

EXCLUSIVE



1<sup>st</sup> EDITION

TRUSTED SELLER

# UPPCS MAINS X-NOTES

**GS6**  
UP SPECIAL

- Highly Exam-Oriented
- Topic Wise Enriched Coverage
- Top Notch Quality
- Integrated Current Affairs

SATISFACTION GUARANTEE

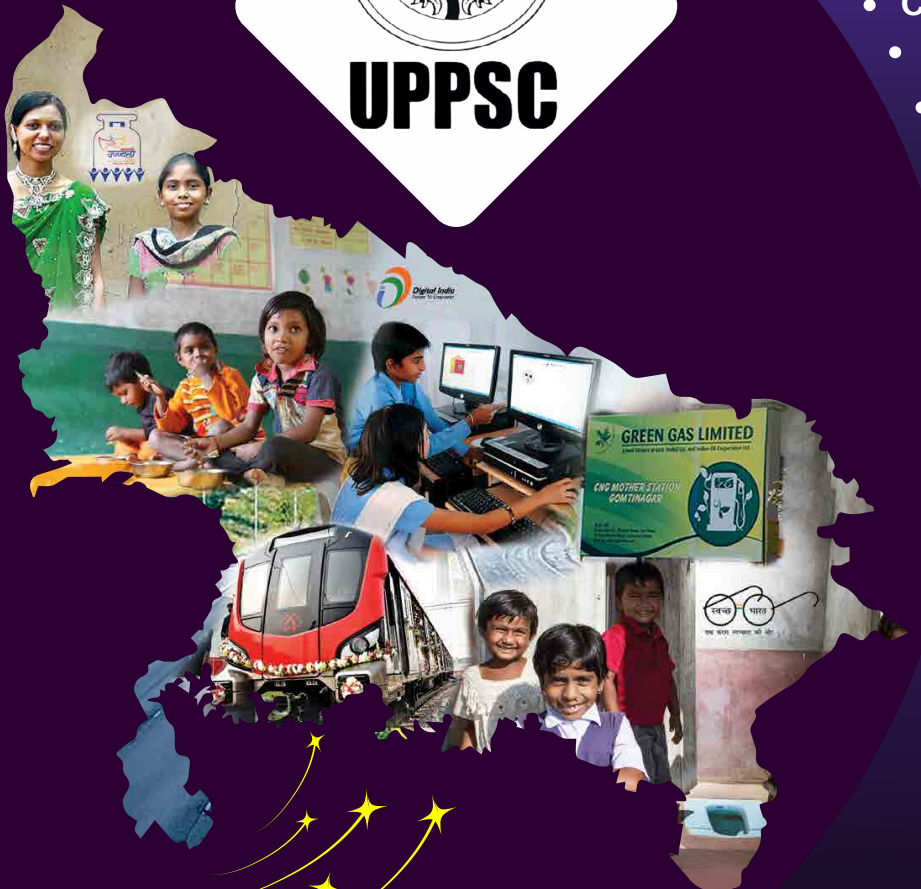


## Special Additions



2025

- Ready To Use Mains Keywords
- Current Integrated
- Ready Made Diagrams
- All Topics Covered
- Budget / Economic Survey
- Case Studies/Examples
- Committees/ Reports
- Judgements
- Answer Writing Tips
- Model Answers



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## About the Book

**X IAS exclusive edition "UPPCS MAINS X-NOTES – GS PAPER 6"** is a strategically designed, topic-wise resource tailored to meet the unique demands of the **Uttar Pradesh PCS Mains General Studies Paper 6**. The book is built to empower aspirants with:

- **Precise and keyword-rich content**, enabling impactful answer writing and fetching extra marks.
- **Concise summaries**, Tables , Quotes etc. saving valuable time during coverage & revision.
- **Systematic topic wise segregation** of all topics as per the **official UPPCS syllabus**, including Current Developments.
- **Best-in-class examples, diagrams, and committee reports** integrated within every topic.
- Inclusion of **Examples of Uttar Pradesh** from Economy ,Geography etc.

The book is not merely a compilation—it is a **strategic tool** to enhance your analytical capability, conceptual clarity, and answer enrichment.

### About the X IAS Expert Team

The content has been conceptualized, curated, and refined by the **X IAS Core Content & Strategy Team**, comprising:

- **UPPCS toppers and interview candidates.**
- **UPSC toppers , interview candidates and GS mentors** with vast experience in subjects.
- Content researchers and content developers who ensure district-specific innovations are highlighted.

Our team has worked extensively to ensure the notes are **UPPCS-specific, crisp, and yet comprehensive**—blending factual precision with analytical insight.

### Utility of the Book

- Ideal for **GS Paper 6 answer writing**, essay references, and even interview enrichment.
- **One-stop solution** for revision, value addition, and strategy mapping.
- Can be used **alongside the official UPPCS syllabus** to track topic coverage and PYQ trend-mapping.
- Equally useful for **UPSC - GS3**, particularly for Indian economy .

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## Why One Should Master GS-5 and GS-6 (UP Special) in UPPCS Mains?

In this exclusive content of **X IAS**, We will cover UPPCS MAINS Uttar Pradesh Special Subjects (GS-5 & GS-6) comprehensively including PYQ analysis. These papers contribute **26.67%** of the total score in UPPCS Mains, making them **crucial for securing a high rank**. Mastering these papers is essential for the following reasons:

### 1. High Weightage in Final Selection

- **UP Special contributes over one-fourth (26.67%) of the total marks**, significantly impacting overall merit.
- Strong performance in these papers can **compensate for lower scores in other GS papers**.

### 2. Edge Over Other Candidates

- These papers are **state-specific**, limiting competition from those who focus only on general studies.

### 3. Strong Relevance to Personality Test (Interview)

- Questions in the interview often revolve around **UP's history, governance, socio-economic issues, and policies**.
- A solid grip on UP's issues ensures a **confident and well-informed response**.

### 4. Overlap with Other Papers

- Topics like **history, governance, economy, and development** have overlaps with **GS-1, GS-2, and GS-3**, making preparation **more efficient**.
- Local self-governance, land reforms, law & order, and security issues are also **relevant to GS-2 and GS-3**.

### 5. Boosts Essay and Ethics Paper (GS-4) Performance

- **UP's socio-economic and cultural aspects provide real-life examples** that can be used in essays.
- Governance-related topics help in answering **case studies in the Ethics paper**.

### 6. Helps in Current Affairs-Based Questions

- Many **policy decisions, developmental schemes, and governance models** in UP are **directly asked in Mains**.
- Understanding **UP's Jal Shakti Mission, law and order, Panchayati Raj, tourism, and innovation** makes answers more dynamic.

### Book Strategy Highlights

- **Complete coverage of UPPCS GS Paper 6 syllabus line-by-line**, exactly as prescribed.
- **PYQ-mapped content structure** with Model answer integration where needed.
- Most chapters end with: **Keywords • Diagrams • Data • Model Answer Frameworks**.
- Use of **IBC (Intro–Body–Conclusion)** + flowcharts, tables to simplify retention.
- Emphasis on **district-specific examples, schemes, innovations, and case studies from UP**.
- Targeting maximum marks with precision and enrichment.
- **Best-in-class examples, diagrams, and committee reports** integrated within every topic.
- Inclusion of **case studies from Uttar Pradesh**, aligned with SDGs, Good Governance Index, Aspirational Districts framework, and schemes like Mission Karmyogi and ODOP.

The book is not merely a compilation—it is a **strategic tool** to enhance your analytical capability, conceptual clarity, and answer enrichment.

**GENERAL STUDIES- VI**

- 1- Overview of Economy of UP: Main features of economy and State Budgets, Infrastructure and importance of Physical Resources.
- 2-Trade, Commerce and industries of UP.
- 3-UP Government Schemes, Projects and Planned Development for welfare of People, Human Resources and Skill Development.
- 4-Investment in UP: Issues and Impact
- 5- Public Finance and Fiscal Policy, Tax and Economic Reforms, One District One Product Policy of UP Government.
- 6-Planning and management of renewable and non-renewable energy resources of UP.
- 7-Demography, Population and Censuses of UP.
- 8-Commercialization of agriculture and production of agricultural crops in UP.
- 9-UP New Forest Policy.
- 10-Agro and Social Forestry in U.P
- 11-Agricultural Diversity, Problems of agriculture and their solutions in UP.
- 12-Developmental Indices of UP in various fields.
- 13- Geography of UP: Geographical Location, Relief and Structure, Climate, Irrigation, Minerals, Drainage System and Vegetation.
- 14-National Parks and Wild Life Sanctuaries in UP.
- 15-Transport Network in UP.
- 16-Power Resources, Infrastructure and Industrial Development of UP.
- 17-Pollution and Environmental Issues in UP, Pollution Control Board and its functions.
- 18-Natural Resources of UP-Soil, Water, Air, Forests, Grasslands, Wetlands.
- 19-Climate Change and Weather Forecasting issues in UP.
- 20- Habitat and Ecosystem, structure and function, adjustment, Flora and Fauna with reference to UP.
- 21-Science and Technology: Its issues, advancements and efforts in UP.
- 22- Aquaculture, Viticulture, Sericulture, Floriculture, Horticulture, Arboric culture in up and its impact on development of UP.
- 23-Evolvement of Public-Private Partnership (PPP) for development of UP.

## MAP OUTLINE OF UP (USEFUL FOR PRACTICE)



CANDIDATES ARE ADVISED TO PRINT THIS MAP & PRACTICE DRAWING AND MARKING VARIOUS THINGS ON IT. HIGHLY USEFUL PRACTICE FOR PAPER 5 & PAPER6.

Topic 1

# OVERVIEW of the ECONOMY of UTTAR PRADESH

Main features of economy and state budgets, infrastructure and importance of physical resources



## ECONOMIC FEATURES

- Agricultural base
- Growing industries
- Tourism potential

## STATE BUDGETS

- Expenditure on development
- Fiscal management



## INFRASTRUCTURE

- Transport networks
- Energy supply
- Urban development

## PHYSICAL RESOURCES

- Land and water
- Forests
- Mineral wealth



**TOPIC-1-Overview Of Economy Of UP: Main Features Of Economy And State Budgets, Infrastructure And Importance Of Physical Resources.**

**Section 1: Introduction – The Economic Canvas of Uttar Pradesh**

**“Where India breathes, Uttar Pradesh beats. The pulse of a billion dreams runs through the veins of this economy.”**

**“In the theatre of Indian development, Uttar Pradesh is both the stage and the spotlight—where every policy experiment finds its truest test.”**

The economy of Uttar Pradesh is not just a provincial narrative—it is a **national fulcrum** of demographic depth, agricultural resilience, emerging industrialization, and infrastructural ambition. With a population surpassing that of Brazil and a labour force larger than most European nations, UP’s economy is a **complex mosaic** of rural dependence, urban transitions, and policy-induced dynamism.

Over the last decade, Uttar Pradesh has graduated from being seen as a **‘low-growth, high-population’ state** to becoming a **centre of economic recalibration**. The state’s ambitions are no longer confined to food security or industrial basics—it now aspires to build **smart cities, solar parks, expressway networks, fintech zones, export clusters, and defence manufacturing corridors**. The push toward becoming a **\$1 trillion economy by 2028–30**, aligned with India’s \$5 trillion vision, positions UP not merely as a stakeholder—but as a **strategic driver** of national growth.

What makes UP truly unique is the **scale–inclusion paradox**. It ranks **among the top three economies in terms of GSDP**, yet struggles with a **low per capita income**; it leads in **agricultural output**, yet faces **agrarian distress**; it is a **logistics and expressway giant**, yet deals with **high rural unemployment and skill gaps**. This duality makes UP an economic entity that must be studied not just in statistics, but in **structural, regional, fiscal, and social terms**.

**1.1 Key Economic Indicators of Uttar Pradesh (As of 2025–26)**

Indicator	Value/Status (Latest Available)
<b>GSDP (at current prices)</b>	₹24.45 lakh crore (2025–26 BE, UP Economic Survey)
<b>Target Economy</b>	\$1 Trillion by 2027 (Vision set by GoUP)
<b>Per Capita Income</b>	₹90,214 (against national avg of ₹1,72,000)
<b>Sectoral Composition</b>	Agriculture – 21.4%, Industry – 26.3%, Services – 52.3% (2025–26)
<b>Population (2024 est.)</b>	~24.6 crore (approx. 17.5% of India)
<b>State Ranking by GSDP</b>	3rd in nominal terms (after Maharashtra & Tamil Nadu)

**1.2 Structural Features of UP’s Economy**

**A. Diverse Sectoral Base**

- **Agriculture** remains the backbone with UP being **India’s largest producer of wheat, sugarcane, pulses, and milk**.
- Rapid growth in **industries**, especially **food processing, electronics, textile, and defence manufacturing**.

- **Services sector** is expanding through **logistics, tourism, trade, and IT/ITES startups** in Noida and Lucknow.

**B. Demographic Dividend**

- Over **56% of UP’s population** is under 30 years—making it India’s **youngest labour reservoir**.
- State is running **massive skilling programmes** like **Mukhyamantri Apprenticeship Scheme, Kaushal Sathi Mission**.

**C. Export Orientation**

- Exports rose from ₹1.2 lakh crore (2018–19) to **₹2.58 lakh crore (2024–25)**.
- Key export items: **Handicrafts (Moradabad), Basmati Rice (Chandauli), Leather (Kanpur), Software (Noida)**.

**D. Investment Surge**

- **₹38.5 lakh crore investment intents** received during **UP Global Investors Summit 2023**.
- Sectors: Green energy, data centres, defence corridor, EVs, biofuels.
- **Single-window clearance and land pooling** systems improving ease of doing business.

**1.3 Regional Economic Contrasts and Zones**

Region	Strengths and Sectors	Challenges
Western UP	Industry, dairy, expressways, real estate	Pollution, land conflicts, urban sprawl
Central UP	Tourism, textiles, MSMEs, capital investment (Lucknow)	Informal labour, infrastructure backlog
Eastern UP	Agriculture, handlooms, GI products	Flood-prone, poor logistics, low per capita income
Bundelkhand	Minerals, defence, dairy clusters	Water scarcity, drought, weak rural connectivity
Terai Region	Forestry, organic farming, eco-tourism	Forest–farmer conflicts, migration, flood risk

**1.4 Strengths of the Economy**

- **Strategic location:** Proximity to Delhi-NCR, Bihar, Madhya Pradesh, Nepal border
- **Infrastructure push:** Expressways, logistics parks, international airports (Jewar, Kushinagar)
- **Strong workforce:** Agriculture, MSMEs, and informal sector
- **Policy-backed growth:** ODOP, Export Promotion Policy, MSME Nivesh Mitra Portal

## With 9.2% share in India’s GDP, UP 2nd largest economy: Report

TIMES NEWS NETWORK

**Lucknow:** In a sure-footed move to reach Chief Minister Yogi Adityanath’s target to attain the \$ 1 Trillion-mark by 2027, Uttar Pradesh has emerged as the second-largest economy of the country, according to a report by prominent online blogging platform soic.in.

The platform, which keeps track of investments and the stock market, has revealed that UP has the second largest share in the country’s GDP after Maharashtra. The report, which was shared on X, has revealed UP has a 9.2% share in the country’s GDP, behind only Maharashtra (15.7%). So far, UP was in third place.

UP, thus has outpaced Tamil Nadu (9.1%), Gujarat (8.2%), and West Bengal (7.5%). States like Karnataka (6.2%), Rajasthan (5.5%),

SURGING AHEAD

- ▶ **UP is second largest state in the country in GDP share after Maharashtra**, according to online blogging platform soic.in
- ▶ **Maharashtra leads with a GDP share of 15.7%, UP follows closely with 9.2%**
- ▶ **UP has outpaced states like Tamil Nadu (9.1%), Gujarat (8.2%), & West Bengal (7.5%)**



Andhra Pradesh (4.9%), and Madhya Pradesh (4.6 %) are also behind UP, says the report.

“Under the leadership of Chief Minister Yogi Adityanath, Uttar Pradesh has progressed rapidly in every field over the past seven years. Organised crime in the state has now reduced to zero, while the industrial sector is making rapid strides in development. UP has also jumped from the 14th to the second position in the ‘Ease of Doing Business’ rankings,” said a government spokesperson.

“Additionally, due to improvements in law and order, connectivity, and infrastructure, the state has received investment proposals of over ₹40 lakh crore through GIS 2023, which are likely to be implemented on the ground soon. This will create more than one crore employment opportunities in the state,” he added.

▶ Race for devpt, P 4

### 1.5 Key Economic Challenges

#### A. Low Per Capita Income

- Despite being the 3rd largest economy in size, UP ranks among the **bottom 5 in PCI**.
- Rural-urban disparity remains significant (rural PCI is half of urban PCI).

