YEIDA Phase-II

[Notified area of Districts of Aligarh, Mathura, Mahamayanagar (Hathras) and Agra]

Draft Master Plan, 2031

YEIDA PHASE - II

MaRS Planning & Engineering Services Pvt. Ltd.

Yamuna Expressway Industrial Development Authority

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1 INTRODUCTION

1.1 IMPETUS FOR INDUSTRIAL DEVELOPMENT IN INDIA

The urbanization trend in India is reflection of the structural changes that are taking place in the economy. The combined contribution of industry and services to GDP is significantly higher compared to primary sector. However, it has been a cause for concern that while India has grown impressively in the last 15 years the main contribution to economic growth has immerged from the service sector rather than from the manufacturing sector, unlike the trend in most developing and emerging economies & Growth in India has not been accompanied by a proportional supply of employment. Hence, Government of India's National Manufacturing Policy, thereby focuses on enhancing the share of manufacturing in GDP, from 15-16% since 1980, to 25% within a decade and creating 100 million jobs by 2022.[1] The Draft Master Plan for the YEIDA and its urban centre will contribute to the national objective.

Simultaneously, the Central Government Department of Industrial Policy and Promotion (DIPP) of the Ministry of Commerce and Industry (MoCI) and various State Governments have initiated ambitious projects and proposals for enhancement of productive capacities of specific territories by creating investment regions, National Investment and Manufacturing Zones (NIMZ) and industrial nodes. These industrial nodes are planned to be located along key corridors which are the backbone of goods/ material movement in the country. Planning these corridors in a participatory manner is critical to integrate economic, spatial, social, institutional and environmental strategies. This helps in optimal allocation of resources in a region as well as across the population to ensure sustainable development.

In similar effort, to contribute to generation of the requisite employment in the manufacturing sector and upgrade the urban economy of Uttar Pradesh, the Government of UP has initiated the Yamuna Expressway Industrial Development Project.

[1] **Source: Economic times**, Aug 10, 2014, http://articles.economictimes.indiatimes.com/2014-08-10/news/52648250_1_100-million-jobs-manufacturing-sector-national-manufacturing-policy

1.2 YEIDA PHASE-2 AND CORRIDOR REGION INDUSTRIAL DEVELOPMENT PLAN

The Phase-2 development of the Yamuna Expressway Industrial Development Authority (YEIDA) represents a transformative initiative to establish a world-class industrial, commercial, and urban hub in Uttar Pradesh. Spanning parts of Gautam Budh Nagar, Bulandshahr, Aligarh, Mathura, Agra, and Hathras, this region is strategically positioned along the Yamuna Expressway, a 165 km, 6-lane access-controlled expressway that has significantly reduced travel time between Delhi and Agra. Inspired by national industrial initiatives like the Delhi-Mumbai Industrial Corridor (DMIC) and the Peninsular Region Industrial Development Corridor (PRIDe), YEIDA Phase-2 seeks to develop an integrated industrial ecosystem that aligns with India's broader goals of industrialization, infrastructure development, and regional economic integration.

The industrial development plan for YEIDA Phase-2 focuses on creating sector-specific industrial clusters, manufacturing hubs, and logistics parks to support large-scale production and distribution. It integrates mixed-use urban centers, transit-oriented development (TOD), and residential zones to create a self-sustained, live-work-play environment. Projects like the Noida International Airport, Film City, IT City, Medical City, and Sports City act as key growth drivers, offering direct and indirect employment opportunities. Enhanced connectivity with Delhi, Noida, Greater Noida, Faridabad, and Dadri positions YEIDA as a prime location for investments, offering seamless access to regional and global markets.

The Corridor Region Industrial Development Plan emphasizes strategic linkages with the DMIC, PRIDe, and other national economic corridors, promoting inter-state industrial growth and enhanced logistics efficiency. The vision for Phase-2 is to transform YEIDA into a globally competitive industrial and logistics hub, fostering employment, economic diversification, and sustainable urbanization. This holistic approach aligns with the Government of Uttar Pradesh's broader agenda to boost the state's manufacturing sector, improve living standards, and position YEIDA as a model for future industrial and urban development.

- **Tappal-Bajna Urban Centre: (**Notified: Notification No. 313/77-3-17-275 एम /15 Dated: 08 May 2017)

  Located at the northernmost part of the YEIDA Phase-2 region, the Tappal-Bajna Urban Centre serves as a key gateway due to its proximity to the Noida International Airport and strategic connectivity to Delhi and Greater Noida. It is envisioned as a mixed-use urban node with a strong emphasis on residential, institutional, and commercial development. The center will also house industrial parks, logistics hubs, and warehousing facilities to cater to the growing demand for freight movement. The presence of the airport will further bolster its role as a key driver of aerotropolis development, promoting aviation-linked businesses and global connectivity.

- **Raya Urban Centre: (**Notified: Notification No. 1258/77-3-2024-275(एम)/2015 Dated: 21 October 2024)

  Strategically positioned near the Mathura-Vrindavan region, the Raya Urban Centre aims to leverage the cultural and religious tourism potential of the area. This center is envisioned as a knowledge and service-oriented urban hub with a focus on hospitality, educational institutions, healthcare, and recreational facilities. Given its proximity to heritage sites, Raya is also expected to develop as a hospitality and tourism-driven economy, supporting hotels, resorts, and related commercial activities. The integration of industrial zones and skill development centers further supports employment generation and regional economic growth.

- **Sasni-Hathras Urban Centre:**

  Positioned in the southeastern part of the YEIDA Phase-2 region, the Sasni-Hathras Urban Centre is envisioned as a key industrial and manufacturing hub. This urban center will host large-scale manufacturing units, agro-processing industries, and logistics hubs, capitalizing on the region's agrarian economy and strong transportation network. With proximity to the Agra-Lucknow Expressway and connectivity to the larger YEIDA network, it will play a vital role in promoting industrial growth, export-oriented production, and the development of MSMEs (Micro, Small, and Medium Enterprises). The development of housing, social infrastructure, and civic amenities will support a self-sufficient urban community for workers and residents.

- **Agra Urban Centre:**

  Situated at the southern edge of the YEIDA Phase-2 region, the Agra Urban Centre is a key urban node due to its historical and tourism significance. The focus here is on the integration of tourism, heritage conservation, and urban development. The Agra Urban Centre will capitalize on the proximity to Agra’s iconic tourist sites, enhancing hospitality, commercial, and cultural tourism activities. Additionally, industrial development linked to leather, handicrafts, and small-scale industries will be promoted to sustain the traditional economy of the region. The development of modern infrastructure and logistics support will further strengthen Agra's role as a regional trade and tourism hub.

These four urban centers are designed to promote balanced regional development, optimize land use, and foster economic diversification within the YEIDA Phase-2 region. Each center has a distinct role, aligning with the broader vision of creating a self-sustained, economically vibrant, and globally connected industrial development zone.

1.3 NEED FOR MASTER PLAN

Uttar Pradesh intends to promote industrialisation to support economic growth in identified area. YEIDA has been perceived as one of the captivating destinations for industrialisation. The YEIDA being close to NCR, surrounded by multifunctional centres around, development of the Yamuna Expressway, availability of large green field land and other regional and national level existing, ongoing and proposed infrastructure projects opens up the avenue for the large scale development in the region makes the area suitable for industrialisation in UP. Thus, to attract the investment, planned and sustainable development of the YEIDA to achieve the objective of Govt. of Uttar Pradesh of industrialisation, Master Plan needs to be prepared.

1.4 LEGAL FRAME WORK FOR THE MASTER PLAN YEIDA PHASE-II

To implement the Yamuna Expressway Project and allied development, Yamuna Expressway Industrial Development Authority (erstwhile Taj Expressway Industrial Development Authority - TEA) was constituted vide Notification No. 697/77-4-2001-3(N)/2001 dated 24th April, 2001 under U.P. Industrial Area Development Act 1976. A total of 1,149 villages spread over approx. 3352 sq.km. of area had been notified in aforesaid six districts are notified under Yamuna Expressway Industrial Development Authority vide various Notifications of Govt. of Uttar Pradesh for administration.

With a view of development in certain areas in the State as Industrial and Urban Development townships and concerned matter therewith, The Uttar Pradesh Industrial Development Act, 1976 passed by Uttar Pradesh Legislature under which Industrial Development Authorities have been constituted by notification for any industrial development area with an objective to secure the planned development in the area.

"Function of Authority" under section 6 of *"U.P. INDUSTRIAL AREA DEVELOPMENT ACT – 1976"* also gives framework for the planned development of industrial development authority area.

Function of the Authority

6. (1) The object of the Authority shall be to secure the planned development of the industrial development area.

(2) Without prejudice to the generality of the objects of the Authority, the Authority shall perform the following functions :–

(b) to prepare a plan for the development of the industrial development area;

(c) to demarcate and develop sites for industrial, commercial and residential purpose according to the plan;

(d) to provide infrastructure for industrial, commercial and residential purposes;

(e) to provide amenities;

(f) to allocate and transfer either by way of sale or lease or otherwise plots of land for industrial, commercial or residential purposes;

(g) to regulate the erection of buildings and setting up of industries: and

(h) to lay down the purpose for which a particular site or plot of land shall be used, namely for industrial or commercial or residential purpose or any other specified purpose in such area.

Other than the "U.P. INDUSTRIAL AREA DEVELOPMENT ACT – 1976" following GOs (Government Orders) and Regulations are as follows; The State Government policy for Development of Yamuna Expressway Industrial Development Authority 2007 issued vides G.O. (Government Order) no. 4636/77-4-07-486 N/07 dated 29/12/2007. The relevant extracts of the policy regarding preparation of Plan are as follows –

"2.1 ताज एक्सप्रेस–वे के दोनों तरफ स्थित क्षेत्रों के सुनियोजित विकास हेतु निम्न बातों का होना आवश्यक है :–

अ. ताज एक्सप्रेस–वे प्राधिकरण के रेग्यूलेटेड एरिया को बढ़ाया जाना।

ब. बढ़ी हुयी एरिया में विभिन्न सम्भावित विकास कार्यक्रमों की पहचान किया जाना।

स. बढ़े हुये क्षेत्र के लिये मास्टर प्लान का तैयार किया जाना।

ड. विकास हेतु धन की व्यवस्था किया जना।

2.2 नोयडा और ग्रेटर नोयडा के बीच में एक्सप्रेस–वे पूर्व में संचालित है और यह नयी एक्सप्रेस वे नोयडा इंड (जीरो प्वांइट) जो एक्सप्रेस–वे से 20 किलोमीटर दूर से शुरू होकर लगभग 165 किलोमीटर दूर स्थित आगरा तक है।

2.3 टी.ई.ए. उस क्षेत्र का निर्धारण करेगा जो इस सुनियोजित विकास प्लान में शामिल होगें और उनके लिये मास्टर प्लान बनायेगा और यह प्रक्रिया विभिन्न चरणों में तैयार की जायेगी।

2.4 टी.ई.ए. के द्वारा जो मास्टर प्लान बनाया जायेगा वह राज्य की विकास नीति के ढांचे के अनुकूल होगी और निम्नलिखित उद्देश्यों की पूर्ति करेगा।

अ. क्षेत्र के एवं इसके अन्तर्गत आने वाले पर्यावरण का सुगठित विकास किया जाना।

ब. जो स्थल जिस कार्य के लिये अनुकूल है उनको प्रोत्साहित किया जाना और लोगों में अच्छा कार्य करने तथा अच्छा जीवन बिताने का वातावरण पैदा करना।

2.5 मास्टर प्लान में विभिन्न क्षेत्रों की पहचान की जायेगी। जहां पर विभिन्न उद्देश्यों जैसे औद्योगिक, आवासीय, वाणिज्यिक, संस्थागत, सरकारी अर्द्धसरकारी क्रिया कलापों जैसे भौतिक मूलभूत सुविधाओं के साथ–साथ यातायात, विद्युत, जलापूर्ति, जलनिकासी, कूड़ाकरकट के निस्तारण आदि का विकास किया जाना हो। मास्टर प्लान में मनोरंजन की सुविधाओं व दूरभाष बाजार, नीति संरक्षण, अग्नि, सुरक्षा, दुग्ध वितरण, पेट्रोल स्टेशन व अन्य सम्बद्ध सेवाओं के विकास चरणबद्ध तरीके से किये जाने का प्राविधान भी होगा।

2.6 उच्च गुणवत्ता एवं त्वरित विकास की विकास गतिविधियां सुनिश्चित करने हेतु ताज औद्योगिक विकास प्राधिकरण, समन्वयक संस्था (नोडल एजेंसी) होगी। विकास गतिविधियों को मोटे तौर पर निम्नलिखित श्रेणी में विभाजित किया जायेगा।

(अ) भूमि का विकास– 1000 हेक्टेयर से कम
(ब) भूमि का विकास– 1000 हेक्टेयर अथवा इससे अधिक
उपर्युक्त (ब) में पड़ने वाला क्षेत्र विशिष्ट विकास परिक्षेत्र (Special Development Zone) की श्रेणी में वर्गीकृत किया जायेगा।

2.7 मास्टर प्लान तैयार करने के अतिरिक्त अन्य कार्यों के साथ–साथ ताज औद्योगिक विकास प्राधिकरण निम्नलिखित के लिये भी जिम्मेदार होगा:–

(द) मांग एवं स्थानीय आवश्यकता को देखते हुए 1000 हेक्टेयर से कम के भूखण्डों का विकास (आन्तरिक विकास सहित) किया जाना। उक्त विकास छोटे साइज के व्यक्तिगत आवास/सामूहिक आवास/अन्य उद्देश्यों व आवासीय या अनावासीय उद्देश्यों के लिये पूर्व निर्धारित दरों पर या बोली के आधार पर जैसा कि ताज औद्योगिक विकास प्राधिकरण उचित समझे, ताज औद्योगिक विकास प्राधिकरण द्वारा समय–समय पर निर्धारित/आवंटित किया जायेगा।

Yamuna Expressway Industrial Development Area (Plan preparation and finalization) Regulation 2011. The relevant extracts for preparation of the Plan are as follows –

3 (1)– प्राधिकरण यथासंभव शीघ्र नगर योजना एवं नागरिक सर्वेक्षण करेंगा और औद्योगिक विकास क्षेत्र के लिए योजना का प्रारूप तैयार करेंगा।

(2) योजना के प्रारूप में ––

(क) विद्यमान विभिन्न सेक्टर्स का उल्लेख एवं वर्णन किया जायेगा जिसमें विकास क्षेत्र अथवा इसके भाग को विकास के उद्देश्य से विभाजित कियाजाना हो तथा प्रत्येक सेक्टर में भूमि का उपयोग किये जाने की रीति का उल्लेख किया जायेगा।

(ख) विभिन्न भू–उपयोग के अधीन भूमि के क्षेत्रफल का उल्लेख किया जायेगा।

(ग) निम्नलिखित का वर्णन एवं उल्लेख होगा।

(एक) विद्यमान सड़के।
(दो) परिवहन एवं संचार की, जिसमें रेल और हवाई–अड्डा भी सम्मिलित है, विद्यमान रूप–रेखाएं।

(3) योजना के प्रारूप में निम्नखित का उल्लेख हो सकता है––
(क) विद्यमान सार्वजनिक सुविधाएं और भौतिक विशिष्टताएं यथा नदियां एवं जल निकाय आदि।
(ख) विनियम 4 में विनिर्दिष्ट सभी विषय, उनमें से कोई विषय।

(4) योजना के प्रारूप में ऐसे मानचित्र, डाईग्राम, चार्ट–रिपोर्ट और किसी व्याख्यात्मक या वर्णनात्मक प्रकृति के ऐसे अन्य लिखित विषय होगे जो औद्योगिक विकास क्षेत्र के सम्पूर्ण या किसी भाग के विकास से संबन्धित हो,

(5) योजना के प्रारूप के भाग को सृष्ट करने वाले लिखित मामलों में मुख्य विकास संबन्धी विशिष्टताओं का ऐसा सारांश और ऐसा वर्णनात्मक मामला भी सम्मिलित होगा, जैसाकि प्राधिकरण मानचित्रों, चार्टो, डाईग्रामो द्वारा और अन्य दस्तावेंजो द्वारा संसूचित प्रस्तावों को समझाने या स्पष्ट करने के लिए आवश्यक समझे।

(6) विद्यमान भू–उपयोग की कोई योजना, में विभिन्न प्रयोजनों के लिए भूमि के वांछित उपयोग को प्रस्तावित करने की योजना प्रारूप का भाग भी होगी।''

1.5 OBJECTIVES OF MASTER PLAN

The broad objectives of the preparation of "Master Plan for YEIDA" are:

- To promote industrialisation as the economic development;
- To prepare the Master Plan for the horizon year 2031
- To make an area attractive for investment by providing quality infrastructure;
- To capitalise upon the opportunities created by the change in global economy and large scale infrastructure coming up in and around the region;
- To provide seamless rural – urban integration while creating enhanced economic opportunities for rural settlements with improved quality of life by provision of quality physical and social infrastructure.

2 EXISTING SITUATION ANALYSIS: YEIDA

2.1 YEIDA PHASE-II AREA & LOCATION

2.1.1 YEIDA Phase-II

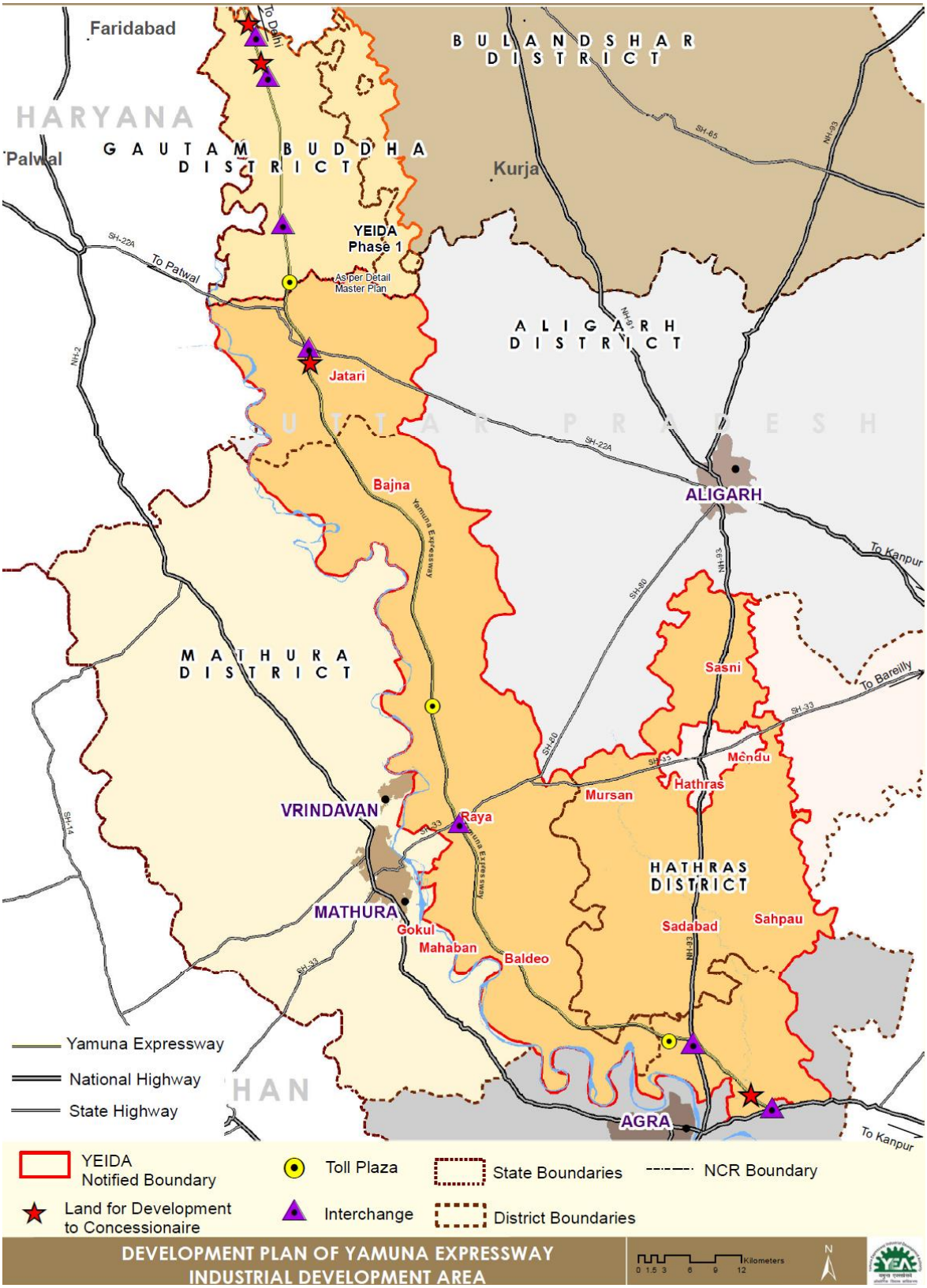
YEIDA Phase-II Area located in western part of the State of Uttar Pradesh, on the Eastern bank of Yamuna River comprising of parts of four districts Aligarh, Mathura, Agra and Hathras of Uttar Pradesh spreads over an area of approximately 2,593 sq.km. YEIDA Phase-II comprises of 923 revenue villages. 14 urban local bodies also fall within the geographical boundary of 14 blocks of aforesaid four districts. Major part of the YEIDA Phase-II falls under Mathura district (45%) followed by Hathras district (39%).

The area has impetus of development due to 165kms of Yamuna Expressway joining two international tourist destinations Delhi and Agra opens up the avenue for urbanisation in the region. There are four major interchanges and two toll plazas on Yamuna Expressway in YEIDA Phase-II. Interchanges are located near Tappal (Intersection of Expressway & SH-22A), Raya (Intersection of Expressway & SH-33), at intersection of Yamuna Expressway and NH-93 and fourth on the intersection of Expressway and NH-2 providing regional connectivity to the YEIDA Area. Two pockets of land of approx. 500 ha each have been given to concessionaire near Tappal and Agra city in YEIDA Phase-II against Expressway development.

The YEIDA Phase-II being surrounded by the cities in NCR, Delhi, Faridabad, Noida, Ghaziabad and other within the region and neighbouring urban centres Bulandshahr, Hapur, Khurja, YEIDA Phase-I, Mathura, Agra, Aligarh and Hathras, are influenced by them offering better economic opportunities, employment, connectivity, physical and social infrastructure with improved quality of life.

A large portion (approx. 55%) of the YEIDA II is falling in Taj Trapezium Zone (TTZ). Due to the presence of Yamuna River and area falling in TTZ makes the YEIDA Phase-II environmentally sensitive. The YEIDA Phase-II requires a careful planning of the area shall be in consonance to Supreme Court orders while exploiting the development potential of the YEIDA Phase-II and the development.

Map 1: YEIDA Phase II


Faridabad
To Delhi
HARYANA
GAUTAM BUDDHA DISTRICT
Palwal
BULANDSHAR DISTRICT
Kurja
YEIDA Phase 1
As per Detail Master Plan
SH-22A
To Patwal
NH-2
Jatari
ALIGARH DISTRICT
UTTAR PRADESH
SH-22A
Bajna
Yamuna Expressway
ALIGARH
To Kanpur
NH-93
SH-80
MATHURA DISTRICT
Sasni
To Bareilly
SH-33
Mondu
Hathras
Mursan
VRINDAVAN
Raya
HATHRAS DISTRICT
MATHURA
Gokul
Mahaban
Baldeo
Sadabad
Sahpau
NH-334
AGRA
To Kanpur
Yamuna Expressway
National Highway
State Highway
YEIDA Notified Boundary
Toll Plaza
State Boundaries
NCR Boundary
Land for Development to Concessionaire
Interchange
District Boundaries
DEVELOPMENT PLAN OF YAMUNA EXPRESSWAY INDUSTRIAL DEVELOPMENT AREA
Kilometers
0 1.5 3 6 9 12
N

2.2 DEMOGRAPHY: OVERVIEW OF YEIDA-II

The detail demographic analysis is done on following parameters as per the availability of the census data. The parameters for demographic analysis are population, sex ratio, literacy rate & workforce participation rate (WFPR). The detail analysis of all these demographic parameters is done for two census years which are 2001 & 2011 respectively. The detail analysis is conducted considering district as well as block boundary. However here in this section, the analysis & conclusions are discussed for whole YEIDA II.

2.3 DEMOGRAPHY

2.3.1 Population

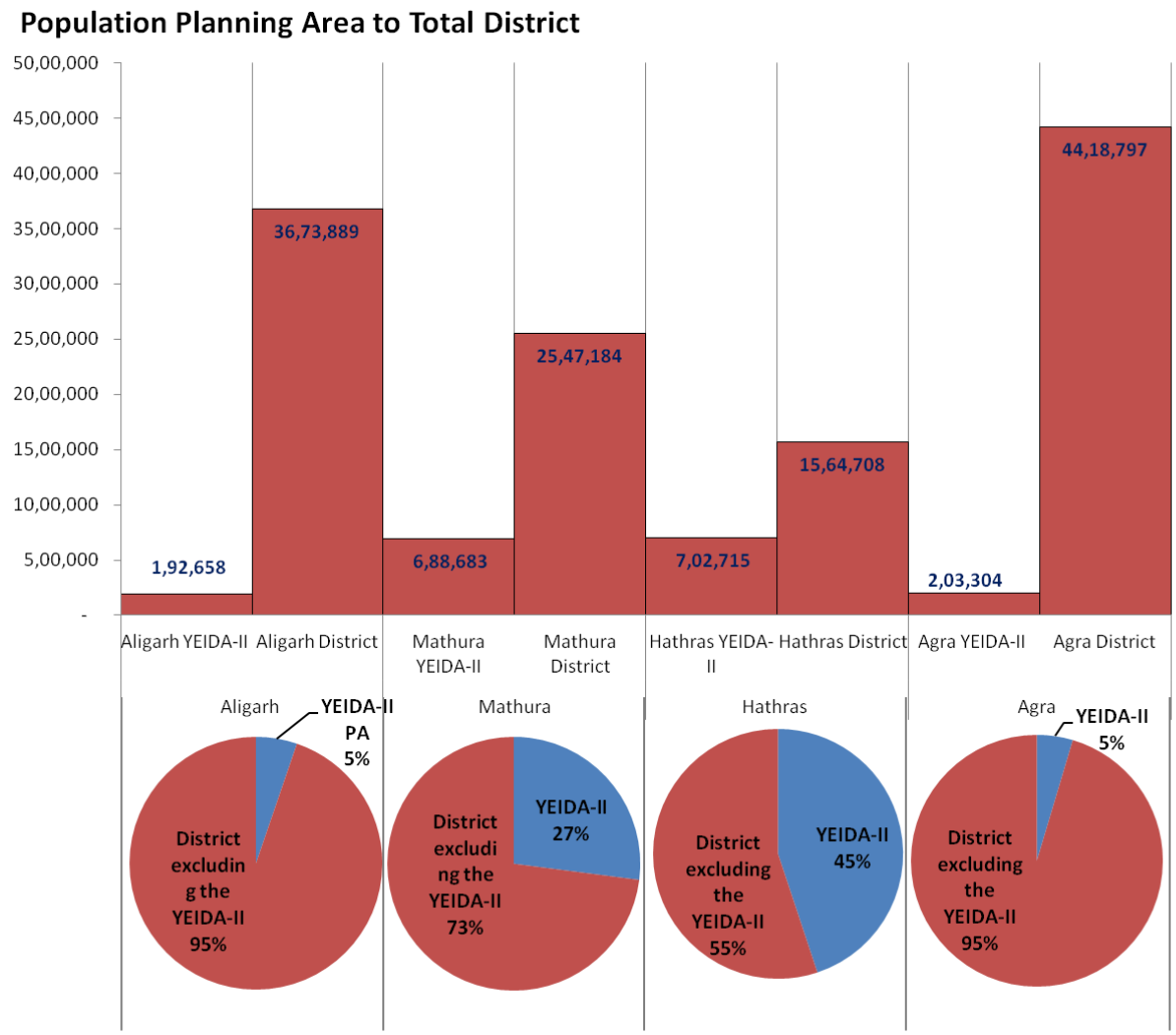
YEIDA-II includes four districts in Western Uttar Pradesh. These four districts are Aligarh, Mathura, Hathras & Agra. The YEIDA II constitutes of 14.64% collective population of four (Aligarh, Mathura, Hathras & Agra) districts. The population of all four districts in % falling under YEIDA-II is given below in Table no 2.3 & percentage of actual population to the total population of respective district is given in Figure No. 2.2.

Table 1: Population 2011 in % under YEIDA-II

Sl. No	District	% of District's Population under YEIDA-II
1	Aligarh	5.24
2	Mathura	27.04
3	Hathras	44.91
4	Agra	4.60

Source: Census of India 2011 & Consultants Analysis

Figure 1 : Population 2011 YEIDA-II to the District Population



Source: Census of India 2011

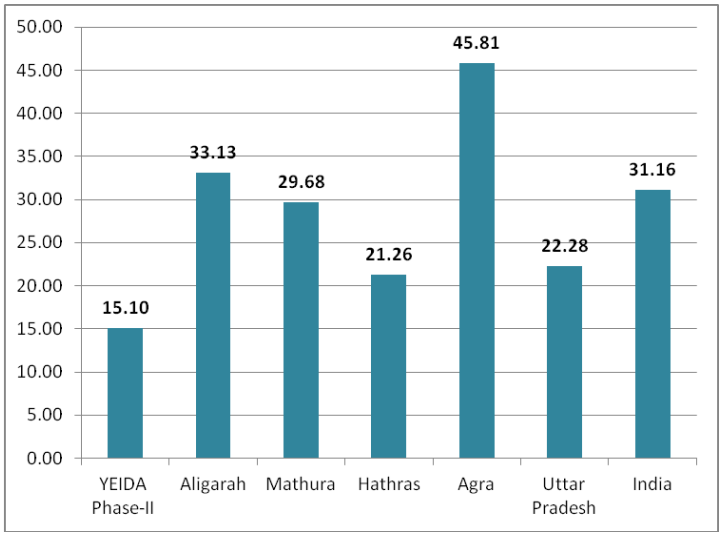
Table 2 : Population distribution in YEIDA-II 2001-2011

Population Category	2001	2011	Decadal Growth Rate
Urban	263,818	317,905	20.50
Rural	1,524,595	1,787,360	17.24
Total	1,788,413	2,105,265	17.72
% of Urban population to the total	**14.75**	**15.10**	**2.37**

Source: Census of India 2001 & 2011

2.3.2 Percentage of Urban population to the total

Figure 2 : Percentage of Urban Population to the Total



Although all urban centres coming under YEIDA-II are excluded due to administrative reason, to study the urbanisation trend & rural- urban composition in YEIDA-II the population of urban area has been taken in consideration.

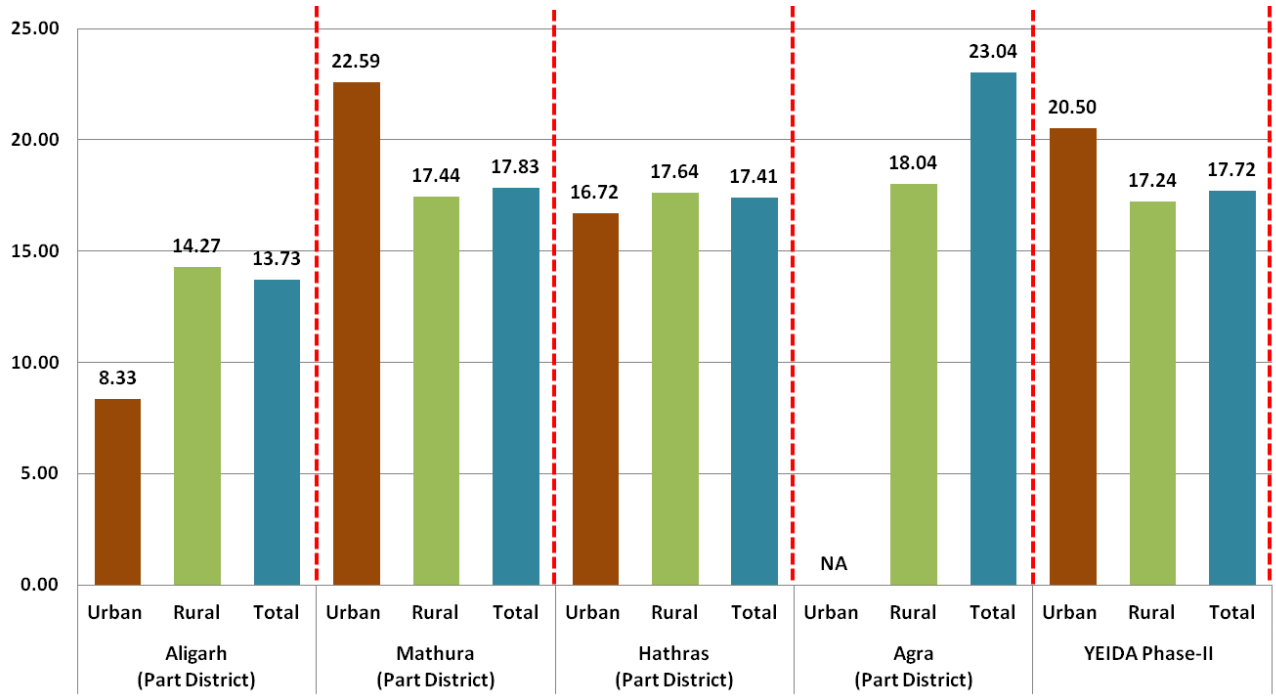
India's percentage of urban population to the total population for the Census year 2011 is 31.16%. Uttar Pradesh has 22.28%. Aligarh, Mathura, Hathras & Agra districts collectively has percentage of 35.48% and YEIDA-II has only 15.01% of urban population to the total population. From given information it is concluded that these four districts (Aligarh, Mathura, Hathras & Agra) as a whole are more urbanized than country, state & YEIDA-II.

2.3.3 Growth Rate

The decadal population growth rate (GR) of India from 2001 to 2011 is 17.64%. The state of Uttar Pradesh has shown it to 20.09% slightly higher than national average. Decadal growth rate of YEIDA-II is 17.24%[2] which is lower than state's decadal GR (20.09%) and collective GR of four districts (Aligarh, Mathura, Hathras & Agra) (21.76%).

[2] YEIDA-II population constitutes only rural population.

Figure 3 : Decadal GR (2001-11) of YEIDA-II as per the Respective Administrative Boundary



Source: Census of India 2001 & 2011

Aligarh rural (Part of YEIDA-II) has lowest decadal GR of 14.27% than other three districts. Agra Rural has shown highest GR of 18.04%.

2.3.4 Sex Ratio

There is a dismal picture of sex ratio in the YEIDA Phase-II. The sex ratio 2011 of YEIDA Phase-II (865) is 7.94% lesser than the National average (940) & 4.69% lesser than the state average (908). The sex ratio of YEIDA Phase-II has improved by 1.92% i.e. from 849 to 865. YEIDA Phase-II under Mahvan Tehsil has lowest sex ratio 859 & 837 in 2011 & 2001 respectively. The Khair Tehsil in YEIDA Phase-II has highest sex ratio in 2011 i.e. 877. Mahvan, Hathras, Sasni & Etmadpur have shown more than 2% average growth in respective Tehsil. Sex ratio in 2011 of 0-6 year population in Khair (862), Sadabad (854) & Etamadpur (861) shown declining trend.

