Development of State capital Region to achieve holistic development of state capital and satellite towns, Kanpur- Uttar Pradesh

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Abstract—This paper discusses about the State Capital Region (SCR) development initiative in Uttar Pradesh which aims to address the issue of imbalanced growth by covering a vast area of 28,000 sq. km, including seven districts like Unnao, Sitapur, Rae Bareli, Barabanki, Kanpur Dehat, Kanpur Nagar, and Lucknow. The concentration of population and economic activities in Kanpur and Lucknow has hindered the development of surrounding areas. The SCR seeks to create modern urban facilities, attract people, and stimulate economic growth while promoting a more equitable distribution of population and economic activities across the state. This initiative is inspired by the National Capital Region (NCR) around Delhi and is expected to attract increased investments to the region.

Index Terms— Uttar Pradesh State Capital Region, Countermagnet, State Investment Region, Economic Growth, Private Sector Investment, Governance, Regional Planning, Industrial Growth, Administrative Efficiency, Economic Diversification, Sustainable Development.

I. INTRODUCTION

Cities are the key drivers of productivity and growth in the national economy, in addition to providing chances for economic development and a higher standard of living. India’s fast urbanization has also put a strain on the provision of urban municipal services and raised urban poverty levels. The quality of service across housing, transportation, power, water supply, sanitation, healthcare, and education are significantly declining as a result of the rising demand for fundamental services in urban areas. Realizing the need to augment the urban infrastructure backed by strengthening of urban governance of cities and to make them vibrant in their social and economic development, Government of Uttar Pradesh envisions to promote “KANPUR” by enhancing city’s comprehensive development of physical, institutional, social and economic infrastructure in accordance with modern & innovative Urban planning principles.

The need for overall urban improvement and development to sustain the economic growth momentum.

Need for National-Level Reform-Linked Investments: There is a need to integrate the reform initiatives and scale up the effort to catalyze investment in urban infrastructure across States in the country. There is a felt need to set up an initiative that will provide reform linked assistance to State Governments and MCGs in the country.

Need for Sustainable Infrastructure Development: Another crucial aspect requiring immediate attention is that physical infrastructure assets created in urban areas have generally been languishing due to inadequate attention and/or improper O&M. The fiscal flows to the sector have laid emphasis only on the creation of physical assets. Not much effort has been made either to manage these assets efficiently or to achieve self-sustainability. It is therefore necessary that a link be established between asset creation and management, as both are important components for ensuring sustained service delivery. This is proposed to be secured through an agenda of reforms.

Need for Efficiency Enhancement through “Good Governance” or “Smart Governance”: Since governance is the process of decision making and the process by which decisions are implemented, an analysis of governance focuses on the formal and informal actors involved in decision-making and implementing the decisions made and the formal and informal structures that have been set in place to arrive at and implement the decision. Good governance has 8 major characteristics. It is participatory, consensus oriented, accountable, transparent, responsive, effective and efficient, equitable and inclusive and follows the rule of law.

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II. UTTAR PRADESH CAPITAL REGION

Uttar Pradesh stands as a prime destination for knowledge-based enterprises owing to its substantial reservoir of skilled labor. Notably, the state also boasts a substantial workforce comprising semi-skilled and unskilled individuals, creating a diverse talent pool for businesses. Beyond its human resources, Uttar Pradesh boasts a robust foundation of social, physical, and industrial infrastructure, highlighted by an extensive network of 48 national highways, six airports, and well-established rail connections linking major cities like Delhi, Mumbai, and Bangalore.

Recent years have witnessed a surge in infrastructure development, including the emergence of industrial and logistic hubs in key cities such as Kanpur, Lucknow, and Varanasi, bolstered by Public-Private Partnerships (PPPs) that have played a pivotal role in enhancing the state's infrastructure. By fostering an environment conducive to industrial growth and bolstering the ease of conducting business, Uttar Pradesh is rapidly ascending as a coveted investment destination. This proactive approach has not only piqued the interest of domestic entrepreneurs but also garnered foreign investors, catalyzing a significant influx of foreign direct investment. Furthermore, the government's unwavering commitment to streamlining bureaucratic processes and improving the overall ease of doing business has further elevated Uttar Pradesh's standing as an attractive investment hub.