#### B. Unemployment and Skill Mismatch

- Labour force under-utilised; **high open unemployment among youth (CMIE 2024: ~8.2%)**
- Industry-ready skilling gaps in Tier 2–3 districts

#### C. Regional Imbalances

- Western UP contributes ~42% of GSDP; Bundelkhand and eastern UP combined contribute <25%

#### D. Informality and Financial Exclusion

- Over **83% of employment** is still in informal sectors
- MSMEs struggle with credit access, digitisation, and compliance

#### Conclusion of Section 1

The economy of Uttar Pradesh is **massive in scale and rich in diversity**, yet burdened by **structural inequalities and regional inertia**. If UP is to realise its **\$1 trillion economy vision**, it must **balance investment with inclusion, infrastructure with ecological sensitivity, and growth with equity**. **“From a low-income populous state to a high-impact investment magnet—Uttar Pradesh’s economic journey must be bottom-up, region-specific, and reform-driven.”**

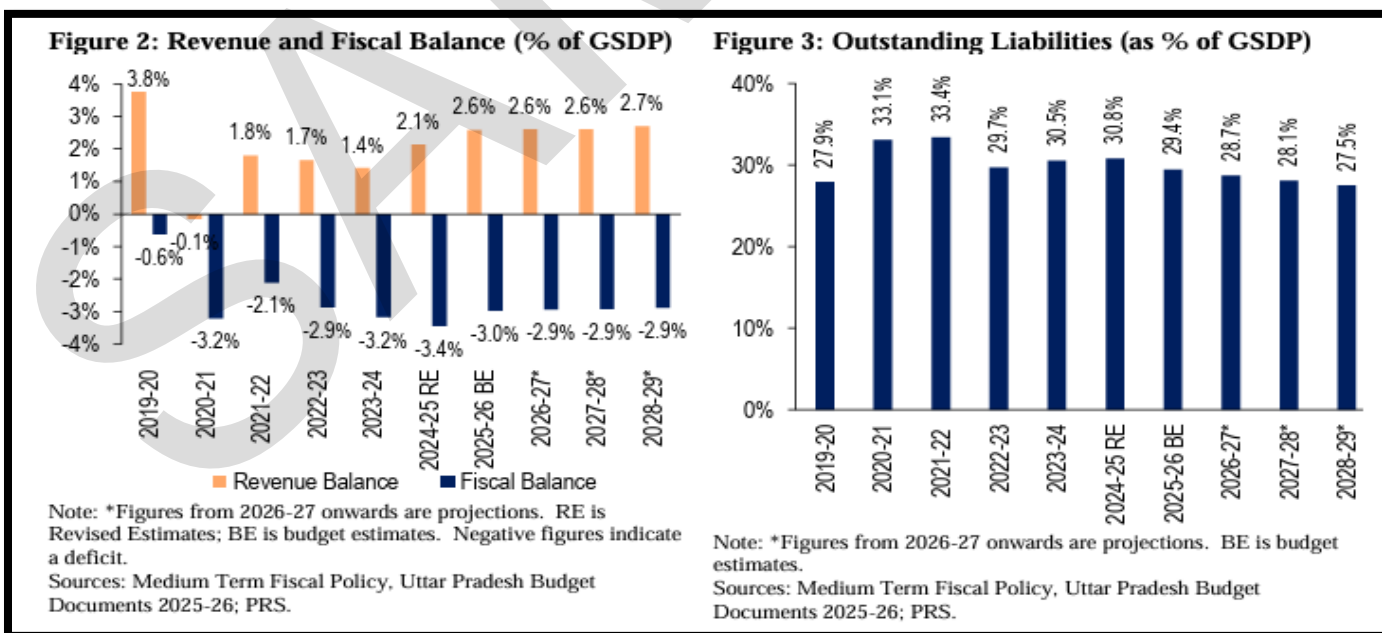
### Section 2: State Budgets of Uttar Pradesh – Fiscal Transformation and Strategic Development

**“A budget is not just a ledger of numbers—it is a policy document that reflects the government’s intent, foresight, and ambition.”**

In Uttar Pradesh, recent budgets are serving as the **engine room of economic transformation**, transitioning from traditional welfare spending to **capital-intensive, data-driven, and growth-focused instruments**.

#### 2.1 Macroeconomic Positioning and Fiscal Architecture (2025–26)

Uttar Pradesh’s **Budget 2025–26** is the largest ever presented by any state government in India, reflecting a **visionary scale and purposeful direction** towards the **\$1 trillion economy goal**.



**Key Fiscal Aggregates (UP Budget 2025-26)**

Fiscal Indicator	Value	Significance
<b>Total Budget Size</b>	₹7.60 lakh crore	10.1% rise over 2024-25 RE
<b>Revenue Receipts</b>	₹5.19 lakh crore	Driven by own tax + central transfers
<b>Capital Expenditure</b>	₹2.41 lakh crore	Highest among all states, ~32% of total outlay
<b>Fiscal Deficit (FD)</b>	₹81,206 crore (3.4% of GSDP)	Within FRBM compliance (≤ 4%)
<b>Revenue Surplus</b>	₹5,250 crore	Indicates efficient current spending
<b>Debt-GSDP Ratio</b>	28.9%	Well below RBI limit of 33%
<b>Own Tax Revenue</b>	₹2.01 lakh crore	Includes GST, VAT, excise, stamp duty
<b>Transfers from Centre</b>	₹1.92 lakh crore (share + grants)	Key source: Finance Commission & CSS

**Interpretation:**

The budget's core fiscal strength lies in **growing own revenues**, controlled debt levels, and aggressive **capital investment** strategy.

**2.2 Strategic Budget Priorities - 2025-26 (BE)**

The budget is thematically aligned with **4 cardinal development visions**:

1. **Infrastructure-Led Growth**
2. **People-Centric Governance**
3. **Green & Resilient Economy**
4. **Skill and Enterprise Enablement**

**2.3 Sector-Wise Detailed Allocations and Objectives**

**A. Infrastructure & Roads - ₹30,012 crore**

- Expansion of expressways (Ganga, Bundelkhand, Gorakhpur Link)
- Rural PMGSY roads + bridge connectivity in flood zones (Gonda, Ballia)
- Ropeways in Ayodhya, Varanasi, Prayagraj under urban transport expansion
- Allocation for **smart mandis, logistics hubs, and freight corridors**

**B. Education, Digital Learning & Skilling - ₹21,600 crore**

- 7 new polytechnics and 3 skill universities
- Drone ITI labs in 30 districts (rural & aspirational)
- Smart classrooms in 20,000 schools; expansion of e-content in Urdu, Awadhi, Bhojpuri
- ₹2,000 crore for girls' hostel construction and vocational labs

**C. Health and Nutrition - ₹9,700 crore**

- 30 new Community Health Centres upgraded with telemedicine

### EYE ON \$1 TRN ECONOMY

(A snapshot of UP Budget 2025-26)

<p><b>₹8.08 trn</b> Budget size is <b>9.8%</b> jump over FY25</p> <ul style="list-style-type: none"> <li>■ Fiscal deficit estimated at <b>2.97%</b> of gross state domestic product</li> <li>■ Capex exceeds <b>20%</b> of Budget</li> <li>■ Major infra push with <b>22%</b> allocation</li> <li>■ Education gets over <b>₹1 trn</b>,</li> </ul>	<p>or <b>13%</b> of Budget</p> <ul style="list-style-type: none"> <li>■ Agri and allied sectors get <b>11%</b></li> <li>■ Total receipts exceed <b>₹7.79 trn</b></li> <li>■ Provision of <b>₹28,478 cr</b> for new projects</li> <li>■ Tax revenue estimated at <b>₹5.5 trn</b></li> </ul>
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- Ayushman UP – universal health insurance scheme integrated with CM Jan Arogya
- ₹820 crore for nutrition supplementation in tribal belts (Chandauli, Shravasti)

**D. Energy and Renewables – ₹6,890 crore**

- Solar-powered streetlights in 3,800 villages
- Rooftop solar in all government buildings of 30 districts
- EV charging stations along expressway corridors (PPP model)

**E. Agriculture & Rural Economy – ₹18,000 crore**

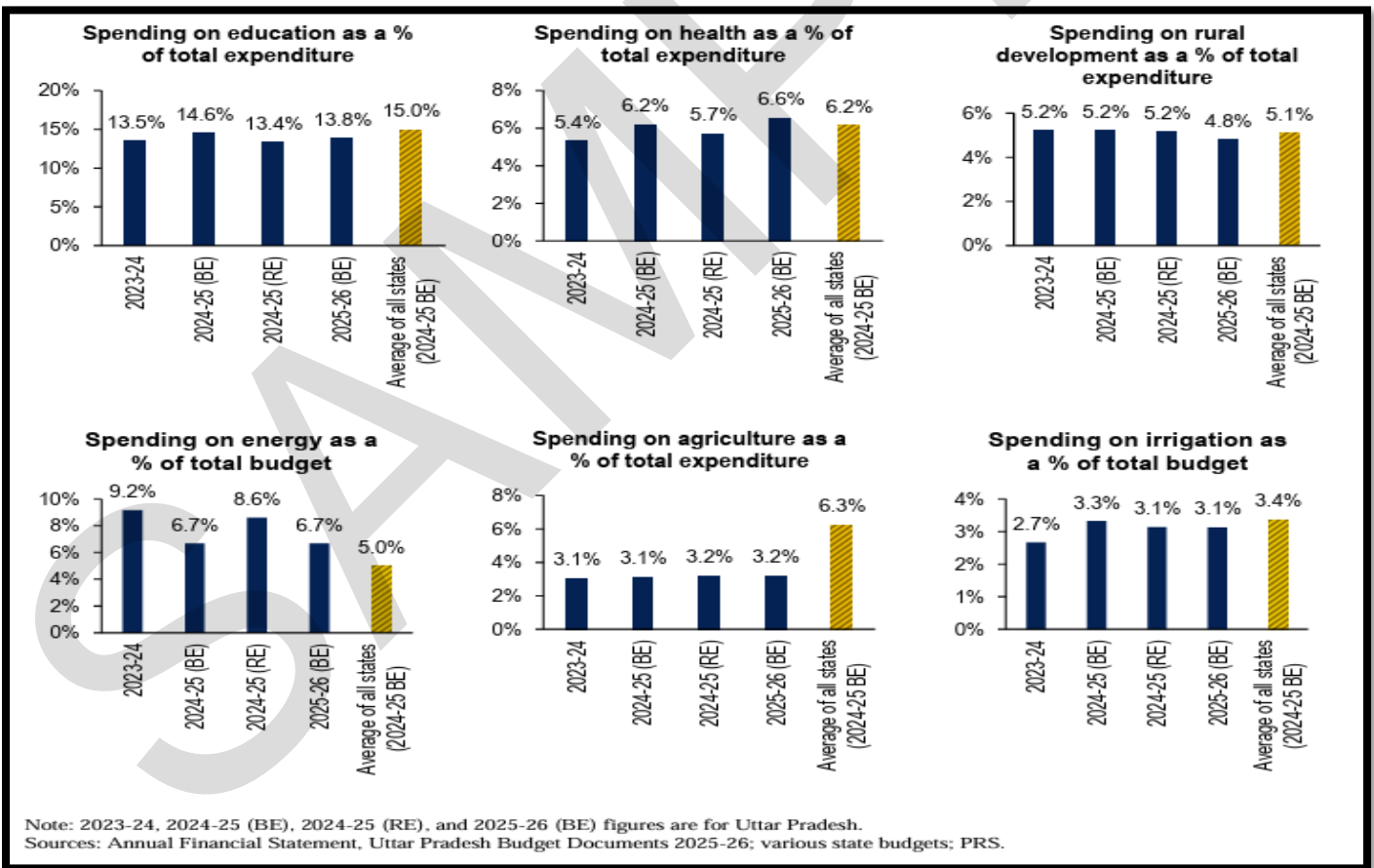
- New irrigation schemes in drought-prone Bundelkhand
- Diversification subsidy for pulses, oilseeds in Eastern UP
- ₹2,500 crore for ODOP + PM-FME food processing units in Azamgarh, Amethi

**F. Urban Governance – ₹8,250 crore**

- AMRUT 2.0 sewerage projects (Agra, Meerut, Saharanpur)
- ₹1,040 crore for waste-to-energy plants in Bareilly and Kanpur
- Smart City capex expansion in Ayodhya, Varanasi, Jhansi

**G. MSMEs, Startups & Handicrafts – ₹6,000 crore**

- Credit-linked capital subsidy to 1 lakh ODOP units
- e-Commerce onboarding fund for artisans in Moradabad, Bhadohi
- Export cluster support for GI-tagged goods: Chikankari, Brassware, Perfumes



**2.4 Budget Reforms and Innovations**

**A. Outcome Budgeting and PRAYAS Dashboard**

- 65 major schemes tracked on KPIs (e.g., road completion, water pipeline length)

- Block-wise progress ranked monthly by Planning Department

**B. Green Budget Tagging**

- ₹1,100 crore tagged under “green head” (solar, drip irrigation, compost units)
- SDG-linked climate-sensitive budgeting rolled out in 14 departments

**C. Participatory Budgeting**

- “My Budget My Idea”: 52,000 citizen ideas received
- First pilot of **ward-level budgeting** in 10 Nagar Palikas

**D. Digital Fiscal Management**

- 98% of schemes now on PFMS + DBT
- Real-time geo-tagging of projects through mobile-based budget tracking app

**E. Gender Budgeting**

- ₹38,000+ crore allocated under gender-tagged schemes
- Categories include: women-led FPOs, pink buses, girls’ education incentives

**2.5 Regional Equity Approach in Budget Distribution**

Region	Special Allocations/Focus Areas
Western UP	Industrial parks, defence corridor, EV infra
Eastern UP	GI-tagged exports, cold chains, horticulture subsidies
Bundelkhand	Water grid expansion, solar corridor, millet clusters
Central UP	Smart Cities, metro expansion, startup ecosystem
Terai	Forest protection, biofencing, sustainable agriculture

**Case Example:**

In **Sonbhadra**, ₹132 crore budgeted for tribal hostels, organic certification of hill crops, and solar drip kits under **Integrated Development Fund for Forest Districts (2025–26)**.

**2.6 Key Budget Execution Challenges**

Challenge	Example & Impact	Suggestion
<b>Underutilisation of Capex</b>	Only 68% utilised in Chitrakoot & Mahoba in FY 2023–24	Project-based PMUs at district level
<b>PPP Gaps in Social Infra</b>	Rural cold chains in Etah, Sultanpur stalled due to viability concerns	VGF-backed hybrid PPP for health and logistics
<b>Overlap in Scheme Delivery</b>	SHG-linked marketing schemes by MSME & NRLM not integrated in 17 dists	Unified district-level convergence plan (under DPC)
<b>Low Absorption of DBT Grants</b>	₹135 crore fund unspent in SC-ST Entrepreneurship Schemes	Improved e-KYC & Aadhaar authentication via CSCs

**Conclusion of Section 2**

Uttar Pradesh’s budgetary policy has matured from being **accounting-focused to architecture-focused**. The emphasis is now on **efficient capital allocation, measurable outcomes, green and inclusive development, and deep regional penetration**.

With its **fiscal discipline, sectoral targeting, citizen participation, and real-time project monitoring**, Budget 2025–26 is not just a spending document—it is a **strategic script for UP’s inclusive growth, economic competitiveness, and sustainable development**.

**“Budgets don’t transform economies—visionary budgets do. And UP’s budget is a masterclass in the economics of aspiration and accountability.”**

**Section 3: Infrastructure and Investment Landscape of Uttar Pradesh**

**“Infrastructure is the spine of economic development—and in Uttar Pradesh, that spine is being reinforced through concrete, connectivity, and capital confidence.”**

In the last decade, Uttar Pradesh has moved from being a **low-infrastructure, low-investment economy** to becoming one of India’s **most aggressive infrastructure investors and industrial policy innovators**. This transformation is driven by strategic integration of **multi-modal transport networks, industrial corridors, urban infrastructure and mega logistics projects**, all tied closely with UP’s **target to become a \$1 trillion economy**.

**3.1 Current Status of Infrastructure: A Snapshot (as of 2025)**

Infrastructure Area	Present Status
Expressways	5 operational, 6 under construction (1,950+ km network)
Airports	9 functional, 2 international (Jewar, Kushinagar)
Railway & Freight Corridors	DFC spans over 1,100 km in UP
Urban Transport	Metro operational in 5 cities; ropeways in 3 cities
Smart Cities	10 cities under Smart City Mission (SCM)
Electricity	Total capacity: 28,350 MW (including 4,000+ MW renewable)
Cold Chains (Agri-logistics)	320+ operational cold chains across 43 districts
Data Centres Approved	20+ projects under UP Data Centre Policy 2021

**3.2 Expressways and Multimodal Corridors – Rewiring Economic Geography**

Uttar Pradesh is now being redefined by its **network of expressways and freight corridors**, which has become the **backbone of its industrial, logistics, and agricultural transformation**.

**Major Expressways (Flagship Projects)**

- **Purvanchal Expressway (340 km)**: Operational; connects Lucknow to Ghazipur, boosting Eastern UP integration.
- **Ganga Expressway (594 km)**: India’s longest, under construction (Meerut to Prayagraj); includes 4 airstrips for emergency use.
- **Bundelkhand Expressway**: Opens up drought-prone zones to industries and defence corridor integration.

- **Gorakhpur Link & Ballia Link Expressways:** Under construction to connect remote regions.