Table 3 : Sex Ratio YEIDA-II 2001-2011

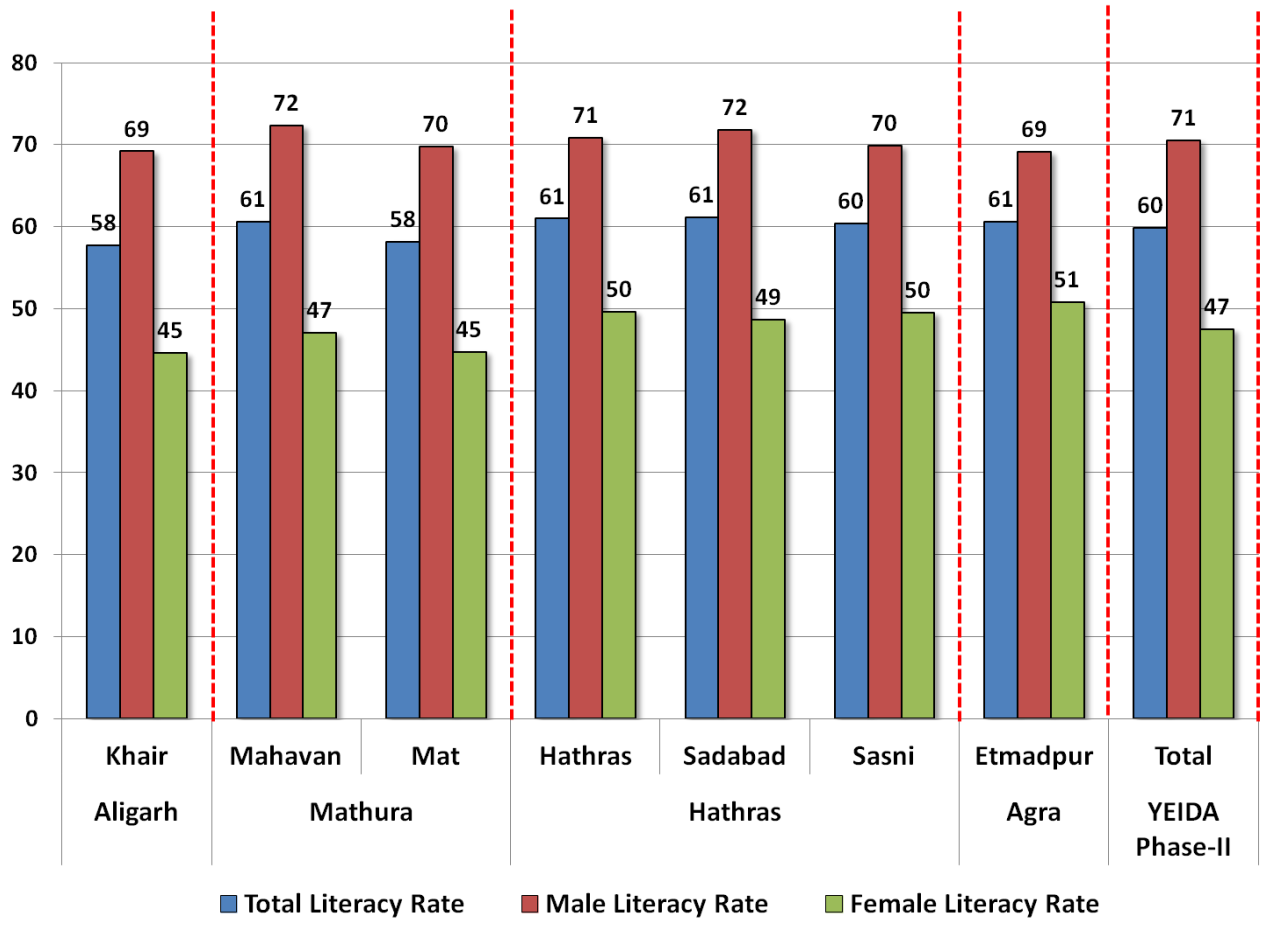
Sex Ratio	Census 2001	Census 2011	% Change
YEIDA II	849	865	1.92

Source: Census of India 2001 & 2011

2.3.5 Literacy Rate

The following figure gives broad idea about literacy rate in YEIDA Phase-II. The YEIDA Phase-II has overall literacy rate of 59.83%. The literacy rate for male (70.52%) in YEIDA Phase-II is higher than in female (47.48%). From 2001 to 2011 literacy rate increased by 14.48% in YEIDA II. Hathras and Agra district has higher literacy rate than Matura & Aligarh district. From Census 2001 to 2011 the highest growth rate recorded in Hathras district which is 18.63%.

Figure 4 : Literacy Rate YEIDA-II, 2001 & 2011



Source: Census of India 2001 & 2011

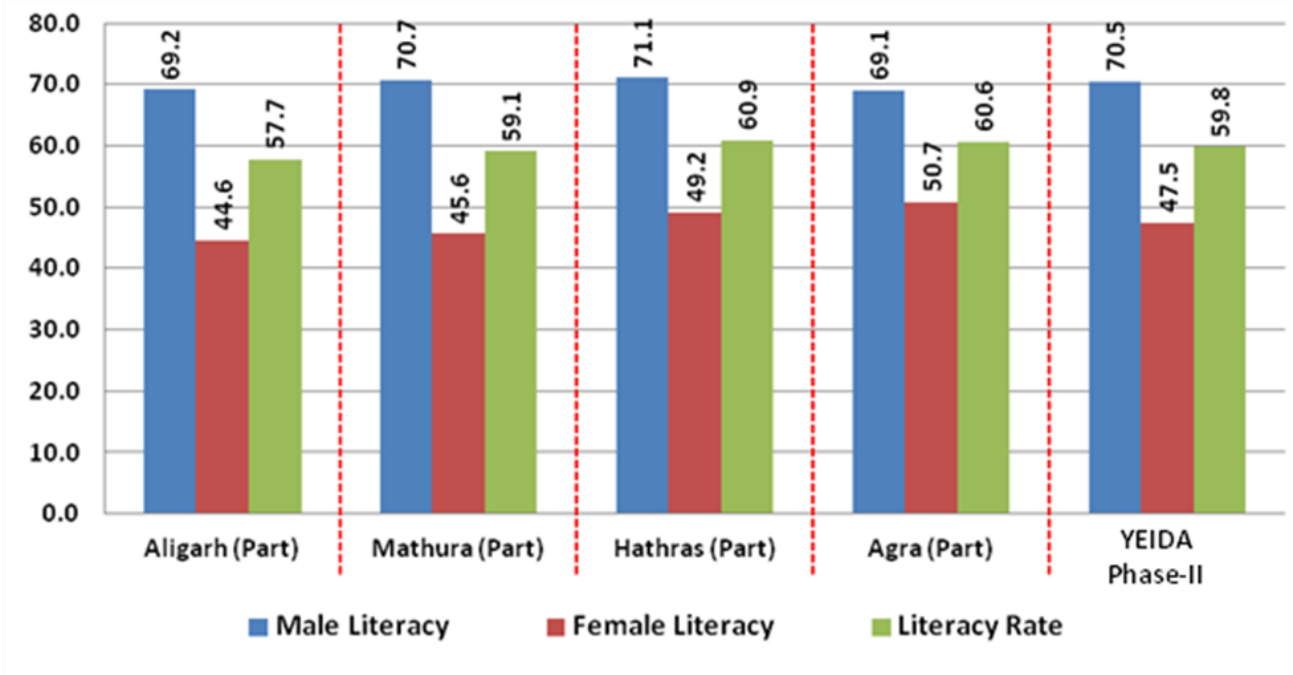
Table 4 : Literacy Rate in YEIDA-II, 2011

Total Pop. 2011		1,782,355
Total Literate		1,066,368
Lit. Rate		59.83
Male	Total Population	955,488
	Literate Population	673,794
	Literacy Rate in %	70.52
Female	Total Population	826,867
	Literate Population	392,574
	Literacy Rate in %	47.48

Source: Census of India 2011

Hathras district has highest male literacy rate of 71.1% & Agra district has highest female literacy rate of 50.7%.

Figure 5 : Male Female Literacy Rate YEIDA-II, 2011



Source: Census of India 2011

2.4 ECONOMY & EMPLOYMENT

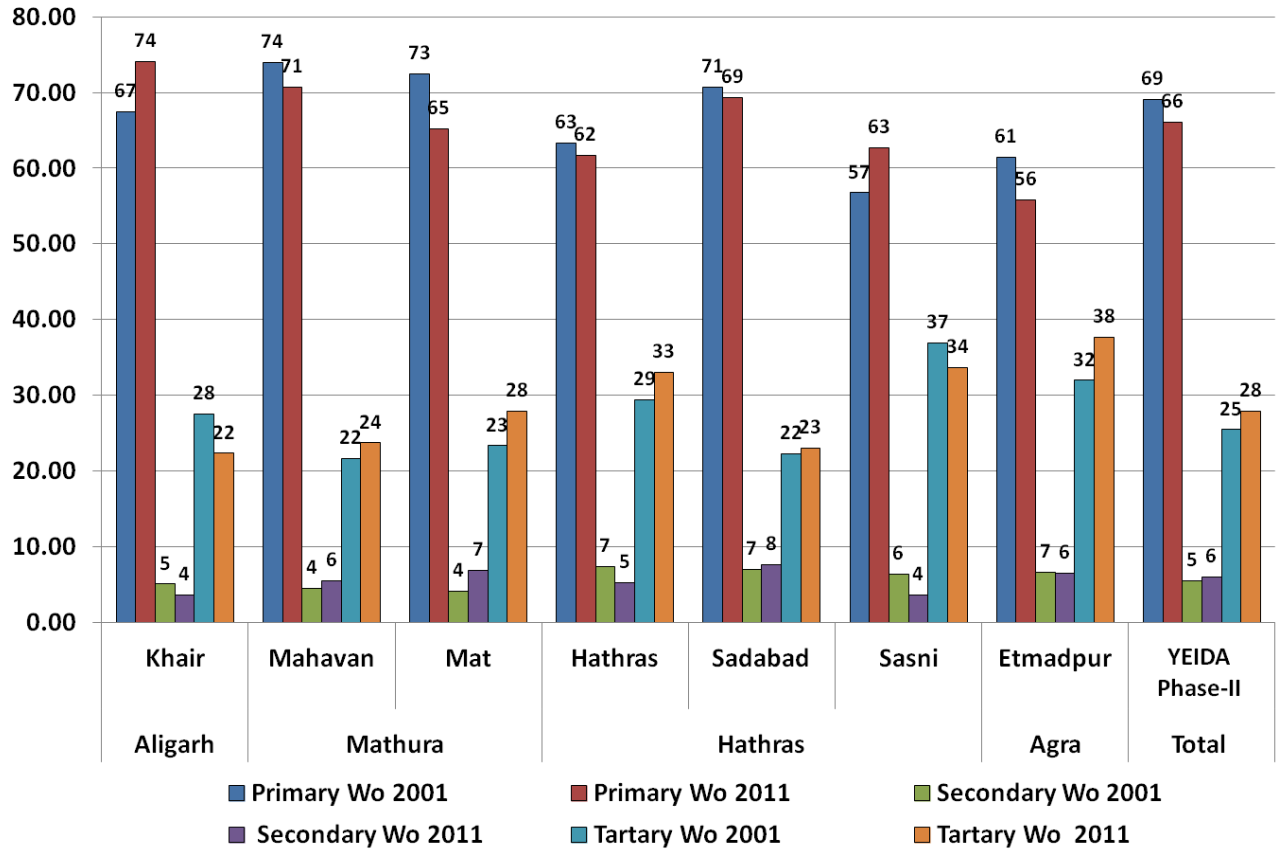
2.4.1 Distribution of workforce/ Occupational Structure

From 2001 to 2011 it is observed that contribution of primary workers to the total workers in YEIDA II reduced by 3%. Khair & Sasni tehsils are exception to this trend and shown increase in primary workers by 7% & 6% respectively.

Mahvan, Mat & Sadabad tehsils showed slight increase in secondary workers. YEIDA II collectively showed 1% increase in secondary workers.

Contribution of tertiary workers increased in Mahvan (2%), Mat (5%), Hatras (4%), Sadabad (1%) & Etamadpur (6%). For the entire YEIDA II it is increased by 3%.

Figure 6 : Comparison of Occupational Structure 2001 & 2011



Source: Census of India 2001 & 2011

The occupational structure of YEIDA II shows that almost 2/3rd (66%) of the total workforce is involved in agriculture (primary occupational activities). Contribution of secondary worker is negligible (6%). This also means that currently YEIDA Phase-II has very less industrial activity. If the data of secondary/ industrial workers is illustrated on the main and marginal worker parameter; it is apparent that out of total secondary workers 50% are marginal workers. Sadabad Tehsil (Hathras) shows maximum secondary workers (8%) than any other Tehsil in YEIDA Phase-II. Out of these 8% secondary workers 5% are main workers. Khair Tehsil in Aligarh district has shown maximum (74%) primary sector workers contribution followed by Mahavan Tehsil from Mathura District i.e. 71%.

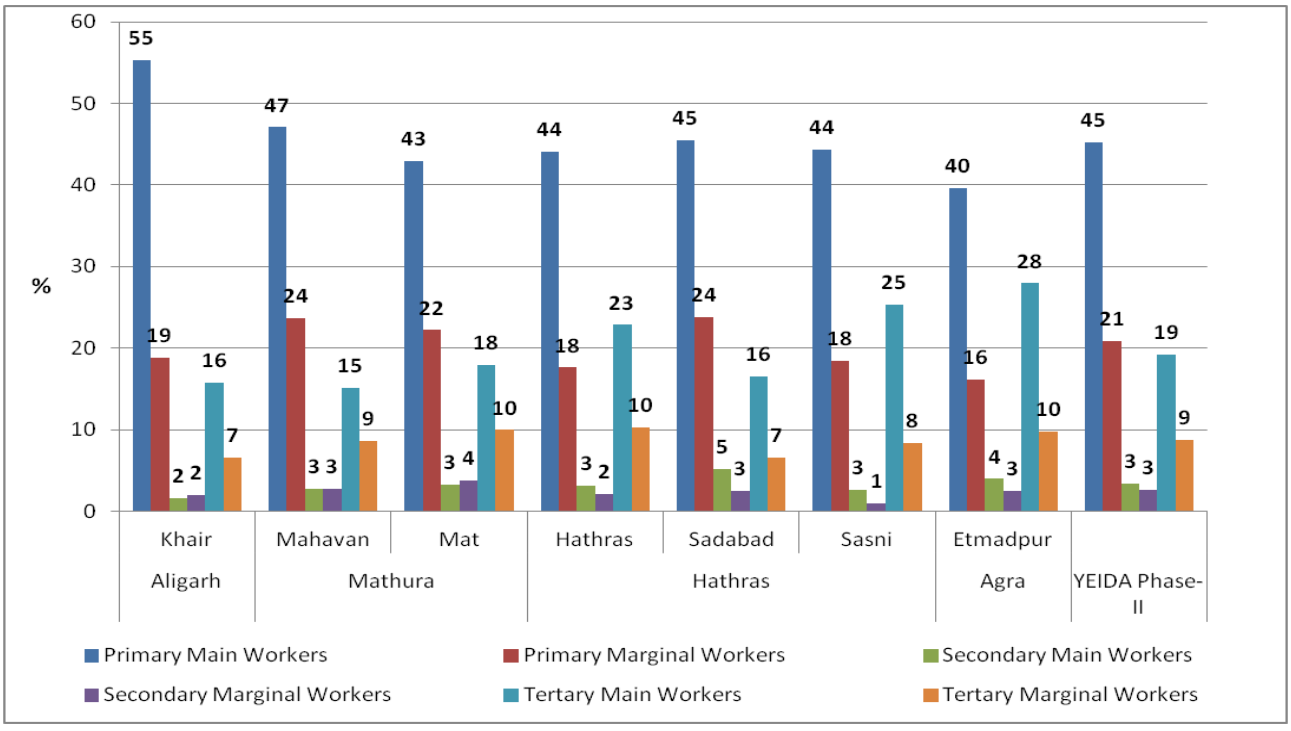
Agra is most urbanised district in YEIDA Phase-II so the tertiary workers contribution in total workers in Etmadpur Tehsil of Agra district is highest (38%) of all districts under YEIDA Phase-II.

Table 5 : Distribution of Workers in YEIDA II, 2011

Total Workers			**586,664**
Main Workers	Primary	Cultivators	163,980
		Agriculture Workers	101,423
	Secondary	Household Industries Workers	19,640
	Tertiary	Other Workers	112,566
Marginal Workers	Primary	Cultivators	27,873
		Agriculture Workers	94,632
	Secondary	Household Industries Workers	15,571
	Tertiary	Other Workers	50,979

Source: Census of India 2011

Figure 7 : Distribution of Workers by Category (Main & Marginal), 2011

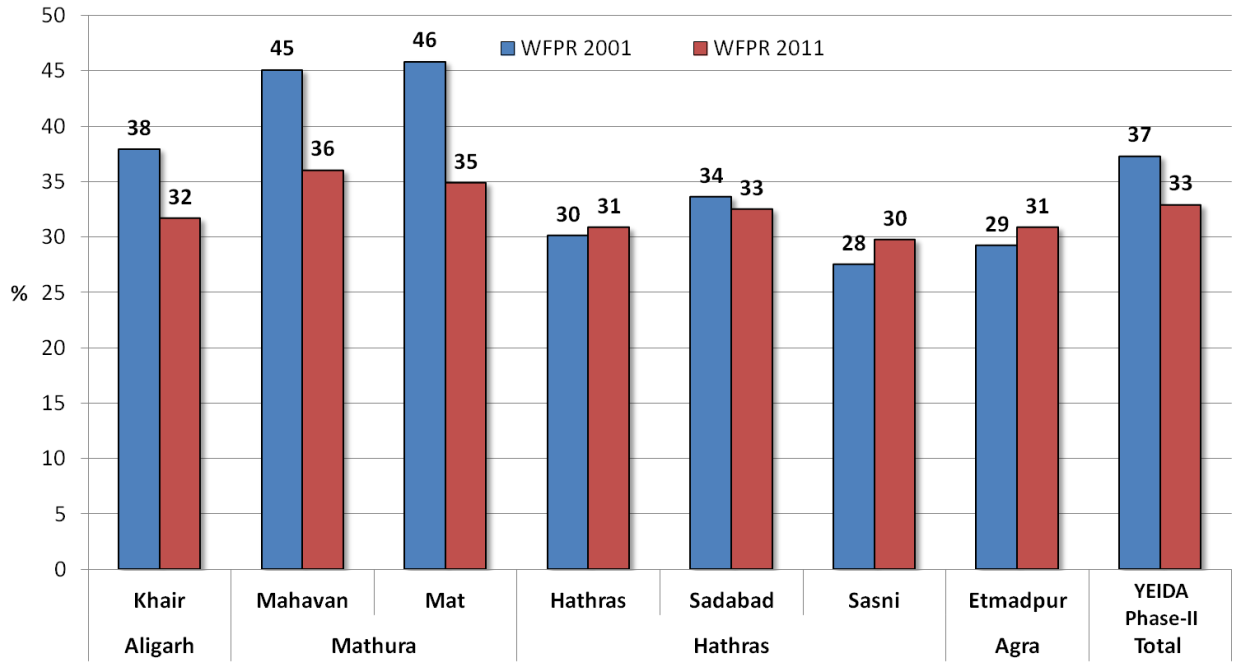


Source: Census of India 2011

2.4.2 Workforce Participation

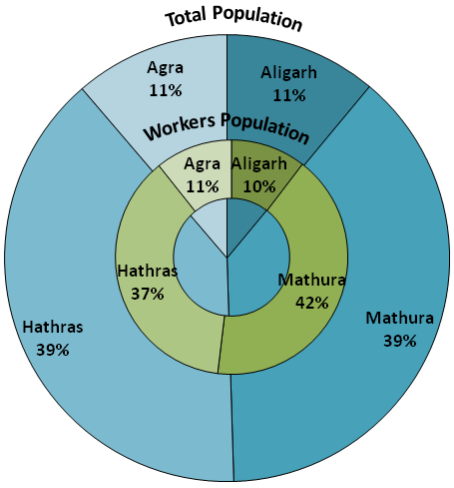
Out of seven Tehsil three Tehsil showed increased WFPR. Those tehsils are Hathras, Sasni (Hathras) & Etamadpur (Agra). These three tesils showed marginal increment. Where as Khair (Aligarh), Mahavan, Mat (Mathura), Sadabad (Hathras) showd significand decline in WFPR. Collectively in YEIDA II the WFPR reduced from 37% to 33%.

Figure 8 : Comparison of WFPR 2001 & 2011



Source: Census of India 2001 & 2011

Figure 9 : District wise Distribution of population & workers population in percentage, 2011



Workforce participation rate of the whole YEIDA II is 32.92%. Total workers inside the YEIDA II are 5, 86,664. Out of these workers maximum workers 2, 43,490 (42%) are in part of Mathura District. Workforce participation ratio of Mahvan Tehsil (36.06%) is highest of all Tehsils in YEIDA II. Workforce participation ratio of main workers is 22.31% as 67.77% of the total workers population is constituted of main worker's. Marginal workers ratio to the total working population is 32.23%.

Table 6 : Workforce Participation, 2011

Sl. No.	District	Tehsil	Total Population 2011	Total Workers	WFPR	Main Workers	% Main Workers to Total Pop	% Main Workers to Total Workers
1	Aligarh	Khair	192,658	61,029	31.68	44,338	23.01	72.65
2	Mathura	Mahavan	264,395	95,340	36.06	61,961	23.44	64.99
		Mat	424,288	148,150	34.92	94,975	22.38	64.11
3	Hathras	Hathras	244,171	75,355	30.86	52,750	21.60	70.00
		Sadabad	322,211	104,842	32.54	70,347	21.83	67.10
		Sasni	131,328	39,120	29.79	28,275	21.53	72.28
4	Agra	Etmadpur	203,304	62,828	30.90	44,963	22.12	71.57
Total YEIDA II			**1,782,355**	**586,664**	**32.92**	**397,609**	**22.31**	**67.77**

Source: Census of India 2011

2.4.3 Total Population to Workers Ratio

The total Population to Workers ratio is ratio of total population to the working population. Lower the ratios better the economy. The total Population to Workers ratio of the YEIDA II is 1:3.04 i.e. 3.04 people dependent on each worker.

Table 7 : Dependency Ratio, 2011

Sl. No.	District	Tehsil	Total Population 2011	Total Workers	Total Population to Workers
1	Aligarh	Khair	192,658	61,029	3.16
2	Mathura	Mahavan	264,395	95,340	2.77
		Mat	424,288	148,150	2.86
3	Hathras	Hathras	244,171	75,355	3.24
		Sadabad	322,211	104,842	3.07
		Sasni	131,328	39,120	3.36
4	Agra	Etmadpur	203,304	62,828	3.24
Total YEIDA II			**1,782,355**	**586,664**	**3.04**

Source: Census of India 2011

Total Population to Workers ratio of YEIDA II increased from 2.68 (2001) to 3.04 (2011).

2.5 REGIONAL ECONOMY

The reforms of the 1990's significantly improved the growth rate of the Indian economy but their impact has not been uniform across all states. The experience of the 1990's has also brought out that reforms at the state level have become crucial to the future growth and well being of the country. Growth has been uneven and entails inter-state disparities. Balanced and even growth is essential for long-term success in terms of economy and social development. UP being fifth largest in terms of area (2.4 Lakh Sq. Kms., 7.6% of India's geographical area) and most populous in the country (19.96 Crores in 2011, 16% of total Country's population)[3] has a major role to play in economic growth and social development of the country. The state has initiated the implementation of large scale infrastructure projects. This may act as triggers for mass industrialization and urbanization which will further provide better environment for economic growth and social uplift. With speedy implementation and strengthening in institutional mechanisms the state could become competitive and successful model for industrial and urban development.

Being adjacent to prominent movement corridors of the country, such as, Golden Quadrilateral, East-West Corridors, North-South Corridors, gives YEIDA-II improved connectivity with the rest of the nation and would go a long way in the development of YEIDA-II as a preferred economic destination for not only Indian corporate but MNCs, as well.

The development of YEIDA–II would be greatly linked to the development of its economy. Though it has substantial portion of secondary and tertiary sectors in its GDP, it also has a lot of untapped potential to diversify more into secondary and tertiary sector economic activities for improvements in its economic base and creating good employment opportunities. The contribution of various sectors to GDP is given in the table 2.10 given below:

Table 8 : Contribution of Various Sectors (in %) to GDP, 2004-05

Sl. No.	District/ State/Country	Primary (In %)	Secondary (In %)	Tertiary (In %)	Total
1	Aligarh	36.83	20.85	42.32	100.00
2	Hathras	43.11	15.15	41.74	100.00
3	Mathura	35.62	20.40	43.98	100.00
4	Agra	27.69	23.43	48.87	100.00
5	Uttar Pradesh	36.25	18.86	44.89	100.00
6	India (*)	19.03	27.93	53.05	100.00

Source: Economics and Statistics Division, State Planning Institute, U.P. Government
(*)http://planningcommission.nic.in/data/datatable/0306/table%203.pdf

[3] Source: Census of India 2011, Provisional Population Totals, Uttar Pradesh Series 1010, Available at http://censusindia.gov.in/2011-prov-results/prov_data_products_up.html Accessed on: 08.09.2011

It is a well-known fact that in any fast growing economy, contribution of Secondary and Tertiary sectors is very high as compared to Primary sector. For Uttar Pradesh in general and YEIDA-II in particular to develop at a fast pace, it is very essential that contribution of Secondary sectors and Tertiary sectors increase significantly.

YEIDA-II, part of Western Uttar Pradesh has very fertile land area and has extensive network of irrigation canals and contributes significantly to agriculture produce. Western UP contributes significantly to food grain production and sugar production of the state. Wheat, rice, maize millet, barley, pulses are commonly grown in the area. Commercial crops like sugar cane, tobacco and also vegetables are grown near canals. Rabi, winter harvest, is the main harvest season. YEIDA-II is located in the famous Golden Triangle of tourism which connects three of the most important tourist destinations in the country, namely, New Delhi, Agra and Jaipur. Tourism was the key driver of the Yamuna Expressway that has reduced the travel time between two tourist destinations of international significance - Delhi and Agra and passes through one another religious tourism destination of Mathura-Vrindavan. Connectivity to Agra and Mathura – Vrindavan from Delhi offers many opportunities to develop the tourism infrastructure and recreational facilities with the aim to attract tourists for extended stay in the YEIDA Phase-II which could play a vital role in transforming the economy of the YEIDA Phase-II.

2.5.1 Agriculture

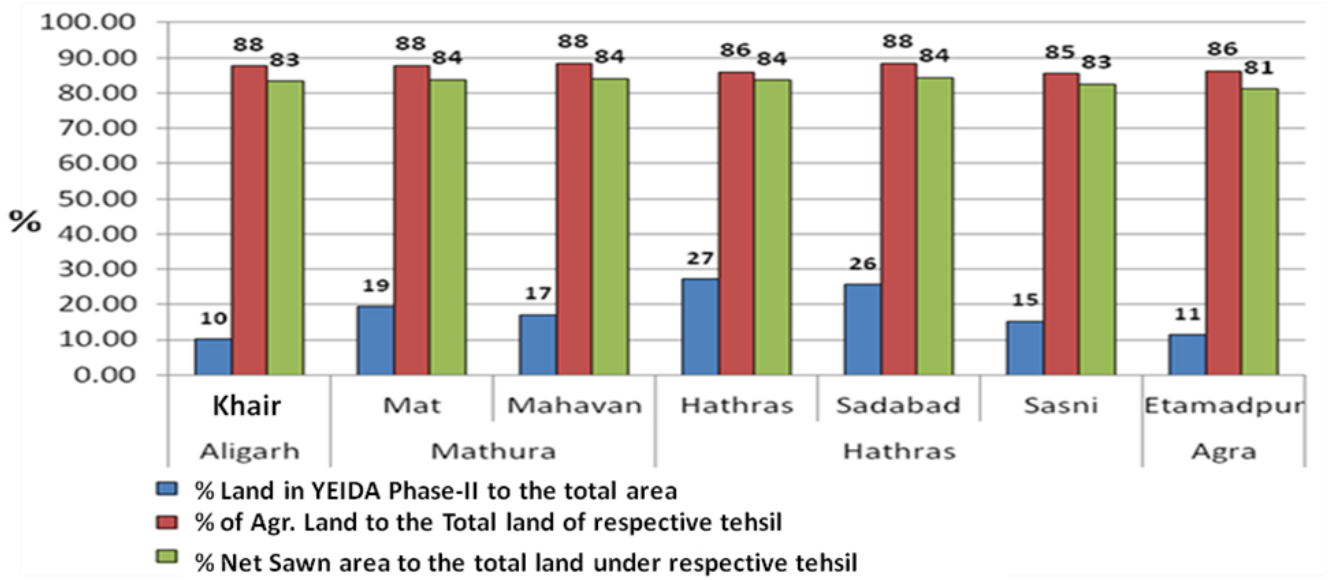
Agriculture Land

Agriculture data analysis is done from the block level data available from U.P. state economic and statistics department. To calculate the area under agriculture one needs to understand some concepts & definitions used by state land record & economics and statistics department.

As per the govt record Agricultural Land/Total Culturable Land /Total Cultivable Area consist of net area sown, current (present) fallows, fallow lands other than current fallows, culturable waste land and land under miscellaneous tree crops.

The YEIDA II consists of twelve blocks of four districts. The YEIDA II is approximately 25% of the total area of four districts (Aligarh, Mathura, Hathras & Agra). All districts consist of average 87% agriculture area. 95% of the total agriculture land within YEIDA II is net sawn area.

Figure 10 : Tehsil wise Agriculture Area in percentage, 2011-12



Source: 1.Land Record Officer 2.Economics & Statistics Department. Data analysis is based on block wise data.

2.5.2 Prominent Industries in and around YEIDA-II

The YEIDA-II spans across four districts and is in close proximity to some prominent industrial clusters, namely, Delhi, Noida, Ghaziabad, Bulandshar, Aligarh, etc. Some of the established industries in the four districts of YEIDA-II are mentioned below:

Table 9 : Prominent Industries in YEIDA districts

District	Prominent Industries
Agra	Tourism, textile, silk carpets, handicrafts items, embroidered goods, jewellery, studded articles, marble goods, marble inlay, stone art pieces, leather shoes, slippers, bags, electrical goods
Aligarh	Locks, builders hardware, art metal, piled dhurries, glass & ceramics beads and craft items
Hathras	Glass & ceramics beads, piled dhurries, stone/ bead studded brass lamps, chemicals, readymade garments, Asafoetida (hing)
Mathura	Tourism, petroleum products, stone craft, block printing, hand printing, ghungru, miniature painting, manufacture of taps

Source: NCR Regional Plan-2021 (http://planningcommission.nic.in/plans/stateplan/upsdr/vol-1/chap%201.pdf)

The Industrial landscape of the state is dominated by MSMEs. Some of the leading MSME clusters in the state include Moradabad which is the largest brass & silver handicrafts manufacturing & export centre in India, ceramic cluster at Khurja, leather goods clusters at at Bhadhoi, silk cluster at Varanasi, leather footwear & mechanical engineering equipment clusters at Agra, brass & gun metal statue and locks at Aligarh, glass products cluster at Firozabad and woodwork cluster at Saharanpur.

A part of the Delhi-Gurgaon-Noida-Ghaziabad auto clusters is situated in Western Uttar Pradesh. Resultantly, a number of original equipment manufacturers and auto component suppliers have setup base at Noida and Ghaziabad in Uttar Pradesh (adjoining YEIDA-II). Noida has also emerged as a hub for electronic goods, toys, electrical equipment and garments.

Majority of the IT/ITeS companies in Uttar Pradesh are located in Noida and Greater Noida, due to proximity to Delhi and availability of talent pool. There are 5 operational SEZs in Noida and Greater Noida, of which 3 are primarily, dedicated to IT/ITeS industries. 18 SEZs have been notified in the state.

Due to proximity to Delhi, Noida, Greater Noida, Ghaziabad, etc, YEIDA-II could be particularly attractive to companies engaged in activities, such as, IT/ITeS, electronic goods, toys, electrical equipment, garments, etc. The potential for agro based industries in the YEIDA-II area is large as the state of Uttar Pradesh is leading producer of wheat, sugarcane and potato. The state ranks second and third in vegetable and fruit production, respectively. The state is also leader in milk production.

2.5.3 Tourism Potential in and around YEIDA-II

Government of India recognizes tourism as an important sector of economy which contributes significantly to country's GDP. With its backward and forward linkages to other sectors of economy like transport, construction, manufacturing, handicrafts, etc., tourism has potential to not only be the economy driver, but also become an effective tool for poverty alleviation and ensuring growth with economy.

Tourism activity has seen constant growth over past few decades. Number of foreign tourists arriving in the country has been rising continuously over the years. This point is clearly illustrated in the table 2.16 presented below:

Table 10 : Foreign Tourist Arrivals (FTAs) in India, 2000-2012

Year	FTAs in India	Annual Growth (%)
2000	26,49,378	6.70
2001	25,37,282	-4.20
2002	23,84,364	-6.00
2003	27,26,214	14.30
2004	34,57,477	26.80
2005	39,18,610	13.30
2006	44,47,167	13.50
2007	50,81,504	14.30
2008	52,82,603	4.00
2009	51,67,699	-2.20
2010	57,75,692	11.80
2011	63,09,222	9.20
2012	65,77,745	4.30

Source: India Tourism Statistics 2012, Ministry of Tourism (Market Research Division), Govt of India

According to a report titled "**India Tourism Statistics 2012 by Ministry of Tourism**", in 2012, 16.2 per cent and 9.6 per cent of the total domestic and foreign tourists, respectively, visited Uttar Pradesh. It is worth mentioning here that Agra is preferred destination for International, as well as, Domestic tourists, whereas, Mathura-Vrindavan is preferred religious destination for tourists from all over the country. These are the most important tourist destinations within the YEIDA-II. Some other prominent destinations of interest to tourists, near the YEIDA-II area are Jaipur, Bharatpur, Sariska, etc. These too are likely to influence tourism and development in the area, either directly or indirectly.

YEIDA-II is located in the famous Golden Triangle of tourism which connects three of the most important tourist destinations in the country, namely, New Delhi, Agra and Jaipur. Tourism was the key driver of the Yamuna Expressway that has reduced the travel time between two tourist destinations of international significance - Delhi and Agra and passes through one another religious tourism destination of Mathura-Vrindavan. Connectivity to Agra and Mathura – Vrindavan from Delhi offers many opportunities to develop the tourism infrastructure and recreational facilities with the aim to attract tourists for extended stay in the YEIDA Phase-II which could play a vital role in transforming the economy of the region.

2.6 LAND UTILIZATION

Land utilisation analysis is carried out on the data available from land record officer and economic & statistics department. This analysis is broadly carried out on block level data available with same departments. The YEIDA II to the district area comparison is given in figure no 2.18. Approximately 25% of the collective land of four districts comes under the YEIDA II. Hathras district contributes 41% by total no of villages & 34.22% by area to the total YEIDA II. However 68% area of Hathras district comes under YEIDA II. Similarly Mathura district contributes 43% by total no of villages & 43.5% by area to the total YEIDA II. Aligarh and Agra districts contribute total 14.09% & 8.5% area respectively in the YEIDA II.

Land utilisation is broadly divided in to five categories. The terminologies and definitions of the same are given below.

I. Area under Non-Agricultural Use

This includes all land occupied by buildings, roads and railways or under water, e.g. Rivers and canals and other land put to uses other than agriculture.

II. Total Agriculture Land

This consists of net area sown, current fallows, fallow lands other than current fallows, culturable waste land and land under miscellaneous tree crops.

III. Barren and Un-culturable Land

This includes all land covered by mountains, deserts, etc. Land which cannot be brought under cultivation except at an exorbitant cost is classified as unculturable whether such land is in isolated blocks or within cultivated holdings.

IV. Permanent Pasture and other Grazing Land

This includes all grazing land whether it is permanent pasture/meadows or not. Village common grazing land is included under this category.

V. Forest Area

This includes all land classified either as forest under any legal enactment, or administered as forest, whether State-owned or private, and whether wooded or maintained as potential forest land. The area of crops raised in the forest and grazing lands or areas open for grazing within the forests remain included under the "forest area".

2.7 EXISTING LAND USE 2012

The five broad categories of land use explained in previous section. Large share (87%) of land is occupied by Agriculture use. The detail tehsil wise land use table is attached in Annexure 2.1, Chart 1.2.

Table 11 : Existing Land Use, 2011-12

District	Sl. No.	Name of District	Land Put to Non-Agriculture	Total Agriculture Land	Barren & uncult. land	Pastures	Forest	Total Area in (Ha)
Aligarh - (Part)	1	Area in (Ha)	4,068	32,667	299	207	45	37,286
	2	Area in (%)	10.91	87.61	0.80	0.56	0.12	100.00
Mathura- (Part)	3	Area in (Ha)	13,196	105,975	788	278	245	120,482
	4	Area in (%)	10.95	87.96	0.65	0.23	0.20	100.00
Hathras - (Part)	5	Area in (Ha)	13,932	106,404	1,384	587	441	122,748
	6	Area in (%)	11.35	86.68	1.13	0.48	0.36	100.00
Agra - (Part)	7	Area in (Ha)	5,494	38,932	186	68	528	45,208
	8	Area in (%)	12.15	86.12	0.41	0.15	1.17	100.00

Source: 1.Land Record Officer 2.Economics & Statistics Department

I. Area under Non-agricultural Use

The Area under non- agriculture use is usually considered as area under development (Settlement, transportation & water). Agra has highest (12.15%) of non- agriculture area followed by Hathras (11.35%); however total YEIDA II has 11.26% of non- agriculture area.

In regional land use more the area under non agriculture greater the development. As per the land use percentage Agra is more developed than other three districts.

II. Total Agriculture Land

Agriculture land is vital component in land utilisation pattern. YEIDA II contains 87.18% of agriculture land. Aligarh and Mathura contains 87% of agriculture land where as Hathras and Agra contains 86% of agriculture land.

This area distribution shows the whole area has abundant agriculture land in all four districts

III. Barren and Un-culturable Land

YEIDA II under Hathras district has maximum area under barren and un- culturable land i.e. 1.13%. YEIDA II under district Aligarh, Mathura & Agra shows lesser than 1% area under barren and un-culturable land.