Kanpur, strategically located in the northern state of Uttar Pradesh, has emerged as a prominent counter magnet area within the National Capital Region (NCR) as shown in the Figure 1. This distinction owes itself to a combination of geographical, infrastructural, and economic factors. Situated approximately 460 kilometers southeast of Delhi, Kanpur serves as an attractive alternative to the bustling metropolis of the national capital. With a burgeoning population of over 2.7 million people, Kanpur's demographic weight is substantial, offering a potential relief valve for the congestion and overpopulation issues that plague Delhi. The city's well-connected transportation network, including major highways and a burgeoning railway sector, facilitates easy access to the NCR. Furthermore, Kanpur's growing industrial base, encompassing sectors like textiles, leather, and manufacturing, contributes significantly to the region's economic diversification as shown in the economic performance index (EPI) of 2014 by the World Bank in Figure 2. The establishment of educational institutions and healthcare facilities further enhances its appeal. These attributes collectively position Kanpur as a vital counter magnet area, playing a pivotal role in the equitable distribution of growth and development within the National Capital Region.

![Image](image-url)
Unnao, a prominent urban center in the state of Uttar Pradesh, distinguishes itself as a substantial industrial city, encompassing three distinct industrial suburbs. With due consideration to its urban significance, Unnao holds the position of the 37th largest city within the state. Notably, the Unnao district is characterized by a diverse industrial landscape, with its principal sectors encompassing the Leather Industry, Handloom & Textile Industry, and the Education Industry. The city has garnered renowned for its noteworthy contributions to various industrial domains, particularly excelling in the production of leather, Zari-zardozi work, mosquito nets, and chemical products. Of particular note is the thriving Zari Zardozi industry, which stands as one of the preeminent industrial clusters within the Unnao district.

Kanpur, the largest city in the state of Uttar Pradesh, serves as the primary hub for both commercial and industrial activities. Historically recognized as the "Manchester of India," it has evolved into the contemporary commercial capital of Uttar Pradesh. Geographically, it holds a strategic position along the vital national highways, namely, No. 2 and 25, as well as state highways, and is a key junction on the Delhi-Howrah railway route, situated on the banks of the revered Ganga River at an elevation of approximately 126 meters above sea level. In terms of transportation, Kanpur offers civilian air connectivity to Delhi through Ahirwan, with the nearest civilian airport, Amausi (Lucknow), located 65 kilometers away. The city boasts a rich industrial heritage, once renowned for its matured cotton industry, including notable establishments such as the world-famous 'Lal Imli' woolen factory, LML, Pan Parag, ICI Limited (now known as Duncuns Fertilizers), and one of the world's largest leather industries. Furthermore, Kanpur is home to a
substantial number of defense establishments, including Hindustan Aeronautical Limited (HAL), DMSRDE, Small Arms Factory (SAF), Field Gun Factory, and Parachute Factory, underscoring its significance in both the industrial and defense sectors.

Figure 5: Kanpur District

Land use dynamics of Kanpur Planning Area.

The planned development in Kanpur has not unfolded as envisioned in the 1991 Master Plan. Targets set in that plan have not been met, resulting in various challenges such as housing shortages, transportation issues, inadequate community facilities, environmental pollution, and the proliferation of slum settlements. To address these imbalances and promote systematic development, the Town and Country Planning Department (TCPD) undertook the task of revising the Master Plan. The revised Master Plan for 2021 was developed, taking into account the projected population [12,19] of 4.5 million for 2021. The city was divided into planning districts to accommodate the needs of the population [12,19] assigned to each district.

The Master Plan for 2021 integrates schemes by the housing board with those under the Kanpur Development Authority (KDA). It also includes provisions for inner and outer ring roads to improve traffic flow, as well as new truck and bus terminals and markets for grains and vegetables. New residential colonies are planned in proximity to commercial hubs to reduce congestion in the inner core city.

Over time, Kanpur has expanded linearly from east to west along the Ganga River and G.T. Road. The Central Business District (inner city) is situated in the north-central part, characterized by a mix of commercial and transport-related activities. Residential and other land use activities have predominantly concentrated in the west due to physical constraints posed by the river to the north and the cantonment area to the east. Industrial zones have expanded primarily to the west and south.

The table 1 below illustrates the land use changes from 1974 to 2021, with notable increases in residential land use and a decrease in industrial land use.

Table 1: Land use Change with respect to Residential and Industries (1974-2021)

<table>
<thead>
<tr>
<th>Year</th>
<th>Residential Land Use (%)</th>
<th>Industrial Land Use (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1974</td>
<td>4.93%</td>
<td>21.96%</td>
</tr>
<tr>
<td>2021</td>
<td>41.37%</td>
<td>8.99%</td>
</tr>
</tbody>
</table>

Source: Draft Kanpur Master Plan 2031[10].