**Impact:**

- **Travel time reduced by 40–60%**
- Industrial parks planned at **10 interchanges**
- **ODOP, dairy, and food processing hubs** emerging along expressway belts



**3.3 Investment Climate and Industrial Growth**

**A. Investment Inflow and Policy Ecosystem**

- **UP Global Investors Summit (UPGIS) 2023:**
  - ₹38.5 lakh crore investment intents signed
  - Top sectors: renewable energy, defence, electronics, EVs, logistics
- **Investment Realisation Rate:** 27% of MoUs already grounded by 2025
- **'Nivesh Mitra Portal':** Single-window clearance, ranked top by DPIIT
- **Sectoral policies:**
  - UP Defence Manufacturing Policy 2022
  - Electronics Manufacturing Policy
  - Film, Data Centre, Startup, and Warehousing policies



**B. Industrial Infrastructure**

- **Defence Industrial Corridor (UPDIC):** Nodes in Aligarh, Kanpur, Jhansi, Chitrakoot, Lucknow
- **Textile & Toy Parks:** Kanpur, Bhadohi, and Meerut clusters upgraded with common facilities
- **Data Centre Parks:** 20+ approved (Noida–Greater Noida belt is becoming India’s data capital)

**3.4 Power, Renewable Energy, and Digital Infrastructure**

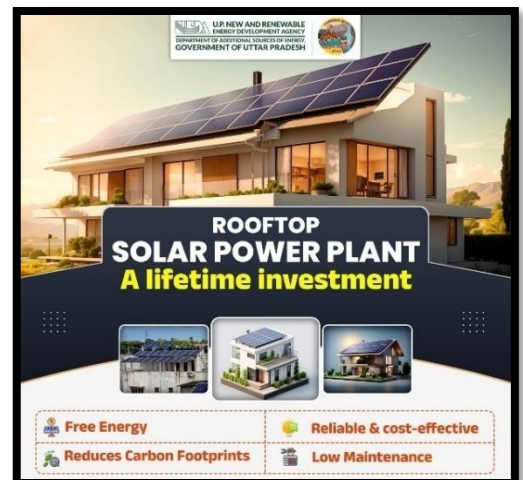
**A. Energy Infrastructure**

- **Smart metering rollout:** 1.2 crore households by 2025
- **Deendayal Gram Jyoti Yojana:** 24x7 power in all 75 districts
- Loss reduction from 21.6% (2017) to 15.2% (2024)

**B. Renewable Energy**

- **UP Solar Energy Policy 2022:** Target – 22 GW by 2027
- **Bundelkhand Solar Corridor:** Mahoba–Chitrakoot–Sonbhadra: 1.2 GW potential
- Rooftop solar: 7 lakh households, 12,000 public buildings solarised

**C. Digital Backbone**



- BharatNet fibre in **76,000+ gram panchayats**
- **CM Digital Seva Kendras** in every block for e-governance delivery
- 5G roll-out completed in all 17 municipal corporations

### 3.5 Urban Infrastructure and Smart Cities

- **Smart Cities Mission:** 10 UP cities with total investment of ₹15,300 crore
  - Flagship projects:
    - Ayodhya Riverfront,
    - Varanasi heritage mobility,
    - Kanpur LED road corridors
- **AMRUT 2.0:** ₹8,250 crore for water supply, sewerage, and waste management
- **Integrated Command and Control Centres (ICCCs):** Active in 10 cities

#### Example:

**Varanasi Smart City**—reduced traffic congestion by 38% using AI cameras, smart lights, and e-buses under EV policy incentives.

### 3.6 Challenges in Infrastructure Development

Challenge	Example & Impact
<b>Regional disparity in infra</b>	Western UP dominates 60% of investment; Bundelkhand lags
<b>PPP model breakdown</b>	Rural warehousing and solar PPPs underutilised in Ballia, Sitapur
<b>Land acquisition bottlenecks</b>	Industrial park delays in Bijnor and Shravasti
<b>Urban sprawl vs infrastructure</b>	Rapid real estate-led growth in Noida outpaces drainage systems

### 3.7 Reform Measures and Suggestions

1. **PPP Revival Strategy**
  - Introduce Viability Gap Funding (VGF) for logistics and cold storage in eastern UP
  - Build PPP facilitation units in 20 lagging districts
2. **Regional Industrial Equity Funds**
  - Special incentives for private sector in Bundelkhand and Terai
  - District Infra Ranking Index to guide future allocations
3. **Land Pooling and Fast-Track Clearances**
  - Integrate GIS mapping of land banks
  - Use online e-auctioning for land in industrial belts
4. **Green Infra Integration**
  - Solarisation of public transport fleets in 30 towns
  - Develop “Climate-Resilient Expressways” with tree belts and EV corridors

#### Conclusion of Section 3

Uttar Pradesh’s infrastructure is no longer **reactive** or **incremental**—it is **visionary, pre-emptive, and investment-aligned**. With corridors, expressways, defence parks, data centres, and smart cities rising across the state, UP is scripting a **logistics and infrastructure renaissance** that will define its economy for decades. **“Infrastructure is not just a public asset—it is a public accelerator. And UP’s infrastructure is finally catching up with its ambition.”**

**Section 4: Role and Importance of Physical Resources in the Economic Development of Uttar Pradesh**

“Economic growth is built on the foundations of land, water, minerals, and forests—yet its success depends on how wisely and sustainably we use them.”

Uttar Pradesh is endowed with a **variety of physical resources**—from the **alluvial plains of the Ganga basin**, to the **mineral-rich Vindhyan plateau**, from **vast water networks** to **productive forests in Terai and Sonbhadra**. These resources have historically shaped UP’s **agriculture, industry, and settlement patterns**. In the current era of **industrialisation, climate stress, and urban expansion**, the strategic use and conservation of these physical resources has become central to **UP’s \$1 trillion economy vision, regional equity, and environmental sustainability**.

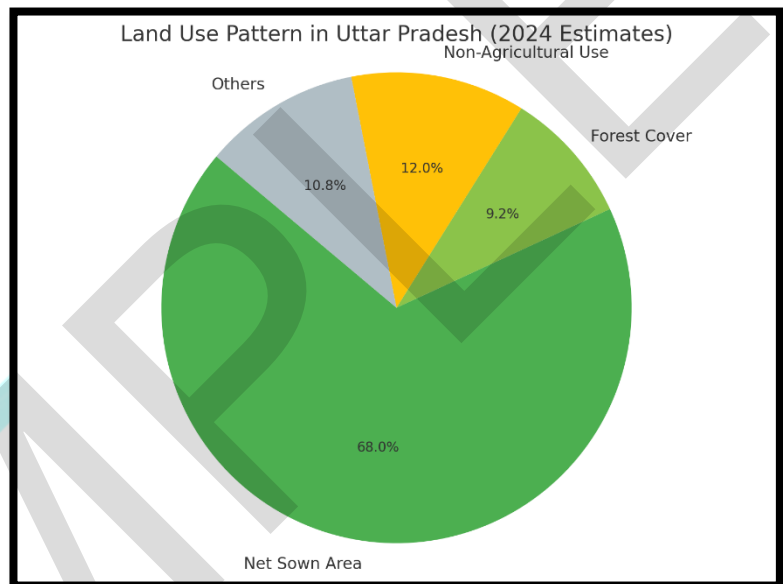
**4.1 Land Resources and Their Economic Significance**

**A. Land Use Pattern (2024 Estimates)**

- **Total geographical area:** ~2.4 crore hectares
- **Net sown area:** ~68%
- **Forest cover:** ~9.2% (approx. 18.6 lakh hectares)
- **Non-agricultural use:** ~12% (urbanisation + industrialisation)

**B. Economic Relevance**

- Fertile **Gangetic alluvium** fuels India’s largest foodgrain economy.
- **Land pooling schemes** (under Industrial Development Authorities) have enabled expressway-linked industrial belts (e.g. Jewar, Bhadohi).
- **Bundelkhand’s land reclamation** programs are opening up new pulses and oilseeds clusters.



**Example:**

In **Etawah**, farmers under the Land Bank Scheme leased degraded land to solar companies under the **UP Solar Policy 2022**, generating rent + local employment.

**4.2 Water Resources – Rivers, Groundwater, and Irrigation**

**A. River Systems**

- Major rivers: **Ganga, Yamuna, Ghaghara, Gomti, Rapti, Saryu, Betwa**
- UP has the **highest river density in North India**, contributing to **inter-state hydrological connectivity** and **fertile agriculture**.

**B. Groundwater and Irrigation**

- UP contributes ~**36% of India’s total groundwater withdrawal**
- **Over 70% of irrigation** in UP is groundwater-dependent
- Major canals: **Sharda Canal, Upper Ganga Canal, Lower Yamuna Canal**

**C. Key Issues**

- **Overexploitation in Western UP:** 57 blocks marked as ‘dark zones’ (CGWB 2024)
- **Irrigation inefficiency** in Bundelkhand and Eastern UP
- River pollution and siltation reducing water flow in Ganga and Gomti

**D. Government Measures**

- **Atal Bhujal Yojana** and **Jal Jeevan Mission** adopted in Bundelkhand

- **Saryu Canal Project (2023):** Benefits 9 districts in Eastern UP
- Water budgeting and recharge pit schemes via MNREGA + Jal Shakti Abhiyan

**4.3 Forest Resources and Bio-Ecological Wealth**

**A. Forest Zones in UP**

- Dense forests in **Sonbhadra, Lakhimpur Kheri, Pilibhit, Bahraich**
- Forest types: **Tropical Moist Deciduous, Dry Deciduous, and Teak-rich belts**

**B. Economic and Environmental Role**

- Source of **minor forest produce, timber, bamboo, medicinal plants**
- Forest-based livelihoods support over **22 lakh tribal and forest-fringe families**
- Forest carbon stock is ~119 million tonnes (ISFR 2023)

**Example:**

**Haiderpur Wetland (Bijnor)**—Ramsar site that supports eco-tourism, birding, and fishery micro-enterprises managed by SHGs

**4.4 Mineral Resources and Industrial Linkages**

**A. Mineral Distribution**

- **Bundelkhand & Vindhyan belts** rich in **limestone, granite, bauxite, silica, pyrophyllite**
- **Sonbhadra** is the **‘Energy Capital’ of UP** – home to coal, thermal, and hydropower projects

**B. Mining and Industry**

- Mining sector contributes ~₹4,000 crore to UP’s revenue annually (2024–25)
- Linked with **cement, ceramics, glass, and construction industries**
- E-auction of mineral blocks launched under **UP Mineral Policy 2023**

**C. Challenges**

- Illegal mining in **Chitrakoot, Banda, Shamli**
- Environmental degradation and displacement of local communities
- Weak R&R (Rehabilitation & Resettlement) mechanisms in mining zones

**Best Practice:**

**Sonbhadra Mining Rehabilitation Plan** uses **mining cess** to fund solar streetlights, anganwadis, and skill centres in tribal villages

**4.5 Integration of Physical Resources in Economic Policy**

Policy/Initiative	Resource Leveraged	Outcome
<b>ODOP Scheme</b>	Land, water, agro-climate	Specialised horticulture & food processing zones
<b>Bundelkhand Water Grid Project</b>	Surface water + canals	14 lakh households to get piped water
<b>Data Centre Policy 2021</b>	Land + power availability in Noida	₹20,000+ crore investment in digital infra
<b>Solar Policy 2022</b>	Land banks in degraded zones	~1.2 GW in pipeline across Chitrakoot, Mahoba
<b>Eco-Tourism Circuits</b>	Forest, rivers, biodiversity	Wildlife tourism, SHG-led income in Terai belt

**4.6 Challenges and Strategic Suggestions**

**A. Multidimensional Challenges**

- **Land disputes and digitisation delay:** ~31% rural land still not digitally mapped
- **Groundwater exploitation:** 80% use for irrigation, but poor recharge mechanisms
- **Unsustainable mining** in tribal zones; lack of intergenerational equity
- **Urban sprawl over fertile agricultural land** in Western UP

**B. Strategic Suggestions**

- **Digitise all land records** and link with crop insurance and MSP payments
- **Promote water budgeting** in dark zones + incentivise **drip irrigation**
- **Mine-area rehabilitation** using PPP models with CSR participation
- Establish a **State Resource Audit Commission** to track depletion, usage and regeneration at district level

**Conclusion of Section 4**

Uttar Pradesh’s physical resources are **abundant, but asymmetrically used and institutionally under-managed**. The state’s economic future depends on how well it can **balance development and sustainability, infrastructure and inclusion, and resource use with ecological logic**.

**Section 5: Vision of Uttar Pradesh as a \$1 Trillion Economy – Roadmap and Policy Imperatives**

**“When aspiration meets execution, transformation begins. Uttar Pradesh’s \$1 trillion economy vision is no longer just a dream—it is a destination.”**

With India aiming for a \$5 trillion economy, Uttar Pradesh has set a **bold target to contribute one-fifth of it**—a \$1 trillion economy by 2027–28. This goal, though ambitious, is structurally viable, provided the state sustains **double-digit economic growth**, expands **productive employment**, and ensures **inclusive and sustainable regional development**.

**5.1 Key Growth Pillars of the \$1 Trillion Economy Vision**

Strategic Pillar	Description
<b>Infrastructure Expansion</b>	Expressways, airports, logistics parks, smart cities
<b>Manufacturing &amp; MSME Growth</b>	Defence corridor, ODOP, textiles, electronics, toy clusters
<b>Agricultural Commercialisation</b>	FPOs, food processing, dairy exports, horticulture clusters
<b>Digital &amp; Knowledge Economy</b>	Data centres, fintech, AI startups, skill tech, Film City
<b>Social Infrastructure</b>	Health, education, nutrition, skill-linked development
<b>Green Transition</b>	Solar parks, EV policies, organic clusters, circular economy

**5.2 Sectoral Growth Targets (as per UP Vision Document 2025–30)**

Sector	Current Share of GSDP (2024–25)	Target Share in \$1T Economy
Agriculture & Allied	21.4%	15% (via productivity boost)
Industry & Manufacturing	26.3%	35%
Services	52.3%	50%

**Note:** This structural shift requires **smart formalisation, value addition, and infrastructure-backed scaling** across all regions.

**5.3 Key Policy Initiatives Underway**

**A. UP Industrial Investment & Employment Promotion Policy 2022**

- Capital subsidy up to 30%, stamp duty reimbursement, electricity duty waiver
- Zonal policy structure favours backward districts (Zones 3 & 4)



**B. UP Logistics Policy 2023**

- 4 Multi-Modal Logistics Parks (Gorakhpur, Varanasi, Jhansi, Ghaziabad)
- ₹10,000 crore investment pipeline in warehousing, cold chains, packaging units

**C. UP Startup & Innovation Policy 2023**

- 10,000 startups by 2027, 40% from non-metros
- ₹5,000/month sustenance allowance + ₹1 crore innovation grant ceiling

**D. Sectoral Accelerators**

- **Film & OTT Policy** – Position Noida as India's media-tech capital
- **Data Centre Policy** – 25 centres approved, 9 operational (₹28,000 crore investment)
- **Solar Policy 2022** – Target: 22 GW capacity by 2027

**5.4 Financial Mobilisation Strategy**

Source	Contribution Target (2025-28)
State Own Tax Revenue	₹3.5 lakh crore
Public-Private Partnerships	₹6 lakh crore
Private Capital Investment	₹16-20 lakh crore
Central Assistance & Grants	₹3-4 lakh crore

A “**Unified Financial Mobilisation Cell**” is under proposal to streamline domestic + international investment matching, led by UPSIDA & Invest UP.

**5.5 Employment and Inclusion Strategy**

- 1 crore **productive, skill-aligned jobs** to be created (esp. youth, women, returnee migrants)

- Bundelkhand + Eastern UP: 60% share of new industrial and startup parks
- SHG to FPO to MSME value chain models expanded via NRLM and ODOP 2.0

**Example:**

Gorakhpur’s agro cluster now employs over **14,000 women in processing, grading, and packaging**, linked to PM-FME and ODOP digital portals.

**5.6 Challenges to the \$1 Trillion Vision**

Category	Major Hurdles
Administrative	Delays in land clearances, inter-department convergence gaps
Fiscal	High dependency on central transfers
Skill Gap	48% youth mismatch between training and market demand (SKOCH Report 2024)
Regional Divide	Investment heavily skewed to Western UP
Environmental	Rapid urbanisation vs. ecological carrying capacity

**5.7 Strategic Policy Imperatives**

- 1. State Economic Transformation Mission (SETM)**
  - Converge infrastructure, logistics, export, MSME, and innovation policies
  - Chaired by CM, includes private sector CEOs, academicians, and NITI reps
- 2. District GDP Planning Units**
  - Bottom-up development planning
  - Target-based GDDP (Gross District Domestic Product) measurement
- 3. Green Economy Index**
  - Rank districts based on solarisation, EV usage, organic farming, water budgeting
- 4. Public Finance Reform**
  - Implement **Outcome-Based Budgeting Dashboards** in all flagship departments
  - Monitor capex productivity, social sector RoI
- 5. Skill-Enterprise Connect**
  - Skilling to be linked directly with ODOP, MSMEs, and industrial park demands
  - Launch **“Yuva Udyami Kendras”** in every district

**Conclusion of Section 5**

Uttar Pradesh’s \$1 trillion economy vision is not just a number—it is a strategy to **rebalance growth, reform governance, revive rural economies, and reshape the development narrative**. With political will, fiscal discipline, and execution capacity, UP can emerge as **India’s growth nucleus**, not just in scale but in quality. **“UP’s journey to \$1 trillion will not be paved by ambition alone, but by accountability, agility, and alignment with its people.”**

**Keywords -**

**Demographic Dividend Economy**-With over 24.6 crore population, UP's economy is shaped by its vast labour force and youth base. **Budget-Backed Development**-Fiscal planning through targeted budgets like UP Budget 2025-26 to drive inclusive growth. **Dual-Speed Growth**-Western UP thriving with industry, while Bundelkhand-Purvanchal lags in economic indicators. **Rural Core, Urban Pull**~70% population dependent on agriculture, but urban centres drive fiscal revenues. **Fiscal Federalism Engine**-Heavy reliance on central transfers (42-45% of revenue receipts) for schemes and infrastructure. **Infrastructure-Led Revival**-Expressways, logistics parks, and power corridors driving GSDP growth. **Human Capital Deficit**-Low health and education indicators restraining workforce productivity. **Physical Resources Underutilised**-Bundelkhand minerals, Terai forests, Gangetic river systems under-leveraged. **High Fiscal Commitment Ratio**-Salary, pension, and interest payments consume over 65% of revenue expenditure. **Revenue-Deficit Challenge**-Despite improved GST collections, structural deficit persists due to limited non-tax sources. **Power Economy Linkage**-UP's economy still highly sensitive to electricity availability, especially in rural MSME zones. **District Economic Divergence**-Stark intra-state inequality—Noida's per capita income ~₹3.5 lakh vs Shravasti's <₹50,000. **Agri-Industrial Duality**-Coexistence of subsistence farming and high-end electronics hubs in the same state. **Social Sector Strain**-Lag in HDI, high infant mortality, and rural job gaps stress the growth model. **Vision \$1 Trillion Economy**-Strategic goal by 2027 to contribute 20% to India's \$5 trillion target—requires GSDP doubling.

