

Contiguous Master Plan intervention in the city of Kurukshetra

Ajay Kaushik

Head of Department, Faculty of Urban Planning and Architecture, State University of Performing and Visual Arts, Rohtak, Haryana, India.

Received: August 27, 2018

Accepted: October 20, 2018

ABSTRACT

This paper is an attempt to establish the relation between the significance of important urban elements and planning document. It is important that the development plan gives importance to such elements that contribute to the recognition of the city. Kurukshetra is an old town developed to a city which has recently been given three master plan vide notification in the year 2007, 2008, 2014. The paper discusses the comparative scales of the planning document. Further it discusses the provision made in the master plans developed from time to time that misses its focus from the same.

Keywords: Water Body, City, Master Plan,

I. Introduction

1.1 Historical overview

The place is known from the Mahabharata period where the war between Pandavas and Kauravas was fought. It has also been called as Dhramkshetra. The area was ruled by king Harshawardhana. The capital of the king Harshawardhana was Sthaneshwar or Thanesari. "The place of the God". Hiuen Tsiang, visited the capital and has given account of the same in his memoirs. In the medieval time it was sacked by Mahmud of Ghazni, and later it was recovered by the Hindu Raja of Delhi in 1043 A.D.

Thanesar was later accessed by British (DDP 2021).

1.2 Location and regional setting:

Kurukshetra is a town situated in northern part of Haryana. The town is expending towards east due to good access to National Highway number - I (Grand Trunk road) connecting Delhi - Amritsar. Haryana Urban Development Authority Most of Haryana Urban Development Authority sectors have come up towards east of the town. Narwana branch canal and Satluj-Yamuna canal link form its western boundary while Saraswati river forms its northern barriers. This town is situated on a flat alluvial plain with Saraswati river and Chautangnala traversing this plain from East to West. The average annual rainfall in the area is 77.3 centimeters. Most of the rain here is seasonal.

Kurukshetra is a religious city is known as land of temples having more than 365 tirath sthals. Most significant of them are Kurukshetra Sarovar, Sanehet Sarovar, Sthaneshwar temple, Jyotisar, Ban-Ganga, Chandrkupe and Kamal Nain. The Kurukshetra Sarovar or the Brahma Sarovar has a size of 1142 yards length and 700 yards width, and is said to have been excavated first by says king Kuru. There are sign of muslim architecture also. The mosque adjacent to Sheikh Chili's tomb, itself a beautiful specimen of Muslim architecture an marble carving, is famous for the blue and yellow tiling on its roof and cupola. (FDP 2021).

II. Kurukshetra Development Board

The Government of Haryana in the year 1968 after the inception of the state from the erstwhile state of Punjab in the year 1966 established Kurukshetra Development Board. The objectives and the mandate of the Board was to preserve and develop the environment of the religious and historic city through preserving its cultural Heritage of the city. Since then it has accomplished major task for restoring and preserving the cultural heritage of the town. Some of them are: Maintenance and cleanliness of Sanehet and Brahma Sarovar, Narkatari, Ban Ganga pilgrimages, Landscaping of Brahma Sarovar, Sanehet Sarovar and Purushotam Bagh, Landscaping of Light and Sound schemes at Jyotisar, Establishment of Krishna Museum, Panorama and Science Centre (FDP 2025).

III. PLANNING STRATEGIES

3.1 Population and Development plans

The expected population size as per Master plan 2031 is 7,50,000. This Master Plan was notified in the 2nd January, 2014. The earlier Development Plan was notified on The 25th November, 2008 and prior to that on 15th march 2007 the Final Development Plan was published in suppression of plan dated June 8th 1983. The main emphasis of the Development Plan is to provide regulation to curb the haphazard growth of the city in various directions.