The Master Plans for Kanpur, Akbarpur-Mati, and Bithoor were originally designed for the horizon year 2021, necessitating a revision for the horizon year 2031. Deviations from the planned development outlined in these Master Plans also need to be analyzed as part of the revision process. Additionally, a combined master plan for Akbarpur, Bithoor, and Kanpur is proposed to address development issues and promote a holistic approach for the entire region.

The revised Master Plan for Kanpur[10] has been prepared for the horizon year 2031, covering an area of interest of 1484 square kilometers. The following strategies were considered in deriving the conceptual plan and will guide the proposed land use:

- Identification of potential zones based on existing and evolving land use trends and the 2021 Master Plan proposals.
- Focus on inducing development in areas outside the core city to alleviate congestion and stimulate economic activities.
- Development of commercial centers and mixed land-use areas along main roads, leveraging the increasing land values in the region.
- Identification of natural conservation and eco-sensitive zones along water bodies, forests, and vegetation areas.
- This revision aims to facilitate planned and sustainable development, addressing the city's evolving needs and challenges.
The future growth of cities like Kanpur, Lucknow, and Bithoor will be influenced by urbanization trends, economic development, infrastructure investments, and environmental considerations. Kanpur is expected to continue its eastward expansion along the Ganga River and G.T. Road, while Lucknow is expected to expand its northern part, focusing on new residential and commercial areas and improved connectivity. The Smart Cities Mission in India will influence the growth direction, focusing on sustainable and technology-driven development. Bithoor, known for its historical and religious significance, is expected to focus on tourism and heritage development.

Other cities in the vicinity will benefit from improved road and rail connectivity, potentially becoming satellite hubs for residential and economic activities due to their proximity to major urban centers. Sustainable development and conservation of natural resources will be key considerations, with green spaces, sustainable construction practices, and waste management likely integrated into future urban planning. Economic diversification may be pursued, including the development of educational institutions, IT parks, and healthcare facilities.

However, specific growth directions and priorities may vary based on local governance, infrastructure investments, and changing economic dynamics. Local urban planning authorities, in consultation with experts and the community, will play a crucial role in shaping these cities' future growth directions to ensure they remain sustainable, livable, and economically vibrant.

**Regional Set-up of UPCR**

Kanpur, originally hailed as the "Manchester of the East," has shown remarkable progress in the past year, with a substantial number of favorable votes emanating from CEOs and industrial leaders. The region nestled between Kanpur and Lucknow, characterized by its thriving community of small and medium enterprises in sectors such as leather, chemicals, plastics, and electronics, presents distinctive and enticing business prospects. This ecosystem of smaller businesses forms the bedrock of the local economy, fostering a dynamic commercial landscape.

A noteworthy development on the horizon is the National Highway Authority of India's pioneering utilization of 3D Automated Machine Guidance technology for the construction of the Lucknow-Kanpur Expressway. This ambitious six-lane project, traversing through Unnao, is set to significantly reduce travel time between the two cities to a mere 45 minutes. Such an infrastructure enhancement will undoubtedly facilitate seamless and expedient travel for the residents of both Lucknow and Kanpur, reinforcing the ties between these urban centers.

While there have been aspirations for Kanpur and Lucknow to evolve into twin cities, it is becoming increasingly evident that Kanpur, along with neighboring Unnao, is extending its reach towards Lucknow. This spatial expansion suggests the potential establishment of a capital area encompassing these urban hubs, signifying a shift in the regional dynamics and urbanization trends.
III. ECONOMY SNAPSHOT – UPCR REGION

Contribution of GDDP – Gross District Domestic Product

- In the year 2020, the combined economic output of the districts of Lucknow, Unnao, and Kanpur amounted to 8.54% of the total Gross Domestic Product (GDP) of the state of Uttar Pradesh.
- This share represents a decline from the 9.1% contribution observed in the year 2011, signaling a gradual decrease in the economic significance of these districts within the state's overall GDP composition over the past decade.
- Notably, with the exception of Unnao, the secondary sector's contribution to the GDP has experienced a reduction in all three of these districts. The secondary sector typically encompasses industries and manufacturing activities, suggesting a potential shift in the economic structure or performance of these regions.
- When assessing the GDP growth rates for these districts during the period from 2011 to 2020, it becomes evident that, except for Kanpur Dehat, all other districts displayed growth rates lower than the state average of 5.3%. Specifically, Unnao exhibited a GDP growth rate of 4.7%, Kanpur Nagar recorded 4.2%, and Lucknow registered 4.1%. These figures indicate that the economic expansion in these districts lagged behind the broader state's economic growth rate during the specified timeframe.