**Model Mains Question -**

**Q. "Despite being one of India's largest state economies, Uttar Pradesh struggles with fiscal stress, regional imbalances, and underutilised physical resources. Critically evaluate with reference to recent budgetary trends and infrastructural reforms."**

**Answer Writing Strategy****Introduction (40-50 words)**

Begin with a balanced overview, maybe quoting UP's economic size and recent budget:

*"As India's third-largest economy in terms of GSDP, Uttar Pradesh's fiscal journey reflects a blend of aspiration and constraint. While Budget 2025-26 aims to transform UP into a \$1 trillion economy, structural and regional issues persist."*

**Body (Divide into 4 parts)****Part 1: Key Economic Features**

- ₹25.5 lakh crore GSDP (2024-25 est.)
- Sectoral composition: Services > Agriculture > Industry
- ~70% rural economy still dependent on primary sector

**Part 2: Budgetary Trends and Public Spending**

- Focus on capital expenditure (~₹2.3 lakh crore in 2025-26)
- Key allocations: Education, Health, Infrastructure, ODOP
- Revenue-expenditure gap and persistent fiscal deficit (~3.5%)

**Part 3: Regional & Sectoral Imbalances**

- Western UP's industrial clusters vs underperforming Bundelkhand
- Per capita income skew: Gautam Buddha Nagar vs Shravasti
- Lack of convergence in schemes (AIF, ODOP, MSME) at district level

**Part 4: Underutilised Resources and Gaps**

- Low irrigation efficiency despite rich water systems
- Bundelkhand's mineral wealth unprocessed due to poor logistics
- Inadequate forest economy development in Terai region
- Weak tax base, dependency on central grants

**Conclusion (30-40 words)**

Conclude with a forward-looking policy vision:

*"To unlock its full economic potential, UP must localise growth, empower districts, and align physical resources with public investment. Only then can it sustain inclusive development while heading toward the \$1 trillion economy target."*

# Trade, Commerce and Industries of UP



TOPIC-2-Trade, Commerce And Industries Of UP.

**Section 1: Introduction and Historical Evolution of Trade & Industry in Uttar Pradesh**

**“Commerce in Uttar Pradesh was never merely transactional—it has always been cultural, artisanal, and civilisational.”**

Uttar Pradesh has long served as a **crucible of trade and industrial activity**, dating back to the ancient Ganga Valley civilizations, Mughal urban centres, and colonial mercantile towns. Its rivers, crafts, and cultural hubs connected it to distant geographies—from **Silk Road linkages to British cotton exports**.

Today, with a **diverse industrial base, rising exports, and a renewed push for ease of doing business**, UP stands at the crossroads of its **traditional strengths and modern aspirations**, aiming to transform itself into **India’s industrial growth engine** under the \$1 trillion economy vision.

**1.1 Ancient and Medieval Trade Centres of Uttar Pradesh**

- **Varanasi:** An ancient textile, perfumery, and religious goods hub; traded with Persia, Tibet, and Southeast Asia.
- **Kaushambi & Sarnath:** Buddhist-era trade towns; part of inland routes via Kushinagar to Bengal and beyond.
- **Fatehpur Sikri & Agra:** Mughal-era centres of stoneware, leather, weaponry, and artistic wares; well connected with Delhi and Lahore via Grand Trunk Road.
- **Allahabad (Prayagraj):** A spiritual centre with major fairs (Kumbh Mela) and riverside trade via Ganga-Yamuna.

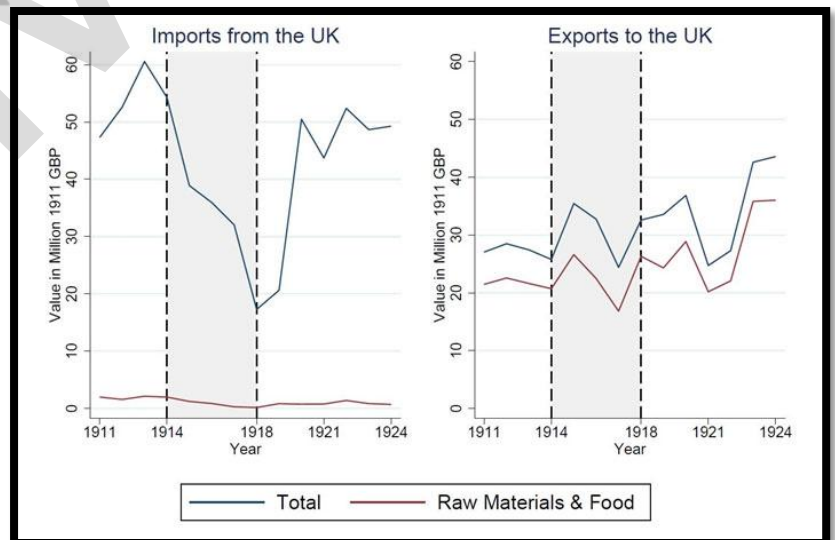


**Example:**

In the 16th century, **Banarasi silk and carpets from Bhadohi** were exported to Persia and Arabia via horse caravans and river barges, supported by royal guilds and local mahajans.

**1.2 Colonial Period and Industrial Disruption**

- British policies led to **deindustrialisation** of traditional crafts like weaving, stone carving, and indigenous metallurgy.
- Emergence of **railway towns and administrative centres** like **Kanpur, Lucknow, and Bareilly** as industrial zones.
- **Kanpur** became the “Manchester of the East,” with cotton mills, leather tanneries, and ordnance factories.
- Railway and river infrastructure facilitated trade of **grains, indigo, cotton, and sugar** to Bombay and Calcutta ports.



**1.3 Post-Independence Industrial Growth (1950s–1990s)**

- **State-led industrialisation** with public sector units (e.g., HAL Kanpur, BHEL Jhansi, Ordnance Factory Ferozabad).

- Establishment of **SIDCUL (State Industrial Development Corporations)** for developing industrial estates in Lucknow, Agra, Meerut, and Gorakhpur.
- Growth of **cooperative sugar mills, textile units, and agro-processing clusters** (e.g., rice mills in Chandauli).
- Yet, industrial policy remained **license-permit-driven**, leading to regional disparity and bureaucratic delays.

**1.4 Liberalisation and the Shift Towards Market-Led Commerce (1991–2010)**


- Post-1991 reforms brought **private sector textile, leather, handloom, and FMCG investments**.
- **Noida–Greater Noida** emerged as an **IT, electronics, and real estate** corridor.
- Growth of **MSMEs**, especially in traditional sectors:
  - Moradabad (brassware),
  - Firozabad (glassware),
  - Saharanpur (woodcraft),
  - Bhadohi (carpets)

**However:**

Infrastructure bottlenecks, regional disparity (Western UP dominance), and poor ease of doing business restricted large-scale private manufacturing growth.

**SMALL BUT POWERFUL**  
 There are about 90 lakh MSME units in UP

- Employment has been provided to **3 crore people**
- They have investment of **₹5 lakh crore**
- Schemes to boost **small units** include **ODOP**, flatted factories and common facility centres



- Loans have been granted to more than **90 lakh units**
- It is mandatory for all departments to spend **25%** of annual budget on **MSME products**
- Training and **apprenticeship** schemes for youth are being conducted

**1.5 Contemporary Landscape (2017–2025)**

- **ODOP (One District One Product)** has rejuvenated local industries by clustering, branding, and market-linking traditional sectors.
- Massive infrastructure investments:
  - **Expressways,**
  - **Freight corridors,**
  - **Logistics parks,**
  - **Power reliability,**
  - **Smart cities**
- UP is now:
  - **India’s 2nd largest MSME base** (after Tamil Nadu)
  - **Top leather and handicraft exporter**
  - Host to **India’s only Defence Industrial Corridor in the north**
  - Among top states in **startup registration, data centre proposals, and film production growth**



**ONE DISTRICT PRODUCT**

india.gov.in






SPOTLIGHT







**1.6 Trade & Commerce as a Vehicle for Inclusive Growth**

- 73% of all enterprises in UP are **informal and rural**
- SHG–MSME–FPO linkages are growing in **Bundelkhand, Purvanchal, and Terai**
- Digital commerce platforms like **GeM, ONDC, eNAM, and Flipkart Samarth** are now onboarding rural UP sellers
- **Bilateral trade pacts** (e.g., UAE, Bangladesh, Japan MoUs) are being leveraged for **mentha oil, GI-tagged agri products, handicrafts**

**Quote Insight:**

“The real power of UP’s commerce lies not just in its cities, but in its villages where every loom, every lathe, and every field is an untapped economy waiting to scale.”

**Conclusion of Section 1**

Uttar Pradesh’s trade and industry have travelled a rich historical arc—from ancient craftsmanship to colonial decline, and from planned public sector units to vibrant private clusters. Today, as the state repositions itself as **India’s industrial engine**, the challenge lies in **bridging legacy with logistics**, and **tradition with technology**. “When the bazaar meets the broadband, and the local meets the global—UP doesn’t just trade, it transforms.”

**Section 2: Structure of Industries in Uttar Pradesh – Types, Distribution and Output Trends**

“The structure of an economy is not just about sectors—it reflects the story of its people, its geography, and its vision.”

Uttar Pradesh has one of the most **diverse industrial structures** among Indian states, encompassing **traditional handicrafts, agro-processing, heavy engineering, MSMEs, electronics, defence, and services-based industries**. The industrial footprint is spread across **mega corridors like Noida-Ghaziabad, legacy cities like Kanpur-Agra, and rural artisan clusters in Bhadohi, Moradabad, Saharanpur, and Bundelkhand**.

**2.1 Classification of Industries in Uttar Pradesh**

**A. Based on Ownership**





- **Public Sector Units (PSUs)**
  - HAL Kanpur, BHEL Jhansi, Ordinance Factory Firozabad
  - Mostly defence, railways, engineering, power
- **Private Sector Units**
  - Textiles, FMCG, electronics, logistics, tourism
- **Cooperative and SHG-Based Units**
  - Sugar mills, dairy cooperatives (Parag), women-led ODOP units

**B. Based on Scale**

- **Large-scale:** Electronics (Noida), Cement (Sonbhadra), Paper (Saharanpur)
- **Medium-scale:** Dairy, plastic goods, machine tools
- **Small-scale / MSMEs:** ~96 lakh MSMEs (as of 2024), mostly informal or micro-unit

**UTTAR PRADESH SCENARIO**

- UP is the **largest exporter of Consumer Electronics** in India
- **ESDM Clusters** : Home to 45% of India's smartphone manufacturing and 55% of mobile components
- **2 Greenfield ESDM Clusters** : At Sector 24, Yamuna Expressway and at EcotechVI & VII, Greater Noida
- **OPPO, VIVO and Samsung** operating plants in Greater Noida –account for 40% of India's mobile manufacturing market

 <p><b>Largest</b> Exporter of Consumer Electronics in India</p>	 <p><b>196+</b> ESDM Companies presently operating in the state</p>	 <p><b>55%</b> Of total India, mobile component manufacturing units present operates from the State</p>	 <p><b>40%</b> Of the mobile manufactured in the country comes from the State</p>
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**C. Based on Type of Industry**

Category	Examples	Districts
<b>Agro-based</b>	Sugar, rice mills, pulses, food processing	Saharanpur, Basti, Lakhimpur
<b>Textile &amp; Handloom</b>	Carpets, Banarasi silk, linen	Bhadohi, Varanasi, Mau
<b>Leather &amp; Footwear</b>	Tanning, finished goods, safety boots	Kanpur, Agra, Unnao
<b>Brassware &amp; Metal</b>	Handicrafts, kitchenware, lighting	Moradabad, Aligarh
<b>Glass &amp; Ceramics</b>	Bangles, glassware, bone china	Firozabad, Khurja
<b>Wood &amp; Furniture</b>	Hand-carved furniture, toys	Saharanpur, Amroha
<b>Engineering</b>	Tools, gears, locomotives	Kanpur, Jhansi, Noida
<b>IT/ITES/BPO</b>	Software parks, fintech, startups	Noida, Lucknow, Gorakhpur

**2.2 Regional Distribution of Industries in Uttar Pradesh**

**A. Western UP (Industrial Powerhouse)**

- **Noida–Ghaziabad–Meerut belt:** Electronics, IT, real estate, manufacturing
- **Agra–Aligarh–Bulandshahr:** Leather, hardware, glass, dairy
- High investment zones due to **NCR proximity, expressways, and logistics**

**B. Central UP**

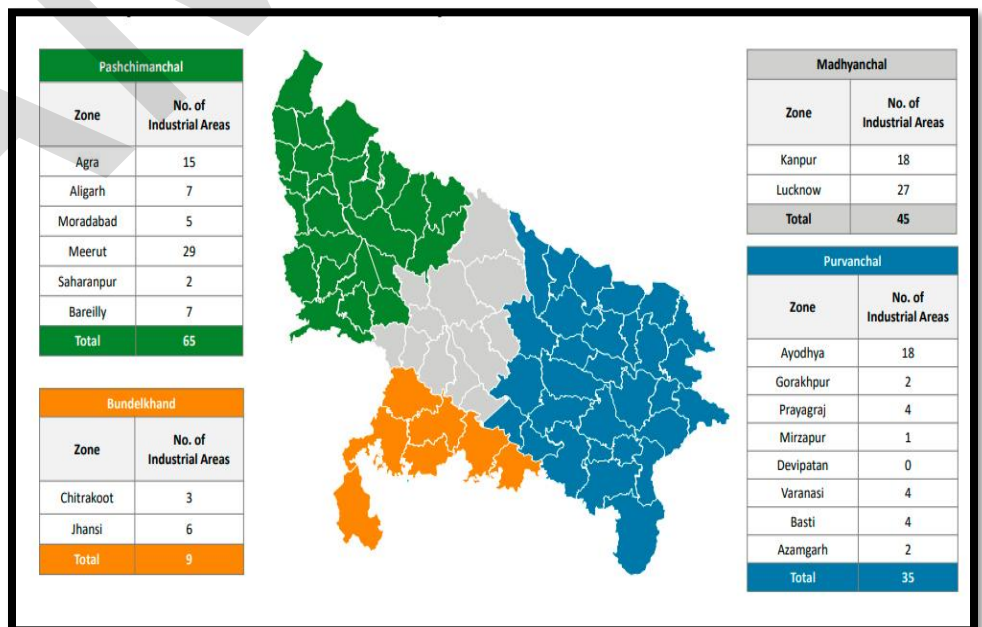
- **Kanpur–Lucknow–Unnao:** Textile legacy, leather, FMCG, defence
- **Barabanki, Sitapur:** Mentha oil, agro-industries, logistics warehousing

**C. Eastern UP**

- **Varanasi, Bhadohi, Jaunpur:** Handlooms, carpets, silk, handicrafts
- **Gorakhpur, Kushinagar:** Agro-processing, tourism, toy clusters
- **Ballia, Deoria:** Jaggery, dairy, ODOP-led micro-enterprises

**D. Bundelkhand & Vindhyan Belt**

- **Jhansi, Mahoba, Chitrakoot:** Solar panel units, granite mining, cement
- **Sonbhadra:** Power plants, coal-based units, cement, glass
- Weak industrial base but growing under defence corridor and solar zones



**E. Terai Region (Lakhimpur–Pilibhit–Bahraich)**

- Agro-processing, organic exports, woodcraft
- Bamboo-based packaging, food parks, and forest produce industries

**2.3 Output Trends and Contribution to GSDP**

Industry Type	Share in UP's GSDP (2024–25 est.)	Growth Trend
Manufacturing	~15.2%	Rising post-2021 reforms
Electricity & Mining	~5.6%	Growing in Bundelkhand/Sonbhadra
Construction & Real Estate	~6.4%	Strong in NCR + tier-2 cities
MSME Output	₹4.6 lakh crore+ annually	High in handicrafts, agro units
Export-Oriented Units (EOUs)	~₹1.7 lakh crore	Moradabad, Bhadohi, Kanpur lead

**2.4 Recent Shifts in Industrial Patterns (Post 2019)**

- **MSMEs expanding to rural UP** via ODOP + PMFME + startup convergence
- **Agri-tech and drone manufacturing** emerging in Noida, Lucknow, Gorakhpur
- **Toy manufacturing zones** launched in **Chitrakoot, Pilibhit, Jaunpur**
- **Shift from tanning to finished leather goods** in Agra–Kanpur clusters
- **EV battery and solar panel assembly** gaining ground in Sonbhadra and Noida

**2.5 Role of Infrastructure in Industrial Structuring**

- **Ganga Expressway (Prayagraj–Meerut):** New industrial corridor under construction
- **Eastern & Western Freight Corridors:** Speeding up goods transit across UP
- **Jewar Airport + Logistics Parks:** Boosting air cargo–linked export units
- **Plug-and-Play Industrial Parks:** 34 under UPSIDA in 28 districts (2025 status)

**Conclusion of Section 2**

The industrial structure of Uttar Pradesh is both **regionally diverse and sectorally rich**. From **textile looms in Bhadohi** to **tech parks in Noida**, and from **leather belts in Kanpur** to **mining hubs in Sonbhadra**, the state reflects an ecosystem where **legacy industries and futuristic sectors are coexisting and evolving**. **“In UP, every region has a product, every product has a tradition—and now, every tradition is finding its market.”**

**Section 3: Major Industrial Clusters and Sectoral Specialisation in Uttar Pradesh**

**“When every district becomes a production hub, and every tradition turns into enterprise— industrialisation becomes a movement.”**

Uttar Pradesh’s strength lies in its **geographically spread-out industrial clusters**, each rooted in **traditional craft, raw material proximity, or logistics advantages**. The state's flagship schemes like **One District One Product (ODOP)** and policies promoting **MSMEs, GI-tagged goods, and sector-specific mega parks** have turned UP into a **decentralised manufacturing powerhouse**.

**3.1 ODOP (One District One Product): A Transformational Model**

Launched in 2018, **ODOP** aims to revive and expand **district-specific heritage products**, helping them move from **artisanal to commercial scale**. The scheme now supports over **75+ districts and 100+ product lines**, across handicrafts, agro-products, and processed goods.