Figure 3.1: Draft Development Plan 2031 (Source: Town and Country Planning Department, Haryana)

Physical Barrier: The old city of Kurukshetra popularly known as Thanesar is situated on a raised mound. The mound exists on the south of the river Saraswati. The river Saraswati forms the northern and north western physical barrier of the city. The sacred Brahmasarover, Sanihat Sarovar and famous temples attract all numbers of pilgrims every year from all parts of India. This complex is located in the south. Therefore these sarovars act as physical barriers that restrict the growth of the town in south direction. These areas were once treated as out of city areas and the sprawling campus of Kurukshetra University along with Regional Engineering College (now known as National Institute of technology) blocks the prospects of growth on the south-western side. Thus the city is bound to expand on north-eastern and the eastern side of the town i.e towards G T Road (DDP 2031).

3.2 Discussion on Draft Development Plan 2031

The broad headings under which the DDP 2031 discusses the projected growth pattern and the planning directions are as follows.

The first and prime most is the available infrastructure in the city. The DDP identifies the infrastructure related to power and concludes that there are six power houses available in the city that are sufficient to serve the existing population. The water supply in the city is being catered from around 30 nos. tubewell. And the existing demand of 130 lts per capita is met out easily.

The city sewerage system is only 60% of the required capacity. However it is planned to cover the rest of the city with sewer system. There are only two STPs and are insufficient. As far as the drainage system is concerned the city is dependent on single drain that flows from grain market to Saraswati river

There is a shortage of regular drainage system to drain rain water/storm water exists in the town. The city has a good telecommunication systems with four telephone exchanges in Kurukshetra, and Kurukshetra University. The city has one University, 4 Colleges, 2 Engineering Colleges, 1 Ayurvedic Medical College, 1 Hotel Management & Catering College, 1 ITI, 15 Senior Secondary Schools, 22 High Schools and 26 Primary Schools in the town. Alongwith this the health care infrastructure is also appropriate. There is one 100 bedded Civil Hospital, 1 Ayurvedic College, 2 Primary Health Centres alongwith number of private nursing homes and clinics in the town. It is ironic that places like Brahmasarovar, Sanihat Sarovar, Jyotisar, Museums, Shekh Chehli Tomb, Bhadra Kali Shakti Peeth etc. that are cultural resource and places have been termed as places of entertainment. Infact these are places of social gatherings, exchanges and activities.

There is minimalistic description of economic activities of city.

The city is well connected with its surrounding towns and cities by roads and railways. The Yamuna Nagar-Pipli-Pehowa is the main artery of the city that passes through the city connecting old town, University, Engineering College etc. It is well connected with Yamuna-Nagar, Kaithal, Pehowa, Jind and Indri by major

roads and Amritsar-Delhi main railway lines. However the roads and streets of city are narrow with their width varying from 6 mtrs. to 14 mtrs. The new land uses are being planned on the existing road network consisting of National Highway, Thanesar-Umriroad, Pehowa-Pipli-Yamuna Nagar road, and have been used to plan the different land uses of the Development Plan.

3.2 Controlled Area and preparation of Development Plan

During 1969 to 2004 and in order to control the haphazard and unregulated development around Kurukshetra, Government decided to declare six controlled areas under the provisions of Section -4 of Punjab Scheduled Roads and Controlled Areas Restriction of Unregulated Development Act, 1963 (Punjab Act 41 of 1963). These are Controlled area around the Municipal Town of Kurukshetra in Part-A, Controlled area around the Municipal Town of Kurukshetra in Part-B, Controlled area Kurukshetra Part-C, Controlled area Part-D around BarahamSarover, Controlled area Kurukshetra Part-E, Controlled area Kurukshetra Part-F.

3.3 Existing land usedistribution

The city land are is currently divided in 900 hectares of residential zone is (approximately) having population density of 250 persons per hectare. The commercial, Retail and Wholesale trade zone is 190 hectares. The major commercial areas are two-grain markets, cold storages, banquet halls, godowns, shopping malls, hotels, motels etc 180hectarres of land is covered under industries located on N.H.-44 and Saharanpur-Ladwa-Pipli-Pehowa Scheduled Road. For recreation there are many parks namely Sh. O.P. Jindal Park, Choudhary Devi Lal Park & Theme Park etc. There are two stadiums in the city.