In summary, while the districts of Lucknow, Unnao, Gauthambudh and Kanpur continue to contribute significantly to Uttar Pradesh's GDP, there has been a gradual reduction in their proportional share over the past decade. Additionally, the declining contributions from the secondary sector and GDP growth rates below the state average suggest evolving economic dynamics within these regions.

Sector Wise Contribution to GDP (CAGR)

  - The Compound Annual Growth Rate (CAGR) for the Secondary Sector in the districts of Kanpur and Lucknow stood at 1.2% and 1.4%, respectively.
  - These growth rates are notably lower when compared to the state average CAGR for the Secondary Sector, which was a more robust 4.9%.

Figure 7: UPCR Regional Set-Up

Figure 8: Contribution to GDDP in UPCR Region
• The Secondary Sector typically encompasses industrial and manufacturing activities, and the sluggish growth in these districts suggests a need for potential revitalization or diversification of industrial endeavors to align with the state's overall economic trajectory.

Tertiary Sector Growth Below State Average.
• The Tertiary Sector, which includes services and commerce, displayed CAGR figures indicating slower growth rates than the state average.
• Specifically, Unnao recorded a Tertiary Sector CAGR of 5.7%, Lucknow at 6.3%, Kanpur Dehat at 6.4%, and Kanpur Nagar at 6.3%.
• In contrast, the state average CAGR for the Tertiary Sector was more robust at 6.7%.
• These figures underscore that while the services and commerce sectors in these districts are expanding, their growth rates are trailing behind the broader state's average, suggesting potential opportunities for further development and enhancement of the service-oriented industries in these regions.

In summary, the data reveals that both the Secondary and Tertiary Sectors in the districts of Kanpur, Lucknow, Unnao, and Kanpur Dehat have experienced growth rates that are lower than the respective state averages. These trends signify the need for targeted strategies to boost industrial and service-sector growth in these districts, aligning their economic performance with the overall trajectory of the state of Uttar Pradesh.

Per-Capita Income.
Subdued Per Capita Income Growth:
• The Per Capita Income Growth Rate in the districts of Lucknow, Kanpur Nagar, and Unnao has been notably lower when compared to the state average of 5.3%.
• Specifically, Lucknow recorded a Per Capita Income Growth Rate of 4.1%, Kanpur Nagar at 4.2%, and Unnao at 4.7%.
• This indicates that the rate at which the income per person is increasing in these districts is slower than the overall economic growth rate of the state.
• The subdued per capita income growth may imply that while the economies in these districts are expanding, the benefits are not equally distributed among the population, highlighting potential disparities in income distribution and economic well-being.

Variance in Per Capita Income:
• Notably, there exists a significant variance in per capita income when compared to Gauthambudh Nagar, a distinct region where the secondary sector's contribution has shown substantial growth over the past decade.
• This variance suggests differing economic landscapes and performance trajectories between districts. Gauthambudh Nagar's increased contribution from the secondary sector could be a contributing factor to its higher per capita income growth, indicating the importance of sectoral diversification and economic development strategies tailored to each district's unique circumstances.

In summary, the data reflects a trend of subdued per capita income growth in the districts of Lucknow, Kanpur Nagar, and Unnao, in comparison to the state average. Furthermore, the notable variance in per capita income between these districts and Gauthambudh Nagar underscores the importance of localized economic strategies and the need to address income distribution disparities to foster more equitable and sustainable economic growth.

Figure 9: Per Capita Income in UPCR Region

In summary, the data reflects a trend of subdued per capita income growth in the districts of Lucknow, Kanpur Nagar, and Unnao, in comparison to the state average. Furthermore, the notable variance in per capita income between these districts and Gauthambudh Nagar underscores the importance of localized economic strategies and the need to address income distribution disparities to foster more equitable and sustainable economic growth.
The proposed districts under the Uttar Pradesh State Capital Region (UPSCR) initiative collectively contribute only 12.9% to the Gross State Domestic Product (GSDP) of Uttar Pradesh.