Sample ODOP Products	Districts
Banarasi Silk Sarees	Varanasi
Mentha Oil	Barabanki, Sitapur
Leather Footwear	Kanpur, Agra
Perfumed Rose Products	Kannauj
Wooden Toys	Chitrakoot, Varanasi
Basmati Rice	Chandauli, Pilibhit
Amla Products	Pratapgarh
Zari-Zardozi Embroidery	Bareilly, Rampur
Carpet Weaving	Bhadohi (Mirzapur–Bhadohi carpet belt)
Brass Handicrafts	Moradabad

**Achievements (as of 2025):**

- Over ₹1.25 lakh crore worth of ODOP-based exports
- 3.7 lakh artisans/formal workers integrated into ODOP supply chains
- 2,100+ ODOP Common Facility Centres sanctioned under PMFME and AIF

**3.2 MSME and Artisanal Cluster Development**

**A. Key MSME Clusters**

- **Moradabad:** World-renowned for **brassware exports**
- **Bhadohi:** Global carpet hub (GI-tagged) with ₹7,000 crore+ exports
- **Saharanpur:** **Woodcraft carving** cluster employing 2.2 lakh people
- **Firozabad:** Glass bangles and tableware cluster (6,000+ units)
- **Aligarh:** Lock and hardware industry (over 1,500 small units)
- **Barabanki:** Mentha oil distillation (linked to pharmaceutical exports)

**B. Cluster Modernisation Initiatives**

- 46 MSME clusters digitised under **Udyami Bharat programme**
- 500+ ODOP/handloom SHGs onboarded to **GeM portal** for public procurement
- ₹1,200 crore budget under **Vishwakarma Shram Samman** to upgrade artisan tools and marketing



**3.3 GI-Tagged Industrial and Craft Products in UP**

Uttar Pradesh leads India with **over 40+ GI-tagged products**, enhancing its **brand identity in global markets**.

Product	District	GI Benefit
Banarasi Silk Sarees	Varanasi	Global branding, EU export
Bhadohi Carpets	Bhadohi	Duty exemptions, Dubai trade
Lucknow Chikankari	Lucknow	E-commerce + skill revival
Kannauj Perfume (Attar)	Kannauj	Linked to Gulf perfumery trade
Gorakhpur Terracotta	Gorakhpur	Handcrafted export category
Nizamabad Black Pottery	Azamgarh	Linked to Amazon, Flipkart

### 3.4 Mega Industrial Parks and Special Zones

To scale up from traditional clusters, the state has launched **mega industrial zones** with infrastructure, incentives, and export connectivity.

Park/Zone Name	Location	Sector Focus
<b>Defence Industrial Corridor</b>	Jhansi, Aligarh, Kanpur, Chitrakoot	Defence, Aerospace
<b>Textile Park under PM-MITRA</b>	Lucknow–Hardoi belt	Integrated textile value chain
<b>Toy Clusters (newly launched)</b>	Pilibhit, Jaunpur, Chitrakoot	Artisanal toys, wooden toys
<b>Handloom Mega Cluster</b>	Barabanki, Ambedkar Nagar	Weaving, dyeing, apparel finishing
<b>Data Centre Parks</b>	Noida, Ghaziabad	Digital economy, server farms
<b>Plastic Parks (proposed)</b>	Kannauj, Unnao	FMCG packaging, components

### 3.5 Export-Linked Industrial Integration

- **Chandauli Basmati Rice:** GI-tagged, now exported via **Varanasi Inland Water Terminal**
- **Moradabad Brass Cluster:** Integrated with Dubai, UK, and Germany buyers
- **FPO + ODOP in Azamgarh:** Guava pulp processed and exported to Gulf via air freight
- **Kushinagar Banana Chips Unit:** Linked with PMFME, testing exports to UAE
- **Kanpur Leather Cluster:** Modernised for eco-friendly processing, target: EU compliance by 2026

### 3.6 District-Wise Industrial Branding Strategy (2024–25)

- **Colour-coded district maps** for product-based planning
- Dedicated **District Export Hubs** set up in 22 key zones
- **Product–Skill–Infrastructure–Market (PSIM)** model adopted by 28 districts

#### Example:

In **Pratapgarh**, Amla candy units were given packaging support, training for women SHGs, cold storage via AIF, and GI-tag backed branding for exports under ODOP convergence.

#### Conclusion of Section 3

Uttar Pradesh has successfully decentralised industrialisation. From **Noida’s servers to Bhadohi’s looms, Moradabad’s brass to Chitrakoot’s toys**, the state’s industrial clusters are not just producing goods—they’re creating **rural livelihoods, cultural continuity, and global market identities**.

“When every district becomes a brand, and every product finds a world—Uttar Pradesh doesn't just manufacture, it tells a story.”

**Section 4: Commerce, Trade Routes, and Market Linkages – From Traditional to Modern**

“An economy thrives not just by what it produces, but by how it moves, markets, and multiplies its value.”

Uttar Pradesh's strategic centrality in India gives it a natural advantage in becoming a **trade and logistics powerhouse**. With a legacy of **historic trade routes**, an expansive **mandi system**, and newly developed **modern freight, digital, and global trade corridors**, the state is undergoing a **transition from a market of consumers to a hub of producers and distributors**.

**4.1 Historical Trade Corridors of Uttar Pradesh**

- **Ancient Period:**
  - **Uttarapatha (Northern Route)** passed through Varanasi, Kaushambi, and Sarnath
  - Ganga–Yamuna river routes linked UP with **Bengal, Bihar, and Central India**
- **Medieval Period:**
  - **Grand Trunk Road** served as the arterial link between **Delhi–Kanpur–Varanasi–Patna–Kolkata**
  - Mughal trade in silk, spices, weaponry, and craft flourished through Agra, Fatehpur Sikri
- **Colonial Period:**
  - Development of **railway corridors** (Lucknow, Kanpur, Gorakhpur)
  - Establishment of **canals and river transport** for indigo, wheat, and sugar

**4.2 Present-Day Market Linkages and Commerce Channels**

**A. Wholesale Mandis and Regulated Markets**

- Over **250 APMC Mandis** under **UP Krishi Utpadan Mandi Act**
- Dominated by **wheat, paddy, potato, mentha, fruits, and sugarcane**
- ₹96,000 crore+ annual mandi transactions (2024–25 est.)

**B. e-NAM and Digital Agriculture Trade**

- 159 mandis integrated with **e-NAM**
- **Chandauli (rice), Kannauj (mentha), Etawah (red chilli)** actively trading online
- Target: 100% e-NAM integration by 2026

**C. Rural Periodic Markets (Haats)**

- Over **2,000 village haats** serve as **primary trading points** for small and marginal producers
- Informal trade in perishable goods, dairy, vegetables, handicrafts
- Upgradation under **PM Formalisation of Micro Food Enterprises (PM-FME)**



**4.3 Logistics Corridors and Modern Trade Routes**

Infrastructure Name	Trade Relevance
<b>Eastern Dedicated Freight Corridor (EDFC)</b>	Passes through Dadri, Kanpur, Allahabad – accelerates container movement
<b>Ganga Expressway</b>	Meerut–Prayagraj: Cuts freight travel time by 35%
<b>Purvanchal Expressway</b>	Lucknow to Ghazipur – connects Eastern UP to NCR
<b>Jewar International Airport</b>	Major air cargo hub – boosts high-value agri & electronics exports
<b>Varanasi Inland Water Terminal (NW-1)</b>	Operational on Ganga – rice, fertilizer, leather cargo already moving
<b>Sagarmala–Bharatmala Interlink</b>	Enables port connectivity from UP to Kolkata & Mumbai

**4.4 Emerging Digital Trade Platforms and Commerce Models**

- **Uttar Pradesh Export Promotion Council Portal (EPCUP):** District-wise buyer–seller digital matchmaking
- **GeM (Government e-Marketplace):** Over 1.1 lakh UP MSMEs onboarded
- **ONDC (Open Network for Digital Commerce):** Piloted in Lucknow, Kanpur, Varanasi
  - Focus on **artisans, ODOP units, SHG products**

**Example:**

**Gonda SHG cluster** now sells packaged mustard oil on **Amazon India** after PMFME + ONDC training.

**4.5 Trade Fairs, Export Events, and Brand Promotion**

- **UP International Trade Show (Greater Noida):**
  - Launched in 2023
  - Over ₹8,600 crore worth of MoUs signed
  - Exhibitors from **UAE, Bangladesh, Nepal, Germany**
- **District Udyog Melas:**
  - Held in 60+ districts annually to promote **ODOP + local B2B linkages**
  - Organized by **DIC, UPSIDA, and Invest UP**
- **Artisan Branding Campaigns:**
  - **“Shilp Samman Yojana”** to link GI-tagged products with influencer marketing and film branding



**4.6 Cross-Border and Interstate Trade Linkages**

Trade Link	Route / Zone	Products Traded
<b>Uttar Pradesh–Nepal Trade</b>	Siddharthnagar, Bahraich, Maharajganj	Rice, handicrafts, FMCG, footwear
<b>UP–Bihar–Jharkhand</b>	Ghazipur, Deoria, Sonbhadra	Vegetables, jaggery, bricks
<b>UP–Delhi/NCR</b>	Western UP expressways & rail	Milk, meat, flowers, grains, agri inputs
<b>UP–Bangladesh (via Kolkata)</b>	Inland waterways & railways	Mentha oil, carpets, glassware

**4.7 Role of Commerce in Employment and GDP**

- **Over 20% of UP’s workforce** is engaged in trade, logistics, warehousing, and retail (Labour Survey 2024)
- **Trade & commerce services contribute ~18.4% to UP’s GSDP**
- Growth in **B2B and D2C (direct-to-consumer)** e-commerce model from tier-2/3 cities like Gorakhpur, Basti, Barabanki, Shahjahanpur

**Conclusion of Section 4**

Uttar Pradesh’s commerce is no longer limited to haats and mandis—it now spans **freight corridors, global exhibitions, e-marketplaces, and inland ports**. The state is steadily transitioning into a **logistics, export, and digital commerce node**, linking rural production with global consumption.

“From ancient caravans to AI-driven commerce, UP’s trade is not just movement—it is momentum.”

**Section 5: Export Profile of Uttar Pradesh – Trends, Products, and Global Markets**

“Uttar Pradesh doesn’t just produce—it exports heritage, skill, and value to the world.”

Uttar Pradesh has emerged as one of **India’s leading exporting states**, thanks to its vast MSME network, diverse product portfolio, skilled artisanal base, and strategic efforts under ODOP, GI-tag promotion, and digital market access. From **brassware in Moradabad** to **carpets in Bhadohi**, from **mentha oil in Barabanki** to **Basmati in Chandauli**, UP’s exports span both legacy and modern sectors.

**5.1 Export Performance Overview (Latest Estimates – FY 2024–25)**

Parameter	Value / Ranking
Total Export Value	₹1.87 lakh crore (provisional)
National Rank	5th among Indian states
Share in India’s Exports	~5.3%
Export Growth Rate	~14% CAGR (2020–2025)
Export Employment Impact	Over 1.2 crore livelihoods

**5.2 Major Export Commodities and Product Segments**

Category	Key Products & Districts
<b>Handicrafts &amp; Handlooms</b>	Brassware (Moradabad), Carpets (Bhadohi), Zardozi (Lucknow), Woodcraft (Saharanpur)
<b>Textiles &amp; Apparels</b>	Silk (Varanasi), Linen (Mau), Readymade garments (Noida, Kanpur)
<b>Agro &amp; Food Products</b>	Basmati Rice (Chandauli, Pilibhit), Amla (Pratapgarh), Banana chips (Kushinagar), Mango pulp (Malihabad)
<b>Leather Products</b>	Footwear, bags, accessories (Kanpur, Agra)
<b>Essential Oils &amp; Pharma</b>	Mentha Oil (Barabanki, Sitapur), Herbal extracts (Kannauj)
<b>Glassware &amp; Ceramics</b>	Firozabad glass, Nizamabad black pottery
<b>Engineering Goods</b>	Auto parts, precision tools (Kanpur, Noida)
<b>Processed Foods</b>	Jaggery, spices, mustard oil (Gonda, Bahraich, Basti)

### 5.3 Top Export Destinations for UP Products

Country	Key Products Imported from UP
<b>UAE</b>	Rice, perfumes, handicrafts, leather
<b>USA</b>	Carpets, garments, wooden toys, metal décor
<b>UK &amp; EU</b>	Zari embroidery, brassware, mentha derivatives
<b>Bangladesh</b>	Agro-commodities, processed food, medicinal plants
<b>Germany</b>	GI carpets, perfumery, apparel
<b>Saudi Arabia</b>	Mango pulp, leather, glassware

**Example:**

Chandauli’s GI-tagged Basmati rice is now exported to UAE and Qatar via the **Varanasi Inland Water Terminal**, reducing logistic costs by 28%.

### 5.4 Key Export Enablers and Policies in UP

#### A. Uttar Pradesh Export Promotion Policy (2019–2025)

- Export infrastructure grants for:
  - Warehouses, grading labs, air cargo terminals
- 5% interest subsidy for export-linked MSMEs
- 100% reimbursement on export quality certification (FSSAI, APEDA)

#### B. District Export Hub Scheme

- 22 districts selected for export focus (Moradabad, Bhadohi, Kanpur, Chandauli, etc.)
- Local export facilitation centres established in DICs

**C. UP Export Promotion Council (EPCUP)**

- Portal for B2B matchmaking, buyer-seller meets, and product traceability

**D. Linkages with National Missions**

- **Niryat Bandhu Yojana:** Export training to MSMEs
- **e-Sanchit & ICEGATE** platforms integrated in UP ports
- Export incentives mapped with ODOP and PMFME schemes

**5.5 Infrastructure Support for Export Ecosystem**

- **Dry Ports / Inland Container Depots (ICDs):**
  - Dadri (Greater Noida), Moradabad, Kanpur
- **Inland Water Terminal:**
  - Varanasi (NW-1): Handling agri, leather, container cargo
- **Air Cargo Export Facilities:**
  - Lucknow, Varanasi, Noida (Jewar upcoming)
- **Mega Logistics Parks:**
  - Gorakhpur, Jhansi, Ghaziabad, Chitrakoot (under Bharatmala + State Logistics Policy)



**5.6 GI-Tag and ODOP: Export Catalysts**

Product	District	Impact
Banarasi Silk Sarees	Varanasi	₹350 crore+ export in 2024-25
Bhadohi Carpets	Bhadohi	₹6,900 crore exports; Dubai, US focus
Mentha Oil	Barabanki	Linked to pharma trade in Europe
Wooden Toys	Chitrakoot, Pilibhit	Export trials via Dubai, Amazon UAE
Perfumed Attars	Kannauj	Growing orders from Gulf buyers

**5.7 Issues in Export Performance**

Dimension	Core Issues
<b>Logistical</b>	High costs in Eastern UP, lack of last-mile cold chains
<b>Compliance</b>	Lack of certification labs for EU/US norms, esp. for food & organic exports
<b>Digital</b>	Low awareness about export portals among rural MSMEs
<b>Financing</b>	High risk aversion from banks, limited access to export credit

**5.8 Strategic Suggestions for Export Expansion**

- Export Startup Incubators**
  - Establish **district-level export cells** under DICs to handhold new exporters
  - Leverage ODOP + e-commerce + FPO networks
- UP Export Infrastructure Grant Scheme**

- ₹2,000 crore corpus to build grading centres, testing labs, air cargo units in non-metro districts
- 3. **Blockchain Traceability Platforms**
  - Pilot GI-tag traceability and quality compliance platform for ODOP + MSME exports
- 4. **District Export Scorecards**
  - Rank districts annually on export performance, employment, and trade logistics
  - Link scores to incentive allocation and EPCUP support
- 5. **Global Buyer-Seller Bridges**
  - Annual UP-Gulf, UP-EU, and UP-ASEAN export expos with logistics corridors

**Conclusion of Section 5**

Uttar Pradesh’s export potential is no longer confined to a few urban centres. With visionary policies, digitisation, and grassroots branding, the state is emerging as a **global showcase of Indian craft, agro-diversity, and MSME excellence**. If properly leveraged, **exports alone can contribute over 20% to UP’s \$1 trillion economy dream**.

**“When UP exports a product, it exports identity, tradition, and trust. Its future lies not just in manufacturing—but in making the world its market.”**

**Section 6: Government Initiatives and Industrial Policies in Uttar Pradesh (2017–2025)**

**“A visionary government doesn’t just manage industry—it architects opportunity.”**

Over the last decade, Uttar Pradesh has transitioned from a **permit-heavy industrial landscape** to one driven by **facilitation, infrastructure, and investor confidence**. This has been made possible through a wave of **sector-specific policies**, institutional frameworks, and proactive budgetary commitments aimed at **decentralised, inclusive, and modern industrialisation**.