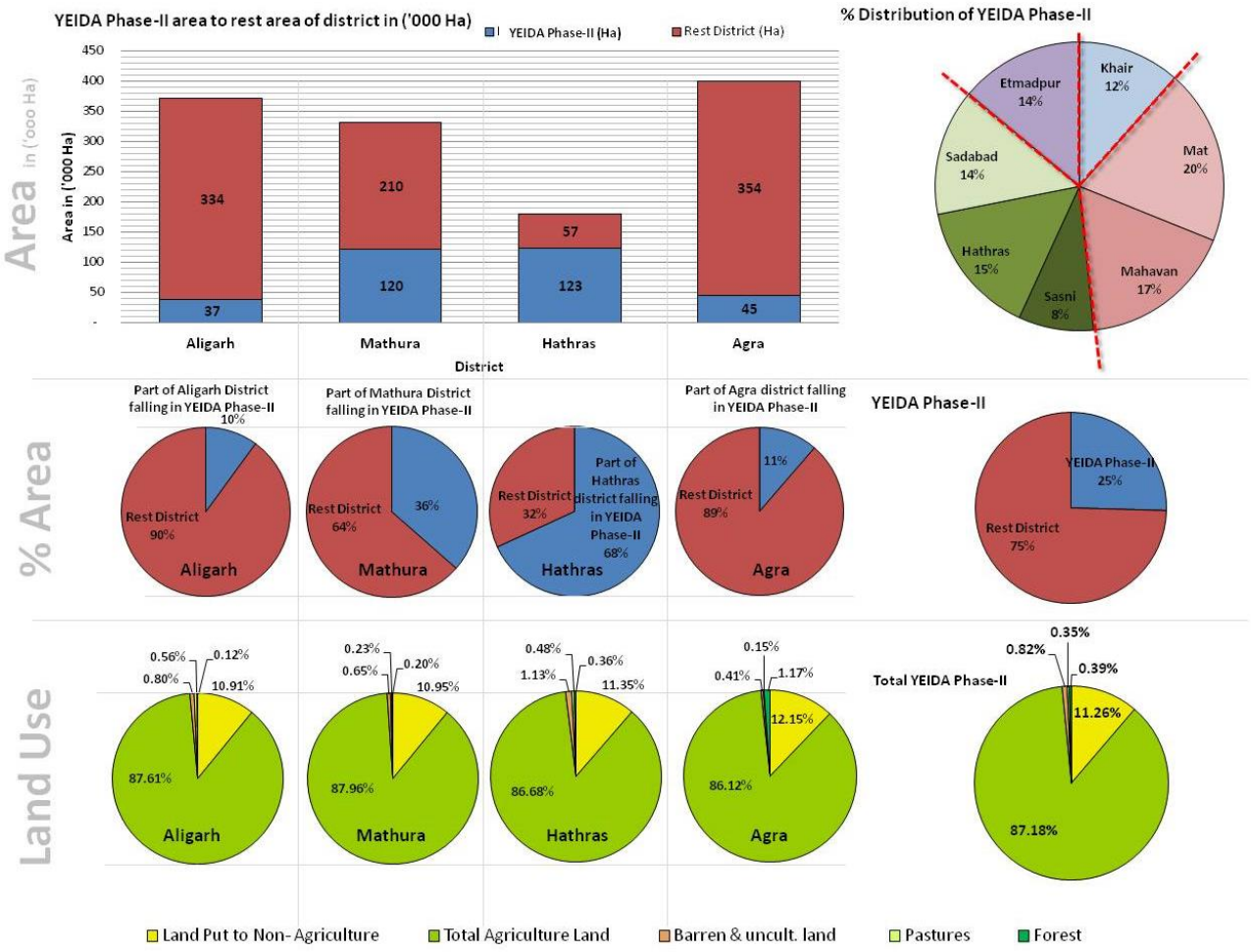
IV. Permanent Pasture and other Grazing Land

YEIDA II under Aligarh and Hathras districts shows nearly 0.5% while Mathura and Agra districts show lesser than 0.25% of permanent pasture and other grazing land.

V. Forest Area

YEIDA II under Agra district shows 1.17% of forest area while YEIDA Phase-II under rest districts have forest area lesser than 0.4%.

Figure 11 : Land Utilization, 2011-12



Source: 1.Land Record Officer 2.Economics & Statistics Department

2.9 ENVIRONMENT & DISASTER MANAGEMENT

A. ENVIRONMENT

The environment /climate change crisis and development needs of the India's poor require us to acknowledge the necessity and urgency for both continued growth at envisaged pace, and rapid greening of this growth strategy.

The threat of human-induced climate change poses a serious question to humanity: how can India achieve an all-rounded human development in the future without degrading our environment

Thus serious environmental problems such as ecosystem disturbance, climate change, water and air pollution, and rising sea levels can be seen as the unintended consequences of the development process. Environmental degradation can only intensify existing development problems. For example, increased maximum temperatures and changing rainfall patterns are already exerting negative impacts on the agriculture and food security of many low-income communities.

One can argue that the main direct contributions of environmental protection, understood as natural capital, to development and green (economic) growth is through increased inputs of natural resources which lead to a greater economic return. Contrary to conventional intuition, economic growth and environmental conservation are not necessarily conflicting goals, and can even be seen as complementary aims. Green growth aiming to achieve a harmony between economic growth and environmental sustainability is just what the world needs to obtain long-term and all rounded human development.

Green growth can be defined as "fostering economic growth and development, while ensuring that natural assets continue to provide the resources and environmental services on which our well-being relies". Alternatively, economic development can provide a solid material foundation for environmental protection efforts, enabling Indian government to take a better care of their ecosystems, and equip them financially and technologically for the fight against climate change / environment.

By maximizing the synergies between economic development and environmental protection, the concept of green growth emphasizes that strategic environmental policies can not only foster environmental sustainability at a low cost, but also have the potential to sustain long-term economic growth. Alternatively strategic climate/ environment policies should not be framed as a choice between the environment and economic development, but rather as a choice between effective measures to achieve balance between the two dimensions.

The environment is a fundamental component of region's resource base and the way it is planned, developed and managed will be an influence on the quality of life for existing and future communities. Natural resources and biodiversity has multifunctional uses and can also cause economy generation through wildlife, recreational and cultural activities, as well as delivering ecological benefits, flood protection and climate control. It includes green spaces & civic areas and should operate at all spatial scales from urban centres through to open spaces.

The natural system of YIEDA Phase-II consists of plains, natural water courses and forest. It lies in the upper Ganga Plains and is a part of Ganga Yamuna Doab i.e. the land which falls between rivers Ganga and Yamuna. The average altitude varies from 160 to 190 m from MSL[4].

Population growth puts additional pressure on the natural environment through the consumption of natural resources and the generation of wastes and other inputs capable of degrading the quality of soil, water & air. The induced economic growth, urbanisation and regional development can causes loss of native flora and fauna.

[4] Source: Geo environmental appraisal report by Geological Survey of India

2.10 ASPECTS OF ENVIRONMENT AND IMPACT

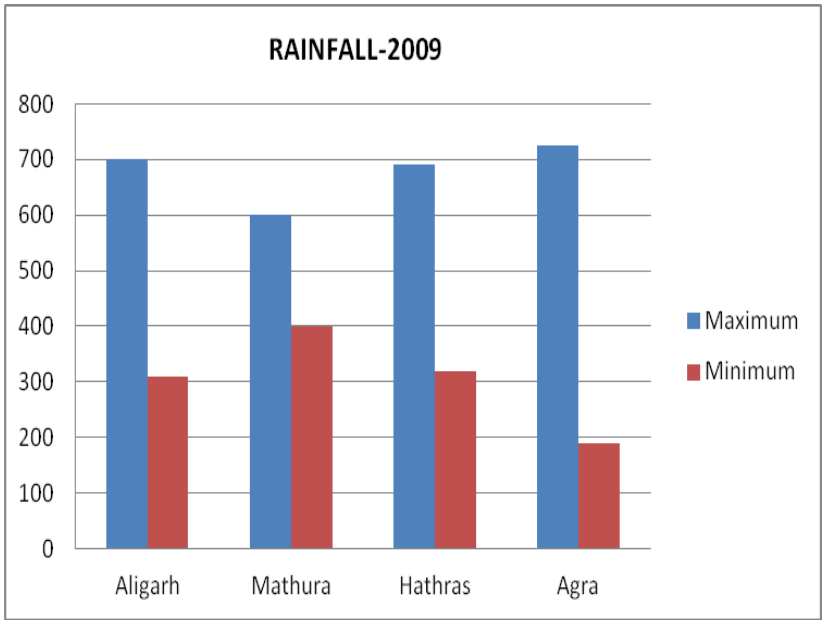
2.10.1 Climate

The climate of Western Uttar Pradesh is primarily defined as a humid sub-tropical climate with dry winter. As per Indian Meteorological Department it is classified in three major seasons. Climatologically, the YEIDA II falls in central part of India and, therefore, experiences two extreme types of climate.

- **Summer season -** March to May (Maximum temperatures rise to 45 °C, sometimes 47-48 °C); low relative humidity (20%); dust laden winds.
- **South-west Monsoon –** June to October (85% of average annual rainfall of 990 mm. Fall in temperature 40-45° on rainy days).
- **Winter season –** November to February Cold (temperatures drop to 3-4 °C, sometimes below -1 °C, clear sky, foggy conditions in some tracts.

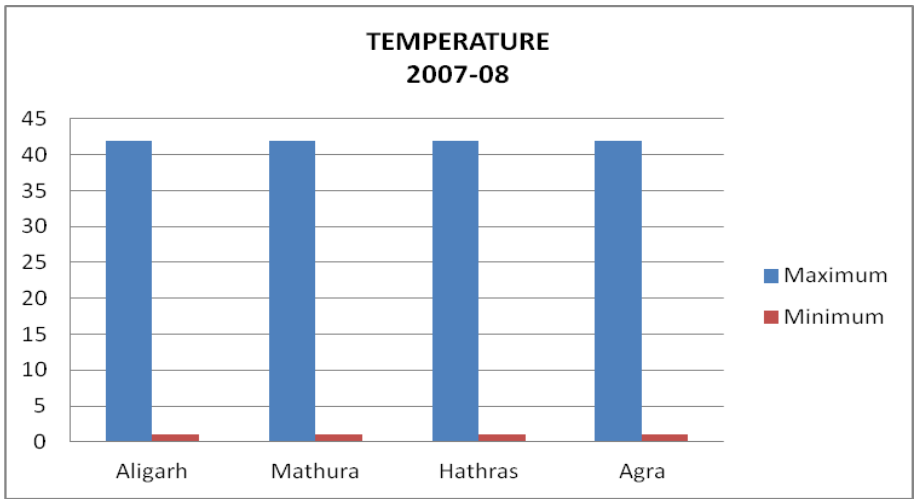
In Western zone of Uttar Pradesh, monsoon in the YEIDA Phase-II receives an average of 700 mms of rain annually. Rainfall recorded in the year 2008 was around 732 mms. 85% of the average annual rainfall is received in monsoon months.

Figure 12 : Rainfall 2009



Source: Sankhyikiya Patrika (SP), Economics & Statistics Division (ESD) of Planning Department, Government of Uttar Pradesh, and Available at: http://updes.up.nic.in/spatrika/engspatrika

Figure 13 : Details of Temperature 2009



Source: Sankhyikiya Patrika (SP), Economics & Statistics Division (ESD) of Planning Department, Government of Uttar Pradesh, and Available at: http://updes.up.nic.in/spatrika/engspatrika

2.10.2 Topography

The land in YEIDA II is located in Ganges plains and is generally flat with gentle slope towards South-West i.e. towards Yamuna which drains the area. The average slope of the land is approximately 0.3 meter/km. The expressway is located on the local ridge (Refer Map 2-5) which runs parallel to the river. The land on East of expressway drains towards ***'Karwan'*** river which flows from north south within YEIDA II.

- Currently the YEIDA II area does not have a prescribed/arranged network of water courses and drainage facilities. Since the topography of the YEIDA Phase-II is generally flat, with slight slope North to South along the river there could be instances of water logging in experience of heavy rain falls.
- Most of the area along water courses is highly fertile in nature with flat topography (1600) broken by water courses and area along the National highway -93 in the central part is slightly more gradient (1800 - 1900) in comparison the rest of the area.
- This gently sloping terrain is suitable for development. The slope shall act as major determinant in planning of any infrastructure network specifically in green field Development.

2.10.3 Soil

YEIDA Phase-ll is located in Upper Ganga plains and in between Doab of Yamuna and Ganga. This South western region mainly has Indo-Ganga alluvium soil. The thickness of the alluvium reaches up

to 250.6 metres[5]. The sand and clay beds inter finger with each other. The soil in this area tends to be lighter-textured loam, with some occurrences of sandy soil.

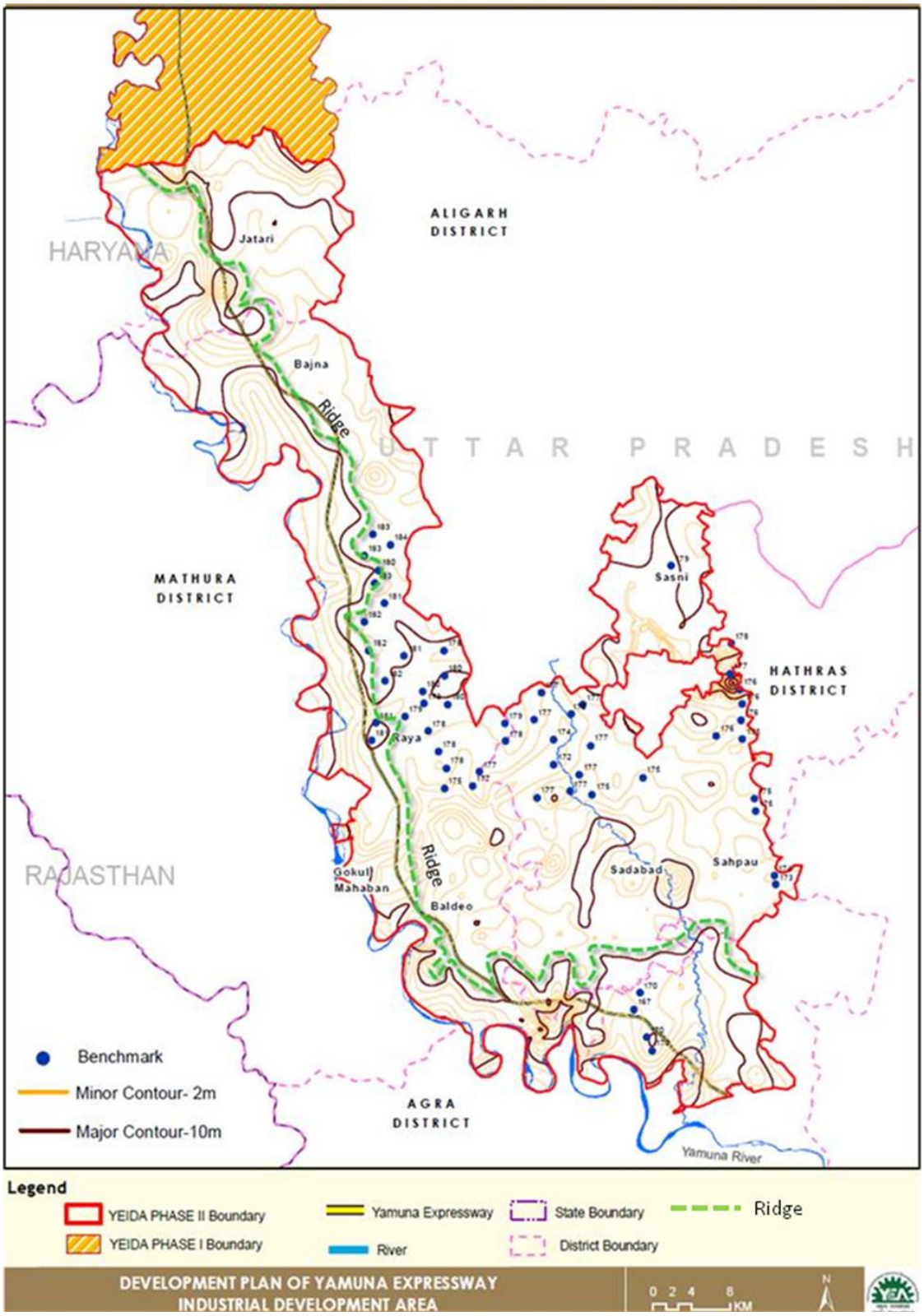
- This soil which is deposited on the plains by Yamuna and Ganga River over centuries is highly fertile in terms of agriculture produce. It is rich in mineral contents. A wide variety of crops is grown in these soils viz Cereal Crops (rice, Wheat, Jowar, Bajra & Maize) Mustard oil seeds and pulses (Arhar, Gram, Pea, Lentil & Urd).
- The important materials from soil which are used as economic resources are ***'kankar'*** which is available in places is used for road ballast, clay which is available extensively is used for making pottery, brick making etc. The sand found in river bed is used for constructions.[6]

- Urbanization and industrialization needs to be sensitive so as not to degrade the condition of soil by pollution and erosion.

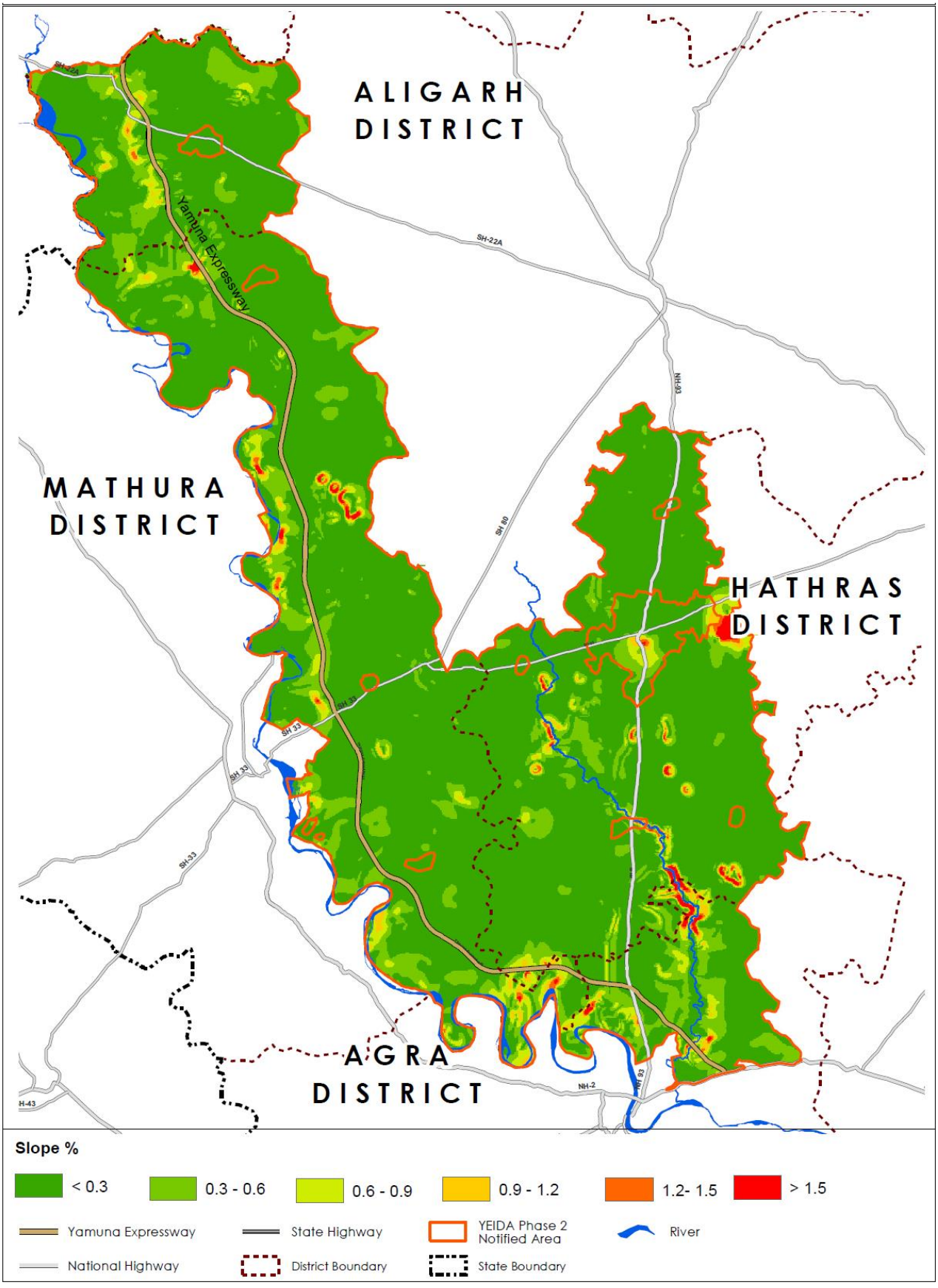
[5] Source: Geo-environmental appraisal report by Geological Survey of India

[6] Source: District Resource Map, Geological survey of India, 2009.

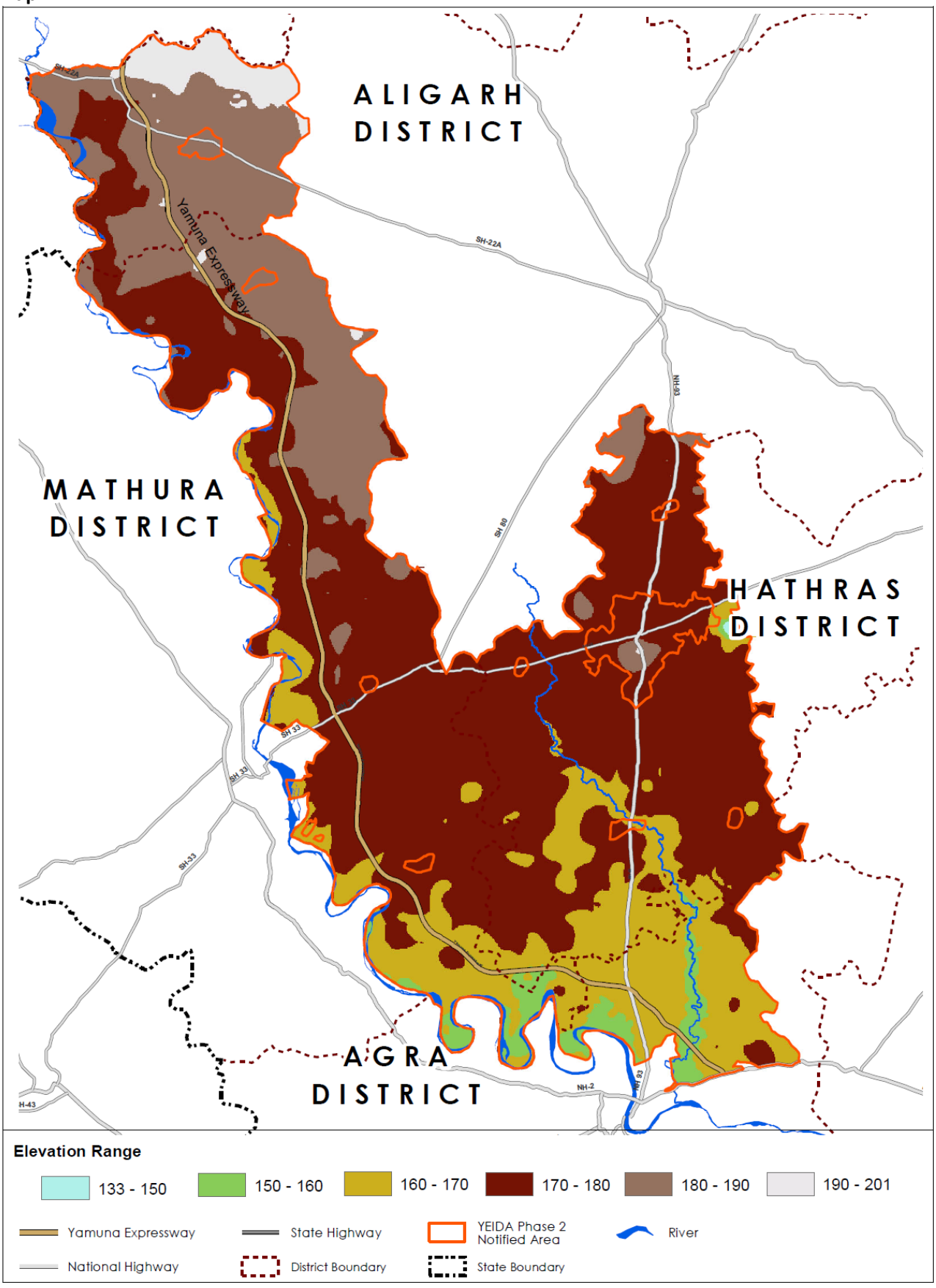
Map 2 : Topography



Map 3 : Slope


ALIGARH DISTRICT
MATHURA DISTRICT
HATHRAS DISTRICT
AGRA DISTRICT
Yamuna Expressway
SH-22A
NH-93
SH 80
SH 31
SH 33
NH-2
H-43
Slope %
< 0.3
0.3 - 0.6
0.6 - 0.9
0.9 - 1.2
1.2- 1.5
> 1.5
Yamuna Expressway
State Highway
YEIDA Phase 2 Notified Area
River
National Highway
District Boundary
State Boundary

Map 4 : DEM


ALIGARH DISTRICT
MATHURA DISTRICT
HATHRAS DISTRICT
AGRA DISTRICT
Yamuna Expressway
SH-22A
NH-93
SH 80
SH 33
NH-2
Elevation Range
133 - 150
150 - 160
160 - 170
170 - 180
180 - 190
190 - 201
Yamuna Expressway
State Highway
YEIDA Phase 2 Notified Area
River
National Highway
District Boundary
State Boundary

2.10.4 Air Quality

Air Pollution encompasses a diverse collection of natural and anthropogenic emissions, including gaseous constituents, volatile chemicals, aerosols (particulate) and their atmospheric sink where all emissions are released. Many much emissions are in such small quantities that they get immediately dissipated and absorbed but continuous release of these pollutants builds up in the air create hazard to human health.

Assimilative capacity of air environment is the maximum amount of pollution load that can be discharges without violating the best designed use of the air resource in the master plan area. The phenomena governing the assimilative capacity of air environment include dilution, dispersion, phase transformation and absorption.

Sources of Air Pollution:

1. Point sources: Chemical plants, refineries, power plants, paper mills, cement plants, etc.
2. Area Sources: Dry cleaners, petrol stations, electroplaters, etc.
3. Line Sources: Automobile, railways, airways, vehicles, etc.
4. Natural Sources: Dust storms, volcanoes, forest, fines, etc.

All the standards and guidelines will be address in the Detail project report of respective sector and shall adhere with the guidelines of MOEF and state Pollution control board for the environmental compliance. UP pollution control board monitor the quality check of every district and village.

2.10.5 Water Courses

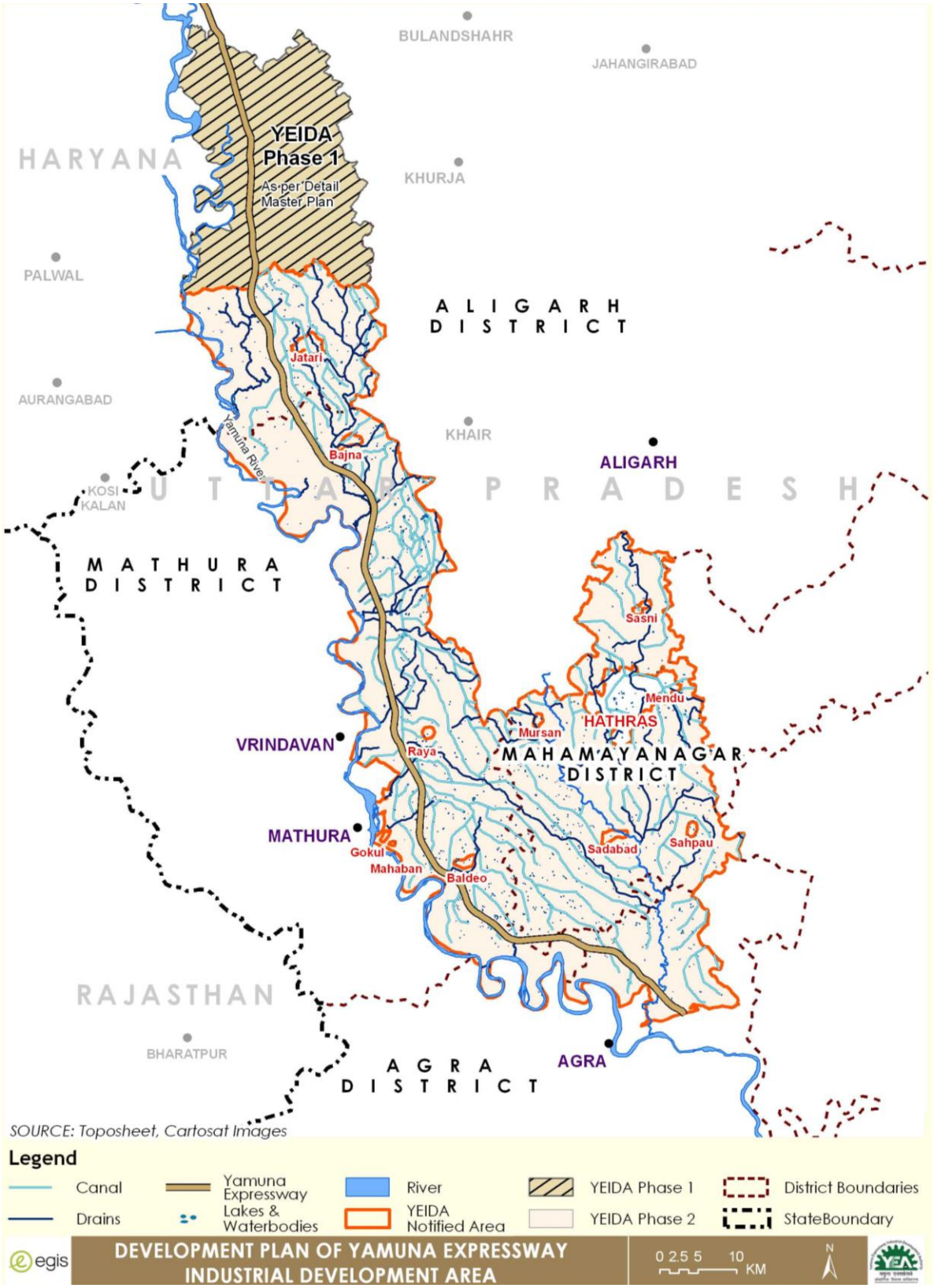
YEIDA ll is a part of well irrigated agricultural land of Western Uttar Pradesh. The entire canal network in the area is part of largest and the oldest perennial canal system in India which originates in Upper Ganga canal.

The network consists of Mat Branch, its distributaries, and minor branches. This network is source of irrigation for agriculture and provides water supply to existing urban areas & some rural settlements in YEIDA Phase-II. The concentration of canals is more on the Eastern side of the Yamuna expressway than the Western as seen on the map.

For any development this is likely to be the source of water. It is necessary to protect this system for sustainable development of economy in YEIDA II. With increase in urban areas and subsequent decrease in agriculture activities the canals which flow in urban areas are bound to become redundant, if not controlled and preserved they may get used for dumping waste which might

pollute the entire system. Proper measures need to be taken to control the pollution of canals. There is a possibility of adaptive reuse of these irrigation canals as integrated part of urbanization.

Map 5 : Natural Water Courses



2.10.6 Ground water

Water table in this area lies within depth of 30 meters below the ground, in general depth to water level ranges between 2 to 8 meters. The primary use of the ground water in YEIDA II is for irrigational purposes. The water tables are shallow in the vicinity of the canals. Seasonal fluctuation of ground water is between 2 to 3 meters.[7] The issues related to ground water:

- Excessive extraction leads to drop in level
- Quality of ground water: brackish to saline ground water condition.

YEIDA II is located has excellent ground water recharging capability. This is a favourable condition for urbanization also where ground water can be used as main source for water supply.

The construction of millions of wells, there has been a phenomenal growth in the exploitation of groundwater in the last five decades. Although the mode of development of ground water is primarily through dug wells, dug cum bore well and cavity wells, thousands of tube wells have been constructed during last few decades. At present a network of 1,218[8] observation wells located all over the state is being monitored (CGWB Report, 2011). Ground water samples are collected from these observation wells once a year during the month of April/ May to obtain background information of ground water quality changes on regional scale.

2.10.7 Watershed

South western zone has diverse agro climatic zones which almost different from another. Basically water harvesting structures can be grouped in two based on the purpose of the intervention, one is for irrigation and second is for percolation. The impact of water harvesting structure depends on the quality of the structure. The quality of the structure is defined based on various parameters such as:

1. Location specific (Scope for percolation)
2. Use of locally available resources
3. Existing resources such as wells, bore wells under the structure to recharge

The 7 watersheds that registered under good quality water harvesting structures in the Agra District another 3 of the watersheds are not in good quality. Below indicators are most important indicators

[7] Source: Geoenvironmental appraisal of Mathura, Agra and Aligarh district, reports prepared by Geological Survey of India, 2003-05, page IV.

[8] Source: Ground water Resources http://india-wris.nrsc.gov.in/wrpinfo/?title=Ground_water_resources

of impact in the context of watershed development project. This reflects the increase in ground water resources as a result of recharge due to watershed interventions. Indicator such as:

- Increase in stream/ Spring flow period
- Ground water Increase
- Run off Reduction
- Soil Erosion reduction
- Decrease in waste land

2.10.8 Water Pollution

As Yamuna lies on Western boundary of the YEIDA II, it will be imperative for any development taking place in YEIDA II area to be sensitive and cognizant to the presence of river and take care not to pollute it any further.

Industries, urban areas, agriculture activities are the main sources of water and air pollution. The untreated waste or by products of the process from industries like metal industries, chemical, textile, leather, food processing etc is being dumped in the open spaces, drains, river beds. The liquid waste percolates into the ground thus pollute ground water. Dumping of agricultural waste into drain, river bed is another cause of concern. Use of fertilizers and pesticides in agriculture also affects the quality of ground water as these get percolated to ground.

2.10.9 Ground Cover

Forest Land Flora and Fauna

The area has few patches of forest covers, mainly located along Yamuna River. Many of the larger reserved forest (RF) area fall just outside the YEIDA Phase-II boundary these are namely Surdas RF, Runkata RF, Artauni RF, Bainpur RF, Babarpur RF, and Mau RF on South bank of Yamuna near Agra. Agra RF area forms a boundary of the YEIDA Phase-II near Agra.

Forestry is gaining importance because of its utility in checking the slowly advancing Rajasthan desert and soil erosion along the bluffs of the Yamuna River. Plantation along the roads is also intensified. In the Land use chapter clearly mentioned that 0.39% of total land is under forest. These lands need to be protected and conserved.

Flora: The important types of trees which are found to exist interspersed with vast agricultural fields are Shishum, Mango, Jamun, Imli and Babul. The ornamental trees found in the area are mostly the Gulmohar, Ashok, Eucalyptus and Chameli. The scrubs and bushes found in the area.

Fauna: The most common animals found in the area are the wolf, monkey and pig. These bio habitats are increasingly under threat due to human activities and related pollution. The development need to be sensitive to the flora and fauna, movement of animals and their natural habitats etc. Zoning needs to look at protection of various biodiversity elements while development. Recreation and eco tourism activities which are sensitive to this bio diversity can be explored.

B. DISASTER MANAGEMENT

2.11 INTRODUCTION

The Disaster Management Act defines disaster as "a catastrophe, mishap, calamity or grave occurrence in any area, arising from natural or man-made causes, or by accident or negligence which results in substantial loss of life or human suffering or damage to, and destruction of, property, or damage to, or degradation of, environment, and is of such a nature or magnitude as to be beyond the coping capacity of the community of the affected area.

Geo-climate conditions and rapid development make it vulnerable to disasters, both manmade disaster like fire, collapse of houses, serial blast, road accident hazard, chemical or industrial accidents, environmental pollution, etc. and natural disaster like earthquakes which so far have caused higher casualties and emerged as a considerable threat. This necessitates a comprehensive planning of building construction practices and natural disaster management framework for both post-disaster management and pre-disaster mitigation planning. While, earthquakes are not a frequent phenomenon but, they can unleash devastation instantaneously in large areas. The unpredictability of earthquakes require special disaster management framework.

Hazards are categorized mainly on the basis of its origin and phenomena. Based on the origin and phenomena, hazards can be grouped in two broad types:

1. Natural Hazards (hazards with meteorological, geological or even biological origin), and
2. Man-Made Hazards (hazards with human-caused or technological origin).

2.12 EARTHQUAKE

YEIDA Phase-ll falls in two different earthquake zones. Northern part of the area comprised of Tappal and Khair blocks from Aligarh District Part of Nohjhil Block from Mathura district falls in zone IV which is termed as high damage risk zone and rest of the YEIDA Phase-II falls in Zone III which is termed as moderate damage risk zone. The earthquake of intensity 8 to 9 on the Richter scale can

be experienced in Zone IV[9]. Thus Northern portion of YEIDA Phase-ll area faces earthquake hazards of higher scales.

Map 6 : Earth quake Risk Zone

2.13 FLOOD HAZARD

Floods are the most commonly occurring natural disaster in Uttar Pradesh. They occur annually or periodically in the low lying area along the river. YEIDA Phase-ll area is located between two major rivers Ganga and Yamuna and also Yamuna forms the Western boundary of the area. In order to control floods embankment have been built on the banks of Yamuna River. Controlling floods will be a major challenge in the future for YEIDA development. The area along the bank of the river could be left as a no development zone which will act as a buffer in case of floods.

[9] Source: Indian Meteorological Department

Map 7 : Flood Hazards

2.14 WIND

As per the Wind Hazard Map of Uttar Pradesh (BMTPC, 2006), UP western region is located in high wind velocity damage risk zone (Vb= 47m/s). This may cause uprooting of electric poles, trees, temporary and unstable structures.

2.15 MANMADE DISASTERS

Man-made or anthropogenic disasters are disasters resulting from man-made hazards (threats having an element of human intent, negligence, or error; or involving a failure of a man-made system). These include industrial hazards, structural collapse caused due to engineering failures and improper manufacture, transport, storage and handling of hazardous toxic materials. These hazardous substances include chemical, biological (Pathogenic Micro organisms, bioterrorism), radiological, and nuclear (Nuclear weapons and nuclear power plants) materials (CBRN). In addition, accidents occur on road, rail and air transportation which results in substantial loss of life.