These districts, designated as part of the UPSCR, are strategically positioned around the state's capital and are likely targeted for development and urbanization to complement the growth of the state's administrative center.

In contrast, Noida, a well-established urban and industrial center within the state, makes a substantial contribution of 8.5% to the state's GSDP.

Noida's economic significance is underscored by its robust industrial and commercial activities, including a thriving information technology and manufacturing sector, which have contributed significantly to its impressive GSDP share.

These statistics highlight an interesting contrast in economic contributions within the state of Uttar Pradesh. While the proposed districts under the UPSCR initiative collectively make up a modest portion of the state's economic output, Noida, as a single entity, stands out as a significant economic powerhouse within the state, owing to its diversified and thriving economic activities.

This disparity in economic contributions underscores the potential for further development and investment in the UPSCR districts to harness their economic growth and align them more closely with the economic vibrancy observed in regions like Noida.

### IV. Upcoming Infrastructure Facilities

The Uttar Pradesh State Capital Region (UPSCR) is envisioned as a strategic development initiative, mirroring the successful model of the National Capital Region (NCR) [11]. This forward-looking plan aims to proactively address the expected population [12, 19] pressures on Lucknow by facilitating well-structured growth in its surrounding areas. The proposed UPSCR encompasses a substantial land area, totaling 28,000 square kilometers, encompassing the administrative districts of Lucknow, Kanpur Nagar, Unnao, Sitapur, Rae Bareli, and Barabanki.

This ambitious project offers a multitude of opportunities for investment promotion and the establishment of a robust regional hub. The strategic positioning of the UPSCR lends itself to a diverse range of economic activities, including but not limited to industries, information technology (IT), logistics, and tourism. By harnessing the advantages of its geographical location, the UPSCR aspires to become a focal point for regional development, fostering economic growth, job creation, and sustainable progress in the state of Uttar Pradesh.

Uttar Pradesh, India's largest state, is currently undergoing a significant transformation through ambitious infrastructure projects. These initiatives are poised to redefine connectivity, stimulate economic growth, and create fresh development prospects. These infrastructure projects are propelling Uttar Pradesh's economic growth, attracting investments, and unlocking new development opportunities. As they continue to shape the state's future, Uttar Pradesh is poised to become a model of progressive infrastructure and a hub of growth in India.

#### Purvanchal Expressway:
Stretching 340 kilometers and connecting Lucknow with eastern districts, this 6-lane Purvanchal Expressway is set to bolster economic development in the region by improving transportation and reducing travel times.

#### Agra-Lucknow Expressway:
Covering 302 kilometers and linking Agra and Lucknow, this expressway is becoming a catalyst for economic growth, attracting investments, and boosting tourism due to its superior infrastructure and connectivity.

#### Ganga Expressway:
Planned to span 1,020 kilometers along the Ganga River, this expressway will connect Prayagraj with Western Uttar Pradesh, promoting trade, transportation, and overall development.

#### Delhi-Meerut Expressway:
This 82-kilometer-long, 14-lane expressway has significantly cut travel time between Delhi and Meerut, alleviating congestion and fostering industrial growth and economic prosperity.

#### Bundelkhand Expressway:
Covering 296 kilometers and connecting Jhansi with Etawah, the Bundelkhand Expressway is expected to uplift the underdeveloped Bundelkhand region, foster industrial growth, and improve connectivity within the state.
The planned Economic Activities and Potential Growth Zones SEZ Locations for manufacturing Sector in the UPCR Region is as given below:

Table 3: Potential Planned Economic Activities with GSVA Share Contribution to the city

<table>
<thead>
<tr>
<th>Sectors</th>
<th>GSVA Share % (Gross State Value Added)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Food processing</td>
<td>13%</td>
</tr>
<tr>
<td>ESDM</td>
<td>31%</td>
</tr>
<tr>
<td>Textiles</td>
<td>24%</td>
</tr>
<tr>
<td>Chemicals</td>
<td>17%</td>
</tr>
<tr>
<td>Metals</td>
<td>13%</td>
</tr>
<tr>
<td>Automotive</td>
<td>17%</td>
</tr>
<tr>
<td>Pharma &amp; Med Equip</td>
<td>33%</td>
</tr>
<tr>
<td>Aero. &amp; Def</td>
<td>33%</td>
</tr>
<tr>
<td>Total GSVA</td>
<td>21%</td>
</tr>
</tbody>
</table>


Table 4: Potential Growth Zones & SEZ Location for Manufacturing Sector.