3.4 The Land Use proposals

Out of the total area of 21446 hectares of controlled area the department proposes to develop an area of 6790 hectares as urbanisable area with the gross density of 110 persons per hectare. 300PPH shall be the Residential Sector density, except sector 12 & 15 (part),to cater to the housing needs of the lower income group, for which density has been proposed 1125 PPH. This will help to maintain the continuity of development, integrated with the existing town.The Draft Development Plan 2031 AD has located the provision of various land uses considering the following:-

Population - By the year 2031 AD, there is an expected increase in population to about 7.50 lacs from 2,88,442 in the year 2011, taking the average growth rate of 61% in the coming decades, this range is which is similar to the towns having similar population ranges.

Open Spaces - It has been recognized that Kurukshetra is a place of religious, educational and administrative importance. Therefore it is found important to have large open spaces for public. Accordingly, large area has been earmarked for public and semi-public uses along the Southern Peripheral Road M2. Organized open spaces for social and religious gatherings have been provided at different places.These are expected to act as lungs for this proposed urbanization.

Heritage - there is an demarcation of an area of about 150 hectares for a heritage and recreational park in the west of town along the peripheral road. This is done keeping in mind easy approach to the pilgrims visiting the holy city of Kurukshetra

Commercial - The town, although has a very fertile agricultural land yet it is rapidly growing as a commercial and trade centre. Approximately an area of about 552 hectares has been earmarked for commercial activity. Sector 11, 15 Part, 27, 31 Part, 39 Part have been proposed for commercial development.

Industrial - in view of the future demand of industrial space, an area of 635 hectares has been kept earmarked for industrial use. Sector nos. 34 to 38 and sector no. 40 have been proposed for industrial development.

Transport and Communication- The Delhi-Ambala railway line and Kurukshetra-Narwana Railway line facilitate the easy flow of goods and people. The Saharanpur-Guhla highway passing through the heart of the town also creates congestion in the town. Integrated network has been proposed for smooth flow of traffic and goods. A Transport Nagar has been proposed inSector-33 on the east of NH.44 (G.T. road) (DDP 2031).

Table 3.1:hierarchy of Roads (Source: DDP 2031,Town and Country Planning Department, Haryana)

S. No.	Nomenclature	Description	Road Reservations
1.	M - 1	National Highway No. - 44	Existing width with 100/60 metres green belt on both sides as shown on the drawing
2.	M - 2 (a)	Scheduled road	Existing width within Municipal Limits, 45 metres width with 30 metres wide green belt on both sides in the controlled area.
3.	M - 2 (b)	Peripheral	75 metres width with 50 metres wide green belt on both

		Road	sides.
4.	M – 2 (c)	Proposed Sector Road	75 metres wide
5.	M – 3 (a)	Proposed Sector Road	45 metres wide
6.	M – 3 (b)	Existing Sector Road	Existing 60 metres wide sector road.
7.	M – 3 (c)	Existing Sector Road	Existing 30 metres wide sector road

Public Utilities Zone – Public utilities are important aspect of any city. Therefore, an area of 293 hectares has been kept reserved for public utilities. The utilities may include area for electric power installation, , sewerage treatment plant, sewerage disposal works and canal based water supply. 49 hectares of land has been earmarked for the canal based water supply, 12 hectares of land has been earmarked for sewerage treatment plant, 32 hectares of land has been reserved for three various capacity sub-stations at various places. 7 hectares of land is earmarked for Solid and Liquid Waste Management.

Public and Semi-Public Zone- Kurukshetra is nationally acknowledged as educational centre having a Haryana’s oldest University. There is National Institute of Technology alongwith other technical and non-technical colleges/Institutes. The religious Institutions of international repute are also of significant importance of this town. An area of 813 hectares have been proposed under Public and Semi-Public uses for meeting such requirements of the city.

Open Spaces – The open spaces are lungs of any city therefore, an area of 995 hectares has been earmarked for Mela Ground, Heritage Park & Organized open space. These areas have been made proposed in sector-6, 12, 15 (P), 27, 39 and sector 48 as Heritage Park and Mela Ground in Sector-21. The 100/60 metres wide green belt has been provided along both sides of National Highway No.-44. However, the green belt shown along the sector/artery roads shall be used for the widening of the sector/arterial road, if needed, in future.