2.15.1 FIRE

Instances of fires, especially in summers, occur annually both in rural and urban areas. Vulnerability of fire in towns is increasing due to industrialization and development of multistoried buildings.

2.16 DROUGHT HAZARD

Drought is another major disaster affecting the state. The State produces about 21% of all food grains of the country, and hence is agriculturally an important State. The reappearance period of highly deficient rainfall in the western zone has been calculated 10 years. In the recent 10 years, the year 2002 & 2004 were severe in terms of drought, with loss to crops, livestock and property assessed. The annual loss due to drought in the zone varies depending on the severity of the drought.

2.17 LAND CAPABILITY ANALYSIS (LCA)

The proposed locations of urban centres have been decided through this analysis. The methodology adopted for the analysis of various sectors is given below;

Objective:

"Finalize the locations for proposed urban centres in YEIDA Phase II"

Introduction:

Land is the most valuable resource, which needs to be harnessed according to its potential. Due to over exploitation and mismanagement of natural resources tied with economic factors, the problem of land degradation is getting intensified.

However, management of land resources is utmost important for continued & balanced development in agricultural productivity and environmental protection. Land is a limited resource and with increasing population, the demands for serviced land become more competitive. Any given area of land can have a multitude of potential uses and all may need to be considered in planning and the management of a land resource.

Rational & scientific approach is used to analyse the YEIDA Phase-ll. The analysis is done using GIS tools in which spatial & non spatial data is analysed and represented in maps with sectoral approach. Different sectors like Transport, Economy, Infrastructure, Environment & Demography are considered under Functional Weightage. This overlay technique would identify areas fundamentally suitable for settlement, agriculture, forestry, industry, and recreation. In short land suitable for urbanisation or for green field development is identified through this analysis.

Table12 : Parameters for Overlay Analysis

Sl. No.	Sectors	Parameters	Sources
1	Demography	Population of Villages	Census 2011
		Population % (0-6)	Census 2011
		Density	Census 2011
		Growth Rate	Census 2011
		Literacy Rate	Census 2011
		Sex Ratio	Census 2011
2	Economy	Work Force participation rate (WFPR)	Census 2011
		Primary (Agriculture) employment	Census 2011
		Secondary workers % to the Total Workers	Census 2011
		Tartary Workers Share	Census 2011
		% of main Workers to the Total Worker	Census 2011
3	Transport	Existing Road Network	Base Map (SoI & Toposheets Satellite Imagery)
		Rail Junctions	Base Map (SoI & Toposheets Satellite Imagery)
		Road Junction	Base Map (SoI & Toposheets Satellite Imagery)
		Influence of Existing Urban centres	Base Map (SoI & Toposheets Satellite Imagery)
		Proposed Rail network	Data Collection
4	Infrastructure	Education facility	Census 2001
		Financial services/ Access to finance	Census 2001
		Health facility	Census 2001
		Post and telecommunication	Census 2001
		Power facility	Census 2001
		Surface water	Census 2001
		Tap water	Census 2001
		Transport public services	Census 2001
		Transport rail services	Census 2001
		Under ground water	Census 2001
		Access to Tap Water	Census 2001
5	Environment	Earthquake	Old map and also Earth quake hazard map of India
		Forest	Base Map (SoI & Toposheets)
		Drainage (Streams)	Base Map (SoI & Toposheets)
		River	Base Map (SoI & Toposheets)
		Settlements	Base Map (SoI & Toposheets)
		Soil	Old Map
		TTZ (Taj Trapezium Zone)	Base Map (SoI & Toposheets)
		Water Bodies (Lakes & Ponds)	Base Map (SoI & Toposheets)
		Agriculture (Irrigated Land Area %)	
		Agriculture (Double Crop)	

To make the connection between development and conservation more rational three scenarios are considered with differential percentages to various sectors.

1. **Approach-1: Resource Based**
   Economy Resource based Development
2. **Approach-2: Integrated (Regularised Based)**
   Transport & Economy
3. **Approach-3: Decentralised**
   Transport Supportive Development

Method

1. **Create a Transparent Map for each Factor**

- Darkest gradations of tones represents areas with maximum urbanisation or favourable change to urbanisation;
- Lightest tones reflects lower trend of urbanisation;

2. **Superimpose all Transparencies upon One another over the Original Map**

- Darkest colours show the areas more anticipated for development
- lightest with the areas less anticipated for development

From demographic and socio economic analysis it emerges that, whole YEIDA II is rural in nature with homogeneous character especially demographic & socio-economic characteristic.

The output of overlay analysis for Resource Base (Approach 1) & Integrated (Approach 2) is homogenous over the area and identical in nature. Since this development is envisaged along the central spine (Yamuna Expressway) and the YEIDA Phase II is linear in shape decentralised approach of transport supportive development is more appropriate for identification of location of urban centres.

2.17.1 Approach-3: Decentralized Development

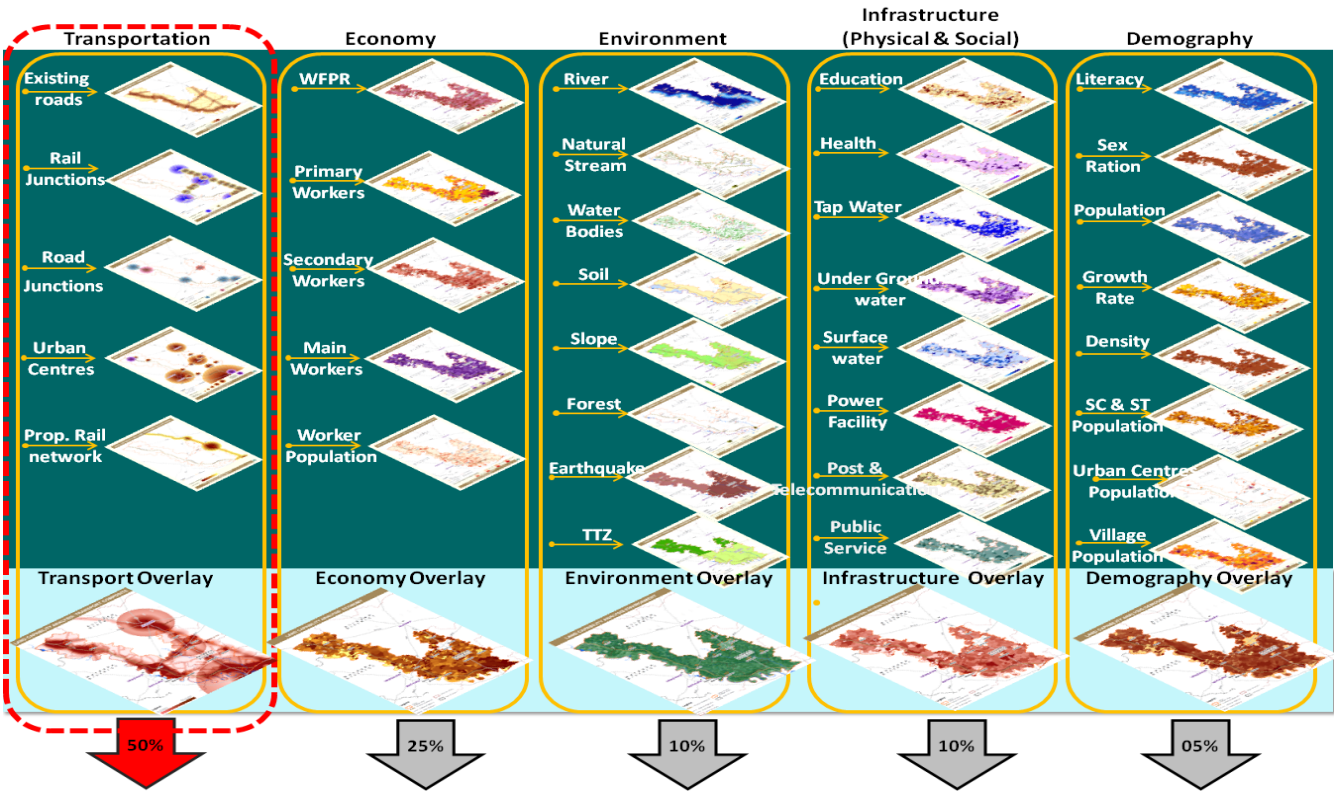
Transport Supportive Development

The first approach is to locate the growth centre along the highways and it is well connected from National Highways and State Highways. The YEIDA II is large and extended for decentralised development.

The road network is one of important parameters in identifying the areas for development of urban centres as it provides accessibility to different parts of the city. In this scenario, in order to find out the accessibility of the region, National Highway and State Highway, which provide connectivity to different areas of YEIDA-ll. Efforts have been made here to locate all urban centres along the main expressway and primary road network to an extent possible.

The main feature of urban centres is of high accessibility index such as expressway interchanges, accessibility to railways, and along corridors (Eastern DFC) & Expressway, National Highway and State Highway. Expressway will act as the spine for the corridor development. The next distinction will be for the rail link connecting the districts Aligarh to Hathras. This analysis (overlay technique) has identified areas fundamentally suitable for green field urban development.

Figure 14: Selection of Urban Centres by Transport Supportive Development



As per the administrative boundary YEIDA-ll is falling in 4 districts and due to separate administrative boundaries decentralised planning approach shall be adopted for the selection of urban centres. External traffic from different places/ origins is passing through Expressway & railway network in YEIDA Phase II area. Hence the regional passenger and goods movement will be taken care by Yamuna expressway and railway line. The connection between Yamuna expressway and other primary traffic& transportation network (Railway, NH, SH & MDR) will act as inception for green field urban development along Yamuna expressway. These connections are nothing but existing and proposed interchanges planned along Yamuna Expressway. So the approach of developing the urban centres on the concept of transport corridor is most appropriate and efficient method for proposed green field development in YEIDA Phase II. For detail maps of all the parameters refer Annexure 2.2.

Inference

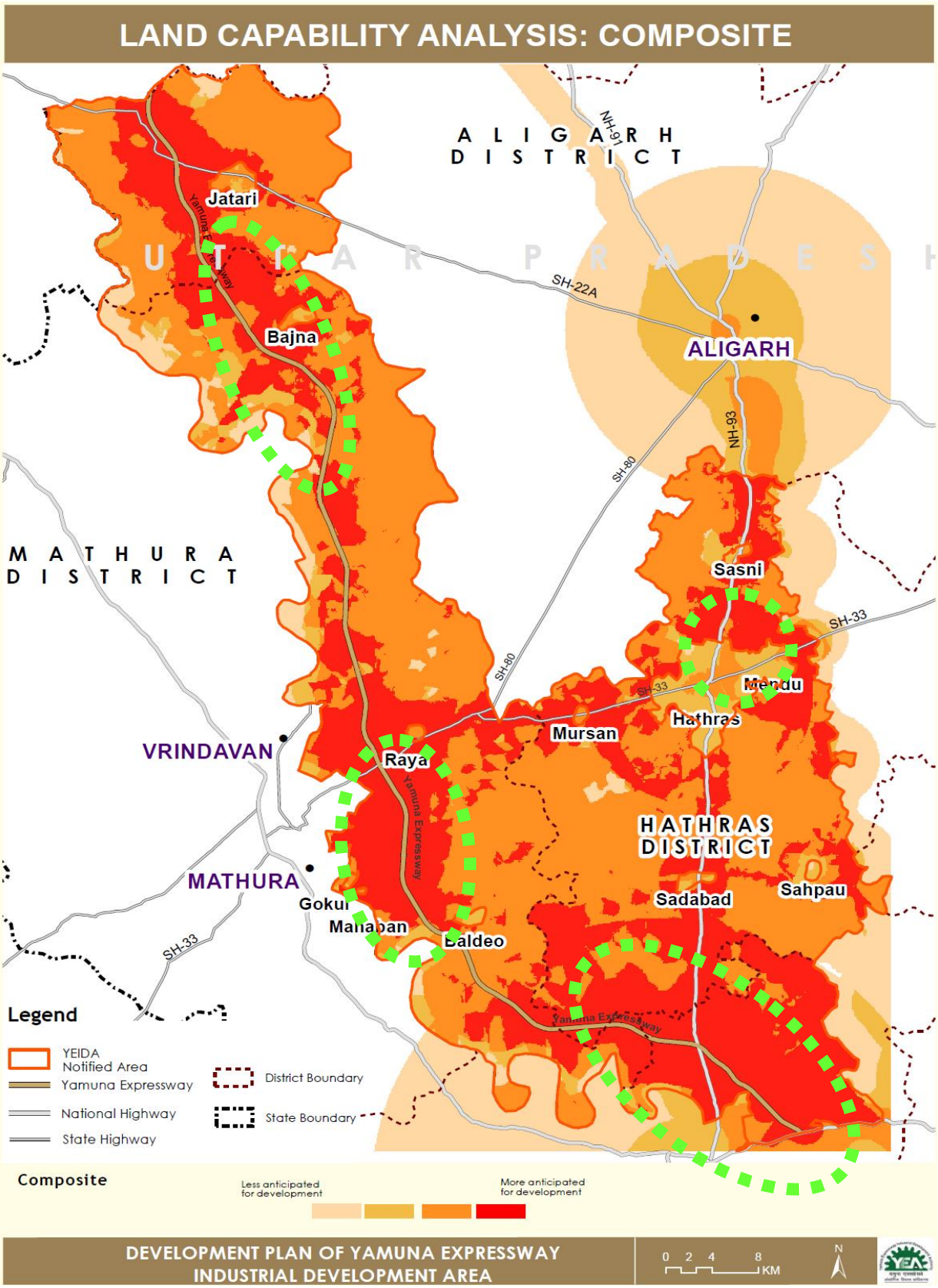
- Not all of our land is equal in terms of development potential some areas are better suited for development of urban centres than others.
- The study provides a comprehensive overview of the existing region and the characteristics of developable land.
- However, for the determination of land area requirement it is necessary to do the detail economic analysis of all four districts falling in YEIDA II.
- The areas along the river edge have numerous rivulet and flood plains, these areas are necessarily to be kept as agriculture to encourage water recharge. The natural land form of the YEIDA Phase-II slopes down towards the river. Hence the areas along the river edge are most suitable for rainwater collection and recharge. These areas are also need to be protected against urbanisation and pollution.
- Increasing density by infilling and promoting mixed land use development for the efficient use of land resources and other services.

Table 13 : Selection of Location of Growt3333h Centres

Methods		**Remarks**
Planning Considerations	GIS Superimposition/ overlay capability analysis	
Approach 1: Resource Based	Scenario 1: Economy oriented development	Consider only conservation (Due to homogeneous characteristics of the YEIDA Phase-II difficult to identify area for proposes development/ urbanisation)

Approach 2: Integrated	Scenario 2: Transport & Economy oriented development	Adopt both development and conservation (Gives similar result as that of approach 1)
Approach 3: Decentralized	Scenario 3: Transport Supportive Development	Consider Green field development and optimised use of existing transport infrastructure.

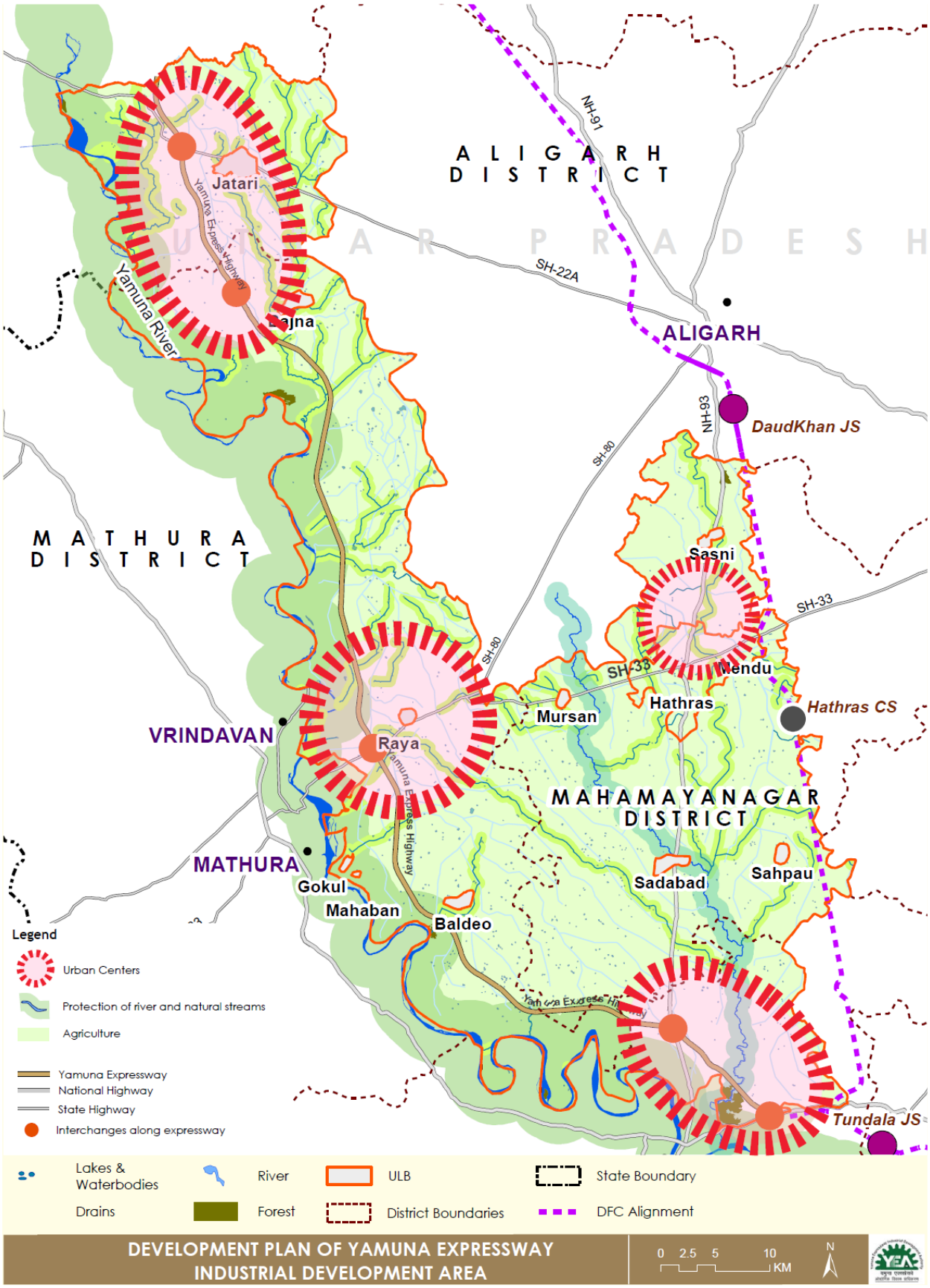
Map 8 : Selection of Urban Centres by Transport Supportive Development



2.17.2 Identification of Broad Urban Centres

Identification of urban centres is an outcome of overlaying all the five parameters transportation, economy, environment, infrastructure (physical & social), demography which reveals high potential for the concentrated nodal and corridor development. It also indicates that the areas on eastern side of the expressway is more suitable for development; with lands in proximity to interchanges along expressway, towns, urban centres, existing and proposed transport infrastructure are anticipated to get developed. The existing elaborate system of canals and water bodies spread evenly across the area emerges as a strong physical feature which play major role in local economy and livelihoods of the people. Also, existing urban centres are anticipated to have considerable influence on urbanisation pattern. The broad locations identified for the proposed urban centres based on detailed land capability analysis have been presented in Map 2.13.

Map 9 : Broad Location of Proposed Urban Centres



3 DEVELOPMENT PERSPECTIVE, VISION AND CONCEPT

3.1 DEVELOPMENT PERSPECTIVES

Yamuna Expressway Industrial Development Authority Area is expected to be one of the competitive economic centres in State of Uttar Pradesh in next 25-30 years which will absorb impulses from the large scale regional infrastructure development, existing urban centres Agra, Mathura, Aligarh, Hathras are able to compete with evolving surrounding urban centres NOIDA, Greater NOIDA, Dadri-Khurja Investment Region etc. It is envisaged that the YEIDA will come up with a large scale industrial development which will highlight it on industrial map of Uttar Pradesh and India.

To achieve the goal it is imperative to make the development liveable and sustainable with world class industrial infrastructure and state of the art social and physical infrastructure. By virtue of presence of Yamuna Expressway connecting Delhi to Agra, upcoming Eastern DFC, Eastern Peripheral Expressway and availability of large chunk of land provides an opportunity for the large scale Greenfield Industrial development in YEIDA. Small manufacturing units, agro based industries, medium and small scale industries along with up-gradation of the existing industries in the region will act as ancillary to new industries in addition to large scale high tech industries. This will be promoted to support the present agrarian economy and existing industries in the region. Further, for attracting the large scale industrialisation and its sustainability, it is requisite to provide key modern industrial infrastructure logistic hubs, freight complexes, transport nagar, uninterrupted power supply, water supply, which will be integral part of the proposed development in the YEIDA.

Due to adjoining Mathura and Agra tourist destination and fast connectivity with Delhi, there is large potential for tourism and entertainment in the region which are also likely to converge in the region as an additional economic activity. Provisions of suitable infrastructure development for tourism are proposed as catalyst for achieving the development goals of the region. Further, to promote the sustainable industrialisation and thus cities, supporting and additional economic development such as knowledge centres, IT parks etc. has been envisaged to be developed in the region.

The focus will be on the development of the environment friendly integrated industrial townships with pollution free industrialization providing housing for all with world class amenities commercial, recreation, institutions, congestion free wide roads and large green spaces.

3.2 DEVELOPMENT IMPERATIVES

To understand the development context in YEIDA-II region, various development imperatives for the notified region have been analysed. The imperatives expected to drive the development are as follows:

- Large scale national level corridors like Golden Quadrilateral, East-West and North-South Corridors & DFCs (eastern and western with investment node at Khurja-Dadri) are converging in the region which is poised to boost the development;
- Large infrastructure in the vicinity of YEIDA-II viz. Yamuna Expressway, Ganga Expressway, DFCs, Upper Ganga Canal Expressway, Dasna Merrut Expressway, Peripheral Ring Road (east and west), Agra-Kanpur Expressway, RRTS alignment & Sports City etc.;
- Presence of world class road and rail based connectivity with Delhi/NCR and ultimately to national level corridors through various existing and proposed linkages;
- Proposed high speed rail connecting Delhi – Kolkata via Agra, Lucknow, Varanasi-Patna, proposed Delhi-Agra rail connectivity which will provide passenger regional connectivity;
- Presence of multifunctional centres like NOIDA, GNOIDA, Agra, Mathura, Vrindavan, Aligarh, Hathras etc. in the vicinity;
- Part of Golden Triangle of Tourism: Delhi-Agra-Jaipur is one of the most visited tourist circuits in the world and is famous for world heritage sites. Braj region of the Braj-Agra tourist circuit identified by Department of Tourism of Uttar Pradesh attracts local tourists, promotes religious and cultural tourism in the region;
- There is an opportunity for showcasing sensitive development in context of world heritage sites and river ecology due to declared Taj Trapezium Zone, presence of Yamuna River on the western belt and a network of canals and streams spread over the YEIDA;
- Presence of large agriculture hinterland supporting the industries as raw material and continued to be the livelihood for the villagers of the YEIDA;
- Availability of abundance human resource;

3.3 OBJECTIVES OF MASTER PLAN

The main objectives for the YEIDA-II Master Plan for horizon year 2031 for integrated development are -

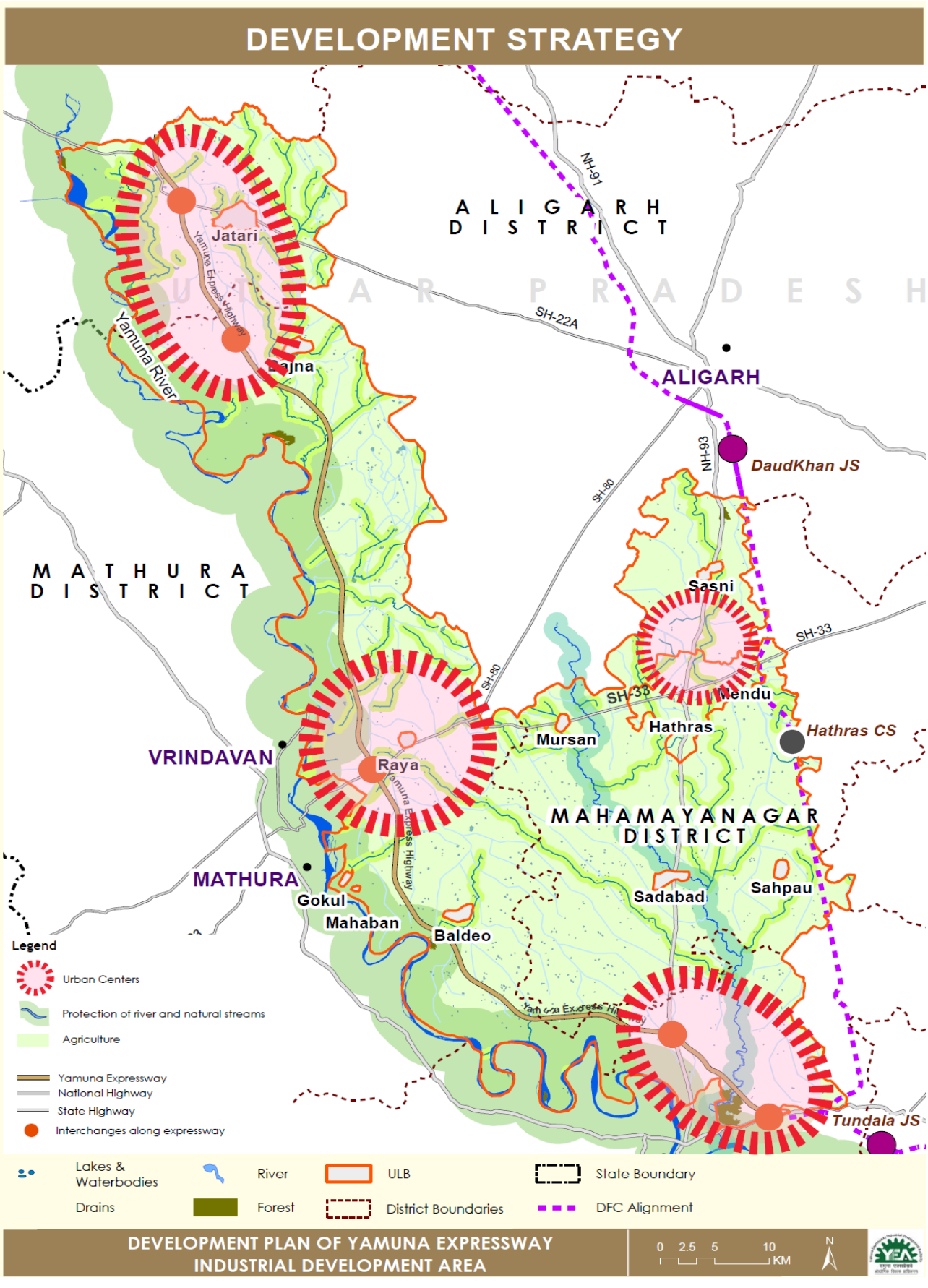
- To optimise on the present potential, enhance investment climate and promote the economic development of the region through creation of a long term sustainable environment supported by world class infrastructure;
- To promote industrialisation as the key economic sector with supporting industrial infrastructure followed by service industries and make the area competitive for attracting investments;

- To promote the alternate economic activities tourism & entertainment, IT and financial parks, knowledge centres, harnessing the existing potential and support sustainable development;
- To develop the self sustainable township for people to "work & live" providing quality of life with world class physical and social infrastructure;
- Development of economically and socially balanced new city;
- To promote sustainable development in the area having minimum adverse environmental impact of development;
- To achieve seamless urban –rural interface by provision for better quality of life, diversification of job opportunities while preserving agriculture base and quality physical and social infrastructure for the region.

3.4 BROAD DEVELOPMENT STRATEGIES FOR THE REGION

- **Planned Urban Centres:** Develop planned **new cities to promote urbanisation** led development that appears inevitable in the context of projected urbanisation in the region. Thus, development of new compact urban centres suitably at interchanges and in proximity to existing urban centres;
- Industrial Economy: Taking advantage of the increasing global economic power by adopting and pursuing pro-active urban development policies in the region with promises for growth of industries with service sector. Promotion of Industries as "Thrust Sector" supported by world class industrial infrastructure. Developing world class industrial and physical infrastructure to attract foreign investment in the background of globalising world economy and thereby generating employment opportunities;
- Integrated Development: Development of planned integrated industrial urban centres with provision of housing for all and provision of social infrastructure pertaining to education, health, recreational and other community facilities and adequate physical infrastructure providing the quality of life attracting people to work and stay;
- Environment Friendly Development: To promote sustainable development in the area having minimum adverse environmental impact of development ensuring high quality of life. Protection of the river and natural streams, develop recreational and eco tourism activities in green buffer zone along Yamuna River and provision of green belts and large open spaces within the compact urban centres with provision of green infrastructure and pollution free industrialisation;
- Balanced development of the region by integrating the rural development with the urbanisation pattern by promoting agro based industries to bring diversification of agriculture and value addition to produce. Ensuring skilled development and employment in industrial areas increasing employment, providing the opportunity to people for diversification in economic opportunities;

- Rural Development: Establishing hierarchy of settlements in order to provide various levels of facilities in the region to achieve seamless urban rural interface by provision for better quality of life, diversification of employment opportunities while preserving agriculture base and quality physical and social infrastructure for the region;
- The development of Phase-2 of the YEIDA Master Plan necessitates the integration of blue and green infrastructure to ensure sustainable, resilient, and livable urban growth. Blue infrastructure, comprising water bodies, drainage systems, and rainwater harvesting, supports water management, flood mitigation, and groundwater recharge. Green infrastructure, including parks, green belts, and urban forests, enhances biodiversity, air quality, and climate resilience while promoting recreational spaces for residents. Together, they create a balanced ecological framework that mitigates the environmental impact of large-scale developments like Film City, Noida International Airport, and IT City, aligning with the principles of sustainable urbanism.
- **Sustainable Water Management (Blue Infrastructure)**
  - **Rainwater Harvesting & Aquifer Recharge**: Design rainwater harvesting systems to capture and store rainwater for groundwater recharge.
  - **Waterbody Restoration & Creation**: Restore natural waterbodies and create new lakes, ponds, and wetlands as stormwater detention basins.
  - **Integrated Stormwater Management**: Implement sustainable urban drainage systems (SUDS) to manage runoff and reduce urban flooding risks.
  - **Greywater Recycling**: Promote the reuse of treated wastewater for non-potable purposes like irrigation and industrial processes.
  - **Floodplain Zoning**: Identify and preserve natural floodplains as no-construction zones to prevent flood damage and enhance ecological balance.
- **Ecological Conservation (Green Infrastructure)**
  - **Green Corridors & Biodiversity Parks**: Create interconnected green corridors and biodiversity parks to support wildlife movement and enhance urban ecology.
  - **Urban Forests & Tree Canopy**: Develop urban forests, tree-lined avenues, and afforestation projects to mitigate the urban heat island effect.
  - **Green Roofs & Vertical Gardens**: Encourage the use of green roofs and vertical gardens on high-rise buildings to improve air quality and insulation.
  - **Public Parks & Recreational Spaces**: Allocate sufficient land for public parks, open spaces, and playgrounds to improve the quality of life for residents.
  - **Climate-Responsive Urban Design**: Integrate climate-sensitive design principles, such as shaded walkways, permeable pavements, and energy-efficient landscaping, to enhance thermal comfort.


DEVELOPMENT STRATEGY
ALIGARH DISTRICT
MATHURA DISTRICT
MAHAMAYANAGAR DISTRICT
UTTAR PRADESH
Jatari
Yamuna Expressway
Yamuna River
Jajna
NH-91
SH-22A
ALIGARH
NH-93
DaudKhan JS
SH-80
Sasni
SH-33
Mendu
Hathras
Hathras CS
Mursan
VRINDAVAN
Raya
MATHURA
Gokul
Mahaban
Baldeo
Sadabad
Sahpau
Tundala JS
Legend
Urban Centers
Protection of river and natural streams
Agriculture
Yamuna Expressway
National Highway
State Highway
Interchanges along expressway
Lakes & Waterbodies
River
ULB
State Boundary
Drains
Forest
District Boundaries
DFC Alignment
DEVELOPMENT PLAN OF YAMUNA EXPRESSWAY INDUSTRIAL DEVELOPMENT AREA
0 2.5 5 10 KM
N

3.5 SWOT ANALYSIS OF THE REGION

Based on the analysis of the existing condition including infrastructure, availability of natural and human resources, land availability, govt. policies and incentives, a SWOT analysis have been done for the YEIDA to capitalise on the strengths and opportunities, overcome the threats and mitigate the weaknesses while preparation of Master Plan within its preview. The SWOT analysis has been illustrated as follows:

STRENGTHS

- Large scale infrastructure projects viz. Yamuna Expressway, Eastern Dedicated Freight Corridor, proposed high speed rail Delhi-Kolkata via Agra in YEIDA-Phase-II area, recently announced Delhi-Agra rail connectivity in influence zone of the region;
- Influence of Delhi – Noida – Greater Noida agglomerations as main force of development supported by connectivity to surrounding potential cities Agra, Mathura, Aligarh and Hathras;
- Land Availability for industrialisation and urbanisation in close proximity to important urban centres of Western U.P;
- Agricultural base of the hinter land;
- Fertile and well irrigated land between Yamuna and Ganga with abundant water resources;
- Existing, ongoing and proposed industrial infrastructure development efforts in the region viz. presence of gas pipeline, upcoming multimodal logistics hub at Dadri, upcoming eastern dedicated freight corridor with stations at Tundla and Daudkaun in near vicinity of the region, free trade ware house zone at Khurja and proposed power project at Jahagirpur;
- Strong policy support and incentives underway through Infrastructure and Industrial Promotion Policy-2012 of Uttar Pradesh followed by sector specific policies and Government Orders;

WEAKNESS

- Existing poor social development below national average;
- Ecologically sensitive zone close to the river to be urbanised;
- Existing power and energy deficit for large scale industrialisation;
- Lack of other industrial infrastructure;
- Existing weak base of industries with low technology and effected by controls and regulations such as TTZ;
- Lack of skilled manpower;

OPPORTUNITIES

- The proposed scale of development would be the major driver of urbanisation of Uttar Pradesh;
- Major potential to be developed as agro processing industries due to vast highly fertile agricultural hinterland;
- Advantage for industrialisation due to strategic location in between eastern DFC and western DFC;
- The region is part of golden triangle tourism activity;
- The area can attract the vast human resources of Uttar Pradesh;

THREATS

- Industrialisation not to cause harms to Taj as per TTZ;
- Competition from other surrounding industrial townships and investment region;
- Possible pollution to Yamuna River due to increased industrialisation and urbanisation in the area;
- Loss of Agricultural base of livelihood of existing village in the notified area of the YEIDA;
- Part of the notified area is prone to floods;
- Possible decline in inherent economies due to shift towards new functions such as tourism.

3.6 VISION

"To exploit the potential of the YEIDA to develop areas of economic growth with major thrust on industrial activities along with integrated sustainable development provisioning residential and recreational activities, supported by state of the art infrastructure, yet preserving the environment."

The vision is to have a **liveable, competitive, and governed development, to achieve sustainability by focusing industrialisation** capable of absorbing economic development impulses of world class regional infrastructure projects such as Yamuna Expressway, Eastern and Western DFC, Ganga Expressway etc. and proximity to major metropolitan formations both existing and evolving around Delhi, NOIDA and Greater NOIDA at one hand and Agra, Mathura and Aligarh on other hand.

A **sustainable development** is the one with equitable economic impact with no or minimal negative environmental impacts. **The objective is to have sustainability through liveable and competitive development.** The achieve objective, Master Plan shall be governed by following parameters:

- Economic Sustainability
- Social Sustainiability
- Environmental Sustainability
- Urban Governance

The following factors have been considered in Master Plan preparation to fulfil the vision of a sustainable development.

ECONOMIC SUSTAINABILITY

- **Treating Land as Scarce Resource** – YEIDA being rich in agriculture production, a compact city development shall be done to save the land;
- **Industrialisation** – Large scale industrialisation with varied type of industries of different scales, big industries supported by ancillary industries around;
- **Incorporating Local Industries & Resources** – Industrialisation shall benefit to the existing local industries and best use of the local resources and available raw material to promote inclusive development. Agro based industries are promoted due to presence of large agricultural hinterland and support the rural economy of the region;
- **Alternate economic development –Support Activities** – proposing suitable alternate non manufacturing economic activities such as IT/ITeS, Financial services, Biotech parks, R & D centres, best suited to the region;
- **Large Scale Infrastructure** – for sustainability, harnessing the benefits of the large scale infrastructure in the region viz. Yamuna Expressway, Eastern Dedicated Freight Corridor, Eastern Peripheral Expressway, Proposed high speed rail corridor Delhi – Agra – Lucknow – Patna, promoting development around them;
- **Industrial Infrastructure** – Provision of world class industrial infrastructure such as logistics hub, Integrated Freight Complex, Transport Nagar, uninterrupted power supply, 24X7 water supply, effective telecommunication system to become competitive among other industrial centres in the region and in India;
- **Conducive Development Policies (Legal, Regulatory & Fiscal Policies)** – To become competitive, development policy framework, incentives, legal framework and development control regulations shall be attractive to investors and shall promote foreign direct investment;
- **Human Resource Development and Knowledge Centre** – Skill development of the available human resources through institutionalisation to match the skill sets required in the region to improve the employment levels and to utilise local resources; Knowledge pool shall be developed of the high quality institutions imparting technology knowledge and research and development to promote value added industrialisation.