**6.1 Core Pillars of UP’s Industrial Strategy**

1. **Cluster-Based Development** (via ODOP, MSMEs, GI-tags)
2. **Ease of Doing Business (EoDB)** reforms under *Nivesh Mitra*
3. **High-value Infrastructure Push** (Expressways, Parks, Airports)
4. **Export Enablement & District Industrialisation**
5. **Skill-Startup-Industry Convergence**

**6.2 Key Industrial Policies Implemented (2017–2025)**

**A. UP Industrial Investment & Employment Promotion Policy (UPIIEPP) 2022**

- **Capital Subsidy:** Up to 30% for eligible zones
- **Stamp Duty Waiver:** Up to 100% in backward areas
- **SGST Reimbursement:** For 5–10 years for new units
- **Electricity Duty Exemption:** For 10 years
- **Zonal Incentives:** Extra benefits for Bundelkhand, Purvanchal

**UP Industrial Investment & Employment Promotion Policy (UPIIEPP) 2022**

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For 5-10 years for new units
- **Electricity Duty Exemption**  
For 10 years
- **Zonal Incentives**  
Extra benefits for Bundelkhand, Purvanchal

**Impact:** Over ₹1.4 lakh crore of new investments grounded in non-NCR districts by 2025

**B. ODOP Policy Framework (2018–2025)**



### 6.5 Innovative Flagship Initiatives

Scheme/Programme	Objective	Notable Output
<b>Shilp Samman Yojana</b>	Recognition + toolkits to traditional artisans	2.4 lakh artisans covered
<b>Vishwakarma Shram Samman</b>	Skill upgrading and marketing for craftsmen	₹1,500–₹5,000/month assistance
<b>Yuva Udyami Yojana</b>	Rural youth enterprise seed funding	10,000+ youth funded (2024–25)
<b>District Startup Mission</b>	Incubation in non-NCR belts	Active in 45 districts by 2025
<b>Udyog Bandhu 2.0</b>	Real-time business grievance redress portal	~90% resolution rate reported

### 6.6 Impact Snapshot (2017–2025)

- **Industrial GSDP Growth:** From 10.8% (2016–17) to **16.2% (2024–25)**
- **Ease of Doing Business:** From Rank 14 in 2017 to **Rank 2 in 2024 BRAP**
- **Employment Generated:** Over **54 lakh direct and indirect jobs** created
- **Export Growth:** Over **₹1.87 lakh crore** in 2024–25, driven by ODOP and GI exports
- **Startup Ecosystem:** Over **9,000+ startups registered** in 3 years

#### Conclusion of Section 6

From top-down mega policies to grassroots handholding, UP’s governance model of **cluster-driven, zonal-incentivised, and digitally tracked industrialisation** is setting benchmarks for other states. It is no longer about chasing investment—it’s about creating an ecosystem where **entrepreneurs rise, artisans scale, and industries root themselves in every district.**

**“In Uttar Pradesh today, policy is not just a document—it’s an opportunity delivered.”**

### Section 7: Ease of Doing Business and Investment Promotion in Uttar Pradesh

**“An investor doesn’t invest in land or capital—he invests in confidence. Uttar Pradesh has transformed itself into a destination of certainty.”**

Once seen as a slow-moving industrial ecosystem, Uttar Pradesh has made **remarkable strides in investor facilitation and regulatory simplification** over the past decade. Through **digitisation, policy reform, single-window clearances, and dispute resolution mechanisms**, UP has emerged as one of **India’s top investment destinations.**

#### 7.1 UP’s Rank in Ease of Doing Business (EoDB)

Year	EoDB National Rank (Business Reform Action Plan)
2017	Rank 14
2020	Rank 2 (after Andhra Pradesh)
2024 (BRAP)	Rank 2 (top among northern states)

#### 7.2 Nivesh Mitra: UP’s Single-Window Industrial Portal

Launched in 2018 and upgraded in 2023, **Nivesh Mitra** is a **one-stop online portal** that integrates:

- Over **350 services** from **30+ departments**
- **Real-time status tracking**, alerts, document upload
- Digital approval for land, electricity, fire NOC, pollution clearance

**Impact (2024–25):**

- **7.8 lakh clearances** granted through portal
- Average time to get permissions reduced from **45 days to 11 days**
- **Grievance redress rate: Over 92% satisfaction**

**7.3 Invest UP: The Investment Promotion Agency**

**Invest UP** is the nodal agency for:

- Investment tracking
- MoU facilitation
- Grounding support
- Sectoral promotion (MSMEs, electronics, logistics, food processing)



**Example:**

In the **UP Global Investors Summit 2023**, over **₹36 lakh crore worth of MoUs** were signed, with **₹12.3 lakh crore grounded by April 2025**, monitored through Invest UP dashboards.

**7.4 Key Investment Zones and Emerging Industrial Hotspots**

Corridor / Zone	Sectoral Focus	Location Highlights
<b>Noida–Greater Noida Belt</b>	IT, electronics, data centres	Apple suppliers, Hiranandani Data City
<b>Kanpur–Unnao–Lucknow</b>	Leather, defence, textiles	HAL, ordnance factories, ODOP units
<b>Bundelkhand Defence Corridor</b>	Aerospace, drones, arms	Jhansi, Aligarh, Chitrakoot
<b>Eastern UP Agro-Export Belt</b>	Rice, fruits, food processing	Gorakhpur, Deoria, Chandauli
<b>Ganga Expressway Industrial Zone</b>	Textile, ceramics, logistics	Shahjahanpur, Unnao, Prayagraj

**7.5 Investment-Friendly Reforms Introduced (2017–2025)**

1. **Pre-Approved Industrial Plots:** Plug-and-play infrastructure through UPSIDA
2. **Auto-Renewal of Licenses:** For over 45 permissions (labour, boiler, shops)
3. **Online Land Bank Portal:** 1.5 lakh+ acres mapped and e-verified
4. **Investor Grievance App (Udyami Bandhu 2.0):** Time-bound redress in <15 days
5. **Ease of Contract Enforcement:** 15 commercial benches and arbitration facilities developed



### 7.6 Fiscal Incentives Driving Investment

Incentive Type	Benefit Offered
Capital Subsidy	Up to 30% of investment, zone-wise
Stamp Duty Reimbursement	100% in backward districts, 50% in others
SGST Reimbursement	For up to 10 years
Electricity Duty Waiver	Up to 10 years
Export Incentives	Transport and packaging support up to 5%
Sector-Specific Grants	Electronics, defence, MSMEs, solar energy

### 7.7 Key Investment Achievements (2018–2025)

Sector	Investment Grounded	Highlights
Electronics & IT	₹58,000 crore	Apple, Dixon, Lava, Data Parks
Defence & Aerospace	₹24,300 crore	DRDO-supported units in Aligarh & Jhansi
Textiles & Apparel	₹17,800 crore	PM-MITRA Park, ODOP–Apparel Convergence
Agro & Food Parks	₹12,500 crore	ODOP FPO units, Banana Chips, Guava pulp units
Renewable Energy	₹9,600 crore	Solar module parks, ethanol distilleries
MSMEs (cluster-based)	₹36,200 crore	Handicrafts, metalware, dairy, terracotta

### 7.8 Sector-Specific Investment Models

#### A. Defence Industrial Corridor

- Invested: ₹2,100 crore (as of 2025)
- DRDO, BEL, BrahMos, Adani Defence among key players
- Special incentive package: 50% land cost subsidy + 100% SGST reimbursement

#### B. Data Centres in Noida–Greater Noida

- ₹28,000 crore investments approved
- Adani, Hiranandani, NIDP Data Park fully functional
- Policy: Power tariff concessions + 25% infra subsidy + single-window power connection

#### Conclusion of Section 7

With rapid digitisation, corridor-based planning, investor concierge systems, and a powerful shift in state capacity, UP is no longer “difficult to enter” but a **top investment magnet for India’s future growth sectors**. The state has learnt to **compete, deliver, and scale—making itself investment-worthy at every level**. **“Ease of doing business is not just a ranking—it is a reputation. And Uttar Pradesh is building that, one reform at a time.”**

### Section 8: Emerging Sectors in Uttar Pradesh – Digital Economy, Defence Corridor, Green Industries and Startups

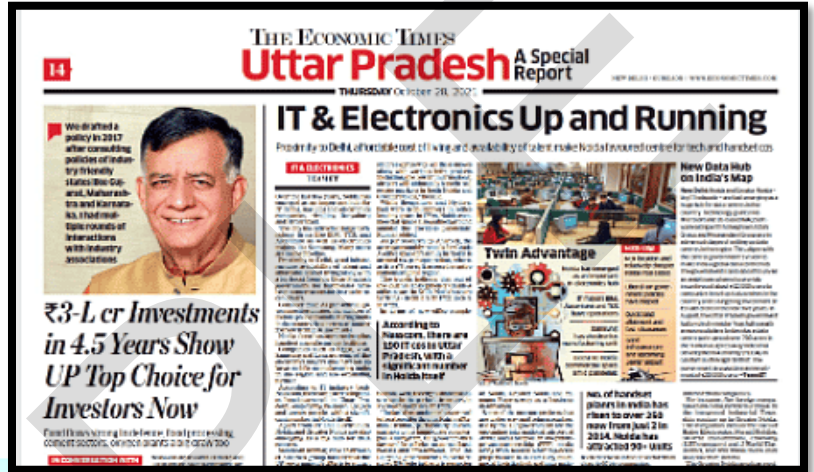
**“The economy of tomorrow will belong to those who invest in innovation today.”**

Uttar Pradesh is not only reviving its traditional industries—it is **actively building future-facing sectors** such as **technology, defence manufacturing, clean energy, and entrepreneurship ecosystems**. This structural diversification is crucial to fuel **sustainable growth, create high-value jobs, and meet the state’s \$1 trillion economy goal**.

**8.1 Rise of the Digital Economy in UP**

**A. Noida–Greater Noida–Ghaziabad: India’s New IT and Electronics Triangle**

- Hosts **Apple suppliers, Lava, Oppo, Dixon**, and other OEMs
- 4th largest electronics manufacturing zone in India (2025 est.)
- **UP Electronics Manufacturing Policy 2020:**
  - 25% capital subsidy + land rebates + power waivers
  - ₹58,000 crore investments approved so far



**B. Data Centres and Digital Infrastructure**

- **25 data centres** approved (9 operational by 2025)
- Key players: Adani, NIDP, ST Telemedia, Hiranandani
- Jewar to become North India’s **data and server hub**

**Example:**

The **Hiranandani Data Park** in Noida processes back-end systems for global OTT and fintech firms; over **6,000 IT jobs created** locally.

**8.2 Defence Industrial Corridor – Strategic and Industrial Gamechanger**

- Launched in 2018 with **₹20,000+ crore investment target**
- Nodes: **Aligarh, Kanpur, Jhansi, Chitrakoot, Agra, Lucknow**
- Partners: DRDO, BEL, HAL, Bharat Forge, Adani Defence

**Key Features:**

- 1,800+ hectares of land allocated
- **50% land subsidy, 100% SGST reimbursement, power cost subsidy**
- 12 major private contracts signed (₹6,200 crore by 2025)

**Example:**

In **Aligarh**, a private firm is manufacturing **small arms for paramilitary and African export markets**, creating **direct jobs for 1,100 youth**.

**8.3 Startups and Innovation: From NCR to Tier-2 Expansion**

**UP Startup Policy 2023 Highlights:**

- **10,000 startups target** by 2027
- ₹5,000/month sustenance + ₹1 crore product grants
- 40 incubators across districts (with KPMG, IIT-K, SIDBI support)
- Dedicated startup cells in **Gorakhpur, Varanasi, Bareilly, Jhansi**

**Key Sectors:**

- **AgriTech:** Weather advisory, drone spraying



- **EduTech:** Vernacular digital platforms
- **FinTech:** MSME lending platforms
- **BioTech:** Amla-based nutraceuticals (Pratapgarh startups)

**Example:**

A startup in **Unnao** funded under **Krishi Udyami Yojana** is exporting banana flour for diabetic diets—generating ₹32 lakh revenue in 2024.

**8.4 Green Industries and Renewable Energy Transition**

**A. Solar Energy**

- Target: 22 GW installed capacity by 2027
- Solar Parks in **Sonbhadra, Lalitpur, Mirzapur, Bundelkhand**
- **Solar Energy Policy 2022:**
  - 50% land cost subsidy for plants
  - ₹5 crore grant for solar component manufacturing

**B. Ethanol Blending and Bioenergy**

- 18 new ethanol distilleries approved
- Linked to sugarcane FPOs and distilleries in **Bijnor, Shamli**
- Integrated with **SATAT and PM-JIVAN missions**

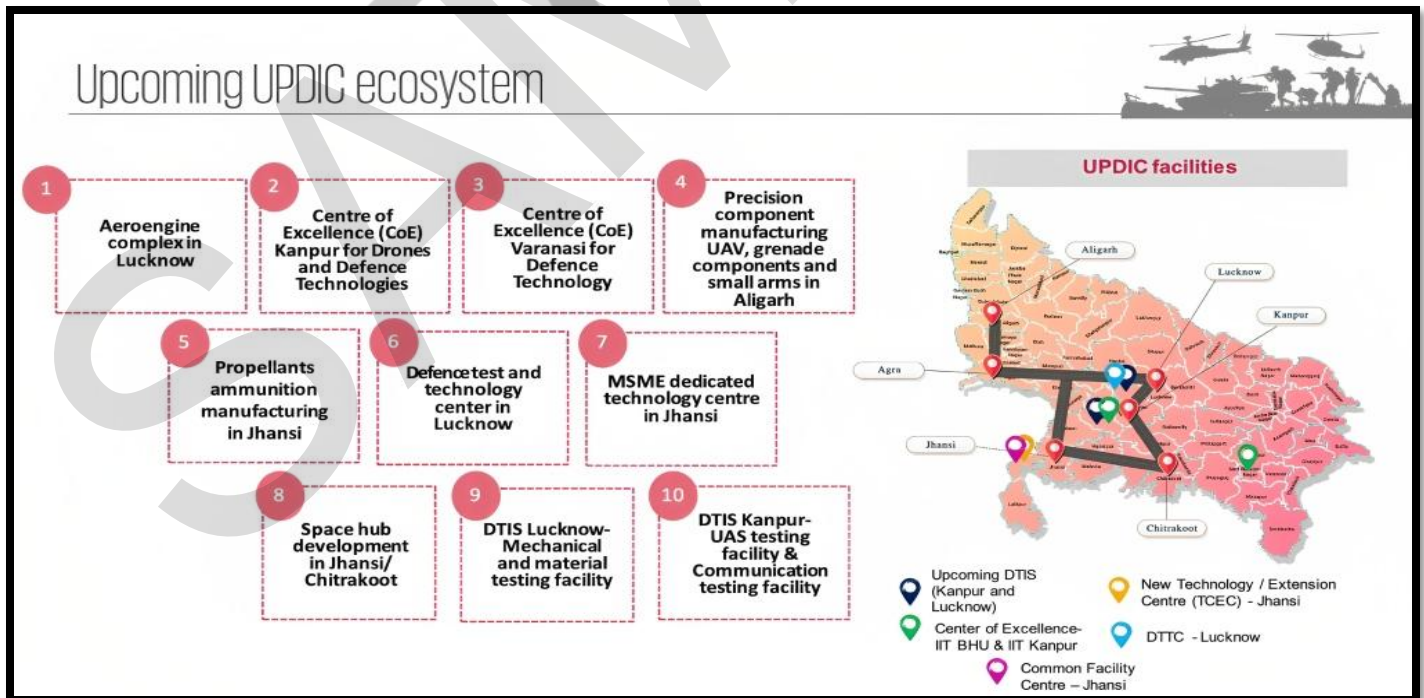
**C. Electric Vehicle Ecosystem**

- **EV Policy 2023** aims to:
  - Set up 20,000 charging stations
  - Incentivise battery recycling units
  - Attract e-vehicle manufacturers to **Kanpur-Lucknow-Noida belt**



**Example:**

**Kanpur EV Cluster** is producing battery management software for e-rickshaws exported to Nepal and Bangladesh.



**8.5 Policy Ecosystem Fueling Emerging Sectors**

Sector	Supporting Policy	Notable Initiatives
Defence	UP Defence Corridor Policy 2018	Jhansi, Aligarh, Kanpur nodes
Electronics	Electronics Manufacturing Policy 2020	Dixon, Lava, Oppo plants in Noida
Green Energy	Solar Policy 2022, EV Policy 2023	EVs, ethanol blending, solar panels
Startups	UP Startup Policy 2023	Incubators, grants, rural innovation support
Bio-Agritech	MSME-FPO-Startup Convergence Scheme	Pilibhit, Gonda, Chandauli agritech hubs

**8.6 Challenges in Emerging Sector Growth**

Challenge Area	Core Issues
Skill Deficit	Advanced tech training lacking in rural polytechnics
Digital Gaps	Limited high-speed internet in Purvanchal/Bundelkhand
Access to Capital	Banks hesitant to fund startups in Tier-2/3 districts
Land Aggregation	Delays in defence corridor and solar park land acquisition
Supply Chain	Electronics and EV supply chains disrupted by import dependency (esp. China)

**8.7 Suggestions and Strategic Pathways**

- District Innovation Hubs (DIHs):** Link local industry, youth startups, and R&D institutions
- Green Zone Infrastructure:** Solar + EV cluster with smart grid and battery banks in Bundelkhand
- Startup Export Credit Guarantee Scheme:** De-risk international startup ventures from UP
- Smart Skill Missions:** Blockchain, AI, drone tech training via ITIs + Digital University UP
- Women Innovators Fund:** Special grants for rural women in food tech, packaging, bio-based startups

**Conclusion of Section 8**

Uttar Pradesh is not just reviving the past—it is **architecting the future**. With massive traction in **defence production, startup innovation, digital platforms, and renewable industries**, the state is scripting a growth story that is **resilient, tech-driven, and employment-rich**.

**“UP’s economic future will be built not just in factories—but in labs, studios, satellites, and code.”**

**Section 9: Challenges to Industrial and Trade Growth in Uttar Pradesh – A Multi-Dimensional Analysis**

**“Industrial progress is not merely about policies—it is about removing the friction between potential and performance.”**

While Uttar Pradesh has shown **significant policy intent and institutional reforms**, its path to becoming a manufacturing and export powerhouse is constrained by **structural, socio-economic, infrastructural, administrative, and ecological bottlenecks**. These issues vary across regions and sectors, particularly between **Western UP** and **Bundelkhand-Purvanchal**.