<table>
<thead>
<tr>
<th>SEZ Districts</th>
<th>GSVA Share % (Gross State Value Added)</th>
<th>Some of the potential sectors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gautam Buddha Nagar</td>
<td>10%</td>
<td>ESDM, Chemicals, Pharma</td>
</tr>
<tr>
<td>Lucknow</td>
<td>9%</td>
<td>ESDM, Chemicals, Pharma, Aerospace &amp; Defense</td>
</tr>
<tr>
<td>Kanpur Nagar</td>
<td>7%</td>
<td>ESDM, Aerospace &amp; Defense, Pharma</td>
</tr>
<tr>
<td>Unnao</td>
<td>1%</td>
<td>Automotive, Textiles, Food Processing</td>
</tr>
<tr>
<td>Hardoi</td>
<td>2%</td>
<td>Textiles, Food Processing</td>
</tr>
</tbody>
</table>


The Uttar Pradesh State Capital Region (UPSCR) is poised for significant economic growth, with various sectors and special economic zones (SEZs) playing pivotal roles in shaping its development landscape. The distribution of Gross State Value Added (GSVA) shares across sectors and SEZ districts provides valuable insights into the region's potential for economic expansion.

Food processing holds substantial promise, contributing significantly to the region's GSVA. This sector is driven by the region's agricultural base and rising demand for processed food products. Electronics System Design and Manufacturing (ESDM) emerges as a dominant sector, attracting investments and fostering technological advancement. Textiles play a vital role in the region's economy, offering significant employment opportunities. Chemicals are a key player in the region's economic landscape, with a substantial GSVA contribution. Metals, including steel and aluminum production, are poised for steady growth, bolstered by industrialization and infrastructure development. Automotive is a significant contributor to GSVA, with its growth prospects closely tied to manufacturing and transportation infrastructure. Pharma and medical equipment manufacturing are high-growth sectors, representing significant opportunities for investment and innovation.

SEZ districts like Gautam Buddha Nagar, Lucknow, Kanpur Nagar, Unnao, and Hardoi have potential for growth in various sectors. The strategic alignment of these sectors with the region's unique strengths and resources positions the UPSCR as a significant contributor to Uttar Pradesh's overall economic development, highlighting the potential for job creation, investment attraction, and sustainable progress in the state.

The strategies and goals for the development of the Uttar Pradesh State Capital Region (UPSCR) encompass various key areas:
• Infrastructure Development: The region aims to enhance its infrastructure with the establishment of Solar Parks, fostering growth in the tertiary sector, creating a Medi City for healthcare excellence, establishing a Mega MSME Cluster to promote small and medium-sized enterprises, and setting up a Knowledge City to facilitate education and research. Additionally, plans include the development of the Kanpur Mega Food Park and Kanpur Pharma City to boost the food and pharmaceutical industries, along with Electric Vehicle Parks and Aerotropolises \[16\] to support sustainable transportation and aviation.

• Tourism Promotion: The UPSCR is committed to promoting tourism, particularly eco-tourism, to harness the region's natural beauty and cultural heritage, attracting visitors and generating economic opportunities.

• Innovative Projects: Innovative initiatives are underway, such as offering vacant plots in developed residential schemes through e-auctions and lotteries. Plans also include the development of New Kanpur City and a New Business City at Chakeri to accommodate urban expansion.

• Flagship Projects Launched: Several flagship projects have already been initiated, including the Ganga Barrage Theme Lighting project to enhance the cityscape, Signature Greens for sustainable landscaping, the Rainwater Harvesting Theme Park for water resource management, and the Kanpur Boat Club for recreational activities.

These strategies and projects collectively aim to drive economic growth, infrastructure development, and tourism promotion in the UPSCR, ushering in a new era of progress and prosperity for the region.

V. KEY BENEFITS

• The expected population in the Uttar Pradesh State Capital Region (UPSCR) is estimated to range between 15 to 20 million people by 2051.

• The region aims to have 7.5 million employable individuals by 2051, with an additional 3.5 million new employable people. This is intended to reduce outmigration.

• The urban area is expected to expand to 1500 square kilometers by 2051, accommodating around 150 people per hectare (PPh). An additional 720 square kilometers of urban area will be carefully planned by 2051.

• An estimated investment of around 89 thousand crores by 2051, with development costing approximately Rs. 0.5 crore per acre.