SOCIAL DEVELOPMENT

- **Housing Development** – To provide accommodation for all providing good quality of life attractive for working and living, well distributed in the city on the concept of walk to work or by using public transport;
- **Roads and Public Transport** – Provision of efficient road network for regional connectivity and smooth local movement and provision of public transport since inception of development to avoid reaching the situation of traffic congestion on roads;
- **Other Physical Infrastructure** – Adequate and efficient water supply, sewerage, drainage, solid waste management system and power supply;
- **Recreational and Social Infrastructure** – Provision of world class recreational facilities and educational, health and socio-cultural facilities providing good quality of life attractive for working and living for future population;
- **Abadi Development** – To promote the inclusive development, Abadi's between urban villages shall be facilitated with the physical & social infrastructure at par with urban villages;
- **Rural Development** – Rural areas which are going to be continued with rural character shall be equipped with better economic development opportunities and resources and improved quality of life with better physical & social infrastructure availability.

ENVIORNMENT FRIENDLY DEVELOPMENT

- **Integration of land use and transport** – Various land uses shall be integrated with transportation system which will minimise the use of private vehicles reducing emissions and promotes pedestrians, cyclists and use of public transport;
- **Pollution Free Industrialisation** – All industries locating in the region shall be either non-polluting or suitable measures shall be implemented so as to achieve negligible pollution levels meeting all National and State Environmental regulations including the compliance of the ones for Taj Trapezium Zone.
- **Protecting flood prone areas** – The areas with are environmentally sensitive and flood prone zone, suitable measures shall be taken; Zero Waste Generation – Infrastructure shall be developed so that all the waste generated shall be recycled and reused or safe to discharge;
- **Preserving natural features** – Natural features such as drains, streams, canals and forests are spread in entire YEIDA shall be conserved while planning; Effective Open Spaces – In the era of dense development to preserve a scarce resource land, large percentage of open green spaces shall be distributed to develop environment friendly development;
- **Use of Renewable Source of Energy** – Use of renewable source of energy such as solar, wind, biomass energy for power generation and suitable technology to save energy by lesser power consumption.

URBAN GOVERNANCE

- **Implementation Strategy** – Effective implementation strategy on time and in relatively low cost, which is responsive to citizens needs;
- **Review and Revision of Master Plan** – Implementation framework shall set the time line for continuous review of the implementation of Master Plan and periodic revision of Master Plan with the change in development scenario as per stipulated guidelines;
- **Efficient Monitoring and Evaluation** – efficiency, effectiveness and economy of city administration in delivering the services and implementation that are responsive to citizens needs;

3.7 PLANNING PRINCIPLES ADOPTED FOR THE SPATIAL PLAN OF YEIDA

The spatial plan of the YEIDA has been prepared based on the principles which will together bring viable, efficient and sustainable urban structure. The principles have been integrated in such a way that they are consistent, coherent and are in harmony with each other to provide a robust development. The planning principles explained below have been adopted either at regional scale or urban centre level or in both cases suitably.

1. **Connect people, goods, services locally, regionally** –Ensuring effective and efficient transportation system for people, goods and services by providing regional road and rail connectivity and smooth intra city movement through grid iron pattern of road network with enough provision of public transport and NMT. Multimodal integration approach shall be adopted to best utilise the presence of Yamuna Expressway, National & State Highways, Rail connectivity and proposed DFC corridor and high speed rail corridors.

2. **Compact Cities** – In order to minimize the development of scarce resource of land and to develop manageable, self sustainable and independent townships, instead of large massive development, independent high dense urban centres suitably located and distributed to serve the entire YEIDA shall be planned.

   Further, in context of planning for an individual urban centre efficient distribution of land uses have been done to minimize the travel distances to support the movement by walking and using public transport and short infrastructure networks reducing the capital investment.

3. **Provision of Road System which minimises conflict between regional & city traffic, and industrial and residential traffic –** Regional traffic will pass through the access controlled Yamuna Expressway and the existing State and National Highway without mixing with the traffic through larger part of the urban centres. The roads in the industrial area are

connected with regional roads in such a way that heavy industrial traffic, need not to mix largely through residential traffic movement.

4. **Provision of High Quality Public Transport –** The cross section of the main roads of the urban centres shall be planned to provide exclusive public transport lanes which can be converted in high capacity public transport system in future along with provision for pedestrians and cyclists.

5. **Integration of Land Uses –** The proposed land uses are distributed in such a way that the industrial areas and other employment areas are close to residential areas so as to reduce the commuting distances. Moreover, it is proposed that all the commercial and institutional areas are well distributed throughout the region to promote walking, cycling and use of public transport and reduced motorisation.

6. **Polycentric Development –** The YEIDA itself being proposed urbanisation as distributed integrated urban centres and the landuse distribution of each of these urban centres are developed on the polycentric spatial model of development with one central business district and institutional area serving the entire area and various district centres and public semi public facilities especially educational and medical facilities are well distributed which will be self sufficient and viable to serve the basic needs of the community level zone.

7. **Conservation of flood plains and natural features –** To protect the flood plains, the area along the Yamuna River are proposed to be no development zone and only green recreational and open uses shall be developed. All the natural features streams, natural drains and canals have been given buffer zone to conserve the ecologically sensitive areas.

8. **Distribution of Green Spaces –** The green spaces in the form of green belts, open spaces, parks and playground in addition to recreational areas have been spread all over the area within both the residential and industrial areas. Green belts are provided all along the roads, canals and drains absorbing air and noise pollution of traffic and to preserve the water bodies. Parks and playground again plays an important role as open lung spaces and as recreational spaces and hence distributed to make available at equitable distances from all.

9. **Integration of Village Settlements with the development of the Region –** Rural settlements falling within the urban areas will inevitably loose their agricultural land for urban development. Alternate employment opportunities need to be created for the population living in these villages through skill development for the livelihood of the population living in these villages. It is proposed that these villages will get support by ensuring the provision of the physical and social infrastructure at par with the residents of urban centres.

10. **Densities of Development –** Since, the urban centres in YEIDA are proposed to be sustainable development with adoption of compact development which suggests high density development to support public transport. The proposed gross densities in urban centres of the YEIDA between 100-125pph and the net average residential density between 400 - 500ppha.

11. **Settlement Hierarchies –** The hierarchy of settlements have been established to find out how rural settlements are growing over a period and to understand the ordering in succession of settlements by different functions performed. Thus, the settlement hierarchy in entire YEIDA Phase-II Region has been proposed for the equitable distribution of the various orders of settlements with equitable provision of various levels of services.

12. **Rural Development –** The villages falling outside the proposed urban centres are also proposed to be benefited by the development of the YEIDA. These villagers will get opportunity to increase their economic levels by increase of demand of their products by agro based industries, new consumer markets in the surroundings and by participating in alternate economic activities through skill development. In addition, they will be benefited by the provision of addition physical and social infrastructure. All the villages are proposed to provide with water supply and sanitation system as per standards and social infrastructure will be distributed at equitable distance based on proposed settlement hierarchies.

3.8 DESIGN CONCEPT FOR THE DEVELOPMENT OF YEIDA

Based on the experience of several new towns and urban expansion projects implemented in Country and keeping in view the contemporary thought and approaches to the city planning and design, few areas of concern have been identified which have greatly influenced the conceptualisation of the form, structure and design of the proposed urbanisation. These are outlined as follows:

- Ecologically sensitive zone of Yamuna River and its flood plain, network of drains and canals spread in YEIDA;
- Adjoining urban centres Mathura, Agra, Aligarh and Hathras between the planning area;
- Access controlled Yamuna Expressway connecting Delhi to Agra providing fast connectivity in the region;
- Existing and proposed interchanges on Yamuna Expressway providing regional connectivity;
- Presence of Mathura – Bareilly railway line, an opportunity for providing rail connectivity to the region but acts as a barrier for physical development; Proposed Eastern Dedicated

Freight Corridor and its stations in the vicinity of YEIDA, an opportunity for industrialisation providing freight connectivity;

- Pockets of Land for Development (LFDs) given to concessionaire, trigger for development;
- Development in YEIDA not to cause pollution especially being part of Taj Trapezium Zone;

Thus, the main features of the **design and concept of the development of the YEIDA** considering the above concerns and development strategies are as follows:

- **Treating land as scarce resource and preserving agricultural hinterland** – Less than 15% of the notified area is proposed to be urbanised for compact city development and minimal conversion of agricultural land as part of strategy to develop planned new cities;
- **Transit Supportive Development** – Development of urban centres near transport infrastructure, transport interchanges, existing regional connectivity and existing urban centres to absorb the economic impulses and to capitalise on the existing and upcoming infrastructure;

- **Influence Zone** – Development is proposed on both sides of the expressway considering influence area of 2 to 5 kms, to capitalise its potential and also to avoid the likely unplanned development around important transport access;
- **Structure of Development** – The structure of urbanisation will have major impact on the transportation system. Assessing development concepts based on the land capability analysis carried out and SWOT analysis of the region, linear, multi nodal and combination of both, urbanisation pattern have been adopted based on locational advantages best utilising the existing large scale infrastructure and proximity to urban centres;
- **Environmentally Sensitive Area** – All the ecologically sensitive areas such as rivers, canals, drains, forests, and water bodies shall be protected. Thus, no urbanisation has been proposed along the conservation zone of Yamuna River except basic facilities and amenities required for the existing village abadi with permission of Authority. Also, green belts along natural steams, drains, canals and ponds have been proposed to protect the natural drains, irrigation and recharging channels;
- **Economic Development** – Development of large scale industrial development as key economic activities to generate economy in the region with world class industrial infrastructure. In addition, there will be alternate economic zone in which non manufacturing activities IT, ITeS, Biotech Parks, R & D Centres etc. will be developed;
- **Integrated Industrial Urban Centres** – Self sustainable integrated urban centres have been conceptualised to be developed with residential, commercial, recreational and institutional facilities with state of the art physical and social infrastructure providing high class quality of life attracting people to live and work in city;
- **Eco-City Development** – Focusing on minimising the pollution by various means such as high density compact development minimising the use of motorised vehicles, provision of public

transport, NMT friendly road network, zero waste generation system, use of renewable source of energy, provision of green open spaces equally distributed;

- **Urbanisable Limits**: Four integrated urban centres are identified as urbanisable limits under YEIDA Phase-II region, one in each district part of it, based on land capability analysis, the likely physical spread of them are explained as follows:

✓ One, linear development on both sides of expressway including Jattari and Bajna interchanges on Expressway and optimising the potential between existing connectivity's, Yamuna Expressway and State Highway - 22A connecting to Aligarh and integrating the land for development of the concessionaire;

✓ Second, around Raya interchange, below Mathura-Bareilly railway line on both sides of Yamuna Expressway, near city of Mathura and Vrindavan;

✓ Third, urban centre is proposed adjacent to Agra city in between crossing NH-93 connecting to Aligarh via Hathras and NH-2 connecting Delhi to Kanpur, approx. 2kms away Expressway due to the existing dense network of high tension, not suitable for urbanisation in immediate vicinity. Eastern DFC is also passing from the vicinity of YEIDA with its station at Tundla around 12kms from interchange on crossing of NH-2 and Expressway providing exclusive freight connectivity; Fourth, on the North of Hathras Regulated Area, near Sasni town on east of NH-93 connecting Agra to Aligarh via Hathras;

- **Agriculture Zone:** YEIDA, other than the identified urban centres will continue to be following the rural character with agriculture as main economic activity.

4 ECONOMIC PROFILE

4.1 BACKGROUND

The land use capability analysis (LCA) identified the desirable locations for green field urban development. The chapter proceeds with brief discussion on objectives and approach and methodology of economic profile of the YEIDA II. Objective of Master Plan emphasises on industrial development; so the economic profiling of YEIDA II is in line with this objective. Outcome of the various assessments, such as, identification of leading industries, analysis of various interventions required to facilitate the industries, attractiveness of industries in the proposed Urban Centres (UCs) and estimation of investment, land and employment that may be generated in proposed UCs has been analysed for two scenarios viz. 1) Business As Usual and 2) With Intervention.

4.2 SECTORAL OBJECTIVES

Economic Profiling of the proposed urban centres in the YEIDA II is carried out by setting carefully chosen objectives which could translate the social sector goals into reality. Governments in developing countries would have following key goals which it seeks to translate into reality.

- Poverty Alleviation
- Creation of Public Asset for Public Betterment
- Alleviation of Social Unrest
- Removing Disparity

It has been general consensus that twin objectives of sustainable economic growth accompanied by Employment Generation & Environmental Sustainability contributed enormously in reducing poverty and achieving social sector goals. The objectives for YEIDA II are further detailed below.

1) **Increase in Gross Domestic Product (GDP)** of the YEIDA II by 4 to 5 times from existing level. It would reflect in higher growth in economical and social aspects of the region and improved living standards of inhabitants with large amount of investment coming to the region on behest of improved policy regime, support infrastructure and human resource availability.

2) **Higher degree of direct and indirect employment generation** which can be achieved by targeting employment intensive industries in the YEIDA II in an attempt to balance the allocation of resources amongst all segments of the society.

Approach & Methodology to achieve the above objectives is explained below:

4.3 APPROACH AND METHODOLOGY

Investment potential in each of four urban centres, namely (1) Tappal –Bajna Urban Centre (2) Raya Urban Centre (3) Agra Urban Centre and (4) Hathras Urban Centre, has been estimated in following two scenarios.

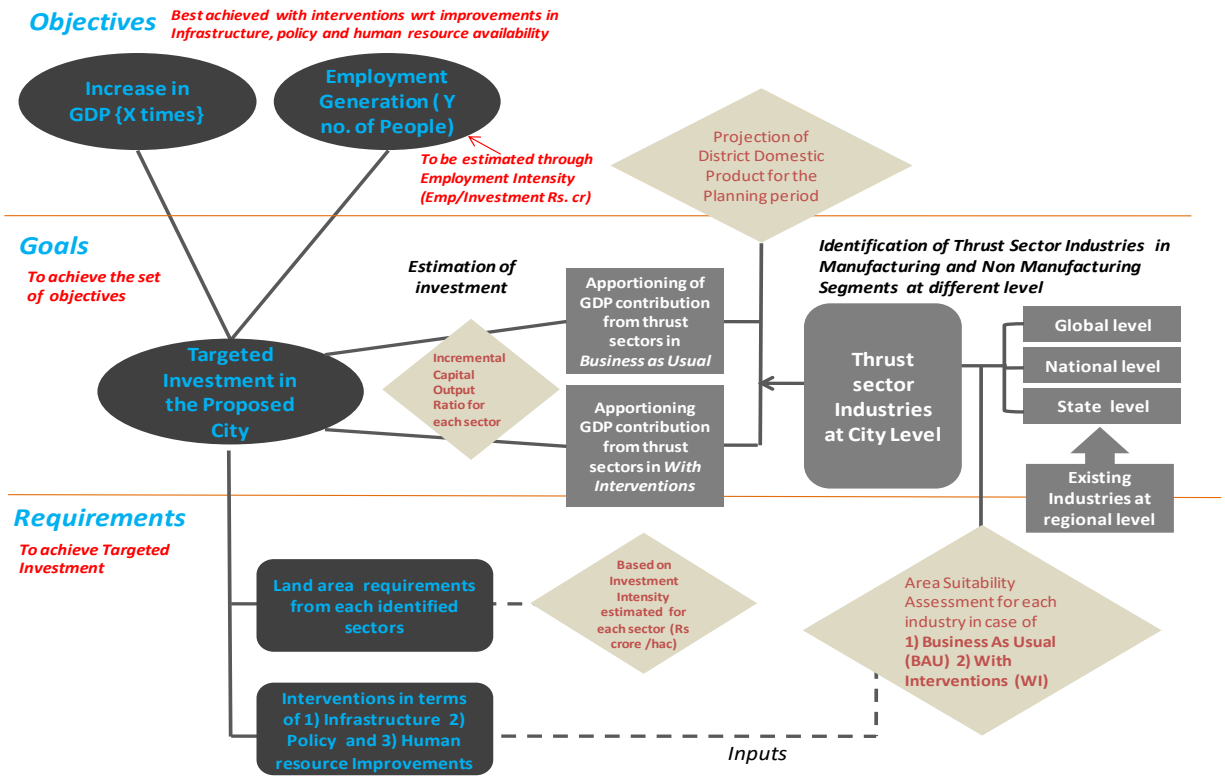
Business As Usual (BAU): Industrial development during the planning period in the region without development of the proposed UC as well as other interventions. In this case, it is estimated that sectors of economy in four districts namely Aligarh, Mathura, Agra and Hathras would grow even higher than past performance of State GDP owing to robust existing linkage with regional growth centres, such as, NCR through Yamuna Expressway during the plan period.

With Interventions (WI): Industrial Development during planning period in the region with development of the proposed cities and other interventions to Improve and upgrade support infrastructure, policy regime and Human Resource availability. In this case, it is assumed that sectors of economy would grow higher than BAU scenario.

The analysis has been done to plan period of 2031 in two Stages. Stage -1 shall be of five years from 2015-16 to 2020-21 and Stage -2 shall be of 10 years from 2020-21 to 2030-31 (Ten Years).

Approach and Methodology for arriving at investment and industrial land area requirement for achieving objectives are specified in figure below.

Figure 15: Methodology



Steps of above Methodology are described below;

Step 1: Identifying Leading Industries at World/National and State Level

Identification of Potential industries at World/National and State Level using the top down approach. Leading industries identified at World/National and State Level could be considered as promising Industries.

Step 2: Identifying Potential/Promising Industries at each proposed Urban Centre based on attractiveness/Area suitability Analysis

The potential industries for each proposed urban centre in both the scenarios have been identified based on industry suitability analysis.

- Existing industries have been analyzed at each district in which Urban Centres have been proposed. Further industry compatibility analysis has also been carried out in order to identify strength and weakness of each Urban Centre.
- The analysis of attractiveness/area suitability of leading industries at world/national/state level for each of Urban Centre has been attempted using the bottom up approach to identify potential industries that could be located in respective Urban Centres.
- Above analysis has been attempted in two scenarios of "Business as Usual" and "With Intervention" scenarios. It is to be noted that higher investment from certain industries which are naturally suitable for the region can only be realized in "With Intervention" scenario.

Step 3: Estimation of Investment Potential

The investment from promising industries to each UC has been estimated using the following method.

- Projecting District Domestic Products: The District Domestic Product (DDP) of each district falling in the jurisdiction of YEIDA i.e. Agra, Mathura, Aligarh and Hathras has been projected upto 2031. It is estimated that DDP would grow higher than State's GDP under the BAU scenario owing to robust existing linkage with region's growth centres, such as, NCR through Yamuna Expressway. While in With intervention Scenario it would grow at higher rate than BAU and achieve the objective.
- Estimating Contribution of Industrial/Secondary sector to District DDP: Contribution /Output of the identified industries into the DDP have been projected up to 2031. This has been estimated in BAU and With Intervention scenario.
- Estimating Investment Potential of each Urban Centre (UC): Industrial sector's contribution as estimated using steps above have been apportioned to different identified industries. The industry wise contribution/output of each district then converted into Investment using

the Incremental Capital Output Ratio (ICOR). Further share of industrial sector (each of industries) investment in each UC to respective district has been estimated in order to arrive at Investment Potential of proposed UC.

Step 4: Estimation of Industrial Land Area Requirement and Employment Potential

- Potential demand of land area and employment generation from manufacturing sector has been estimated using industry wise investment intensity and employment intensity.
- The term Investment Intensity and Employment intensity are defined here under;

  Investment intensity means (Land area Requirement per Unit of Investment. Investment Intensities for each sector has been estimated based on existing projects, past studies and industry practices adopted in the past. Such sector wise Investment Intensities have been applied to projected industry wise investment under both above mentioned scenarios, in order to determine the sector wise land area requirement during the Planning Period.

  Employment intensity means Employment generation per Unit of Investment. It can be identified for each industry based on existing projects, past studies, ASI data and industry practices.

- In case of non manufacturing industries such estimates are made based on various benchmarks and prevailing norms. It is to be noted that Non manufacturing sector includes only IT/ITES, Biotech, research and other core employment generating industries.

The subsequent sections, in accordance with the approach and methodology described above, discuss outcome of the analysis of leading industries at world, National and state level that could be targeted for proposed UCs, potential of each UC and attractiveness of identified industries in each UC in Business as Usual Scenario and With Intervention Scenario. Various interventions required are also described in brief in between. Brief discussion on estimation of potential investment, land area requirement and employment generation are discussed in the end along with conclusion and way forward for the study.

4.4 IDENTIFICATION OF LEADING INDUSTRY AT WORLD, NATIONAL AND STATE LEVEL

The section summarizes leading industries at global, India and Uttar Pradesh level which have brighter outlook in the future. Hence such industries can be targeted for the proposed UCs. Section proceeds with identification of prime industries at world level.

4.4.1 Identification of Leading Industries at World Level

The world leading industries are identified using the Boston Consulting Group (BCG) matrix. The industries are segregated as Stars, Cash Cows, Question Marks and Dogs as defined in the matrix. Selection of a particular industry in the above four category is done based on following criteria;

Table 14: Categories of Industries as per BCG Matrix

Category	Market Share in world trade	Growth rate in world trade
Stars	>2%	>5%
Cash Cows	>2%	<5%
Question Marks	<2%	>5%
Dogs	<2%	<5%

Source: Author Estimates

The stars are in the growth stage of business lifecycle. Such industries can become cash cows during the maturity stage in the long run.

Cash cows are comparatively matured industries having significant share in world trade with lower growth rate. Such industries can be dogs in the longer run.

The Dogs have lower market share and low growth rate which shows the lower demand of such industries at global level. Such industries are either in declining stage or manufactured and consumed locally. Thus, international market of these industries is very low. These industries vanish gradually from the scene.

Question marks are the industries which has emerged in short span and have high growth rate but less market share. Such industries have potential either to become star or a dog if the market share does not change.

Thus only stars can be considered as targeted industries for UCs considering their strong position in present market and high growth situation in future. Targeting cash cows and question marks can pose risk of their becoming dogs which could jeopardise the investment made in hard and soft infrastructure to facilitate such industries. Following industries are identified as global stars.

Table 15: Star Industries (Manufacturing and Non Manufacturing) at Global Level

Sr. No.	Industry	Average Share in world trade (2002- 2012)	CAGR (2002-2012)
Manufacturing			
1	Petroleum, petroleum products /related materials	10.28%	18%
2	Electrical machinery, apparatus and appliances	8.35%	9%
3	Road vehicles	8.24%	8%
4	Office machines and automatic data processing machines	4.60%	6%
5	Telecommunication and sound recording apparatus	4.24%	10%
6	Other industrial machinery and parts	3.70%	9%
7	Miscellaneous manufactured articles	3.59%	8%
8	Articles of apparel & clothing accessories	2.94%	7%
9	Iron and steel	2.84%	10%
10	Specialised machinery	2.62%	8%
11	Medicinal and pharmaceutical products	2.52%	13%
12	Power generating machinery and equipment	2.39%	8%
13	Organic chemicals	2.35%	10%
14	Manufactures of metal	2.09%	9%
15	Other transport equipment	2.08%	8%
16	Non-ferrous metals	2.02%	10%
17	Professional and scientific instruments	2.01%	12%
Non Manufacturing (Services)			
1	Transport	21%	10%
2	Travel	26%	8%
3	Communications	2%	12%

Sr. No.	Industry	Average Share in world trade (2002- 2012)	CAGR (2002-2012)
4	Construction	2%	12%
5	Insurance	2%	9%
6	Financial services	7%	12%
7	Computer and information	5%	16%
8	Royalties and license fees	6%	12%
9	Other business services	24%	12%
10	Personal, cultural and recreational services	2%	10%
11	Government services n.i.e.	2%	8%

Source: UNCTAD, Author Analysis

4.4.2 Leading Industries at National Level

Leading industries at national level in India are shortlisted by identifying leading industries in terms of;

- Growth in turnover in past years;
- Growth in manufacturing and production;
- Share and growth in the Invested capital and proposed investment in terms of Industrial Entrepreneurs Memorandum (IEM) filed at national level;
- Contribution in the Foreign Direct Investment in last 10 years;
- Growth and contribution in the export; and
- Contribution in the national GDP

Leading Industries in manufacturing sector at national level is presented in Exhibit below.

Table 16: Leading Industries at National Level

Sr. No.	Leading Industries in Manufacturing Sector
1	Electrical Equipments
2	Metallurgical Industries
3	Timber Products

Sr. No.	Leading Industries in Manufacturing Sector
4	Industrial Instruments
5	Fertilizers
6	Textiles
7	Earth Moving Machinery
8	Leather
9	Scientific Instruments
10	Rubber Goods
11	Chemicals(Except Fertilizers)
12	Drugs and Pharmaceuticals
13	Glue and Gelatine
14	Prime Movers
15	Transportation
16	Food Processing Industry
17	Agricultural machinery
18	Machine Tools
19	Cement

Source: Consultant's Analysis

Leading Industries in Non manufacturing sector at national level is presented in Exhibit below.

Table 17: Leading Industries in Non Manufacturing Sector at National Level

Sr. No.	Leading Industries in Non Manufacturing Sector
1	Hotel and Tourism
2	IT/ITES/ Biotech
3	Health care
4	Trading
5	Shipping

Sr. No.	Leading Industries in Non Manufacturing Sector
6	Retail
7	Financial Services
8	Logistics and storage
9	Construction
10	Education

Source: Consultant's Analysis

4.4.3 Leading Industries at Uttar Pradesh Level

In order to understand nature of leading industries in Uttar Pradesh, following three aspects have been analyzed;

(1) Industrial investment flow to the state in terms of Capital invested;

(2) Contribution of Industries to the State Economy in terms of Gross Value Added; and

(3) Contribution of Non Manufacturing sector to State Economy in terms of GDP contribution

Following are the leading industries at State Level

Table 18: Leading Industries at State Level

Sr. No.	Leading Industries in Manufacturing Sector
1	Chemicals, fertilizer in primary forms
2	Refined petroleum products
3	Consumer electronics
4	Motor vehicles
5	Parts and accessories for motor vehicles
6	Basic precious and other non-ferrous metals
7	Plastics products
8	Non-metallic mineral products
9	Food products

10	Manufacture of beverages
11	Manufacture of vegetable and animal oils and fats
12	Wearing apparel, except fur apparel
13	Printing and service activities related to printing
14	Basic iron and steel

Source: Consultant's Analysis

Leading Industries in Non manufacturing sector at State level have been identified based on high share and high growth in the State GDP contribution. Presence of variety of tourist locations in UP and huge annual serge in tourist arrivals, would continue to provide boost to the hotel and tourism related services in the State. Increasing urbanization has escalated demand for financial services, retail and trade. Demand for education and health facilities has also improved with increased awareness in rural areas. Considering the thrust of the state government on development of IT/ITES at selected locations, the sector is likely to perform well in coming years.

Based on above, leading Industries in manufacturing sector at State level is presented in Exhibit below.

Table 19: Leading Non Manufacturing Sector at State Level

Sr. No.	Leading Non Manufacturing Sector at State Level
1	Hotel and tourism
2	IT/ITES
3	Health care
4	Trading
5	Construction
6	Retail
7	Financial Services
8	Logistics and storage
9	Education

Source: Consultant's Analysis

4.5 ATTRACTIVENESS OF INDUSTRIES TO PROPOSED URBAN CENTRES

This section discusses in brief the profile of each of four proposed UC, interventions required to achieve Investment potential and there by meeting the objectives and attractiveness of leading industries identified at World, National and State Level for each of urban centre.

BRIEF INDUSTRIAL PROFILE INFLUENCING THE PROPOSED URBAN CENTERS

4.5.1 Tappal – Bajna Urban Centre

Existing Industries in Vicinity

Tappal–Bajna area has minimal industrial development in its vicinity. Hence existing Industries of Aligarh district have been analyzed in order to obtain gist of industrial development around proposed Tappal–Bajna UC. Aligarh district is primarily known for Lock and Building hardware manufacturing. The region houses approximately 2500 Micro and small scale units manufacturing Locks and other hardware products employing around 10,000 - 11,000 direct employees. Combined annual turnover of the above cluster would approximately be Rs. 1500 crore with half of the revenue coming from export. Other Industries include **Sugar production** (36% Investment, 31% Employment) **Food and Agro processing** (7% I, 27% E) and **manufacturing of Milk Products** (8% Investment, 25% Employment) which comprise of medium and Small scale units jointly contributing 50% to the total registered investment and employing approximately 83% of industrial work force. Few large scale investment in Copper (22% Investment, 5% Employment) and cement production (14% Investment, 2% Employment) also contribute to the investment and employment. Combined investment in these five industries comes to 87% of the total investment and 90% of the total work force. Industrial compatibility analysis is presented in Table 4.7.

Table 20: Industrial Compatibility Analysis of Tappal - Bajna Urban Centre

STRENGTHS	• Proximity to Industrially developed NCR and G.NOIDA. • Express way connectivity to Agra and NCR. • High water table compared to other regions.
• Currently there are not any significant industries in this area • Poor state of regional transportation and other infrastructure. • Inadequate factors of production.	**WEAKNESSES**
OPPORTUNITIES	• Possibilities of developing satellite city of saturating NCR. Counter Magnet to NOIDA and G NOIDA. • Opportunity to develop green field large scale industrial parks
• Neighbouring competing development of Dadari- NOIDA SIR as part of DFC. • Possibilities of poor response from manufacturing industries owing to absence of rail connectivity.	**THREATS**

Source: Consultant's Analysis

4.5.2 Raya Urban Centre

Existing Industries in vicinity

Mathura district has mix of different scale and nature of industries. IOCL refinery is the largest stand-alone investment while the regional economy is also served by clusters of micro scale units amidst significant presence of around 170 Small and medium scale units. Tourism also contributes to the economy of the district as it is part of important religious circuit of Mathura – Gokul – Vrindavan which has facilitated growth of tourism and allied services. Following are the existing industries in the proposed city region.

Key small and medium industries are **1) Chemicals – Alcohol and Acid** (34% Investment, 23% of Employment), **2) Plastic Products** (12% Investment), **3) Food and Agro Processing** (9% Investment, 17% of Employment) , **4) Steel products and Saw Pipes** ((19% Investment, 17% of Employment) **5) Milk Products** (4% Investment, 17% of Employment) and **6) Textiles** (5% Investment, 5% Employment). Above industries comprise 80% of the total Investment as well as Employment in Mathura and Proposed city region. Micro scale units are also active in the region in form of clusters of 1) Building Hardware & Taps (350 units) 2) Artificial Jewelry (Kanthi mala) – (150 units) 3) Thakur Ji's Poshaak- (110 units) 4) Silver ornaments – (170 Units) 5) Printing of Sarees – (50 Units). Industrial compatibility analysis is presented in Table 4.8;

Table 21: Industrial Compatibility Analysis of Raya Urban Centre

STRENGTHS	• Significant presence of different types of industries. • Strong transportation linkages. • Famous tourism spot – weekend tourism place for NCR residents.
• Poor state of Urban and Industrial infrastructure • Non availability of serviced and developed land at low price. • The region falls under influence of Taj Trapezium Zone (TTZ) which restricts development of coal based industries.	**WEAKNESSES**
OPPORTUNITIES	• Industrial Parks Large scale industries can be developed considering existing clusters and region's adaptability to develop support industries. • Organized tourism industries with improved standards.
• TTZ restrictions may affect development of certain large scale employment generating industrial development.	**THREATS**

Source: Consultant's Analysis

4.5.3 Proposed Urban Centre near Agra

Existing Industries in Vicinity

Agra region houses with broader base of low investment generating and high employ intensive industries. The region has 6,790 registered medium and small scale industries directly employing around 50,000 people. The region houses clusters of Shoes, carpet and handicraft which jointly provides employment to 3,05,000 persons in the region. Shoe Cluster being one of the largest in India employs more than 200,000 people while around 75,000 persons are involved in carpet making and approximately 30,000 artisans produce stone and marble handicraft items. These are mainly small and micro units. Other industries include forging and casting of metal, production of diesel generators and other equipments, food and agro processing and logistics. Industrial compatibility analysis for proposed City near Agra is presented in Table 4.9 below.

Table 22: Industrial Compatibility Analysis of proposed City near Agra

STRENGTHS	• Significant presence of different types of small and micro scale industries. • Famous tourism spot with international recognition. • Urbanised development. • Strong transportation linkages
• Under developed Urban and Industrial infrastructure • Non availability of basic factors of productions. • Absence of large scale industries which can trigger next wave of industrialization and lack of awareness and encouragement for the local entrepreneur to move up in the value chain. • The region falls under influence of Taj Trapezium Zone (TTZ) which restricts development of coal based industries.	**WEAKNESSES**
OPPORTUNITIES	• Knowledge based industries can be developed given high speed connectivity with NCR, urban culture and international recognition to the city owing to Tajmahal. • Non coal based large scale industries can be located with presence of ancillary support and strong transportation linkages. • Huge potential for food and agro based industries. • Organized tourism industries with improved standards.
• TTZ restrictions may affect development of certain large scale employment generating industrial development. • Haphazard urban growth de-merits the region credential as preferred location for Knowledge based industries.	**THREATS**

Source: Consultant's Analysis

4.5.4 Proposed Urban Centre near Hathras

Existing Industries in Vicinity

Historically, Hathras was industrial and trading hub during the British era. This status has declined with the passage of time owing to deteriorating infrastructure and other facilities. Presently MSME and cottage Industry dominate industrial landscape of Hathras districts with approximately 10,000 registered units. Majority of MSME and Cottage industries have been developed in the form of clusters. All such industries are of nature of high employment intensive and low investment intensive. All such clusters are specified in Exhibit below;

Table 23: Existing Clusters in Hathras District

Cluster	No of Units	Details
MSME / Cottage Industries	10293	**Agro and Food Processing** : Dalmills (35), Hing manufacturing (32), Pickles (16), Cold storage (140) **Hosiery and readymade garments** (1600) **Glass Bids manufacturing** (3300) **Ghungaru manufacturing** (3124) **Chemicals:** Holi colors and dyes (35 to 40), **Ayurveda medicine** (30). **Handicraft** (850) **Metal craft** (85) **Carpet manufacturing**
Medium scale	3	**One Bottling Plant, Dairy and BPCL's LPG bottling plant.**

Source: DIC, Author Analysis

Industrial compatibility analysis for proposed City near Hathras is presented in Table 4.11.

Table 24: Industrial Compatibility Analysis of proposed City near Hathras

STRENGTHS	• Relatively better transportation linkages with Aligarh and Agra through NH-93 and Yamuna Expressway through SH-33. • Good rail connectivity • Two rail lines crossing at Hathras (Junction)
• Absence of last mile linkages and all weather interior roads, absence of industrial feeder and non-availability of quality power, water, inadequate sewerage system and inadequate drainage system in industrial area. • Absence of secondary healthcare facilities. People rush to Agra and / or Aligarh in order to avail such services. • Absence of Recreational facilities. No garden, Restaurants, Hotels, entertainment or any other refreshment facilities.	**WEAKNESSES**
OPPORTUNITIES	• Potential of development as trading hub: Presence of MSME and cottage industries provides scale to the traders who could source material required for industries situated in this area and also help in finding markets. There is also a possibility to rejuvenate its glory of British era where traders and industries were connected through freight line. • The Hathras Town could be developed as satellite town of Agra owing to its proximity and good connectivity with Agra.
• Neighbouring competing development of Agra and Aligarh UCs.	**THREATS**

Source: Consultant's Analysis

4.5.5 Recommended Interventions for Achieving Objectives

Comprehensive interventions required in order to achieve the objectives discussed earlier for targeting potential industries, facilitating industrial interventions through policy interventions, facilitating industrial infrastructure and enhancing availability of skilled and employable human resources are discussed further in brief.

1. Policy Interventions

Comparison of industrial policy of Uttar Pradesh with India's other leading industrial states, such as Gujarat, Maharashtra, Karnataka and Andhra Pradesh have been attempted in order to find key learning around state policies for attracting investment in proposed UCs as well as addressing the current gaps.

The exercise of comparison of state level industrial policy reveals the fact that leading industrial states have a clear focus on increasing the contribution of manufacturing sector to its GDP and create additional employment opportunities. Key inferences that could be drawn from the detailed comparison are presented in Table 4.12.