Agricultural Zone - Being and agrarian state and the land of th city in fertile, a large area, approximately 14656 hectares has been earmarked as agricultural zone. The extension of villages however can take place in these areas. However, to meet the housing needs of the farmers, construction of farm houses are allowed in these zones.

Provisions of Information Technology Units and Cyber Parks/Cyber Cities- IT related industries can be set up with a land of 1 to 5 acres. These can be set up in industrial areas/industrial zones only. The Cyber Parks/ Information Technology parks will be located either in industrial areas or industrial zones abutting on minimum 60 metreswide road.

Table 3.2:Development control (Source: FDP 2031,Town and Country Planning Department, Haryana)

S. No.	Type of use	Maximum ground floor coverage	Maximum floor area ratio
1	Group housing	35%	1.75
2	Government offices	25%	1.00
3	Commercial	In accordance with the terms and conditions specified in the zoning plan of sites approved by the competent authority.	
4	Warehousing	60%	0.75
5.	Bus Stand		
A	Commercial	35%	1.75
B	Institutional	25%	1.00

Table 3.3:Minimum Plot Sizes (Source: FDP 2031,Town and Country Planning Department, Haryana)

S. No.	Category	Size of Plots
1	Residential	50 Sqm
2	Residential plot on subsidised industrial housing or slum dwellers housing scheme approved by the Government	35 Sqm
3	Shop-cum-residential plot	100 Sqm
4	Shopping booths including covered corridor or pavement in front	20 Sqm
5	Local service industry plot	100 Sqm
6	Light industry plot	250 Sqm
7	Medium industry plot	8000 Sqm

Table 3.4: Proposed Landuse (Source: FDP 2031,Town and Country Planning Department, Haryana)

S. No	Land Use	Within Old M.C. Limit			Within Extended M.C. Limit			Within Controlled			Total Area			% age		
		2021	2025	2031	2021	2025	2031	2021	2025	2031	2021	2025	2031	2021	2025	2031
1.	Residential	780	822	822	722	705	705	1325	1318	857	2827	2845	2384	39.85	41.94	35.09
2.	Commercial	83	117	117	152	152	152	301	301	283	536	570	552	7.55	8.40	8.12
3.	Industrial	-	-	-	10	10	10	318	318	625	328	328	635	4.62	4.83	9.35
4.	Transport & Communication	102	98	98	60	60	60	981	981	960	1143	1139	1118	16.11	16.79	16.45
5.	Public Utility	16	16	21	13	13	13	161	169	259	190	198	293	2.68	2.92	4.31
6.	Public & Semi Public	283	271	271	168	144	144	406	426	398	857	841	813	12.08	12.40	12.04
7.	Open Spaces	228	201	201	32	36	31	954	626	763	1214	9863	995	17.11	12.72	14.64
	Total	1492	1525	1530	1157	1120	1115	4446	4139	4145	7095	6784	6790	100	100	100

IV. DISCUSSION

The above table is collated to analyse how and what kind of land use has been emphasized upon in the proceeding master plan. It is understood that the residential component of the city varies from 39.85% to 41.94% and finally to 35.09% in DDP 2031.the commercial and transport & communication activities and public and semi public uses hinge upon the similar percentage as previous master plan figures. However the industrial activities were given impetus by allocating 8.12% of land use. This is almost double of what was allocated in the FDP 2021. The study of three planning document reveal that the subsequent planning documents do not drastically intervene and lay emphasis on the historically significant areas of the city. Hence the master plan document should include the development of such areas and cover them holistically.

TABLE I.

References

1. Town and Country Planning Department, Haryana Government, Draft Development Plan - 2021 AD, 2007
2. Town and Country Planning Department, Haryana Government, Final Development Plan - 2025 AD, 2008
3. Town and Country Planning Department, Haryana Government, Draft Development Plan - 2031 AD, 2014