**9.1 Economic and Infrastructural Challenges**

- Regional Imbalance:**

- Over 68% of all industrial investments are concentrated in **Western UP**, especially Noida–Ghaziabad–Agra
- **Bundelkhand and Eastern UP** remain under-industrialised due to lack of infrastructure and low investor confidence
- **MSME Credit Bottlenecks:**
  - Only 21% of MSMEs have access to formal credit (SIDBI 2024)
  - Rural artisans and SHGs often lack collateral, digital footprint, or invoice history
- **Last-Mile Logistics Gaps:**
  - Dry ports and warehousing absent in 32 districts
  - Agro-industrial belts (like Pilibhit, Bahraich, Deoria) lack integrated cold chains
- **Power Reliability Issues:**
  - Small manufacturers in **Mau, Basti, Shahjahanpur** report 6–8 hours daily outages
  - Industry-grade power tariffs in Bundelkhand are still uncompetitive

## 9.2 Social and Labour-Linked Constraints

- **Skill-Industry Mismatch:**
  - Over 54% of youth trained under PMKVY (2023) found to be unemployable in industrial zones (Labour Department Survey)
  - Lack of practical exposure in ITIs, no linkage with local ODOP or industrial units
- **Labour Migration:**
  - Out-migration from **Bundelkhand and Eastern UP** continues due to weak rural employment
  - Industrial zones struggle to retain skilled labour due to poor housing, transit, and social amenities
- **Informalisation of Work:**
  - ~72% of MSME workers in UP are informal; no social security, health insurance, or wage contracts

## 9.3 Administrative and Regulatory Gaps

- **Land Acquisition Delays:**
  - Industrial parks in **Sonbhadra, Banda, Chitrakoot** delayed due to compensation disputes and forest land clearances
- **Licensing and Clearances:**
  - Though Nivesh Mitra has improved clearance timelines, **departments like Pollution Control, Fire Safety, and Revenue** still cause offline delays in smaller towns
- **Weak Monitoring of MoUs:**
  - Only ~43% of MoUs from **GIS 2018** reached the implementation stage
  - MoU tracking still dependent on manual district-level updates
- **Policy Saturation at Top, Gaps Below:**
  - While Noida and Lucknow receive policy innovation, district industrial centres (DICs) in **Gonda, Kushinagar, Shahjahanpur** remain under-resourced

## 9.4 Environmental and Ecological Concerns

- **Pollution from Clusters:**
  - Firozabad glass units and Kanpur leather tanneries contribute to **air and water pollution**
  - Ganga and Yamuna pollution increased in industrial zones, harming biodiversity and communities
- **Land Degradation:**

- Sand mining and unregulated stone crushing in **Bundelkhand and Sonbhadra** impacting ecosystem stability
- **Water-Intensive Industries:**
  - Sugar mills and leather units heavily rely on groundwater; aquifers declining in Agra, Bijnor, Barabanki

### 9.5 Trade and Export Hurdles

- **Lack of Export-Grade Labs:**
  - Only 23 districts have quality testing centres for EU/US export standards
  - Banana and mentha shipments rejected due to absence of residue testing (2024)
- **Digital Divide in Commerce:**
  - e-NAM, GeM, and EPC portals underutilised in Eastern UP
  - Artisans in Azamgarh, Basti, and Bhadohi lack training to list products online
- **Custom Clearance & Connectivity:**
  - Only **3 airports** in UP have air cargo infrastructure (Lucknow, Varanasi, Noida under-construction)
  - Inland Waterways at Varanasi not fully linked to multimodal transport chains

### 9.6 Institutional and Governance Barriers

- **District-Level Convergence Weakness:**
  - Schemes like AIF, PMFME, ODOP, and MUDRA operate in silos without single convergence committees
  - No clear vertical flow between DICs, KVKs, Panchayats, and Invest UP
- **Grievance Redress Gap for MSMEs:**
  - Many Udyam-registered units lack access to legal or financial counselling
  - Delayed insurance under CGTMSE and dispute resolution in export refunds

### Conclusion of Section 9

Uttar Pradesh stands at a powerful juncture—**rich in ambition, strong in tradition, but challenged in execution**. Bridging the divide between **high-level policy and grassroots productivity**, especially across **regions, sectors, and skill groups**, is essential. Industrialisation must now evolve from being incentive-driven to becoming **infrastructure-secure, skill-aligned, and sustainability-bound**.

**“A policy can open the door, but systems and equity must hold it open for everyone to pass through.”**

### Section 10: Strategic Suggestions, Reforms, and Best Practices for Industrial Boost in Uttar Pradesh

**“To transform potential into performance, Uttar Pradesh must not just build infrastructure—but build institutions, inclusion, and innovation.”**

#### 10.1 Region-Specific Industrial Strategy

##### Suggestions:

- **Bundelkhand:** Prioritise green energy hubs, defence MSMEs, agro-mineral processing, and EV clusters
- **Purvanchal:** Develop logistics parks, agri-export corridors, food processing and handloom innovation zones
- **Terai:** Promote bamboo, forest-based industries, and organic packaged food exports

##### Best Practice:

**Gujarat’s Cluster Policy** linked unique local resources (like Morbi ceramics) to global trade through dedicated infrastructure and focused branding.

#### 10.2 Strengthening MSME and Startup Ecosystem

##### Suggestions:

- Create **District MSME Taskforces** to monitor credit, Udyam registration, market access

- Launch a **MSME Export Credit Guarantee Scheme** for first-time exporters
- Develop **co-working and digital startup hubs** in all divisional HQs, beyond Noida and Lucknow

**Best Practice:**

**Telangana's T-Hub Model** supported 2,000+ rural startups by combining government mentoring with private incubation.

**10.3 Skill and Employment-Linked Reforms****Suggestions:**

- Map **ODOP + ITI curriculum** to ensure practical training in district-specific crafts
- Introduce **Dual Skill Certification Programmes** under DDU-GKY for industrial parks
- Incentivise industry to provide apprenticeships with wage subsidies

**Best Practice:**

**Germany's Dual Vocational Training Model** ensures 50% on-the-job exposure for every skill trainee.

**10.4 Infrastructure and Export Modernisation****Suggestions:**

- Declare 15 districts as "**Export Ready Districts**" with testing labs, packhouses, and logistics grants
- Integrate **district-level agri and ODOP exports** into **e-commerce fulfilment networks**
- Establish **UP Export Dashboard** to track commodity flow, price trends, certification bottlenecks

**Best Practice:**

**Maharashtra's Vashi Export Zone** integrates labelling, customs, packaging, and buyer linkages within one campus.

**10.5 Institutional and Administrative Innovations****Suggestions:**

- Set up **District Industrial Facilitation Councils (DIFC)** for grievance redress, MSME mentoring, and startup clearance
- Merge district-level schemes under a single "**District Economy Convergence Plan**"
- Expand **Nivesh Mitra 3.0** with AI chatbot, offline-to-online service bridge, and post-approval compliance tracker

**Best Practice:**

**Karnataka's Investor Concierge System** resolved 85% of industrial queries under one month using cross-departmental taskforces.

**10.6 Sustainable and Inclusive Industrialisation****Suggestions:**

- Introduce **Green Compliance Grants** for water-saving, pollution control, and renewable-linked MSMEs
- Ensure **50% FPO/SHG representation in ODOP planning committees**
- Launch a **Women Industrial Entrepreneurs Programme** in clusters like textiles, processed foods, toys, and herbal packaging

**Best Practice:**

**Kerala's Kudumbashree Model** scaled women-led micro-enterprises in handicrafts and agri-products to export levels through convergence and branding.

**10.7 Policy Monitoring and Incentive Rationalisation****Suggestions:**

- Annual release of "**District Industrial Competitiveness Index**" with metrics on credit, exports, skill, grievance redress
- Rationalise incentives based on **impact and equity**, giving higher benefits to underserved zones like **Sonbhadra, Shrawasti, Mahoba**

**Best Practice:**

**Punjab's Graded Incentive System** ties industrial subsidies to employment creation and export generation in low-income districts.

**Conclusion of Section 10**

Uttar Pradesh is no longer waiting to catch up—it is in motion, redefining itself as **India's industrial heartland**. The real challenge now is **depth over hype, inclusion over incentives, and delivery over declarations**. With the right mix of **regional strategy, institutional reform, and innovation mindset**, UP can rise not just as a production centre—but as a **people-driven economic powerhouse**.

**“The next leap in UP's industrial story will not come from capital alone—but from coordinated will, capable systems, and confident citizens.”**

**Keywords -**

**ODOP Revolution**-One District One Product scheme transforming local skills into global brands **Industrial Corridors of Inclusivity**-Region-focused growth via Bundelkhand Defence Corridor and Purvanchal Expressway **Geo-Cluster Synergy**-Alignment of industrial zones with geography (e.g., mentha in Barabanki, carpets in Bhadohi) **MSME Backbone Economy**-Micro and small enterprises forming the majority of UP's industrial base **Logistics-Led Development**-Trade corridors like Eastern DFC, Ganga Expressway shaping investment **e-Commerce Empowerment**-Rise of GeM, ONDC, and Amazon-linked SHG trade in rural UP **Digital Manufacturing Hubs**-Data centres and electronics clusters in Noida-Ghaziabad belt **Export-District Strategy**-Linking district economies directly to international buyers via EPCUP **Green Industrialisation**-Solar parks, ethanol units, and EV hubs pushing clean manufacturing **Skill-Startup-Sector Convergence**-ITIs + Startups + ODOP driving rural industrialisation **Craft to Commerce Transition**-Traditional handlooms and GI goods gaining global presence **Industrial Democracy**-Policy push to include FPOs, SHGs, and women entrepreneurs in planning **Ease of Doing Transformation**-Nivesh Mitra + Udyog Bandhu reforming the business environment **Policy-Infra Alignment**-Industrial policies grounded by park-level and regional infra .

**Model Mains Question -**

**Q. "Trade and industrial transformation in Uttar Pradesh is increasingly decentralised, cluster-driven and export-aligned. Critically evaluate this shift with reference to recent policy interventions, regional patterns, and emerging challenges."**

**Answer Writing Strategy****Introduction (40–50 words)**

Begin with a contextual quote or data-backed observation.

*"Uttar Pradesh, once an underperformer in industrial indices, is now scripting a new narrative where districts drive trade, clusters define production, and policy creates global value."* Link it to ODOP, MSMEs, and corridors.

**Body (Divide into 3–4 Parts)****Part 1: Decentralised Industrial Growth**

- ODOP coverage in 75 districts
- GI-tag promotion (e.g., Banarasi saree, Bhadohi carpet)
- Food processing in Kushinagar, Amla in Pratapgarh

**Part 2: Policy Interventions**

- UPIIEPP 2022, Startup Policy 2023, Defence Corridor Policy
- Nivesh Mitra and Ease of Doing reforms
- Jewar airport + freight corridors as trade multipliers

**Part 3: Regional Trends and Sectoral Shifts**

- Digital + data centre growth in Noida–Ghaziabad
- Agro-industrialisation in Eastern UP
- Solar + ethanol in Bundelkhand
- EV and defence in Kanpur, Jhansi, Aligarh

**Part 4: Challenges and Gaps**

- Regional disparity (West vs East)
- Skill mismatch and MSME financing
- Export infrastructure, lab gaps in rural areas
- Environmental concerns (Kanpur tannery, Firozabad glass)

**Conclusion (30–40 words)**

Wrap up with a visionary yet realistic note:

*"For Uttar Pradesh to emerge as India's next industrial engine, the future must be built at the bottom—where every district becomes a market maker, and every artisan becomes an entrepreneur."*

# UP GOVERNMENT SCHEMES

PROJECTS AND PLANNED DEVELOPMENT  
FOR WELFARE OF PEOPLE, HUMAN  
RESOURCES AND SKILL DEVELOPMENT



### 3.3 Urban Infrastructure and Smart Cities

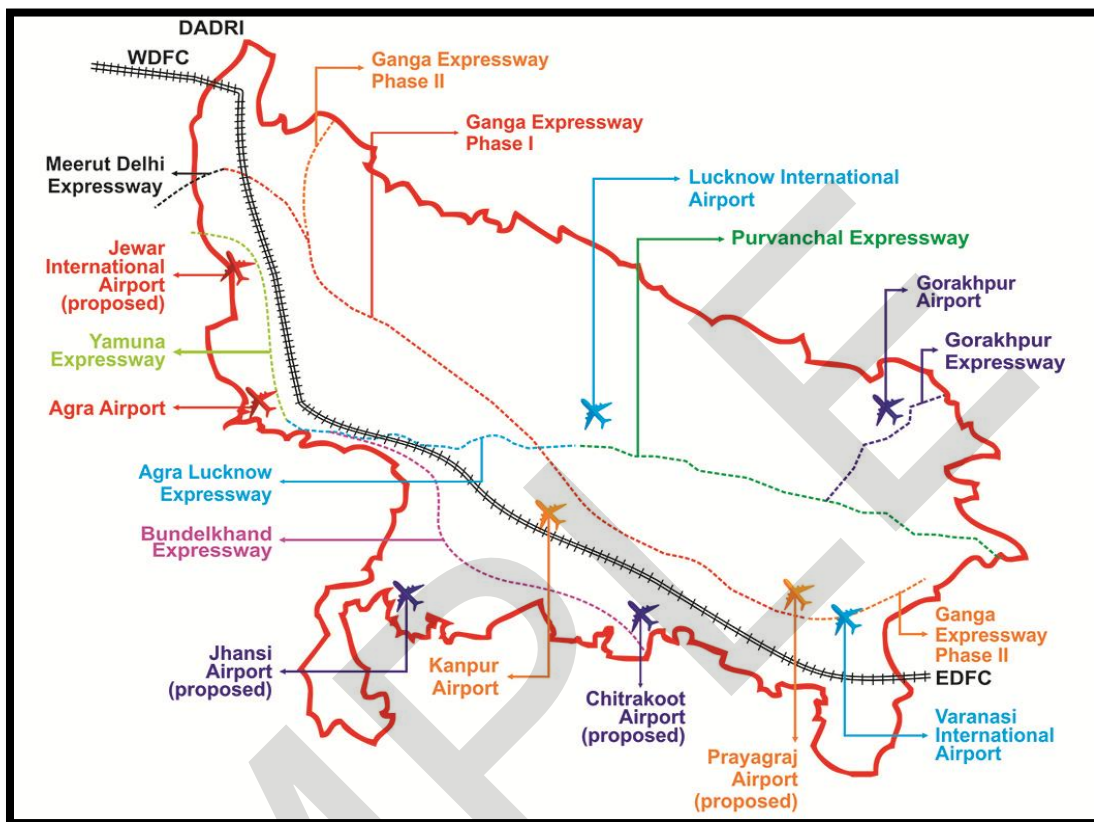
Urban infrastructure PPPs cover **water supply, sewerage, smart lighting, housing, and public transport.**

- **Smart City PPP domains:**

- Integrated traffic systems (Lucknow, Prayagraj)
- LED street lighting with energy savings
- Wi-Fi hotspots and e-governance kiosks

- **Housing and Urban Transport:**

- **Lucknow Metro (PPP on O&M) with private operator**
- **Affordable housing under PMAY (Urban) using PPP Model-3 (land as asset)**



#### Committees That Recommended Setting up of UPEIDA

Committee Name	Year	Chairperson / Authority	Key Recommendation
High-Level Committee on Infrastructure	2006	Chaired by the Chief Secretary, UP	Recommended a <b>dedicated authority for expressways</b> and industrial corridors in UP.
Infrastructure & Industrial Investment Policy Drafting Committee	2007	State Infrastructure Department	Proposed creation of a <b>single-window authority</b> for expressways, SEZs, and corridors.
Planning Commission Advisory Note	2007	Central Planning Commission (Guidance)	Suggested states establish specialized <b>nodal agencies</b> for large infra projects.
Yamuna Expressway Development Plan Taskforce	2007	Constituted by UP Govt.	Advocated for an <b>umbrella authority</b> to oversee expressway-linked development.

**Example:**

In **Kanpur**, the Smart City SPV signed a PPP contract with a private agency for the **100% LED streetlighting transition**, reducing electricity bills by 35% and improving safety metrics.

**3.4 Solid Waste Management and Sanitation**

PPP is extensively used in:

- **Municipal waste collection and treatment**
- **Waste-to-energy plants (e.g., Varanasi, Ghaziabad)**
- **Bio-methanation and composting projects** under SBM-U 2.0
- **Private operators** handling landfill remediation and plastic segregation

**Model:** Revenue-sharing or tipping-fee-based annuity

**Support:** VGF and CSR co-funding in select cities

**3.5 Health Sector**

PPP in health focuses on **non-core medical services, digital health infrastructure, and primary diagnostics.**

- **Key Interventions:**
  - **Diagnostics PPP:** MRI, CT Scan, and pathology labs in district hospitals
  - **Ambulance Services:** 108 & 102 fleet operated by private players (Ziqitza HealthCare, GVK-EMRI)
  - **Telemedicine and e-Sanjeevani kiosks** in rural CHCs under hybrid PPP
  - **Health ATMs** in Ayushman Bharat Health & Wellness Centres in 13 districts

**Example:**

Under a **PPP with Wipro GE Healthcare**, UP introduced **affordable ultrasound and radiology kiosks** in rural health centres of Bundelkhand, improving early diagnosis rates by 27%.

**3.6 Education and Skill Development**

- **Model Schools and Digital Classrooms** through CSR–PPP hybrid in government schools
- **Skill development centres under PMKVY + state skilling missions**, operated by private partners
- **Fibre-based digital classroom infrastructure in Madrasas and rural schools**

**Example:**

The **“Adopt-a-School” PPP scheme** in Varanasi enabled corporate-supported smart classrooms and sanitation upgrades in 87 government schools by 2023.

**3.7 Agriculture and Rural Infrastructure**

- **Agricultural Market Infrastructure** through PPP:
  - e-Mandi platforms
  - Cold storage and packhouse units under AIF
- **Veterinary Mobile Units**, soil testing labs, farm mechanisation centres operated by agri-startups via PPP
- **Agro-Processing Units** funded by PM-FME with SHG–Private hybrid models

**3.8 Tourism, Heritage, and Hospitality**

- **Adopt-a-Heritage PPP Projects:** Private maintenance of monuments (e.g., Sarnath, Chunar Fort)
- **Eco-Tourism PPP:** Private partners managing riverfronts, forest guest houses, and eco-parks
- **Religious circuits** (Kashi Vishwanath, Mathura, Ayodhya) being developed under Build-Operate–Maintain frameworks

**Example:**

**Ayodhya’s Tent City and Riverfront Light Shows** are managed by private firms under a multi-year PPP contract—generating over **₹34 crore** in tourism receipts in 2023–24.