Table 25: Key Inferences drawn from the Comparison of Industrial Policies of Top Industrial States of India

Parameter	Observations/ Inferences
Land Facilitation	• The stamp duty concession on lease or sale of land is common across the states. While Karnataka provides additional stamp duty concession on loan deeds for Investment. • All states facilitate land by creating land bank in industrial areas. Andhra seems to provide additional Land Cost Subsidy to SME and MSME.
Investment Facilitation	• Karnataka and Andhra Pradesh seem to provide Subsidy in Capex for MSME and focus sector. • Karnataka encourages new industries through Anchor unit subsidy in Taluka/Tehsil where no such Industries are present. • All other major states including UP provide interest subsidy on plant and machinery to MSME and to focus sector.
Infrastructure Facilitation	• Gujarat seems to provide Plug and Play facility by providing all common industrial infrastructure such as ETP, Power, Water, Waste management drainage, internal roads etc in new Industrial Estate. • Karnataka, Andhra and Gujarat seem to provide higher financial assistance in up gradation of existing common infra in Industrial Park.
Encouragement in Higher Value Addition	• Three states namely Gujarat, Andhra Pradesh and Karnataka seem to have identified focus sector where higher value additions is encouraged through additional financial assistance in plant and machinery and infrastructure cost.
Quality/Skill Development and R&D	• All states encourage quality through financial assistance for obtaining Quality Certifications. • Gujarat and Andhra Pradesh seems to encourage Technology Up gradation/Collaboration/Acquisition through admin support and financial assistance to MSME. • Gujarat and Karnataka encourage sector specific R&D lab/institute through Financial Assistance. • Karnataka seems to have comprehensive skill development program such as; ✓ Curriculum Up gradation tailoring to Industry needs ✓ Grant for Infra up gradation of ITI's. ✓ Mandatory Skill Development centre for Indi. Estate spreading more than 100 acres. ✓ On the Job training to unemployed youth with govt contributing towards stipend.

Source: Consultant's Analysis

Based on analysis and discussion above the interventions for proposed Urban Centres that could be undertaken are specified below.

- **Creation of Land Bank:** Land Bank could be created in Urban Centers and land could be made available at concessional rates to Industries primarily to SME and MSME.
- **Investment Promotion (Thrust Sector Industries):** Potential Industries identified for each township should be promoted through series of incentives to attract investment in these industries. Incentives such as capital investment subsidy, Concessional loan or interest subsidy could be provided.
- **Encouragement in Higher Value addition:** Higher Value addition should be encouraged through additional financial support in infrastructure or Plant & Machinery .This is owing to the fact that higher value addition generally drives the GDP growth and generates employment.
- **Investment Promotion of Anchor Industries in each of the industrial Sector identified:** Investment promotion of Anchor industries could be promoted by facilitating additional incentives. This could act as catalyst in Industrial development of proposed UCs.
- **Promotion of Quality Competitiveness and R&D:** The Quality testing lab for each thrust Sector Industries could be established in each UC. Financial and Institutional support for establishing R&D centers/ foreign collaboration could be provided. Academic and Industrial linkages should be established to promote innovations.
- **Skill Development:** Comprehensive Skill Development strategy similar to that of Karnataka could be adopted. Further Financial Assistance in establishing training centre for each thrust sector industry should be provided.

2. Infrastructure Interventions

This section will focus on proposed UCs and discuss the industrial infrastructure as well as support infrastructure required for it.

(a) Industrial Infrastructure

Many Industrial areas/estates are found lacking in common infrastructure, such as ETP, drainage, adequate internal roads, etc. The Power Stoppages were found to be frequent and long duration. All such industrial areas should be facilitated with dedicated feeders. While emphasis could be provided on development of sector specific Industrial Park/Area for targeted industries in all four proposed UCs with adequate industrial infrastructure. Industrial parks with all common infrastructure facilities, such as, mentioned below should be created either through budgetary support or PPP route depending upon the need. Some key infra facilities required for Industrial areas are as follows.

- Effluent Treatment Plant (Secondary and /or Tertiary)
- Water and Power
- Internal Roads (Main Arteries 10 mtr wide where as internal roads 6 to 7 mtr wide)
- Common Storage
- Storm Water Drainage
- Solid Waste Disposal System
- Street Lighting, Parking for Trucks and Exhibition Centre
- Product Testing labs and Communication Infrastructure (Telecom and Broadband).
- Park Admin Building.

Above facilities would also act as Plug and Play facility similar to that being offered by GIDC, Gujarat and act as one of the promotion tools for the proposed UCs.

(b) Transport and Logistics Infrastructure

Transport and logistics linkages form an important part of supporting infrastructure to industries. In order to provide robust regional connectivity, all proposed Urban Centres along with its industrial parks should be adequately connected with Yamuna Expressway and nearest rail head through feeders. With this objective, existing connectivity to proposed UCs have been analysed and findings/observations are placed in Table 4.13 below.

Table 26: Transport Infrastructure for all Urban Centres

Proposed UC	Observations with regard to Transport Infrastructure
Tappal-Bajna	• ***Tappal- Shahpur Kala – Khurja (40 km) Road:*** This is a partly Village Road and partly MDR 70 and it is connecting an important interchange point on Eastern DFC at Khurja. This Road could be widened to four lanes in future. • ***Aligarh- Tappal-Palwal (114 km) Road:*** SH-22A, presently being improved at 7 mtr. This road could be widened to four lanes in near future. It facilitates linkage of Proposed UC at Tappal- Bajna with Aligarh as well as to NH-2 at Palwal.
Raya	• ***Mathura - Raya – Hathras (43 km) Road***: Need to widened the SH 33 to four lanes in future as it facilitates linkages to region's growth centers. • ***Raya- Sadabad Road:*** It is being improved to 7 mtr. Need to improve Raya-Sadabad Road (29 km) which would provide linkages of agro producing area to proposed Raya Urban Centre.
Near Agra	• ***Agra – Hathras- Aligarh Road (88 Km)***: This road could be widened to four lanes in future as it facilitates linkages to two proposed UCs.
Hathras	Following roads could be improved /widened as discussed above. • Mathura - Raya – Hathras (43 km) Road • Raya- Sadabad Road

	• Agra – Hathras- Aligarh Road (88 Km)

Logistic Park

Logistics parks provide economic and convenience value through reduction in integrated transportation cost and ease of operation. Trading firms/ Industries often need to establish global centers for logistics, storage, transport and basic value addition to facilitate smooth supply chain management. It has been observed that streamlining of the supply chain could result in a reduction in inventory to sales ratio and inventory carrying costs. This further increases the competiveness of industries.

Logistic parks near ports/ freight stations served this function effectively at a number of locations in the world. Logistic Parks include designated area that support many of the supply chain activities and help reduce carrying and transportation cost. Components/ activities of Logistic Park are shown in the figure below.

Table 27: Components of Developed Logistic Park

	Logistics	Industry	Trade Facilitation
Essential	• Warehouses/Covered Sheds/Cross-docks • Container yard • Open storage yard • Bonded zone • Truck Terminal • Rail Siding	• Light engineering, manufacturing and processing zones • Pre-built Standard Design Factory (SDF) • Testing and certification facility • Office space for logistics companies	• Office space • Exhibition and convention centres • Banks and financial institutions
Support	• Communication and IT facility • Weighbridges • Fuel station • Admin/Office centre • Employee amenities	• Water and power stations • Effluent treatment plants • IT infrastructure	• Hotels, guest-houses • Residences for employees in the park
Auxiliary	• Container fabrication and repair centre • Truck Repair & Service • Logistics equipment leasing/rental centre	• Pallet and packaging fabrication centres • Logistics software and engineering centre • Logistics consultancy centre	• Shopping and retail centres • Recreation/ Entertainment centres • Training centres

Source: Industry Studies and Consultant's Analysis

Logistic infrastructure near proposed UCs could be developed to streamline the industrial supply chain. The presence of such infrastructure could also act as trigger for attracting industrial investment. Following logistic facilities could be provided near proposed Urban Centres.

Table 28: Components of Developed Logistic Park

Proposed UC	Observations with regards to Logistics Infrastructure
Tappal- Bajna	• **Container Freight Station (CFS) at Tappal:** Nearest ICD and intermodal points of proposed UC would be at Khurja from where Eastern DFC would pass. Thus CFS and Logistic Park at Tappal could be attached to Khurja (40

	km) or Dadri (76 km) ICD where stuffing/de-stuffing and part of custom procedures could be completed and hence cargo could move without delay.
Raya	• **Logistic Park and ICD at Raya:** ICD and Logistic Park could be develop near Raya through which Railway line is passing. Stuffing/Destuffing, packaging, basic value addition, custom procedures could be completed at ICD at proposed Logistic Park and hence supply chain could be streamlined and inventory carrying cost could be reduced.
Near Agra	• **Nearest ICD is at Agra (Concor) facility** and Agra has railway sliding facility. No capacity constraints at present but ICD could be expanded into well developed Logistic Park towards the end of the Planning period in order to streamline supply chain of proposed UC at Agra. Further to be noted that nearest junction stations of eastern DFC are at Khurja, Hathras and Tundla. Thus Logistic Park could come up at Tundla and / or Hathras.
Near Hathras	• **Logistic Park and ICD near Hathras:** ICD and Logistic Park could be developed near Hathras through which Eastern DFC is passing.

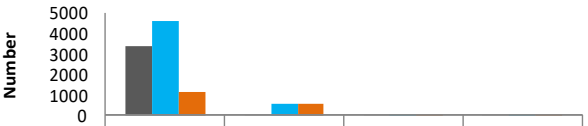
Source: Consultant's Analysis

3. Social Infrastructure : Health Facilities

Analysis of health facilities in four districts namely Aligarh, Mathura, Agra and Hathras Districts has been attempted owing to unavailability of information at proposed UC level. Existing facilities have been compared with WHO standards and Indian Public Health Standard (IPHS), 2012 to arrive at gap in health facilities in each of four districts.

Figure 16: Demand Supply Gaps in Health Facilities in four Districts of YEIDA II

Demand- Supply Gap : Health Facilities in Aligarh



	Hospital Beds	SHC	PHC	CHC
Existing	3394	19	38	10
Required	4548	553	92	92
GAP	1154	534	54	82

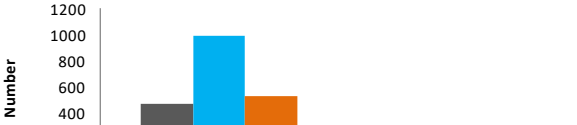
Demand- Supply Gap : Health Facilities in Mathura

	Hospital Beds	SHC	PHC	CHC
Existing	1817	215	29	7
Required	2275	418	70	26
GAP	458	203	41	19

Demand Supply Gap : Health Facilities in Agra

	Hospital Beds	SHC	PHC	CHC
Existing	4007	394	58	10
Required	6033	482	80	30
GAP	2026	88	22	20

Demand Supply Gap : Health Facilities in Hathras



	Hospital Beds	CHC
Existing	471	4
Required	998	15
GAP	527	11

Source: MSME for existing Facilities and Analysis

PHC= Primary Health Centre, CHC = Community Health Centre, SHC = Sub Centre Health Centre

It can be observed that at Metropolitan City levels gaps in hospital beds are highest in Hathras (112%) followed by Agra (51%), Aligarh (25%) and Mathura (20%) districts. All four districts have significant gaps in CHC and PHC.

In order to meet existing demand at Metropolitan level, four 250 bed hospitals are needed in Aligarh where as two 250 bed hospitals are needed in Mathura. Whereas four 500 bed hospital needed in Agra and one in Hathras.

Healthcare facilities proposed for all four Urban Centres shall be planned suitably as per URDPFI guidelines.

4. Skill Development : Education Facilities

The State with its consistent efforts increased the literacy rates significantly from 56% in 2001 to 67.78% in 201110. However still it is lower than national average of 74%. State's Gross enrolment

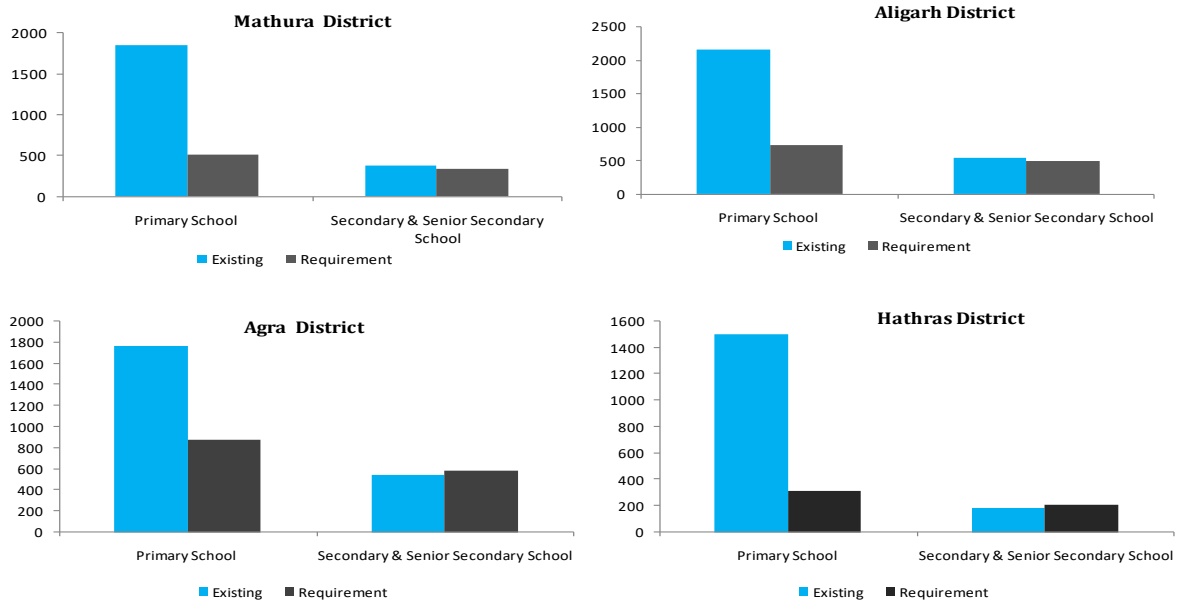
[10] *Source: Census 2001 and 2011.*

ratio in primary education is 105.17 as compared to national average of 11811. Though state has improved infrastructure and facilities, quality of education remains key concerns.

All YEIDA II districts registered literacy rate higher than Uttar Pradesh but lower than the National average12. The disparity of literacy rates between male and female is also key concern in all four districts. Since technical education is important to bring in the work force for industries and this is only possible when basic education facilities are in place. Thus basic education facilities (primary) have been analyzed for all four districts falling in YEIDA II.

Analysis of existing schools has been compared with the requirement at district level for all four districts. URDPFI norms and Standard specified by Directorate of Education GNCTD and CBSE (as adopted by DDA for Planning of Delhi) have been used to estimate requirements. This is presented in Figure 4.3.

Figure 17: Gaps in Primary Education Facilities in Four Districts



It seems that all Districts have adequate number of primary and secondary schools however concerns are quality of Physical Infrastructure (Pucca Building, toilets etc) and teacher- student ratio as well as teacher's quality in imparting education (Source HDI report, UP). Emphasis shall be provided to followings.

- Adequacy of Number of Pre-Primary, Primary, Secondary and senior secondary infrastructure.

[11] *Source: DIES 2011.*

[12] *Average Literacy rates as per Census 2011: Agra (71.58%), Mathura (70.36%), Hathras (71.59%) and Aligarh (67.52%).*

- Quality Physical Infrastructure.
- Quality of education (both adequate teacher: Student ratio and Quality of Teacher).

Demand for Primary and Secondary schools have been estimated for all four Greenfield UCs based on estimated population during planning period (2031) which shall be considered at the time of detailed planning for layout preparations.

- Tappal – Bajna : Primary (200), Secondary & Senior Secondary (133)
- Raya : Primary (260), Secondary & Senior Secondary (173)
- Proposed City near Agra : Primary (260), Secondary & Senior Secondary (173)
- Proposed City near Hathras: Primary (34), Secondary & Senior Secondary (23)

Technical Education

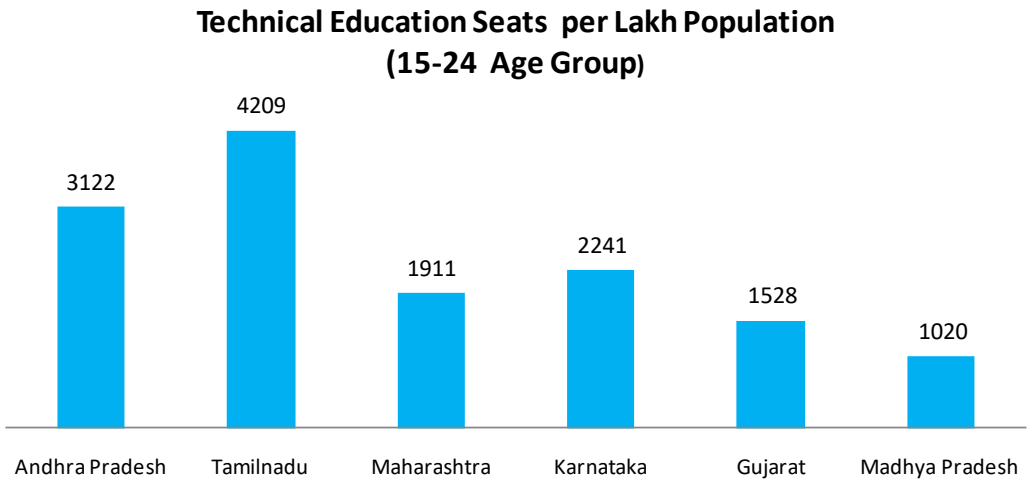
In order to achieve rapid and inclusive growth, continuous efforts have been made towards industrialization of the state. In such circumstances, availability of employable and skilled manpower assumes significant importance. Realizing this, state government has also started many initiatives in the field of higher and technical education and established 27 Universities; five deemed universities, 34 medical colleges, engineering colleges and 676 degree colleges till 2010. Despite this, the scenario at State level remains gloomy as HDR (HDR 2007) studies show only 14% of urban people and 2.5% of rural people receiving education up to graduation level or higher. Thus, twin efforts of creating quality educational infrastructure and encouraging people for obtaining education, shall be adopted at state level.

Agra, Mathura, Aligarh and Hathras districts comprise 67, 48, 25 and 24 colleges respectively in YEIDA II. However, quality of education is also one of the concerns as observed during the field visit.

It has been observed world over that strong academia and industry linkages contribute in innovation and higher value addition and thus act as catalyst in driving GDP growth. Availability of technically qualified and employable human resource is prerequisite for industrial/service sector development and attracting investment. Thus, special interventions in terms of establishing technical educational institutes in proposed UCs could facilitate linkages with industries and also help in improving state level technical education scenario and also in attracting investment.

At proposed Urban Centres level, an attempt could be made to benchmark the technical education of India's industrial states for planning the technical institutions. The scenario of industrial states of India is presented in Figure 4.4.

Figure 18: Technical Education Seats



Sources: AICTE, 2012 Data and Author Analysis

It can be observed that Industrial states tend to have higher technical education intakes/ population. Average technical education intakes per lakh population of five industrial states found to be 2600. For the proposed four UCs, a parameter of 2300 seats per lakh population (15-24 age group) could be adopted after discounting seats contribution from existing technical institutes of the region (Assumption: 10-12% contribution). Total technical seats could further be apportioned to different stream considering the requirement of thrust sector industries of all four UCs. Guidance from AICTE and URDPFI guidelines could be suitably taken for planning type of institution, number of institutes, teacher student ratio and college infrastructure etc..

Further industry indicated its concerns regarding poor employability of technical graduates during industry survey. Thus regulatory mechanism should be in place by Government to improve the quality of education.

Along with technical education, research institutes, such as, **Technology Research Center catering to Engineering Industry, Textile Research Centre, Entrepreneurship Development Institute, Dairy Science Institute** shall be established in proposed UCs depending upon the need of the industries. Emphasis could be provided to strong academy industry linkages by enabling collaboration with institutes of international repute and industry sponsored R&D. This could help in creating conducive environment for industrial development.

4.5.6 Attractiveness of Identified Leading Industries in Proposed Urban Centers

Leading industries identified at World, National and State Level, which can be located in the proposed UC area, have been identified through assessment of availability of key factors to attract industries in the region in light of **Business As Usual (BAU)** and **With Interventions (WI)** Scenarios.

In Business As Usual Scenario, Industries that may get located in way of natural flow as well as existing industries in way of expansion can come up. However the magnitude of investment would be low. In case of With Interventions Scenario, there is scope for high investment from the existing and naturally locating industries as well from the entire new set of Industries because of the interventions in terms of improved policy regime, upgraded supporting infrastructure owing to influx of entire new city and connectivity, logistic and institutional facility improvement and abundant human resource with various level of skill set.

The attractiveness of the industries to the proposed UCs in both aforementioned scenario is assessed based on following parameters.

Table 29: Key factors necessary for development of manufacturing sector

Sr. No.	Key factors
1	**Availability of factors of Production** • Land • Water – Sewerage and effluent treatment • Power • Skilled and Unskilled Human resource • Transportation and Logistic linkages • Socio Political Situation (TTZ in case of Agra and Raya township) • Enforcement of Law and Order
2	Availability of raw material/ ancillary in the vicinity or Neighboring Regions
3	Availability of Eco system – Support industries, institutions, trade facilities, urban culture and amenities, etc.

Following is the estimated attractiveness of the identified industries at World, National and State level to the proposed UCs.

Attractiveness of identified industries for Tappal- Bajna UC is presented in Table 4.16.

Table 30: Potential Industries for Tappal-Bajna UC

Sr. No	Industries	BAU	With Intervention
1	Casting of metals	√	√
2	Manufacture of basic chemicals, fertilizer and nitrogen compounds, plastics and synthetic rubber in primary forms	√	√
3	Manufacture of basic iron and steel	√	√
4	Manufacture of basic precious and other non-ferrous metals	√	√
5	Manufacture of dairy products	√	√
6	Manufacture of electric motors, generators, transformers and electricity distribution and control apparatus	√	√
7	Manufacture of grain mill products, starches and starch products	√	√
8	Manufacture of other food products	√	√
9	Manufacture of paper and paper products	√	√
10	Manufacture of vegetable and animal oils and fats	√	√
11	Processing and preserving of fruit and vegetables	√	√
12	Publishing of books, periodicals and other publishing activities	√	√
13	Electrical machinery, apparatus and appliances	X	√
14	Electronics goods	X	√
15	Metallurgical Industries	X	√
16	Road Vehicles	X	√
17	Other industrial machinery and parts	X	√
18	Articles of apparel & clothing accessories	X	√
19	Specialized machinery - Medical and surgical	X	√
20	Medicinal and pharmaceutical products	X	√
21	Manufacture of plastics products	X	√
22	Manufacture of parts and accessories for motor vehicles	X	√
23	IT/ITES	X	√

The potential industries identified for proposed UC at Raya is placed in Table 4.17.

Table 31: Potential Industries for Raya Urban Centre

Sr. No	Industries	BAU	With Intervention
1	Helical sub-merged arc welded pipe	√	√
2	Installation of industrial machinery and equipment	√	√
3	Industrial Alcohol Undenatured Ethyl Alcohol/ Acetic Acid Acetic Anhydride	√	√
4	Manufacture of basic iron and steel	√	√
5	Manufacture of beverages	√	√
6	Manufacture of dairy products	√	√
7	Glass Lamps	√	√
8	Manufacture of grain mill products, starches and starch products	√	√
9	Manufacture of non-metallic mineral products n.e.c.	√	√
10	Extra Neutral Alcohol/ Terephthalic and Ampicillin Acid & Its Salts	√	√
11	Manufacture of other food products	√	√
12	Manufacture of other textiles	√	√
13	Manufacture of paper and paper products	√	√
14	Aerated Water/Liquid Glucose	√	√
15	Manufacture of plastics films	√	X
16	Manufacture of prepared animal feeds	√	√
17	Manufacture of refined petroleum products	√	√
18	Manufacture of rubber products	√	√
19	Manufacture of structural metal products, tanks, reservoirs and steam generators	√	√
20	Manufacture of vegetable and animal oils and fats	√	√
21	Manufacture of wearing apparel, except fur apparel	√	√
22	Printing and service activities related to printing	√	√
23	Processing and preserving of fruit and vegetables	√	√
24	Repair of fabricated metal products, machinery and	√	√

Sr. No	Industries	BAU	With Intervention
	equipment		
25	Manufacture of luggage, handbags, saddlery and harness; dressing and dyeing of fur	√	√
26	Electrical machinery, apparatus and appliances	X	√
27	Electronics goods	X	√
28	Road vehicles	X	√
29	Other industrial machinery and parts	X	√
30	Specialized machinery - Medical and surgical	X	√
31	Power generating machinery and equipment (Not power plants)	X	√

The potential industries for proposed UC near Agra are placed in Table 4.18.

Table 32: Potential Industries for Agra Urban Centre

Sr. No	Industries	BAU	With Intervention
1	Forging and moulding activities	√	√
2	Manufacture of dairy products	√	√
3	Manufacture of footwear	√	√
4	Manufacture of other electrical equipment	√	√
5	Manufacture of other fabricated metal products; metalworking service activities	√	√
6	Printing and service activities related to printing	√	√
7	Processing and preserving of fruit and vegetables	√	√
8	Articles of apparel & clothing accessories	√	√
9	Specialized machinery - Medical and surgical	√	√
10	Manufacture of plastics prints and plastic containers	√	√
13	Electrical machinery, apparatus and appliances	X	√
14	Electronics goods	X	√
15	Road vehicles	X	√
16	Manufacture of other textiles	X	√
17	Manufacture of general purpose machinery	X	√
18	Medicinal and pharmaceutical products	X	√

Sr. No	Industries	BAU	With Intervention
19	Manufacture of medicinal, chemical and botanical products	X	√
20	Manufacture of parts and accessories for motor vehicles	X	√

The potential industries for proposed UC near Hathras are placed in Table 4.19.

Table 33: Potential Industries for Hathras Urban Centre

Sr. No	Industries	BAU	With Intervention
1	Manufacture of agro and food products	√	√
2	Manufacture of Beverages	√	√
3	Dairy Products	√	√
4	Manufacture of carpet and rugs other than by hand	√	√
5	Manufacture of wearing apparel, except fur apparel	√	√
6	Casting of metal	√	√
7	Manufacturing of Fabricated metal	√	√
8	Manufacture of machine-tools	√	√
9	Manufacture of electricity distribution and control apparatus and Electric lamps	√	√
10	Manufacture of electrical instruments and appliances	√	√
11	Manufacture of Vehicles (Agriculture and other small vehicles)	√	√
12	Other Manufacturing	√	√
13	Manufacture of general purpose machinery	X	√
14	Manufacturing of Pharmaceuticals	X	√

Industry wise attractiveness for each UC is provided in the Annexure 4.1 on Economic Profiling of the YEIDA. Investment potential of each UC in both scenarios, land area requirement to facilitate the estimated investment and employment generation that might occur in the course of development is discussed further.

4.6 ASSESSMENT OF INVESTMENT POTENTIAL, INDUSTRIAL LAND AREA REQUIREMENT AND EMPLOYMENT GENERATION

The section would proceed with estimation of industrial investment potential in all four proposed UCs for various industries. Land area requirement for the selected industries and employment potential in each UC based on estimated investment.

4.6.1 Estimating Investment Potential

The Investment Potential has been estimated using the following method.

- **Projection of District Domestic Product (DDP) of each district falling in the jurisdiction of YEIDA II.**

  DDP of all four districts i.e. Agra, Mathura, Aligarh and Hathras have been projected upto 2031 in Business as Usual (BAU) and With Intervention (WI) scenario. It is estimated that DDP may increase with say x% annually in BUA; it would grow at double of BUA in WI scenario.

- **Estimating Contribution of Industrial/Secondary sector to District DDP**

  Contribution /Output of the Industrial/ Manufacturing and Non Manufacturing sectors into the DDP have been adopted from their existing share projected up to 2031. This has been estimated for projected DDP for BAU and With Intervention scenario.

- **Estimating Investment Potential of each Urban Centre (UC)**

  Sectoral contribution as estimated using steps above have been apportioned to different identified industries for each district and each scenario, based on their existing share and future outlook.

  The industry wise contribution or Gross output in to DDP (Current and Projected) of 1) each district/UC and 2) for BUA and WI scenario then converted into Investment using the Incremental Capital Output Ratio (ICOR). The ICOR have been estimated 4.0 for country's[13] manufacturing sector. Since the ICOR of manufacturing sector for state was not available, national average has been drawn into calculation.

- Investment Potential for each district then apportioned to UC level by estimating suitable contribution of the proposed UC in the district investment by 2031.

Following is the estimates of investment potential for each UC calculated based on above methodology.

[13] *Source: Planning Commission's study for estimation of Investment requirement.*

Table 34: Industrial Investment Potential of Proposed UC (At 2004 Constant Prices) (Amount in Rs Crore)

Proposed Urban Centre (UC)	BAU*			With Intervention		
	2015-16	2020-21	2030-31	2015-16	2020-21	2030-31
Tappal – Bajna	744	1,086	2,145	744	3,108	23,286
Raya	3,323	4,446	8,747	3,323	7,511	30,307
Near Agra	2,785	3,999	7,804	2,785	7,610	26,043
Near Hathras**	1,045	1,399	2,752	1,045	2,043	6,605

Source: Consultant's Analysis

**It was assumed that proposed area would attract lower investment in case of BAU owing to absence of Infrastructure and policy interventions.*

*** Presence of two major urban centres namely Agra and Aligarh and proposed UCs in both these districts is likely to attract higher industrial investment during the Plan Period up to 2031. This is owing to high industrial concentration in both districts and UCs providing further impetus to growth of both Agra and Aligarh districts.*

Industry wise investment potential for each UC is provided in to Annexure 4.2 on Economic Profiling of YEIDA.

4.6.2 Estimating Land Demand for Industries

The industry-wise estimated industrial investment potential of all proposed UCs under both scenarios (1) BAU and (2) With Intervention shall have to be facilitated by making available required land area. Investment potential of each UC has been converted into land demand using investment intensity specific to different nature of industries (land required per unit of Investment). The investment intensity was derived for each industry separately based on industry analysis, existing projects, interaction with manufacturing units of various industries and published reports of earlier studies. The investment intensity can vary widely, depending on a number of factors like automation levels, design preferences, and a unit's capacity. Thus suitable adjustments are made on case to case basis considering size and nature of sub segments of each industry that can be identified for each UC. The investment intensity considered under this study for the selected industries is given in the Annexure 4.5. Industry wise Investment Intensities have been applied to

projected industrial investment under both above scenarios in order to determine the industry wise land area requirement during the planning period.

Further the land demand has been calculated on unconstrained basis, assuming that land for Industrial use would be available in the UC as when it is required. Industrial Land area estimations for all UC are presented in Table 4.21.

Table 35: Industrial Land Demand from proposed UC (Figures in Ha)

Proposed Urban Centre (UC)	BAU		With Intervention	
	2020-21	2030-31	2020-21	2030-31
Tappal – Bajna	129	254	319	1,786 *
Raya	321	631	525	2,155
Near Agra	616	1,169	929	2,586 **
Near Hathras	104	205	142	490 ***

Source: Consultant's Analysis

**Figures of Industries with IT/ITES. Land Demand from manufacturing would be 1765 while demand from IT/ ITES would be 21 hec.*

***Figures of Industries with IT/ITE. Land Demand from manufacturing would be 2546 while demand from IT/ ITES would be 40 hec.*

****Represents figures with additional requirement from Logistic and export oriented industries at later stage. Land area requirement without such discontinuity could be estimated around 456 hac.*

Industry wise Land Demand of all four proposed Urban Centres are specified in Annexure 4.3 on Economic Profiling of YEIDA.

It is estimated that two UC namely Tappal-Bajna and near Agra would attract significant IT/ITES industries owing to the fact that former would have strong linkages with Greater NOIDA considering its proximity, whereas, later being well developed Urban Agglomeration International tourist destination, well accessible, proposal for International Airport and presence of engineering colleges, could well attract IT/ITES industries. Output of IT/ITES industries have been estimated during the planning period. This shall be converted into employment potential of IT/ITES using practice of output per employee. Industry norm of space requirement per employee has been

adopted to estimate the built up area which shall be converted into land area requirement using FSI of 1.5. Based on this land area requirement for IT/ITES industries for both UC at Tappal-Bajna and near Agra have been estimated as 21 hec and 40 hec respectively during the planning period.

Given its proximity to Daudkhan Junction of proposed Eastern DFC, Hathras can attract investment from the freight sensitive/ export oriented industries hence may be able to generate additional land demand and employment. However from industries point of view Agra UC as destination would be better off compared to Hathras, boasting upon existing industrial base, logistic support, superior road and rail linkages and availability of urban amenities in Agra City. It can be said that the proposed Hathras UC may witness incremental land demand from logistic and freight sensitive manufacturing industries at a later stage, towards the end of planning period. It is estimated based on the assumption that the Eastern DFC may take 10-15 years to get implemented. The above industries would come and locate themselves at Hathras only after some concrete development on DFC front and considerable saturation of Agra UC.

4.6.3 Estimating Employment Potential for Industries

Estimation of additional employment generation (direct and indirect) during the planning period for each UC has been estimated using the Employment intensities of different industries. Employment intensities across the industries (i.e. direct and Indirect Employment generation per Unit of Investment) have been estimated based on existing projects, past studies, ASI data and industry practices. Suitable adjustments have also been made. Industry wise Employment Intensities have been applied to estimated investment potential of different industries to arrive at employment potential. The employment intensities considered under this study for the selected industries is given in the Annexure 4.6 on Economic Profiling of YIEDA region. Estimated Employment Potential for all UCs is presented in Table 4.22.

Table 36: Employment Generation Potential for proposed UC (Figures in No.)

Proposed Urban Center (UC)	BAU	With Intervention	
	2030-31	2030-31	
Tappal – Bajna	9,864	1,95,097	*
Raya	42,179	1,69,419	
Near Agra	1,04,355	2,65,218	**
Near Hathras	20,924	40,452	***

Source: Consultant's Analysis

** Figures of Industries with IT/ITES. Employment potential of manufacturing would be 172063.*

***Figures of Industries with IT/ITES. Employment potential of manufacturing would be 219218*

**** Figures considering influx of logistic and freight sensitive industries. Without such discontinuity employment can be estimated around 35176*

Industry wise employment potential of all four proposed Urban Centres are specified in Annexure 4.4 on Economic Profiling of YEIDA.

The employment potential of IT/ITES industry for Tappal-Bajna and Agra UC have been estimated using the method of output per employee as discussed in section above which is worked out to 23034 and 46000 respectively, during the planning period.

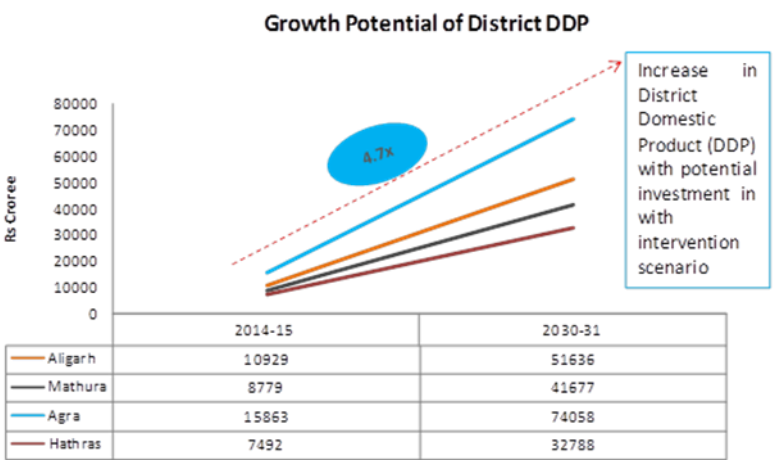
4.7 SUMMING UP

Development and sustainability of a region is solely dependent on robustness of the economy supported by environment friendly and systematic spatial planning. The four Urban Centers (UCs) at 1) Tappal- Bajna 2) Raya, 3) Near Agra and 4) near Hathras are being planned with scientific approach however they would thrive as self sustaining regions only with planned approach for the economic development. The report provides economic profiling of four UCs and attempts to estimate industrial and employment potential thereof. In order to create sustainable regional economy social and economic objectives have been set which are as follows.

- Increase in Gross Domestic Product (GDP) of the YEIDA by 4 to 5 times from existing level.
- Higher degree of direct and indirect employment generation by facilitating development of industrial and service sector industries.

Above objectives, arguably, captures the basic contemporary economic- social needs of improved quality of life (Per capita income rises with increase in GDP), increases social accountability and lower crime rates with abundant job opportunities and gradual development economic ecosystem for vast spectrum of industries operating at different scale as well as social ecosystem for all segments of the society. Following exhibit demonstrates the scenario of realized objectives for all four UCs during planning period.

