift material. These houses are generally bare of minimum urban amenities. The housing
environment is unhygienic leading to low quality of livability. As a whole, it shows sub human living conditions.

The spatial pattern of quality of livability in Barabanki relate with three dimensions of environmental structure. These dimensions well brought about the nature and magnitude of the livability of the city. Its spatial pattern on ward wise basis of city landscape, can be traced. There seems a positive relationship between land use functional pattern and quality of livability. On the other hand, a decrease in congestion and crowding with increasing distance from the city center is observed. Therefore, it can be concluded with some degree of confidence that main city or inner part and middle zone areas despite their higher level of congestion enjoys relatively better living conditions as compared to outer city where it worsens in some parts. However, this phenomenon seems to be selective in space as it is more prominent in the north eastern part of the city. Areas depicting a increasing quality of livability with increasing distance are well marked in west and south parts of the city. However, this pattern is not so simple. Confusion to this pattern is added by sectoral rather than zonal tendencies of areas of different levels of quality of livability.

**Limitations:** It must be said that this study has few short comings also which includes:

1) Units of observation are not large because of limitations of time and resources on individual researcher can not manage a large sample. The researcher.
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therefore, has taken ten per cent households sampling for final study. As a result regional analysis is weak in the study.

2) The present study was carried out at only two levels- the city and ward. It must be noted that the ward as a unit of analysis is not a perfect one as many tendencies of segregation and relationships were suspected on this scale of analysis. *Mohallas* (residential neighborhoods), several of which make a ward are identified as the most suitable unit of analysis, but limitation of the availability of relevant information on this level prevented the use of *Mohalla* as the unit of analysis.

3) Problems, which were faced due to the small number of units of analysis, included selection of a limited number of variables and analysis of quality of life which could more meaningfully be done by selecting a larger number of variables. This was not attempted in the present study because of the limitation of computer programme and interpretive complexities. The limitations of the unit of analysis and the number of variables have also prevented the development of any general model.

4) Scarcity of desired data has affected the quality of the statistical interpretation.

Suggestions: On the basis of preceding study, some suggestions seem appropriate.

1) A large number of case studies of the quality of Urban livability in medium size cities carried out on a relatively small unit of analysis, say, *Mohallah*. 

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2) The observations made before, indicate that it is necessary to increase basic civic facilities in low and medium areas, which have played significant role for urban growth in medium size cities as revealed by variables.

3) The objections also suggest that at least downtrodden wards should be treated as part of the town and all the basic urban amenities and facilities (which have identified as strong indicates) should be extended to them. Such an extension of urban amenities and facilities will not only solve the problems but also reduce the uneven and haphazard growth.

4) The study suggests that town planners and the government take timely steps for proper planning with the help of strong dimensions, those which have been identified as important in low and medium level of livability.