• The region aims to contribute 20-25% to the state's GDP by 2051, with a targeted per capita income of 3 lakhs by 2031, aligning with the national average.

• Anticipated 50% increment in registered land values upon announcement, potentially boosting property values.

• The goal is to achieve 90 thousand crores through city development charges, with a rate of Rs. 2500 per square meter. Additionally, an estimated 129 thousand crores in stamp duty revenue from increased land values will go to the exchequer.

• Private sector investment is estimated to range from 50 thousand to 100 thousand crores, indicating significant opportunities for private businesses in the region.

Advantages to State

• Balanced City Development: The region's development strategy focuses on achieving a balanced growth across multiple cities. This ensures that development is not concentrated in one city, promoting equitable progress and distribution of resources.

• Diversified Manufacturing and Service Industries \[3\]: The region aims to foster a diverse range of manufacturing and service industries. It does so by implementing structured and cluster development strategies, which help create specialized economic zones to drive growth and innovation in specific sectors.
Rapid Development Through Infrastructure Investments: Fast-tracking development is a priority, and this is achieved by making substantial investments in regional infrastructure. This includes improving transportation, utilities, and other essential facilities to support economic growth.

Countermagnet to NCR: The region aspires to serve as a compelling alternative to the National Capital Region (NCR) by offering a conducive environment for businesses and residents. This counter magnetic effect helps in decongesting the NCR and distributing economic activities.

Private Sector Investment Opportunities: The region presents significant opportunities for large-scale private sector investments. These investments not only drive economic development but also create jobs and contribute to the overall growth of the region.

Increase in Land Values: As development progresses, there is the potential for a substantial increase in land values. This benefits both the local population, who may see appreciation in property values, and the government, which can generate revenue through land transactions.

Higher Regional Contribution to GDP: Ultimately, the region aims to substantially increase its contribution to the Gross Domestic Product (GDP) of the country. This underscores its importance as an economic powerhouse and a driver of national economic growth.

In summary, the region's development strategy revolves around achieving balanced growth, diversifying industries, fast-tracking development, attracting private sector investments, and significantly enhancing its contribution to the national GDP. These efforts aim to create a dynamic and prosperous region that benefits both its residents and the wider economy.

Advantages to Kanpur

- Special Investment Region: Kanpur is poised to become the first Special Investment Region (SIR) in Uttar Pradesh, following the model of Dholera in Gujarat.
- Tourist Inflow: The city anticipates a significant influx of tourists from nearby Lucknow, driving economic growth through tourism.
- International Airport Advantage: Kanpur plans to leverage the advantages of the proposed international airport in Unnao to establish international connectivity, enhancing its global investment appeal.
- Global Investment Destination: The city aspires to gain global recognition as a prime investment destination, attracting domestic and international investors.
- Efficient Land Resource Use: Kanpur aims to optimize the use of its land resources, promoting sustainable and efficient development practices.
- Natural Resource Management: Better management of natural resources is a key focus, ensuring responsible and eco-friendly growth.
- Local Economic Boost: The initiatives undertaken are expected to provide a significant boost to the local economy, generating employment opportunities and enhancing prosperity.

VI. UPCR FRAMEWORK FORMULATION

As part of the overall planning process, Framework is established to provide guiding principles and overarching parameters for the subsequent planning processes that will ensure the long-term sustainability of the Capital Region and City.

1. Government Order on Formation of High-Power Steering Committee
2. Delineation of UPCR and Drafting ACT
3. Gazette Notification of UPCRDA
4. Declaration of Capital Region through G.O
5. Preparation of Regional Plan/ Structure Plan/ Perspective Plan

Figure 12: UPCR [12] Formulation Proposed Framework

Formation of High-Power Steering Committee
- Constitution of Sub-Committees
- Defining the Road Map for formulation of UPCR
• Supervise progress of the formation of UPSCR
• Co-ordinate with different departments
• Hiring a consultant for assisting in formation of UPSCR
• Delineation of UPSCR
• Drafting the ACT for UPSCRDA
• Guiding in preparation of Regional Plan/Structure Plan/ Perspective Plan for UPSCR etc.

Delineation of UPSCR and Drafting ACT – Using GIS Software.

**Task 1:**
- **Collection and Assimilation of Secondary Information:** Collect all the relevant information/documents i.e. Survey India Maps, Administrative Boundaries, land-use, development Plans (if any), Government Land Data, demographic and socio economic data, environmental features etc., examine the site access parameters, geographical features, likely availability of infrastructure such as water, power etc.