Table 37: Growth Potential of Districts and employment generation potential from UC



	2014-15	2030-31
Aligarh	10929	51636
Mathura	8779	41677
Agra	15863	74058
Hathras	7492	32788

Employment Generation Potential from UC (2031)

UC	Additional Employment Generation potential from UC (no)
Tappal-Bajna	195097
Raya	169419
Agra	265218
Hathras	35176

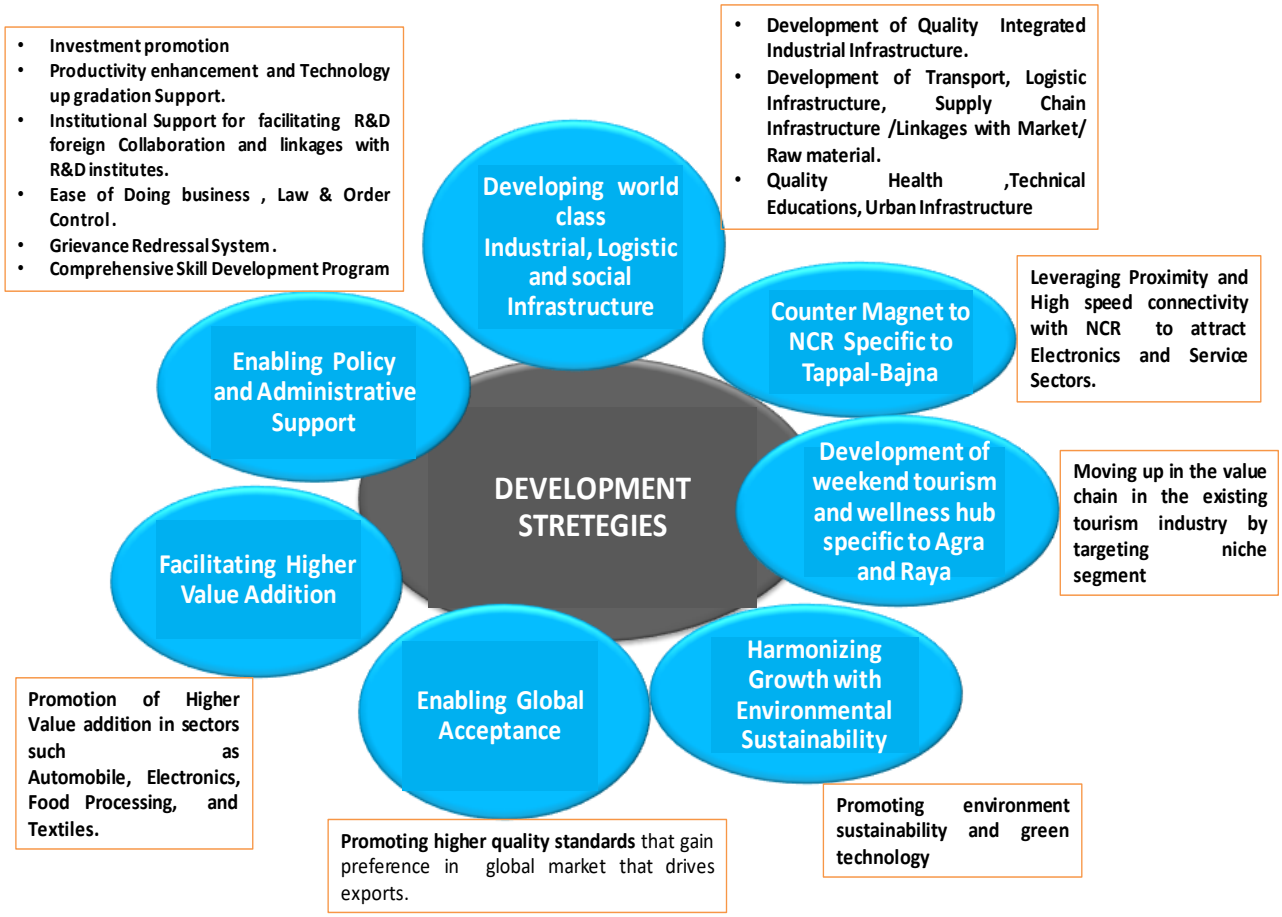
Source: Consultant's Analysis

Above objectives could be achieved by attracting the investment in Industrial and Service Sector. The investment potential as discussed above can be achieved through comprehensive interventions listed below. All such interventions are described in detail in the report.

- Targeting potential industries identified for each UC.
- Facilitating industrial interventions through policy interventions
- Facilitating industrial infrastructure
- Providing robust transport and logistics infrastructure to industries.
- Enhancing availability of skilled and employable human resources.
- Facilitating social infrastructure such as Health facilities.

Above specified Interventions could be carried out through exercising development strategies summarized below.

Table 38: Development Strategies for Proposed UC



Source: Consultant's Analysis

4.8 POTENTIAL FOR RECREATIONAL ACTIVITIES AT URBAN CENTRES

In addition to education and health facilities supporting the industrialisation, development of recreational activities is necessary to attract the business visitors and to have work-life balance for the residents of the city. Moreover, due to the presence of Mathura and Agra tourist destinations, development of tourism activities and related infrastructure has potential to attract tourists to visit and stay in newly planned townships. According to Tourism Department Govt of UP, the State had received around 17 crore tourists in 2012. It was 8.33% higher than the previous year. Out of which registered foreign tourists were only around 20 lakh. Agra and Mathura region hosted around 4.60 crore tourists in 2012. It comprised around 27% of the total tourist arrival in the state. Around 80% of the total foreign tourists who visited the State had stayed in the Agra-Fatehpur Sikri region only while around 28% domestic tourists had visited Agra and Mathura-Vrindavan-Gokul circuit presumably for pilgrimage.

Proposed UC near Agra and at Raya falls in the Agra – Mathura region. Mathura region houses famous holy places for Hindus on the bank of river Yamuna while Agra region has famous heritage structures of Mughal Era. The combination attracts both domestic and foreign tourists exploring religious tourism as well as heritage tourism. Tourism industries are flourishing in these two regions. During site visit it emerged that Agra and Mathura also play key role of weekend gateways, for the residents of NCR given the Expressway connectivity.

However, the above regions lack recreational facilities which are required to extend the stay of the tourists more than their usual schedules as well as to attract more weekend tourists. Proposed UC at Tappal - Bajna can also be developed as weekend destination, given it's proximity to the NCR.

Following projects have potential to develop at 1) UC near Agra 2) UC at Tappal-Bajna to offer recreational activities. Such activities could extend the stay of the tourists in the region which is important to generate additional revenue and employment for the local residents.

Table 39: Indicative List of Recreational Projects

Sr. No.	Projects	Components	For UC near Agra	For UC at Tappal – Bajna
			Approx Area (In acre)*	
1	Theme park	• Theme based amusement park with different rides, shows and dispalys. • Water Park • Adventure based game and ride zone • Food joints and multi cuisine restaurants	300	150
2	5 Star resort	• Five star accomodations • Well equiped Spa and Wellness Centre • Indoor and outdoor game area , water pool, liabrary, open space etc.	20	20
4	5 Star resort and Golf Course	• Five star accomodations • Well equiped Spa and Wellness Centre • Indoor and outdoor game area , water pool, liabrary, open space etc. • Golf Course	-	160
		Total	**320**	**330**

Source: Consultant's Analysis

**The area is estimated based on similar facilities/ projects operational in various parts of India*

The Theme park and 5 Star Resort proposed for Agra UC would cater to the latent recreational and leisure needs of the foreign and domestic tourists visiting Agra and Mathura while the same proposed at Tappal-Bajna would facilitate the UC to act as weekend destination for NCR. Also a golf course near NCR would also address outing need of the corporates located in the suburbs near New Delhi.

Following projects have potential for development in various UCs to facilitate the economic planning and gradual development.

Table 40: Indicative List of Projects for proposed UC

Proposed Urban Center (UC)	Indicative List of Project
Tappal – Bajna	• Multi Purpose Sport Complex/ Sports City • Solar Park • IT/ITES Park • Health city with innovations & education in health sector • Skill development and design centers
Raya	• Naturolopathy centre, Ayurveda, Yoga and Wellness Centre; • Amphitheatre, Open Air theaters, Museum, Convention Centre, Heritage centre showing various religious themes etc.; • Haat Development for Local Arts & Crafts, Tourist Trails, Rural Tourism Centre etc.; • Budget hotels, service apartments, dharmshalas, tourist facility and information centre; • Star hotels for high end tourists; • Cultural Centre • Film City
Near Agra	• Convention and Exhibition Centre • Footwear Design and Testing Institute • Engineering Research and Testing Lab • Institute for Hotel Management and Tourism • Entrepreneurship Development Institute • IT/ITES Park
Near Hathras	• Convention and Exhibition Centre • Ayurveda Research Institute

Source: Consultant's Analysis

However, Structuring and implementation strategies along with financial and technical feasibility of the above projects need to be studied further in detail.

5 PROPOSED SIZE OF URBAN CENTRE

5.0 *BACKGROUND*

Existence of fast connectivity through Yamuna Expressway opens an avenue for the development of the area and thus YEIDA area has been identified for industrialisation due to availability of vast land and good connectivity. With an intend of development of the YEIDA and to optimise the potential of the area for the economic development of the State of Uttar Pradesh in the manufacturing sector, four Urban Centres have been identified based on detailed land capability for urbanisation.

Based on detailed economic analysis, the possible investment estimate in identified industries have been projected and land requirement has been estimated in all the four Urban Centres. Based on the employment generation, the population has been estimated which is presented in Table 5.1.

Table 41: Population Estimates

Sr.No	Urban Centre	Estimated Population
1	Tappal-Bajna Urban Centre	12.75 Lacs
2	Raya Urban Centre	9.66 Lacs
3	Agra Urban Centre	10 – 12 Lacs (Approxx)
4	Sasni/Hathras Urban Centre	2 – 3 Lacs (Approxx)

5.0.1 Planning Standards and Considerations

In order to develop the concept in a planned manner, the land requirement and the boundary has been identified based on planning standards, land use break up analysis, physical features, influence area and existing & proposed developments especially transport, which has been detailed out as follows:

Industrial Area – The industrial land requirement has been estimated based on detailed economic analysis of global, national, state and regional industrial demand assessment.

Residential Area – The National Habitat Policy stipulates a minimum of 8sq.m per person for residential use. The thresholds for residential per capita space consumption may range between 8 and 45sq.m per person in an average Indian city, this may stand at an average of 25sq.m per person.

Commercial Area – NBC guidelines for office spaces and commercial spaces suggests the standards for 11 sq.m./person. Delhi has 8.58 sq.m/person and Mumbai has 6.24 sq.m/person. As per URDPFI

guidelines, the per capita space requirement suggested is 0.2 to 0.6 ha/1000 persons with an avg. of 0.4ha/1000 persons.

Recreational Area – As per URDPFI guidelines, open spaces for the large and metro sized towns shall be 1.4 to 1.6 ha per 1000 persons. However, the desirable is 10-12 sq.m per person.

Public-Semi-Public – Land area requirement for each of the city level public-semi public facilities of educational, health and socio-cultural facilities based on URDPFI guidelines and provisions for the same in other industrially planned cities have analyzed.

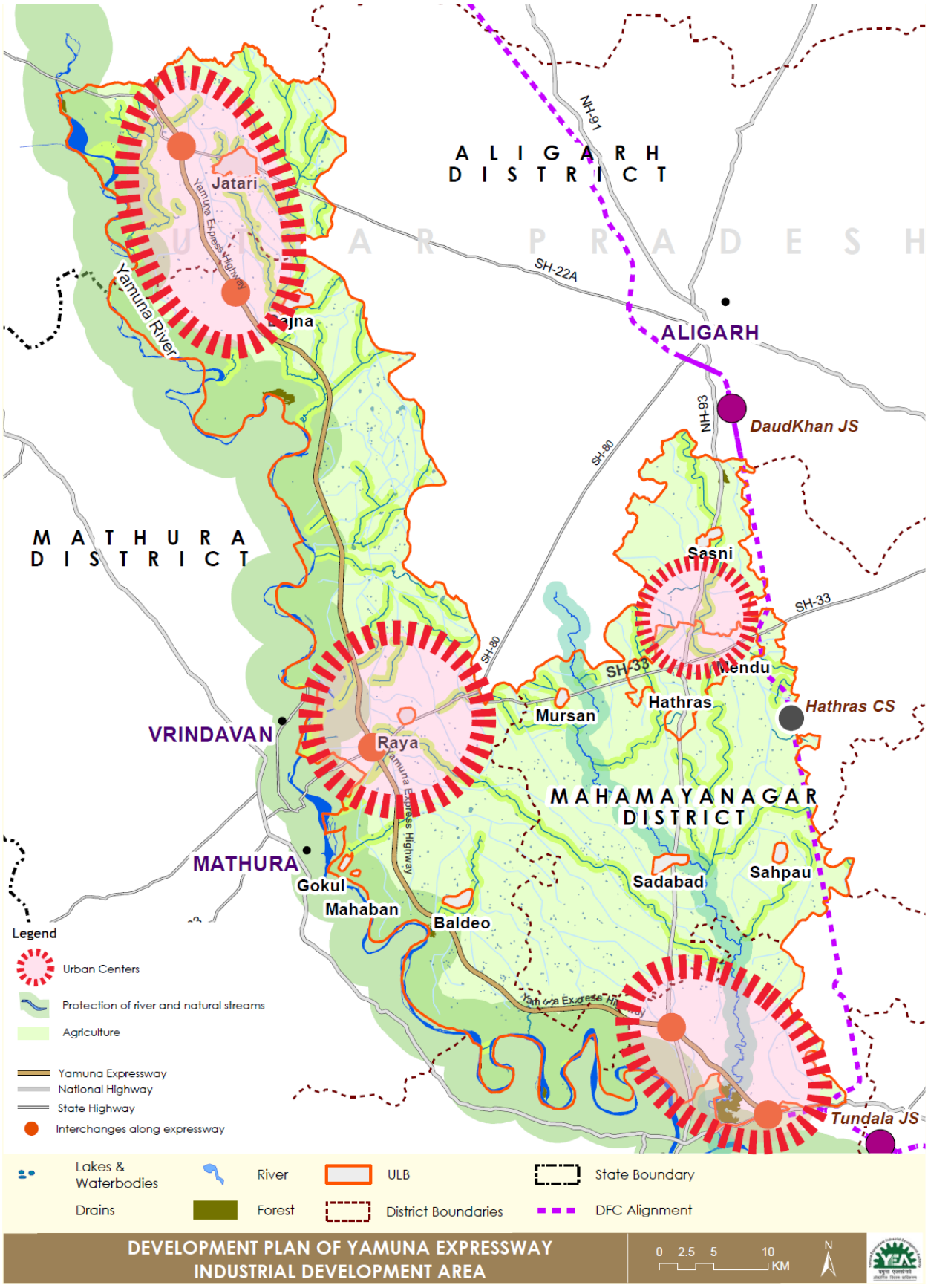
5.0.2 Size of Urban Centres

Adopting the planning norms, standards and guidelines suggested for space demand for key land uses based on the concept plan and land use analysis, approximate land requirement for the development of urban centres has been estimated.

Sr.No.	Urban Centre	Estimated Area (Ha)	Status of Master Plan
1	Tappal-Bajna Urban Centre	11104	Notified Notification No. 313/77-3-17-275 एम /15 Dated: 08 May 2017
2	Raya Urban Centre	11654	Notified Notification No. 1258/77-3-2024-275(एम)/2015 Dated: 21 October 2024
3	Agra Urban Centre	*10000 to 12000	Plan is being prepared
4	Sasni/Hatras Urban Centre	*2000 to 4000	Plan will be made as per requirement in future

(*Indicates the tentative figure and can be considered after after plan being prepared and approved by competent authority.)

Map 10 : Broad Location of Proposed Urban Centres



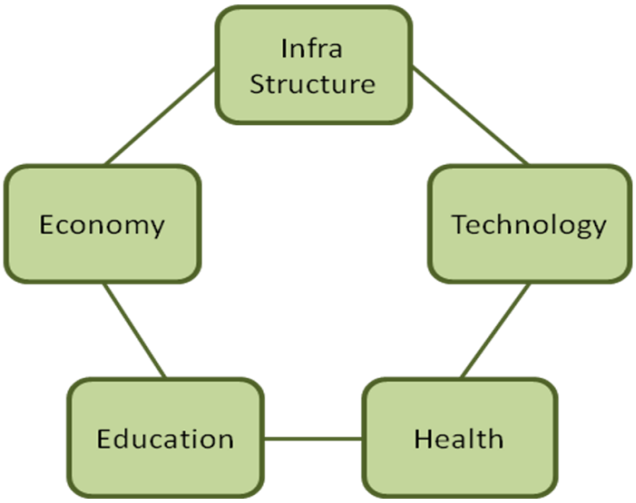
6 RURAL DEVELOPMENT

6.1 INTRODUCTION

Rural poverty and unemployment in India have grown in an unprecedented manner during the last few decades. There is a growing prevalence of illiteracy, superstitions, hungry people, mal-nourished children, farmer suicides, starvation deaths, migration resulting from inadequate employment, poverty, and the failure of subsistence production during droughts and other natural hazards. It is evident from existing situation analysis that the YEIDA-II is not only an economically diffident but also needs to focus on providing basic social and physical infrastructural facilities in rural villages.

Overall & comprehensive development of villages is called rural development. This refers development of agriculture and allied sectors, rural industries and rural infrastructure. As majority of population lives in villages, their backwardness stands for backwardness of economy as whole. So, rural development has emerged as a strategy designed to improve the economic and social life of a group of a people. It involves extending the benefits of development to the rural population who seeks a livelihood in the rural areas of YEIDA II.

Development in Rural Area



Rural settlements of YEIDA Phase-ll located near the fast growing National Capital Region, these settlements are undergoing physical and socio-economic changes, particularly in the settlements along the major transport corridors i.e. Yamuna Expressway. The Master Plan focuses on equitable growth strategies by ensuring regional development strategies which caters to both urban centres and rural area as well. Master Plan of YEIDA II focuses on rural development and regional

development strategies; however development strategies for proposed urban centre are addressed in respective master plans of urban centres.

6.2 ZONING REGULATIONS FOR RURAL DEVELOPMENT

Development within the master plan areas of four urban centers is taken care by zoning regulations of respective master plan. However development within the 'Agriculture' & 'Abadi' area outside the Master Plan boundary / out side the urbanisable area boundary is addressed in "zoning regulations for rural development" section of "Master Plan YEIDA II".

This section details out guidelines for enabling the extension and provision of necessary development within Abadi and Agriculture area in the Master Plan for YEIDA II. This includes designation of use zones and use premises, use premises to be permitted in the Abadi & Agriculture zone, use activities to be permitted in use premises and restrictions on subdivision of use zones.

The Abadi expansion of the abadi areas falling outside the proposed urbanisable area within YEIDA-II shall be developed within 200m of the existing abadi within agriculture area.

6.2.1 Use Zones and Use Premises Designated

Use Zone means an area for any one of the specific dominant uses of the rural functions. There shall be 2 categories of use zones classified as under:

1. **Village Abadi**
2. **Agriculture Zone**

6.2.2 Permissibility of Various Activities/ Uses

1. **Following Activities may be permitted on the plots within the abadi area and 200 meter radious of existing village abadi area/Abadi Expension Area.**

   I. Residential house

   II. Public- Semi Public/ Institutional facilities

   (i) Crèche/ Day-care centres/ Play / Nursery school
   (ii) Primary school/ Secondary school
   (iii) Hostel
   (iv) Guest House/ Inspection House
   (v) Vocational training institute/Computer Training Institute
   (vi) Post Office/ Telephone office
   (vii) Stiching/Weaving/Embroidery
   (viii) Police post

(ix) Health centre/ Dispensary

(x) Clinic/Health Club/Gym/ Library/Reading Room

(xi) Nursing home

(xii) Milk booth

(xiii) Religious building/Satsang Bhavan

(xiv) Community centre

(xv) Socio- culture centre/Yoga & Meditation Center

(xvi) P.C.O. / Internet Centre/ Information Centre

(xvii) Dharamshala/ Night shelter

(xviii) Personal professional office

III. Commercial Activities

(i) Retail Shop

(ii) Repair shop/ Service shop

(iii) Vending booth

(iv) Bakery/ Confectionary/ Atta chaki

(v) Vegetable / fruit shop/ fruit market

(vi) Restaurant/ Canteen

(vii) Barat ghar/Marriage Hall/Banquet Hall/Meeting hall

(viii) Goodwin for non hazardous item

(ix) Dharamkata / weigh bridge

(x) Bank / ATM

(xi) Temporary Cinema/ Circus/ Exhibition Space

(xii) C.N.G. Filling Station/ Electric Vehicle Charging Station

IV. Other activities

(i) Service/ cottage industries

(ii) Public toilets

(iii) Tube wells

(iv) Water tanks

(v) Mobile tower

(vi) Taxi/ Auto rickshaw stand

(vii) Parking facilities

(viii) Bus stand/ Bus shelter

(ix) Park /Playground

(x) Multi-purpose open spaces

(xi) Plant Nursery

- In addition to the social infrastructure/activities, only essential Commercial activities like Petrol Pump, Gas Godown and Cold Storage shall be allowed in Abadi expension area with special permission of Authority Board with the proviosion of impact Fee.
- Minimum road width shall be 18 meters for Commercial Activities (For other activites minimum road width shall be 12 meter). However, where higher width is mandatory as per the Building Regulations, the same shall be the minimum width for that particular activity. Minimum size of Plot, F.A.R., Ground coverage, Setbacks, Parking and other provisions shall be as per Building Regulations. The Authority may decide the SOP for approval/construction of above mentioned activities.

2. Activities permissible on the plots outside the village abadi or Agricultral Zone:

i. Activities only related to social infrastructure as mention in **ii** of 6.2.2 (public-semi public, institutional facilities, utilities, parks and playground) may be allowed in this zone.

ii. The area falls outside the 5 kilometer radious from proposed urban center boundary, shall be act as a buffer area. No commercial activitities shall be allowed in that buffer area. In addition to the social infrastructure/activities, only essential Commercial activities like Petrol Pump, Gas Godown, Vegetable / fruit shop/ fruit market and Cold Storage shall be allowed in Agricultural zone out side the buffer area with special permission of Authority Board with the proviosion of impact Fee.

iii. Minimum road width shall be 18 meters for Commercial Activities. However, where higher width is mandatory as per the Zoning Regulations or Building Regulations, the same shall be the minimum width for that particular activity. Minimum size of Plot, F.A.R., Ground coverage, Setbacks, Parking and other provisions shall be as per Building Regulations.

3. In addition to the permissible activities mentioned above, if any other uses have been permitted in earlier schemes, allotment or lease conditions prior to these regulations, the same uses shall continue to be permissible unless otherwise specially prohibited under special circumstances, if any by the Authority in any particular scheme.

4. In addition to the permissible activities mentioned above, if any other uses or Activity have been perposed by State Government or Central Government, the same uses shall continue to be permissible.

6.2.3 PROVISION FOR IMPCT FEE

Impact fee waiver	
Non Commercial and Charitable Activities	1
Service and Household Industries	2

Symbol	
Impact Fee Not applicable	
Impact fee not payable	
Impact fee payable	

Activities Uses Zone with Impact Fee coefficient

	Activities	Agricultural	Village Abadi
1	Agricultural/Park/Green Belt		
2	Public /Semi-public/Institutional	0.25 (1)	0.25 (1)
3	Transportation	0.30	
4	Industrial	0.40 (2)	
5	Residential	0.50	
6	Office	1.00	0.50
7	Commercial	1.50	1.00

Note:

1. **Impact fee on Patrol Pump and Gas go-down shall be 50 percent and for other activities, it shall be 25 percent.**
2. **Impact Fee shall be Calculated on the basis of formula given below-**

- **Plot Area X Circle Rate X Impact Fee Coefficient X 0.5**
  for Petrol Pump and Gas godown
- **Plot Area X Circle Rate X Impact Fee Coefficient X 0.25**
  for all other Activities

Example :
For Petrol Pump
Plot Area = 500 square meter
Circle Rate for Agricultural Land = Rs. 500 per square meter
Impact Fee Payble= 500X500X1.50X0.5
=Rs.. 187500

6.2.4 PROVISION FOR EXISTING STRUCTURES/ESTABLISHMENTS

i. Any existing establishment running within the **village abadi** or Agricultural Zone may be allowed to continue. However, the Authority/State Govt./Central Govt. or its departments/agencies can take appropriate decision/actions as per law with regards to existing structures in the ROW of existing roads and ROW of the proposed Master Plan Roads/Railway/Other Transport Mode. Moreover, the expansion or reconstruction more than the existing area shall be governed as per the permissibility of that activity as per zoning regulations.

ii. Further, existing structures used for non conforming uses, that are not permissible as per zoning regulations may be maintained, repaired, or renovated without changing, extending, expanding its external dimensions as per the detailed policy on the same that shall be prepared by Authority for regulating such uses from the date of Master Plan coming into force.

6.3 LIST OF NOTIFIED VILLAGES IN PHASE -II YEIDA

Table 6-1: LIST OF NOTIFIED VILLAGES

cc	Distrctwise Si. No.	District Name	Tehsil Name	Village Name
1	1	Aligarh	Khair	Shamaspur
2	2	Aligarh	Khair	Fazilpur Kachh
3	3	Aligarh	Khair	Gharvara
4	4	Aligarh	Khair	Hamidpur
5	5	Aligarh	Khair	Syaraul
6	6	Aligarh	Khair	Atari
7	7	Aligarh	Khair	Rasulpur
8	8	Aligarh	Khair	Bajauta
9	9	Aligarh	Khair	Baina
10	10	Aligarh	Khair	Bijaitha
11	11	Aligarh	Khair	Maur
12	12	Aligarh	Khair	Nagla Danda
13	13	Aligarh	Khair	Vasera
14	14	Aligarh	Khair	Palsera
15	15	Aligarh	Khair	Lal Garhi
16	16	Aligarh	Khair	Khera Kishan
17	17	Aligarh	Khair	Niguna Siguna
18	18	Aligarh	Khair	Kadirpur Barah
19	19	Aligarh	Khair	Bhojaka
20	20	Aligarh	Khair	Bhadiyar
21	21	Aligarh	Khair	Pipli Nagala Kadirpur
22	22	Aligarh	Khair	Shadipur
23	23	Aligarh	Khair	Nagala Kripa
24	24	Aligarh	Khair	Bijana Ki Nagaliya
25	25	Aligarh	Khair	Damuaka
26	26	Aligarh	Khair	Paimpur
27	27	Aligarh	Khair	Balampur
28	28	Aligarh	Khair	Hirpura
29	29	Aligarh	Khair	Bulakipur
30	30	Aligarh	Khair	Kheriabuzurg
31	31	Aligarh	Khair	Jalalpur

cc	Distrctwise Si. No.	District Name	Tehsil Name	Village Name
32	32	Aligarh	Khair	Itwarpur
33	33	Aligarh	Khair	Usarah Rasulpur
34	34	Aligarh	Khair	Harji Ki Garhi Urf Garhi Suraj
35	35	Aligarh	Khair	Sotipura
36	36	Aligarh	Khair	Nagala Khurd
37	37	Aligarh	Khair	Bichpuri
38	38	Aligarh	Khair	Chhajjupur
39	39	Aligarh	Khair	Bajhera
40	40	Aligarh	Khair	Bharatpura
41	41	Aligarh	Khair	Bairamganj
42	42	Aligarh	Khair	Harsukh Ki Nagaliya
43	43	Aligarh	Khair	Kamalpur
44	44	Aligarh	Khair	Takipur
45	45	Aligarh	Khair	Haziyapur
46	46	Aligarh	Khair	Lohlari
47	47	Aligarh	Khair	Keelpur
48	48	Aligarh	Khair	Karanpur
49	49	Aligarh	Khair	Baluapur
50	50	Aligarh	Khair	Milak Jarana
51	51	Aligarh	Khair	Jadana
52	52	Aligarh	Khair	Salpur
53	53	Aligarh	Khair	Jartauli
54	54	Aligarh	Khair	Kaliyanpur
55	55	Aligarh	Khair	Tappal
56	56	Aligarh	Khair	Dorpuri
57	57	Aligarh	Khair	Kurana
58	58	Aligarh	Khair	Hasanpur Jarailia
59	59	Aligarh	Khair	Kripalpur
60	60	Aligarh	Khair	Jikarpur
61	61	Aligarh	Khair	Taharpur
62	62	Aligarh	Khair	Salemapur

cc	Distrctwise Si. No.	District Name	Tehsil Name	Village Name
63	63	Aligarh	Khair	Shahnagar Soraula
64	64	Aligarh	Khair	Madak
65	65	Aligarh	Khair	Khediya Khurd
66	66	Aligarh	Khair	Faizuaka
67	67	Aligarh	Khair	Naglia Goraula
68	68	Aligarh	Khair	Dewaka
69	69	Aligarh	Khair	Bajidpur
70	70	Aligarh	Khair	Jaidpura
71	71	Aligarh	Khair	Utwara
72	72	Aligarh	Khair	Ghanghauli
73	73	Aligarh	Khair	Goraula
74	74	Aligarh	Khair	Marorgarhi
75	75	Aligarh	Khair	Hetalpur
76	76	Aligarh	Khair	Palar
77	77	Aligarh	Khair	Simrauthi
78	78	Aligarh	Khair	Girdharpur
79	79	Aligarh	Khair	Pakhodana
80	80	Aligarh	Khair	Jahan Garh
81	81	Aligarh	Khair	Kansera
82	82	Aligarh	Khair	Malav
83	83	Aligarh	Khair	Narbari
84	84	Aligarh	Khair	Sherpur
85	85	Aligarh	Khair	Adampur
86	86	Aligarh	Khair	Lalpur Raiyatpur
87	87	Aligarh	Khair	Burhaka
88	88	Aligarh	Khair	Khandeha
89	89	Aligarh	Khair	Nagal Kala
90	90	Aligarh	Khair	Manpur
91	91	Aligarh	Khair	Untasani Bangar
92	92	Aligarh	Khair	Untasani Khadar
93	1	Mathura	Mahavan	Padrari
94	2	Mathura	Mahavan	Malhai

cc	Distrctwise Si. No.	District Name	Tehsil Name	Village Name
95	3	Mathura	Mahavan	Achru Ladhora
96	4	Mathura	Mahavan	Kachnau
97	5	Mathura	Mahavan	Bichpuri Poluwa
98	6	Mathura	Mahavan	Khajuri
99	7	Mathura	Mahavan	Bhojua
100	8	Mathura	Mahavan	Jagatiya
101	9	Mathura	Mahavan	Alipur
102	10	Mathura	Mahavan	Kheria
103	11	Mathura	Mahavan	Nagla Mirbulaki
104	12	Mathura	Mahavan	Rawal Bangar
105	13	Mathura	Mahavan	Rawal Khadar
106	14	Mathura	Mahavan	Manoharpur
107	15	Mathura	Mahavan	Chhikara
108	16	Mathura	Mahavan	Nauranga
109	17	Mathura	Mahavan	Rausinga
110	18	Mathura	Mahavan	Nagaura
111	19	Mathura	Mahavan	Khalaua
112	20	Mathura	Mahavan	Bhanda Sujanpur
113	21	Mathura	Mahavan	Birona
114	22	Mathura	Mahavan	Nagla Akos Bangar
115	23	Mathura	Mahavan	Nagla Akos Khadar
116	24	Mathura	Mahavan	Akos Bangar
117	25	Mathura	Mahavan	Murshidabad Bangar
118	26	Mathura	Mahavan	Sarai Salbahan
119	27	Mathura	Mahavan	Kanora khadar
120	28	Mathura	Mahavan	Kanora Bangar
121	29	Mathura	Mahavan	Murshidabad khadar
122	30	Mathura	Mahavan	Nagla Bali
123	31	Mathura	Mahavan	Daulatpur
124	32	Mathura	Mahavan	Lahrauli Khadar
125	33	Mathura	Mahavan	Lahrauli Bangar
126	34	Mathura	Mahavan	Barha Bangar

cc	Distrctwise Si. No.	District Name	Tehsil Name	Village Name
127	35	Mathura	Mahavan	Byohai
128	36	Mathura	Mahavan	Anorha
129	37	Mathura	Mahavan	Sarai Daud
130	38	Mathura	Mahavan	Jugsana
131	39	Mathura	Mahavan	Bhartiya
132	40	Mathura	Mahavan	Fatehpura
133	41	Mathura	Mahavan	Karnau
134	42	Mathura	Mahavan	Patlauni
135	43	Mathura	Mahavan	Nunera
136	44	Mathura	Mahavan	Basar Bhakandi
137	45	Mathura	Mahavan	Bansai
138	46	Mathura	Mahavan	Pavesara
139	47	Mathura	Mahavan	Nagla Gukhrauli
140	48	Mathura	Mahavan	Hataura
141	49	Mathura	Mahavan	Narhauli Junnardar
142	50	Mathura	Mahavan	Awerni
143	51	Mathura	Mahavan	Chholi
144	52	Mathura	Mahavan	Amirpur
145	53	Mathura	Mahavan	Jatora
146	54	Mathura	Mahavan	Mohanpur
147	55	Mathura	Mahavan	Ridha Baldeo(Dehat)
148	56	Mathura	Mahavan	Salemabad
149	57	Mathura	Mahavan	Sarkand Khera
150	58	Mathura	Mahavan	Pachawar
151	59	Mathura	Mahavan	Nagla Bharau
152	60	Mathura	Mahavan	Gulsana Bad
153	61	Mathura	Mahavan	Bandi
154	62	Mathura	Mahavan	Jagdishpur
155	63	Mathura	Mahavan	Khanpur
156	64	Mathura	Mahavan	Karab
157	65	Mathura	Mahavan	Kishanpur
158	66	Mathura	Mahavan	Nagla Thana

cc	Distrctwise Si. No.	District Name	Tehsil Name	Village Name
159	67	Mathura	Mahavan	Nagla Dhanoua
160	68	Mathura	Mahavan	Nagla Hari
161	69	Mathura	Mahavan	Nagla Tulsi
162	70	Mathura	Mahavan	Nagla Karan
163	71	Mathura	Mahavan	Mursenia
164	72	Mathura	Mahavan	Bahadurpur
165	73	Mathura	Mahavan	Itauli
166	74	Mathura	Mahavan	Siyara
167	75	Mathura	Mahavan	Khirari
168	76	Mathura	Mahavan	Bana
169	77	Mathura	Mahavan	Bhainsara
170	78	Mathura	Mahavan	Saras
171	79	Mathura	Mahavan	Kanjaulighat Khadar
172	80	Mathura	Mahavan	Kanjaulighat Bangar
173	81	Mathura	Mahavan	Tatrauta Khadar
174	82	Mathura	Mahavan	Tatrauta Bangar
175	83	Mathura	Mahavan	Madaura
176	84	Mathura	Mahavan	Bhudha
177	85	Mathura	Mahavan	Akos Khadar
178	86	Mathura	Mahavan	Shahjadpur(Indrawali)
179	87	Mathura	Mahavan	Ibrahimpur
180	88	Mathura	Mahavan	Muzaffarpur
181	89	Mathura	Mahavan	Mahaban Bangar (Dehat)
182	90	Mathura	Mahavan	Mahaban Khadar
183	91	Mathura	Mahavan	Gokul Bangar(Dehat.1)
184	92	Mathura	Mahavan	Gokul khadar
185	93	Mathura	Mahavan	Hatkoli
186	94	Mathura	Mahavan	Kilauni
187	95	Mathura	Mahavan	Banarsipur
188	96	Mathura	Mahavan	Dagheta
189	97	Mathura	Mahavan	Barauli
190	98	Mathura	Mahavan	Gudera

cc	Distrctwise Si. No.	District Name	Tehsil Name	Village Name
191	99	Mathura	Mahavan	Shahpur Khadar
192	100	Mathura	Mahavan	Shahaupur Bangar
193	101	Mathura	Mahavan	Balrampur
194	102	Mathura	Mahavan	Barha Khadar
195	103	Mathura	Mahavan	Nagla Ajam Bangar
196	104	Mathura	Mahavan	Nagla Ajam Khadar
197	105	Mathura	Mahavan	Saidpur
198	106	Mathura	Mahavan	Angai
199	107	Mathura	Mahavan	Jadaupur
200	108	Mathura	Mahavan	Garhsauli
201	109	Mathura	Mahavan	Selkhera
202	110	Mathura	Mahavan	Nagla Girdhar
203	111	Mathura	Mahavan	Khadera
204	112	Mathura	Mahavan	Habibpur Khadar
205	113	Mathura	Mahavan	Sherpur bangar
206	114	Mathura	Mahavan	Sherpur khadar
207	115	Mathura	Mahavan	Habibpur Bangar
208	116	Mathura	Mahavan	Jogipur Khadar
209	117	Mathura	Mahavan	Jogipur Bangar
210	118	Mathura	Mahavan	Noorpur
211	119	Mathura	Mahavan	Nabipur Bangar
212	120	Mathura	Mahavan	Nabipur Khadar
213	121	Mathura	Mahavan	Mazahidpur
214	122	Mathura	Mahavan	Bharau Garh
215	123	Mathura	Mahavan	Nagla Qazi
216	124	Mathura	Mahavan	Sihora
217	125	Mathura	Mahavan	Ochhta
218	126	Mathura	Mahavan	Tal Garhi
219	127	Mathura	Mahavan	Sonkh Khera
220	128	Mathura	Mahavan	Chhabirau
221	129	Mathura	Mahavan	Nera Bangar
222	130	Mathura	Mahavan	Sarai Alikhan

cc	Distrctwise Si. No.	District Name	Tehsil Name	Village Name
223	131	Mathura	Mahavan	Islampur
224	132	Mathura	Mahavan	Mubarikpur Khadar
225	133	Mathura	Mahavan	Mubarikpur Bangar
226	134	Mathura	Mahavan	Hayatpur
227	135	Mathura	Mahavan	Sehat khadar
228	136	Mathura	Mahavan	Nera Khadar
229	137	Mathura	Mahavan	Mohpai khadar
230	138	Mathura	Mahavan	Mohpai bangar
231	139	Mathura	Mahavan	Sehat bangar
232	140	Mathura	Mahavan	Bhit Bahari
233	141	Mathura	Mahavan	Nagla Arjun
234	142	Mathura	Mahavan	Jakariapur
235	143	Mathura	Mahavan	Nagla Heera
236	144	Mathura	Mahavan	Nagla Todar
237	145	Mathura	Mahavan	Madaur
238	146	Mathura	Mahavan	Radoi
239	147	Mathura	Mahavan	Baltikari
240	148	Mathura	Mahavan	Hasanpur
241	149	Mathura	Mahavan	Artauni
242	150	Mathura	Mahavan	Jharautha
243	151	Mathura	Mahavan	Gotha
244	152	Mathura	Mat	Birhana
245	153	Mathura	Mat	Shivli
246	154	Mathura	Mat	Birbal
247	155	Mathura	Mat	Gaju
248	156	Mathura	Mat	Amera
249	157	Mathura	Mat	Mishri
250	158	Mathura	Mat	Sherni
251	159	Mathura	Mat	Neem Gaon
252	160	Mathura	Mat	Bhadavan Khadar
253	161	Mathura	Mat	Iroli Gujar Bangar
254	162	Mathura	Mat	Lal Garhi