**Task 2:**
- **Mapping the information using GIS platform:** Information collected from various sources need to be mapped and analysed under GIS platform to delineate UPSCR – **Performing Land Suitability Analysis**

**Task 3:**
- **Preparation of Options for the delineation of UPSCR Area:** Two most suitable options will be proposed by consultant considering factors of administrative boundaries, Govt. land availability, existing developments and environmental sensitiveness.

**Task 4:**
- **Selection of Most Apposite Option:** Identification of most appropriate option considering contiguous urbanizable land, availability of water, power & connectivity

*Figure 13: Tasks involved in the delineation of UPCR \[12\] & Drafting of the ACT.*

**Drafting & Gazette Notification of UPSCRDA Act.**

- **Short Title**
  - Act may be called as Uttar Pradesh Capital Region Development Authority Act, 2022
  - Act shall come into force on such date as the State Government may, by notification in the Uttar Pradesh Gazette, appoint

- **Capital Region, SIR**
  - Capital Region Consists Districts Lucknow, Unnao, Kanpur Nagar, Kanpur Dehat, Sitapur, Barabanki and Raebareli with Kanpur to be notified as Special Investment Region
  - Delineation of UPCR to be undertaken as a separate Exercise

- **Functions**
  - Planning -> Development -> Regulation -> Investment Promotion
  - Regional Plan: Regional Infra Regulate Land, Investments & Activities in the Region
  - Authority: Members of the Authority with Roles & Responsibilities

  **Figure 14: Drafting & Gazette Notification of UPSCRDA Act**
Declaration of Capital Region.
A Government Order to be issued with details of villages/ mandals/ districts forming the UP-State Capital Region.

![Figure 15:UPCR Regional set up.](image)

Preparation of Regional Plan/ Perspective Plan / Structure Plan.

Regional Plan/ Perspective plan/Structure Plan’ means a long-term (100 years) strategic plan providing the goals, policies, strategies and general programs of spatial-economic development of the capital region in line with the policies of government, and includes plans for land use, infrastructure, transportation and socioeconomic development prepared for the whole of the capital region that guide development and is revised every ten years.

The plan shall indicate land use zones such as:
- Agricultural zone,
- Industrial zone,
- Green zone,
- Capital city zone
- Special investment zone.

VII. CONCLUSION

In conclusion, the development of the Uttar Pradesh State Capital Region (UPSCR) represents a visionary and transformative endeavor that holds immense promise for the state's growth and prosperity. With Kanpur poised to emerge as a State Investment Region and Lucknow as the State Capital Region for the entire UPSCR, the region is on the cusp of significant economic and infrastructural advancements.

The establishment of Kanpur as a State Investment Region is a testament to its potential to attract private sector investments, stimulate industrial growth, and contribute substantially to the state's economy. This strategic move not only fosters regional development but also aligns with the broader goals of economic diversification and job creation.

Likewise, Lucknow's role as the State Capital Region is pivotal in driving administrative efficiency and providing a focal point for governance and development activities across the UPSCR. Its infrastructure, connectivity, and status as a cultural and educational hub further solidify its position as the heart of the region.

The synergistic relationship between Kanpur and Lucknow, supported by comprehensive regional planning, is set to catalyze sustainable development, boost the local economy, and enhance the overall quality of life for the people of Uttar Pradesh. As the UPSCR unfolds its potential, it not only contributes to the state's economic growth but also establishes itself as a dynamic and progressive region on the national stage. The future holds tremendous opportunities for this region, as it works diligently towards realizing its goals of inclusive and balanced development.

REFERENCES

[9] Draft plan for UP SCR to be ready within a week 
[14] M. Yadav, Deepika Jha, Ruby Moun, Amlanjyoti Goswami, (2021), Advances in Asian Human-Environmental Research, 
   https://doi.org/10.24943/irmuttarpradesh.2021
   journal of the Association of Population Geographers of India.
[16] Prof. Rajesh Pal, Suman Kumar Premee, (2022), Role of Manufacturing Sector in Development of Eastern Region of Uttar 
   Pradesh and its Implications for the State.
[18] https://doi.org/10.48175/ijarsct-8564
   Economics eJournal.
   Uttar Pradesh.
[21] https://doi.org/10.22617/brf190580-2
   geography: a journal of the Association of Population Geographers of India.