cc	Distrctwise Si. No.	District Name	Tehsil Name	Village Name
255	163	Mathura	Mat	Baikunthpur
256	164	Mathura	Mat	Samauli Bangaar
257	165	Mathura	Mat	Bilandpur
258	166	Mathura	Mat	Sirrela
259	167	Mathura	Mat	Akbarpur
260	168	Mathura	Mat	Irolizunnardar
261	169	Mathura	Mat	Bisavli
262	170	Mathura	Mat	Pirsuwa
263	171	Mathura	Mat	Tehra Mahaban
264	172	Mathura	Mat	Chauhari
265	173	Mathura	Mat	Khadiya
266	174	Mathura	Mat	Bil Aliabad
267	175	Mathura	Mat	Arazi Milik Qanungoyan
268	176	Mathura	Mat	Nanakpur Khadar
269	177	Mathura	Mat	Raipur Khadar
270	178	Mathura	Mat	Raipur Banger
271	179	Mathura	Mat	Bhagat Bhakrelia Khadar
272	180	Mathura	Mat	Tilak Garhi
273	181	Mathura	Mat	Abhaipura Khader
274	182	Mathura	Mat	Ramgarhi Banger
275	183	Mathura	Mat	Noorpur Banger
276	184	Mathura	Mat	Noorpur Khader
277	185	Mathura	Mat	Abhaipura Banger
278	186	Mathura	Mat	Ramgarhi Khader
279	187	Mathura	Mat	Balipur
280	188	Mathura	Mat	Ibrahimpur
281	189	Mathura	Mat	Milik Kalan
282	190	Mathura	Mat	Nagla Himaun
283	191	Mathura	Mat	Bahadin
284	192	Mathura	Mat	Javara
285	193	Mathura	Mat	Nagla Deh
286	194	Mathura	Mat	Surraka

cc	Distrctwise Si. No.	District Name	Tehsil Name	Village Name
287	195	Mathura	Mat	Nagla Mahru
288	196	Mathura	Mat	Dunetiya
289	197	Mathura	Mat	Kheria
290	198	Mathura	Mat	Milik Khurd
291	199	Mathura	Mat	Bhadanwara
292	200	Mathura	Mat	Khawal
293	201	Mathura	Mat	Bhalai
294	202	Mathura	Mat	Dadisara
295	203	Mathura	Mat	Pabbipur
296	204	Mathura	Mat	Karahari
297	205	Mathura	Mat	Surirkalan Bagar
298	206	Mathura	Mat	Jatpura
299	207	Mathura	Mat	Kolahar
300	208	Mathura	Mat	Garhi Kolaher
301	209	Mathura	Mat	Shankar Garhi
302	210	Mathura	Mat	Chinta Garhi
303	211	Mathura	Mat	Thainua
304	212	Mathura	Mat	Jaiswan
305	213	Mathura	Mat	Naseeti
306	214	Mathura	Mat	Nagla Birbala
307	215	Mathura	Mat	Hernol
308	216	Mathura	Mat	Kurhvara
309	217	Mathura	Mat	Bakla
310	218	Mathura	Mat	Nagla Dani
311	219	Mathura	Mat	Piri
312	220	Mathura	Mat	Biballi
313	221	Mathura	Mat	Bhankerpur Basela
314	222	Mathura	Mat	Bhooda Sani
315	223	Mathura	Mat	Auhawa Khader
316	224	Mathura	Mat	Bhidauni Khadar
317	225	Mathura	Mat	Auhawa Bangar
318	226	Mathura	Mat	Bhidauni Bangar

cc	Distrctwise Si. No.	District Name	Tehsil Name	Village Name
319	227	Mathura	Mat	Surirkalan Khadar
320	228	Mathura	Mat	Sihavan Khadar
321	229	Mathura	Mat	Iroli Gujar Khadar
322	230	Mathura	Mat	Sakatpur
323	231	Mathura	Mat	Chandpur Khurd
324	232	Mathura	Mat	Inayatpur
325	233	Mathura	Mat	Kankar Garhi
326	234	Mathura	Mat	Ahamadpur
327	235	Mathura	Mat	Hamazapur
328	236	Mathura	Mat	Badoth
329	237	Mathura	Mat	Bajna Dehat
330	238	Mathura	Mat	Dangoli Bangar
331	239	Mathura	Mat	Mandaira
332	240	Mathura	Mat	Dilu Patti
333	241	Mathura	Mat	Shall
334	242	Mathura	Mat	Saddikpur
335	243	Mathura	Mat	Lalpur Mat
336	244	Mathura	Mat	Sultan Patti
337	245	Mathura	Mat	Nausherpur
338	246	Mathura	Mat	Parsauli
339	247	Mathura	Mat	Pithora Khadar
340	248	Mathura	Mat	Mubarikpur
341	249	Mathura	Mat	Saeo Patti Banger
342	250	Mathura	Mat	Baghai Banger
343	251	Mathura	Mat	Nabipur
344	252	Mathura	Mat	Khanpur
345	253	Mathura	Mat	Chindauli
346	254	Mathura	Mat	Bhartiyaka
347	255	Mathura	Mat	Sadarpur
348	256	Mathura	Mat	Kaneka
349	257	Mathura	Mat	Ughanpur Khader
350	258	Mathura	Mat	Baghai Khadar

cc	Distrctwise Si. No.	District Name	Tehsil Name	Village Name
351	259	Mathura	Mat	Udhanpur Banger
352	260	Mathura	Mat	Pithora Bangar
353	261	Mathura	Mat	Kalyanpur
354	262	Mathura	Mat	Diwana
355	263	Mathura	Mat	Dhaku
356	264	Mathura	Mat	Suraj
357	265	Mathura	Mat	Gonga
358	266	Mathura	Mat	Nagal
359	267	Mathura	Mat	Thana Amarsingh
360	268	Mathura	Mat	Narbehansi
361	269	Mathura	Mat	Kharwa
362	270	Mathura	Mat	Bheema
363	271	Mathura	Mat	Tirwaya
364	272	Mathura	Mat	Koyal
365	273	Mathura	Mat	Barhaun
366	274	Mathura	Mat	Gaiyara
367	275	Mathura	Mat	Pokher Hirde
368	276	Mathura	Mat	Maoli Khader
369	277	Mathura	Mat	Maoli Banger
370	278	Mathura	Mat	Panigaon Khader
371	279	Mathura	Mat	Panigaon Banger
372	280	Mathura	Mat	Saur
373	281	Mathura	Mat	Choorahansi
374	282	Mathura	Mat	Kakrari
375	283	Mathura	Mat	Chhinparai Khader
376	284	Mathura	Mat	Dedna Khader
377	285	Mathura	Mat	Makhdumpur Banger
378	286	Mathura	Mat	Dedna Banger
379	287	Mathura	Mat	Marhalamukkh Khader
380	288	Mathura	Mat	Makhdumpur Khader
381	289	Mathura	Mat	Chhinparai Banger
382	290	Mathura	Mat	Marhalamukha Banger

cc	Distrctwise Si. No.	District Name	Tehsil Name	Village Name
383	291	Mathura	Mat	Inayatgarh Khader
384	292	Mathura	Mat	Inayatgarh Banger
385	293	Mathura	Mat	Firozpur Khader
386	294	Mathura	Mat	Daulatpur Khader
387	295	Mathura	Mat	Basau Banger
388	296	Mathura	Mat	Daulatpur Banger
389	297	Mathura	Mat	Basau Khader
390	298	Mathura	Mat	Toli Khader
391	299	Mathura	Mat	Nauhjheel Banger
392	300	Mathura	Mat	Toli Banger
393	301	Mathura	Mat	Lana Kasba
394	302	Mathura	Mat	Imlak Sawad Banger
395	303	Mathura	Mat	Imlak Sawad Khader
396	304	Mathura	Mat	Arazi Kashtdilu Patti
397	305	Mathura	Mat	Arazi Kasht Sultan Patti
398	306	Mathura	Mat	Arazi Kasht Parsoli
399	307	Mathura	Mat	Sotipura Banger
400	308	Mathura	Mat	Sotipura Khader
401	309	Mathura	Mat	Saeo Patti Khader
402	310	Mathura	Mat	Awa Khera
403	311	Mathura	Mat	Bhadavan Banger
404	312	Mathura	Mat	Girtana
405	313	Mathura	Mat	Sihavan Bangar
406	314	Mathura	Mat	Surir Vijaru Bangar
407	315	Mathura	Mat	Surir Vijaru Khadar
408	316	Mathura	Mat	Tehramat
409	317	Mathura	Mat	Sultanpur Khadar
410	318	Mathura	Mat	Sikanderpur
411	319	Mathura	Mat	Sultanpur Bangar
412	320	Mathura	Mat	Meerpur Bangar
413	321	Mathura	Mat	Meerpur Khadar
414	322	Mathura	Mat	Baroth Khadar

cc	Distrctwise Si. No.	District Name	Tehsil Name	Village Name
415	323	Mathura	Mat	Pal Kherha
416	324	Mathura	Mat	Said Garhi
417	325	Mathura	Mat	Bulakpur
418	326	Mathura	Mat	Ram Nagla
419	327	Mathura	Mat	Suhagpur
420	328	Mathura	Mat	Salaka
421	329	Mathura	Mat	Hasanpur
422	330	Mathura	Mat	Nawali
423	331	Mathura	Mat	Chandpur Kalan
424	332	Mathura	Mat	Bhureka
425	333	Mathura	Mat	Ekhu
426	334	Mathura	Mat	Jarara
427	335	Mathura	Mat	Khaira
428	336	Mathura	Mat	Bera
429	337	Mathura	Mat	Moiuddinpur
430	338	Mathura	Mat	Kurawli
431	339	Mathura	Mat	Nagla Bari
432	340	Mathura	Mat	Thok Sumera
433	341	Mathura	Mat	Thok Bindavani
434	342	Mathura	Mat	Bhudri
435	343	Mathura	Mat	Arazi Milik.Bikanushah
436	344	Mathura	Mat	Nagla Jangali
437	345	Mathura	Mat	Thok Saru
438	346	Mathura	Mat	Thokgyan
439	347	Mathura	Mat	Arazi Milik.Gangabasi
440	348	Mathura	Mat	Thok Kamal
441	349	Mathura	Mat	Arruwa Banger
442	350	Mathura	Mat	Mangal Khoh Khader
443	351	Mathura	Mat	Firozpur Banger
444	352	Mathura	Mat	Naujhal Khader
445	353	Mathura	Mat	Mangal Khoh Banger
446	354	Mathura	Mat	Lana Makhdoompur

cc	Distrctwise Si. No.	District Name	Tehsil Name	Village Name
447	355	Mathura	Mat	Bhairai Banger
448	356	Mathura	Mat	Lanakolana
449	357	Mathura	Mat	Bhairai Khadar
450	358	Mathura	Mat	Jafarpur Banger
451	359	Mathura	Mat	Jafarpur Khader
452	360	Mathura	Mat	Kolana Khader
453	361	Mathura	Mat	Lana Musmana
454	362	Mathura	Mat	Bhagat Bhakrelia Banger
455	363	Mathura	Mat	Maduakar Banger
456	364	Mathura	Mat	Musmana Khadar
457	365	Mathura	Mat	Mani Garhi Khadar
458	366	Mathura	Mat	Sigoni Banger
459	367	Mathura	Mat	Musmana Banger
460	368	Mathura	Mat	Kolana Banger
461	369	Mathura	Mat	Birju Garhi
462	370	Mathura	Mat	Mithauli
463	371	Mathura	Mat	Chaukra
464	372	Mathura	Mat	Lohai
465	373	Mathura	Mat	Asfabad
466	374	Mathura	Mat	Amanullapur
467	375	Mathura	Mat	Badanpur
468	376	Mathura	Mat	Pach Hara
469	377	Mathura	Mat	Surja
470	378	Mathura	Mat	Lalpur Mahavan
471	379	Mathura	Mat	Bindu Bulaki
472	380	Mathura	Mat	Bijoli Banger
473	381	Mathura	Mat	Bijoli Khadar
474	382	Mathura	Mat	Mat Mula Khader
475	383	Mathura	Mat	Mat Mula Bangar
476	384	Mathura	Mat	Mat Raja Bangar
477	385	Mathura	Mat	Bheem Khadar
478	386	Mathura	Mat	Jahangirpur Khader

cc	Distrctwise Si. No.	District Name	Tehsil Name	Village Name
479	387	Mathura	Mat	Mat Raja Khader
480	388	Mathura	Mat	Jahangirpur Banger
481	389	Mathura	Mat	Arruwa Khader
482	390	Mathura	Mat	Piproli Khader
483	391	Mathura	Mat	Bheem Bangar
484	392	Mathura	Mat	Dangoli Khader
485	393	Mathura	Mat	Begampur Khader
486	394	Mathura	Mat	Begampur Banger
487	395	Mathura	Mat	Piproli Bangar
488	396	Mathura	Mat	Managarhi
489	397	Mathura	Mat	Khajpur
490	398	Mathura	Mat	Sigoni Khader
491	399	Mathura	Mat	Maduakar Khader
492	400	Mathura	Mat	Faridampur Banger
493	401	Mathura	Mat	Faridampur Khadar
494	402	Mathura	Mat	Patipura
495	403	Mathura	Mat	Poluwa Khurd
496	404	Mathura	Mat	Poluwa Kalan
497	405	Mathura	Mat	Udhar
498	406	Mathura	Mat	Mani Garhi Bangar
499	407	Mathura	Mat	Sir Badam Singh
500	408	Mathura	Mat	Nagla Himana
501	409	Mathura	Mat	Nanakpur Banger
502	410	Mathura	Mat	Sampat Jogi
503	411	Mathura	Mat	Manina Balu
504	412	Mathura	Mat	Badhari
505	413	Mathura	Mat	Lamtauri
506	414	Mathura	Mat	Samauli Khadar
507	415	Mathura	Mat	Baroth Bangar
508	1	Hathras	Hathras	Aharai
509	2	Hathras	Hathras	Ahbaranpur
510	3	Hathras	Hathras	Allahpur Chursen

cc	Distrctwise Si. No.	District Name	Tehsil Name	Village Name
511	4	Hathras	Hathras	Amarpur
512	5	Hathras	Hathras	Ani Garhi
513	6	Hathras	Hathras	Anuruddhapur
514	7	Hathras	Hathras	Araji Siamal
515	8	Hathras	Hathras	Arazi Saer Kehari Singh
516	9	Hathras	Hathras	Arjunpur
517	10	Hathras	Hathras	Baghana
518	11	Hathras	Hathras	Baghau
519	12	Hathras	Hathras	Baguli Kamalpur
520	13	Hathras	Hathras	Bairisala
521	14	Hathras	Hathras	Bamauli
522	15	Hathras	Hathras	Bamnai
523	16	Hathras	Hathras	Banka
524	17	Hathras	Hathras	Baramai
525	18	Hathras	Hathras	Bardwari
526	19	Hathras	Hathras	Belwari
527	20	Hathras	Hathras	Bhagatua
528	21	Hathras	Hathras	Bhakari Nagla Bhoja
529	22	Hathras	Hathras	Bhojpur Khetsi
530	23	Hathras	Hathras	Bhudari
531	24	Hathras	Hathras	Bichhia
532	25	Hathras	Hathras	Bichpuri
533	26	Hathras	Hathras	Birnagar
534	27	Hathras	Hathras	Bishundas
535	28	Hathras	Hathras	Bisrant
536	29	Hathras	Hathras	Budh Nagla Hemraj
537	30	Hathras	Hathras	Bul Garhi
538	31	Hathras	Hathras	Chachpur Bhatela
539	32	Hathras	Hathras	Chamar Patti
540	33	Hathras	Hathras	Chamar Pura
541	34	Hathras	Hathras	Chand Garhi
542	35	Hathras	Hathras	Chandapa

cc	Distrctwise Si. No.	District Name	Tehsil Name	Village Name
543	36	Hathras	Hathras	Chaukra
544	37	Hathras	Hathras	Chhotua
545	38	Hathras	Hathras	Chitawar
546	39	Hathras	Hathras	Dargawan
547	40	Hathras	Hathras	Darkai
548	41	Hathras	Hathras	Darshana Ta Gubrari
549	42	Hathras	Hathras	Daultabad
550	43	Hathras	Hathras	Dengra
551	44	Hathras	Hathras	Dhakpura
552	45	Hathras	Hathras	Dhatura Kalan
553	46	Hathras	Hathras	Dhatura Khurd
554	47	Hathras	Hathras	Faujia
555	48	Hathras	Hathras	Gadai
556	49	Hathras	Hathras	Gambhir Patti Bisana
557	50	Hathras	Hathras	Gangchauli
558	51	Hathras	Hathras	Garaw Garhi
559	52	Hathras	Hathras	Garhi Jaini
560	53	Hathras	Hathras	Garhi Kachhwaya
561	54	Hathras	Hathras	Garhi Parti
562	55	Hathras	Hathras	Gojia
563	56	Hathras	Hathras	Golnagar
564	57	Hathras	Hathras	Gopalpur
565	58	Hathras	Hathras	Gopi
566	59	Hathras	Hathras	Gubrari
567	60	Hathras	Hathras	Gumanpur
568	61	Hathras	Hathras	Haraila
569	62	Hathras	Hathras	Hira Garhi
570	63	Hathras	Hathras	Jaitpur
571	64	Hathras	Hathras	Jalalpurt Shahjadpur
572	65	Hathras	Hathras	Jatoi
573	66	Hathras	Hathras	Jhingura
574	67	Hathras	Hathras	Jind Patti Bisana

cc	Distrctwise Si. No.	District Name	Tehsil Name	Village Name
575	68	Hathras	Hathras	Jujharia
576	69	Hathras	Hathras	Kachhapura
577	70	Hathras	Hathras	Kakori
578	71	Hathras	Hathras	Kanchana
579	72	Hathras	Hathras	Kapura
580	73	Hathras	Hathras	Karil
581	74	Hathras	Hathras	Katailiya
582	75	Hathras	Hathras	Katharia
583	76	Hathras	Hathras	Keshar Garhi
584	77	Hathras	Hathras	Kewal Garhi
585	78	Hathras	Hathras	Khajuria
586	79	Hathras	Hathras	Khargu
587	80	Hathras	Hathras	Kharwa
588	81	Hathras	Hathras	Khera Parsauli
589	82	Hathras	Hathras	Kheria Asha
590	83	Hathras	Hathras	Kheria Dahar
591	84	Hathras	Hathras	Khokia
592	85	Hathras	Hathras	Khutipuri
593	86	Hathras	Hathras	Koka
594	87	Hathras	Hathras	Korna Chamarua
595	88	Hathras	Hathras	Kota
596	89	Hathras	Hathras	Kurar
597	90	Hathras	Hathras	Kuravali
598	91	Hathras	Hathras	Lakhnu
599	92	Hathras	Hathras	Lakhupura
600	93	Hathras	Hathras	Lalpur
601	94	Hathras	Hathras	Luheta Khurd Kalan
602	95	Hathras	Hathras	Magtae
603	96	Hathras	Hathras	Mahamauni
604	97	Hathras	Hathras	Majhola
605	98	Hathras	Hathras	Mathu
606	99	Hathras	Hathras	Mehma

cc	Distrctwise Si. No.	District Name	Tehsil Name	Village Name
607	100	Hathras	Hathras	Mehmudpur Brahaman
608	101	Hathras	Hathras	Mehmudpurjatan
609	102	Hathras	Hathras	Mohanpur
610	103	Hathras	Hathras	Mugaria
611	104	Hathras	Hathras	Mungsa
612	105	Hathras	Hathras	Nagla Aam
613	106	Hathras	Hathras	Nagla Alia
614	107	Hathras	Hathras	Nagla Amra
615	108	Hathras	Hathras	Nagla Anta
616	109	Hathras	Hathras	Nagla Babu
617	110	Hathras	Hathras	Nagla Banarsi Prahlad
618	111	Hathras	Hathras	Nagla Bari
619	112	Hathras	Hathras	Nagla Bihari
620	113	Hathras	Hathras	Nagla Bihari
621	114	Hathras	Hathras	Nagla Dana
622	115	Hathras	Hathras	Nagla Dauda
623	116	Hathras	Hathras	Nagla Daya
624	117	Hathras	Hathras	Nagla Dhaurpur
625	118	Hathras	Hathras	Nagla Ganga
626	119	Hathras	Hathras	Nagla Hira Singh
627	120	Hathras	Hathras	Nagla Imaliya
628	121	Hathras	Hathras	Nagla Khargu
629	122	Hathras	Hathras	Nagla Lacchhi
630	123	Hathras	Hathras	Nagla Mani
631	124	Hathras	Hathras	Nagla Motirai
632	125	Hathras	Hathras	Nagla Nandram
633	126	Hathras	Hathras	Nagla Ojha
634	127	Hathras	Hathras	Nagla Ramrai
635	128	Hathras	Hathras	Nagla Shisham
636	129	Hathras	Hathras	Nagla Soron
637	130	Hathras	Hathras	Navipur
638	131	Hathras	Hathras	Padu

cc	Distrctwise Si. No.	District Name	Tehsil Name	Village Name
639	132	Hathras	Hathras	Painthgaon
640	133	Hathras	Hathras	Parsara
641	134	Hathras	Hathras	Pataini
642	135	Hathras	Hathras	Patta Khas
643	136	Hathras	Hathras	Patti Samant
644	137	Hathras	Hathras	Pharsauti
645	138	Hathras	Hathras	Phuskara
646	139	Hathras	Hathras	Pipal Garhi
647	140	Hathras	Hathras	Pura Khurd
648	141	Hathras	Hathras	Purakalan
649	142	Hathras	Hathras	Rajpur
650	143	Hathras	Hathras	Ramgarh
651	144	Hathras	Hathras	Rangpura
652	145	Hathras	Hathras	Rayak
653	146	Hathras	Hathras	Rohai
654	147	Hathras	Hathras	Rutvangarhi
655	148	Hathras	Hathras	Sainpur
656	149	Hathras	Hathras	Sangila Nagla Bari
657	150	Hathras	Hathras	Santikara
658	151	Hathras	Hathras	Sarai Amar Singh
659	152	Hathras	Hathras	Sarkoria
660	153	Hathras	Hathras	Shahjadpur
661	154	Hathras	Hathras	Siamal
662	155	Hathras	Hathras	Sirua
663	156	Hathras	Hathras	Sitla Mewa
664	157	Hathras	Hathras	Songra
665	158	Hathras	Hathras	Sukha
666	159	Hathras	Hathras	Sundhia
667	160	Hathras	Hathras	Suratia
668	161	Hathras	Hathras	Suratpur
669	162	Hathras	Hathras	Susavali
670	163	Hathras	Hathras	Tajpur

cc	Distrctwise Si. No.	District Name	Tehsil Name	Village Name
671	164	Hathras	Hathras	Tehra
672	165	Hathras	Hathras	Tihaiya Nagla Karwa
673	166	Hathras	Hathras	Timrali
674	167	Hathras	Hathras	Tuksan
675	168	Hathras	Hathras	Udaibhan Bhakroi
676	169	Hathras	Sadabad	Abhaipura
677	170	Hathras	Sadabad	Adalpur
678	171	Hathras	Sadabad	Araji Milk
679	172	Hathras	Sadabad	Arotha
680	173	Hathras	Sadabad	Arti
681	174	Hathras	Sadabad	Aturre
682	175	Hathras	Sadabad	Badhar
683	176	Hathras	Sadabad	Bag Pur
684	177	Hathras	Sadabad	Baghena
685	178	Hathras	Sadabad	Bahadur Pur Deokaran
686	179	Hathras	Sadabad	Bahadurpur Bhoop
687	180	Hathras	Sadabad	Bahardoi
688	181	Hathras	Sadabad	Baramai
689	182	Hathras	Sadabad	Baraus
690	183	Hathras	Sadabad	Bhuklara
691	184	Hathras	Sadabad	Bhuraki
692	185	Hathras	Sadabad	Bichpuri
693	186	Hathras	Sadabad	Bijalpur
694	187	Hathras	Sadabad	Bilara
695	188	Hathras	Sadabad	Bisawar
696	189	Hathras	Sadabad	Budhainch
697	190	Hathras	Sadabad	Burj Mauji
698	191	Hathras	Sadabad	Chamar Pura
699	192	Hathras	Sadabad	Chaubara
700	193	Hathras	Sadabad	Chhatara
701	194	Hathras	Sadabad	Chhawa
702	195	Hathras	Sadabad	Chirawali

cc	Distrctwise Si. No.	District Name	Tehsil Name	Village Name
703	196	Hathras	Sadabad	Dagsah
704	197	Hathras	Sadabad	Dhadhau
705	198	Hathras	Sadabad	Dhakpura
706	199	Hathras	Sadabad	Dhanauli
707	200	Hathras	Sadabad	Dhanoti
708	201	Hathras	Sadabad	Fateh Ulla Pur
709	202	Hathras	Sadabad	Gahcholi
710	203	Hathras	Sadabad	Garh Umrao
711	204	Hathras	Sadabad	Garhi Ahbaran
712	205	Hathras	Sadabad	Garhi Chinta
713	206	Hathras	Sadabad	Garhi Rustam
714	207	Hathras	Sadabad	Ghatempur
715	208	Hathras	Sadabad	Ghooncha
716	209	Hathras	Sadabad	Gigla
717	210	Hathras	Sadabad	Gukhrauli
718	211	Hathras	Sadabad	Gursauti
719	212	Hathras	Sadabad	Gutahara
720	213	Hathras	Sadabad	Hasanpur Baru
721	214	Hathras	Sadabad	Jaitai
722	215	Hathras	Sadabad	Jarau
723	216	Hathras	Sadabad	Jatoi
724	217	Hathras	Sadabad	Jhagrar
725	218	Hathras	Sadabad	Kajrauthi
726	219	Hathras	Sadabad	Kanjauli
727	220	Hathras	Sadabad	Karaiya
728	221	Hathras	Sadabad	Karkauli
729	222	Hathras	Sadabad	Karsaura
730	223	Hathras	Sadabad	Kheria
731	224	Hathras	Sadabad	Khonda
732	225	Hathras	Sadabad	Kokna Kalan
733	226	Hathras	Sadabad	Kokna Khurd
734	227	Hathras	Sadabad	Kukargawan

cc	Distrctwise Si. No.	District Name	Tehsil Name	Village Name
735	228	Hathras	Sadabad	Kuktai
736	229	Hathras	Sadabad	Kumhrai
737	230	Hathras	Sadabad	Kunjalpur
738	231	Hathras	Sadabad	Kursanda
739	232	Hathras	Sadabad	Lodhai
740	233	Hathras	Sadabad	Madha Bhoj
741	234	Hathras	Sadabad	Madhapithu
742	235	Hathras	Sadabad	Mahavat Pur
743	236	Hathras	Sadabad	Mahrara
744	237	Hathras	Sadabad	Mai
745	238	Hathras	Sadabad	Makan Pur
746	239	Hathras	Sadabad	Mandnai
747	240	Hathras	Sadabad	Mangroo
748	241	Hathras	Sadabad	Manik Pur
749	242	Hathras	Sadabad	Mansaya
750	243	Hathras	Sadabad	Midhawali
751	244	Hathras	Sadabad	Mir Pur
752	245	Hathras	Sadabad	Nagl Dali
753	246	Hathras	Sadabad	Nagla Banarasi
754	247	Hathras	Sadabad	Nagla Beru
755	248	Hathras	Sadabad	Nagla Bihari
756	249	Hathras	Sadabad	Nagla Birbal
757	250	Hathras	Sadabad	Nagla Gariba
758	251	Hathras	Sadabad	Nagla Kali
759	252	Hathras	Sadabad	Nagla Khanjama
760	253	Hathras	Sadabad	Nagla Mauji
761	254	Hathras	Sadabad	Nanau
762	255	Hathras	Sadabad	Narayanpur Bad
763	256	Hathras	Sadabad	Nasir Pur
764	257	Hathras	Sadabad	Nasirpur
765	258	Hathras	Sadabad	Naugawana
766	259	Hathras	Sadabad	Naupura

cc	Distrctwise Si. No.	District Name	Tehsil Name	Village Name
767	260	Hathras	Sadabad	Pachawari
768	261	Hathras	Sadabad	Parsaura
769	262	Hathras	Sadabad	Patti Bahram
770	263	Hathras	Sadabad	Patti Shakti
771	264	Hathras	Sadabad	Pihura
772	265	Hathras	Sadabad	Pipramai
773	266	Hathras	Sadabad	Puseni
774	267	Hathras	Sadabad	Rahpura
775	268	Hathras	Sadabad	Raj Nagar
776	269	Hathras	Sadabad	Ram Pur
777	270	Hathras	Sadabad	Rasgawan
778	271	Hathras	Sadabad	Rasid Pur
779	272	Hathras	Sadabad	Ridail
780	273	Hathras	Sadabad	Sadabad(Dehat)
781	274	Hathras	Sadabad	Sahpau(Dehat)
782	275	Hathras	Sadabad	Salem Pur
783	276	Hathras	Sadabad	Samad Pur
784	277	Hathras	Sadabad	Sarmastpur
785	278	Hathras	Sadabad	Saroth
786	279	Hathras	Sadabad	Sedaria
787	280	Hathras	Sadabad	Sethrapur
788	281	Hathras	Sadabad	Shahbajpur
789	282	Hathras	Sadabad	Sikhara
790	283	Hathras	Sadabad	Sista
791	284	Hathras	Sadabad	Sultanpur
792	285	Hathras	Sadabad	Susain
793	286	Hathras	Sadabad	Tajpur
794	287	Hathras	Sadabad	Tamsi
795	288	Hathras	Sadabad	Tasingu
796	289	Hathras	Sadabad	Tharora
797	290	Hathras	Sadabad	Ughai
798	291	Hathras	Sadabad	Vir Nagar

cc	Distrctwise Si. No.	District Name	Tehsil Name	Village Name
799	292	Hathras	Sadabad	Wedai
800	293	Hathras	Sasni	Ajitpur
801	294	Hathras	Sasni	Ajroi
802	295	Hathras	Sasni	Akhaipur
803	296	Hathras	Sasni	Alipur
804	297	Hathras	Sasni	Alipur Ta Daryapur
805	298	Hathras	Sasni	Amarpur Ghana
806	299	Hathras	Sasni	Aundua
807	300	Hathras	Sasni	Basgoi
808	301	Hathras	Sasni	Bhojgarhi
809	302	Hathras	Sasni	Bhopatpur Ta Dariyapur
810	303	Hathras	Sasni	Bilkhaura Kalan
811	304	Hathras	Sasni	Bilkhaura Khurd
812	305	Hathras	Sasni	Chhaura Gadaua
813	306	Hathras	Sasni	Darkaula
814	307	Hathras	Sasni	Darkauli
815	308	Hathras	Sasni	Dedamai
816	309	Hathras	Sasni	Devinagar
817	310	Hathras	Sasni	Dinavali
818	311	Hathras	Sasni	Garaw Garhi
819	312	Hathras	Sasni	Garhi Nandram
820	313	Hathras	Sasni	Gopalpur Urf Bhootpura
821	314	Hathras	Sasni	Hardpur
822	315	Hathras	Sasni	Jagipur
823	316	Hathras	Sasni	Jaraiya Gada Khera
824	317	Hathras	Sasni	Jasrana
825	318	Hathras	Sasni	Jirauli
826	319	Hathras	Sasni	Khanpur
827	320	Hathras	Sasni	Khera Firozpur
828	321	Hathras	Sasni	Khorna
829	322	Hathras	Sasni	Larauta
830	323	Hathras	Sasni	Lauharra

cc	Distrctwise Si. No.	District Name	Tehsil Name	Village Name
831	324	Hathras	Sasni	Lutsan
832	325	Hathras	Sasni	Mahmud Barsai
833	326	Hathras	Sasni	Mauhariya
834	327	Hathras	Sasni	Mirgamai
835	328	Hathras	Sasni	Nagala Bijaiya
836	329	Hathras	Sasni	Nagla Ajmeri
837	330	Hathras	Sasni	Nagla Bhambujat
838	331	Hathras	Sasni	Nagla Bhika
839	332	Hathras	Sasni	Nagla Fatela
840	333	Hathras	Sasni	Nagla Garhu
841	334	Hathras	Sasni	Nagla Malia
842	335	Hathras	Sasni	Nagla Samant
843	336	Hathras	Sasni	Nagla Sewa
844	337	Hathras	Sasni	Nahloi
845	338	Hathras	Sasni	Naupora
846	339	Hathras	Sasni	Patti Fateli
847	340	Hathras	Sasni	Raghaniya
848	341	Hathras	Sasni	Rahna
849	342	Hathras	Sasni	Ramnagar
850	343	Hathras	Sasni	Rampur
851	344	Hathras	Sasni	Rodayan
852	345	Hathras	Sasni	Ruheri
853	346	Hathras	Sasni	Sahajpura
854	347	Hathras	Sasni	Samamai Ruhal
855	348	Hathras	Sasni	Sandalpur
856	349	Hathras	Sasni	Sasni Dehat
857	350	Hathras	Sasni	Sathiya
858	351	Hathras	Sasni	Shahpur Khurd
859	352	Hathras	Sasni	Shrinagar
860	353	Hathras	Sasni	Sighar
861	354	Hathras	Sasni	Sumarat Garhi
862	355	Hathras	Sasni	Tatarpur Mauharia

cc	Distrctwise Si. No.	District Name	Tehsil Name	Village Name
863	356	Hathras	Sasni	Tilothi
864	357	Hathras	Sasni	Vigheypur
865	358	Hathras	Sasni	Virra
866	1	Agra	Etmadpur	Poiya
867	2	Agra	Etmadpur	Ujrai
868	3	Agra	Etmadpur	Malupur
869	4	Agra	Etmadpur	Kheriya Khandauli
870	5	Agra	Etmadpur	Nekpur
871	6	Agra	Etmadpur	Kuberpur (Partially)
872	7	Agra	Etmadpur	Hasanpur
873	8	Agra	Etmadpur	Nadau
874	9	Agra	Etmadpur	Dhorau
875	10	Agra	Etmadpur	Chaugan
876	11	Agra	Etmadpur	Gurha
877	12	Agra	Etmadpur	Arela
878	13	Agra	Etmadpur	Uncha
879	14	Agra	Etmadpur	Agarpur
880	15	Agra	Etmadpur	Chirhauli
881	16	Agra	Etmadpur	Chaoli
882	17	Agra	Etmadpur	Anwal Khera
883	18	Agra	Etmadpur	Bandhanu
884	19	Agra	Etmadpur	Chaukra
885	20	Agra	Etmadpur	Pesai
886	21	Agra	Etmadpur	Kharagpur
887	22	Agra	Etmadpur	Parihar
888	23	Agra	Etmadpur	Sherkhan
889	24	Agra	Etmadpur	Baman
890	25	Agra	Etmadpur	Semra
891	26	Agra	Etmadpur	Khandia
892	27	Agra	Etmadpur	Ramnagar Khandauli
893	28	Agra	Etmadpur	Pant Khara
894	29	Agra	Etmadpur	Khandauli

cc	Distrctwise Si. No.	District Name	Tehsil Name	Village Name
895	30	Agra	Etmadpur	Sorai
896	31	Agra	Etmadpur	Parbatpur
897	32	Agra	Etmadpur	Hazipur Khera
898	33	Agra	Etmadpur	Dhangrauli Must
899	34	Agra	Etmadpur	Dhangraoli (A.H.)
900	35	Agra	Etmadpur	Gijauli Must
901	36	Agra	Etmadpur	Mundi Jahangirpur
902	37	Agra	Etmadpur	Bahrampur
903	38	Agra	Etmadpur	Nawalpur
904	39	Agra	Etmadpur	Dharera
905	40	Agra	Etmadpur	Garhibachchi
906	41	Agra	Etmadpur	Nagla Nishankh
907	42	Agra	Etmadpur	Nagla Mani
908	43	Agra	Etmadpur	Garhi Pirthi
909	44	Agra	Etmadpur	Khairaini
910	45	Agra	Etmadpur	Chhalesar (Partially)
911	46	Agra	Etmadpur	Gajauli (A.H.)
912	47	Agra	Etmadpur	Sarai Day Ruppa
913	48	Agra	Etmadpur	Madan Pur (A.H.)
914	49	Agra	Etmadpur	Madan Pur Must
915	50	Agra	Etmadpur	Usmanpur
916	51	Agra	Etmadpur	Bailoth
917	52	Agra	Etmadpur	Naharra
918	53	Agra	Etmadpur	Roopdhandu
919	54	Agra	Etmadpur	Nayabans
920	55	Agra	Etmadpur	Biharipur
921	56	Agra	Etmadpur	Agwarkhas
922	57	Agra	Etmadpur	Nagla Tulsi
923	58	Agra	Etmadpur	Talab Buriya