**Conclusion of Section 3**

Uttar Pradesh is leveraging PPP across **hard and soft infrastructure**, ranging from **expressways and waste management to schools and temples**. This sectoral spread showcases the **maturity, flexibility, and future-readiness** of the state's PPP vision. However, **implementation success varies across sectors**, requiring **better risk-sharing, legal safeguards, and citizen oversight**—topics we will now explore.

#### Section 4: Case Studies and Landmark PPP Projects in Uttar Pradesh

**“A good policy is theory, but a successful PPP is proof in action.”**

Uttar Pradesh has emerged as a **national laboratory for diverse Public-Private Partnership (PPP) models**, demonstrating that with the right mix of **policy stability, administrative will, and investor trust**, PPPs can deliver impactful, scalable results. This section presents a curated list of **landmark PPP projects** that represent **best practices, innovations, and developmental impact** across sectors in UP.

##### 4.1 Yamuna Expressway (Greater Noida–Agra)

**Type:** BOT (Build–Operate–Transfer)

**Private Partner:** Jaypee Infratech Ltd

**Length:** 165 km

**Cost:** Approx. ₹13,300 crore

**Commissioned:** 2012

**Key Features:**

- India's first 6-lane, access-controlled expressway under PPP
- Real estate development rights provided as revenue model
- Reduced travel time between Delhi and Agra by 2.5 hours

**Impact:**

- Triggered township development, logistics hubs, and tourism boost
- Generated direct and indirect employment for over 50,000 people

##### 4.2 Lucknow Metro (PPP Model: O&M Phase)

**Type:** O&M under PPP with private operator (Hitachi Rail STS–Alstom)

**Route Length:** 23 km (Phase 1)

**Ridership:** 90,000+ daily (2024)

**Features:**

- PPP model in **operations and maintenance**, ensuring cost-efficiency
- India's first **metro system with regenerative braking and GoSmart card**

**Impact:**

- 30% reduction in intra-city commute time
- Created over 3,500 jobs in rolling stock, ticketing, and station management

##### 4.3 Bundelkhand Expressway

**Model:** EPC–PPP hybrid with private construction firms

**Length:** 296 km (Chitrakoot to Etawah)

**Commissioned:** 2022

**Cost:** ₹14,850 crore

**PPP Element:**

- UPEIDA acts as nodal SPV
- Private EPC contractors with built-in performance penalties/bonuses
- **Logistics and warehousing parks** under PPP to be developed along the corridor

**Impact:**

- Expected to generate **~1 lakh direct and indirect jobs**

- Opened Bundelkhand to industrial investors for the first time

**4.4 Health Diagnostics PPP – Ayushman Bharat Labs**

**Location:** 21 districts including Banda, Fatehpur, Siddharthnagar

**Private Partners:** Wipro GE, SRL Diagnostics (region-wise contracts)

**Services Offered:** Radiology, MRI, pathology, tele-reporting

**Model:**

- Concession of space and electricity by state
- Revenue sharing on per-patient model (e.g., ₹1,500/MRI)
- Data integration with **ABHA IDs and e-Sanjeevani**

**Impact:**

- Cut diagnostic wait time from 21 days to 72 hours in CHCs
- Increased preventive diagnosis coverage in rural areas by 38% (2023 data)

**4.5 Barabanki Mentha Oil Distillation Cluster**

**Partners:** SHG collectives + private buyer contracts + NABARD credit + PM-FME funding

**Model:** Cluster-based hybrid PPP

**Features:**

- 7 SHGs own solar-powered mentha distillation units
- Private perfumery companies offer **pre-harvest price contracts**
- Online sales through Flipkart and Amazon platforms

**Impact:**

- Household incomes rose from ₹4,800 to ₹9,300/month (2022–24)
- Over 160 rural women became micro-entrepreneurs in two years

**4.6 Kanpur Smart LED Streetlight Project**

**Private Partner:** Signify Innovations (formerly Philips Lighting)

**Model:** PPP under ESCO (Energy Service Company) Model

**Details:**

- 1.7 lakh LED lights installed
- 7-year performance-based maintenance contract
- Repayment from energy savings (35–45%)

**Impact:**

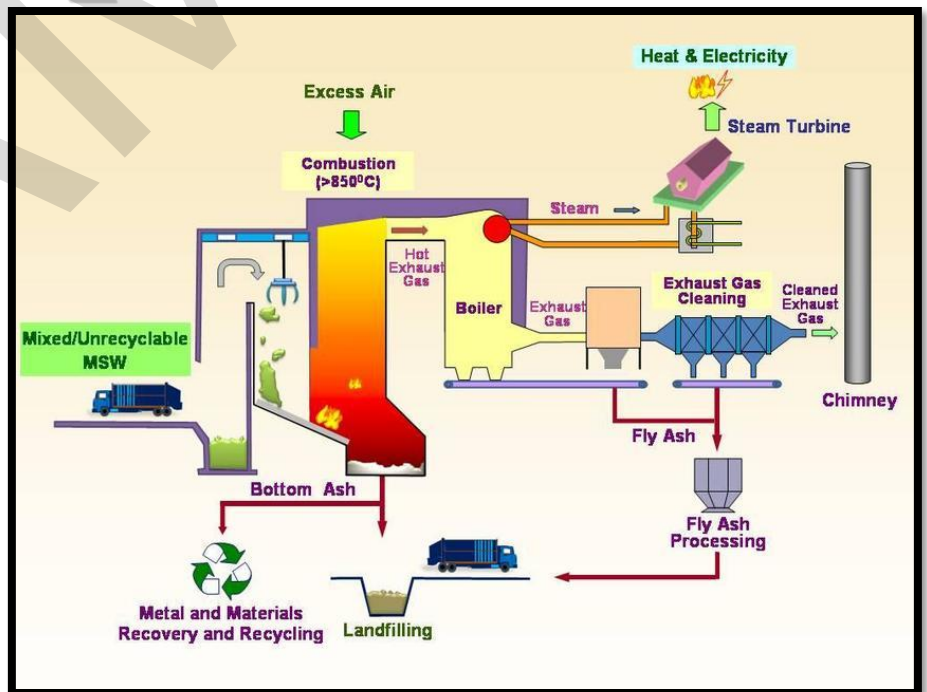
- ₹12 crore annual savings for Kanpur Municipal Corporation
- Drastic fall in accident-prone dark spots in industrial zones

**4.7 Varanasi Waste-to-Energy Plant**

**Location:** Bharthara Solid Waste Complex

**Private Partner:** Re Sustainability (Ramky Enviro)

**Capacity:** 600 TPD waste processed;



12 MW energy output

**PPP Mode:** DBFO (Design–Build–Finance–Operate)

**Impact:**

- Scientific processing of waste from over 1,200 tonnes/day
- Power supplied to city's grid; compost to local farmers

#### 4.8 Ayodhya PPP Tent City and Riverfront Tourism

**PPP Components:**

- Eco-resorts and themed tent cities by private firms on lease model
- Private players manage river shows, drone displays, and AR-based heritage walks

**Impact:**

- Over ₹34 crore tourism revenue in 2023–24
- Creation of 2,000+ hospitality jobs for locals and SHGs

#### 4.9 Horticulture Cold Chains under AIF

**Model:** Private cold chain operators with 35% capital subsidy

**Districts:** Chandauli (banana), Pratapgarh (amla), Pilibhit (organic wheat)

**Support:** NABARD + State Horticulture Mission + Agri Infra Fund

**Impact:**

- Post-harvest losses fell by 22% in banana clusters (2023–24)
- SHG-run sorting/packaging centres now linked to UAE and Gulf export markets

#### Conclusion of Section 4

These landmark projects show that when **PPP models are aligned with state priorities**, and when **beneficiaries are integrated into the partnership ecosystem**, the outcomes are not only infrastructure-rich but also **equity-enhancing and employment-intensive**. Uttar Pradesh's PPP journey is not just about contracts—it is about **transforming governance through co-creation**.

### Section 5: Issues, Challenges, and Sector-wise Constraints in PPP Execution in Uttar Pradesh

**"A well-designed PPP can build a bridge, but only a well-governed PPP can make it last."**

Despite its growing portfolio of Public–Private Partnership projects, Uttar Pradesh continues to face **critical structural, financial, legal, and administrative challenges** in the effective implementation and scaling of PPPs. These issues are not merely technical—they reflect deeper concerns of **governance, trust, accountability, and institutional maturity**.

#### 5.1 Legal and Regulatory Ambiguities

- **Absence of a binding State PPP Law** creates uncertainty in dispute resolution and arbitration
- Most contracts rely on **Model Concession Agreements (MCAs)** from the central government, which are not always adaptable to state realities
- **Lack of standardised grievance redressal mechanisms**

**Example:**

In **Gorakhpur**, a PPP project for solid waste processing faced delay of over 9 months due to absence of penalty enforcement clauses for non-performance by the private party.

#### 5.2 Financial and Risk Allocation Bottlenecks

- **Inadequate project viability** in rural sectors (e.g., agri-logistics, rural health PPPs) without Viability Gap Funding (VGF)
- **Delays in VGF disbursement and lack of risk-sharing frameworks** discourage private players
- Private firms often demand **higher returns or guaranteed revenue streams**, which governments hesitate to offer

**Example:**

The **Barabanki bio-waste project** was abandoned by two bidders due to lack of revenue certainty despite interest in the technology.

**5.3 Land and Approvals Delays**

- **Delays in land acquisition**, encumbrance clearance, and change-of-land-use approvals delay project commissioning
- Multiple clearances from **urban, environment, local bodies, and forest departments** slow down private execution timelines

**Example:**

In **Prayagraj**, the PPP-based affordable housing scheme was stalled for 18 months due to litigation over land ownership between two departments.

**5.4 Institutional Weaknesses**

- **PPP Cells at the department level lack dedicated personnel or technical expertise**
- No regular training or exposure for officials on contract design, risk mitigation, or renegotiation clauses
- **SPVs face autonomy issues**—political interference often derails PPP contracts or renegotiation

**Example:**

In **Agra Smart City**, a proposed riverfront PPP for tourism stalled due to disagreements between the SPV and the state tourism board over user charges and maintenance costs.

**5.5 Low Private Sector Appetite in Non-Metro Areas**

- Investors prefer **Tier-1 and metro projects** (e.g., Lucknow, Noida) with higher returns
- **Bundelkhand, Purvanchal, and Vindhya regions** see minimal PPP interest due to low paying capacity, weak infra, and higher social risk

**Example:**

A PPP project for **rural diagnostic labs in Chitrakoot** failed to receive a single private bidder in two consecutive rounds despite partial subsidy support.

**5.6 Lack of Citizen Participation and Transparency**

- **Users are rarely consulted** in designing or modifying PPP services
- Low awareness of **citizen grievance redress** or service-level agreements (SLAs)
- This leads to **resistance, distrust, and payment delays** from end-users

**Example:**

In **Kanpur's water PPP**, users resisted the metering initiative, fearing high tariffs due to lack of communication and participatory planning.

**5.7 Monitoring and Contract Enforcement Gaps**

- Contracts often lack **clear performance metrics, exit clauses, or penalties**
- **Third-party monitoring agencies** are not regularly engaged
- Lack of **state-wide dashboard** for real-time PPP tracking

**Example:**

The **health PPP lab in Basti** was found non-operational for 3 months during an audit, but no penalties were imposed due to weak contract enforcement.

### 5.8 Sector-wise Specific Constraints

Sector	Challenges
Urban Transport	Revenue recovery risk; resistance to fare revision by ULBs
Health	Low footfall in rural CHCs makes investment unattractive without subsidy
Education	Weak convergence between School Management Committees and private partners
Energy	Delays in PPA approvals and inter-departmental coordination
Tourism	Heritage protection laws often clash with PPP-led commercial models

#### Conclusion of Section 5

The success of PPPs in Uttar Pradesh now depends on **institutional depth, legal clarity, revenue certainty, and trust-based engagement with both investors and citizens**. Without addressing these foundational challenges, the state risks turning PPPs into **paper partnerships** rather than **performance-driven projects**.

#### Section 6: Role of PPP in Urban Infrastructure and Smart City Development in Uttar Pradesh

**“Cities thrive not by how much they spend, but by how well they partner.”**

As Uttar Pradesh undergoes rapid urbanisation—**projected to reach 30% urban population by 2031**—the demand for **resilient infrastructure, smart services, mobility, and waste management** is rising exponentially. In this context, **Public-Private Partnerships (PPP)** are not just policy choices but **necessities** to meet the **funding, design, execution, and innovation gaps** in urban infrastructure.

From **smart lighting to metro systems, waste-to-energy plants to digital governance platforms**, PPP has become the backbone of UP’s **Smart Cities Mission, urban transport, and public service delivery**.

##### 6.1 Urbanisation in UP: Challenges Creating Space for PPPs

- **High service delivery gaps** in Tier-2 and Tier-3 cities
- **Municipal finance constraints:** Low property tax recovery (avg. <35%)
- **Legacy infrastructure stress** (drainage, traffic, housing, lighting)
- **Rising urban unemployment, pollution, congestion, and informal settlements**

These challenges necessitate **innovative, investment-friendly PPP models** to deliver urban solutions that are **digitally smart, financially viable, and socially inclusive**.

##### 6.2 Smart Cities and PPP Integration in UP

UP has **10 Smart Cities**: Lucknow, Varanasi, Kanpur, Agra, Prayagraj, Moradabad, Bareilly, Aligarh, Jhansi, Saharanpur.

PPP-driven projects in Smart Cities include:

##### A. Smart Mobility and Transport

- **Intelligent Traffic Management Systems (ITMS)** in Lucknow, Kanpur (PPP with MapmyIndia, IBM)
- **Public Bike Sharing Systems (PBSS)** in Prayagraj, Agra
- **Electric bus charging infrastructure** developed by private players under revenue-sharing models

##### B. Digital Urban Governance

- **Command and Control Centres (ICCCs)** run under O&M PPP
- Citizen grievance redress apps managed by private software integrators
- **Smart street signage, public Wi-Fi, and e-toilets**

**Example:**

In **Varanasi**, the smart city SPV partnered with a private firm to deploy **350+ smart poles with CCTV, Wi-Fi hotspots, and real-time air monitoring sensors** under a 7-year performance-based PPP.

**6.3 Water Supply, Sewerage, and Solid Waste PPPs****A. Water and Sewerage**

- PPP used in **24x7 water supply projects** in Prayagraj, Jhansi
- **SCADA and billing automation systems** outsourced to private tech partners
- **PPP-operated sewer treatment plants** under Hybrid Annuity Model (HAM)

**B. Solid Waste Management**

- **Door-to-door collection PPPs** in Agra, Lucknow, Kanpur
- **Waste-to-energy plants** in Varanasi and Ghaziabad
- **Recycling parks and dry waste segregation PPPs** in Bareilly and Saharanpur

**Example:**

**Kanpur Nagar Nigam** signed a **PPP for integrated waste collection and processing**, increasing segregation from 12% to 42% within 18 months.

**6.4 Urban Lighting, Safety, and Environmental Solutions**

- **LED retrofitting of streetlights** through ESCO (Energy Service Company) PPPs
- **Smart Surveillance Networks** with facial recognition in tourist zones
- **PPP-based vertical gardens and green walls** on flyovers in Lucknow and Noida
- **Private drone operators** for monitoring air quality and traffic in Smart Cities

**Impact:**

PPP-led LED transitions in 8 cities saved over **₹62 crore annually in energy costs**, while also improving women's night-time safety indices.

**6.5 Affordable Housing and Urban Shelter**

- **PPP Model-3 under PMAY (Urban)** in Lucknow, Ghaziabad, Meerut: Private developer constructs EWS/LIG units on government land
- **Mixed-income housing** with commercial space for private viability
- PPP-based **night shelters and rental housing** in Ayodhya, Kanpur, and Varanasi

**6.6 Urban Logistics and Parking Solutions**

- **Multilevel smart parking** through Build-Operate-Maintain PPP in Lucknow and Agra
- **Integrated freight zones and cold chain logistics** in NOIDA and Kanpur
- PPPs for **digital ticketing and smart parking apps** across 7 cities

**Example:**

In **Agra**, the Smart City SPV awarded a PPP contract for a **3-tier automated parking plaza near Taj Mahal**, linked to an e-ticketing and dynamic pricing system.

**6.7 Key Benefits of PPP in Urban Infrastructure**

- **Innovation injection** from private sector
- Reduces **public borrowing burden**
- Performance-based service delivery
- Faster execution with accountability
- Integration with **startups and urban tech ecosystems**

**Conclusion of Section 6**

Public-Private Partnerships in Uttar Pradesh's urban transformation story are no longer limited to roads or utilities—they now define **how cities live, breathe, move, and communicate**. With effective planning, data-

backed governance, and empowered SPVs, PPPs can deliver **livable, inclusive, and future-ready urban landscapes** across Uttar Pradesh.

**Section 7: PPP in Rural and Social Sector Development (Health, Education, Agriculture) in Uttar Pradesh**  
**“True partnership is not just about building highways—it’s about reaching every hamlet with dignity, services, and opportunity.”**

While infrastructure projects like roads and power dominate the Public-Private Partnership (PPP) narrative, Uttar Pradesh is now increasingly deploying **PPP frameworks in rural and social sectors**. These include **healthcare access, quality education, agricultural productivity, and livelihood diversification**—areas that directly impact the **bottom 60% of the rural population**.

PPP in these sectors demands not just capital, but **trust, accountability, and citizen-centric delivery**. Hence, newer **hybrid PPP models** are being adopted in UP—often blending **NGOs, startups, SHGs, and cooperatives with private investors**.

### 7.1 PPP in Rural Healthcare

#### A. Diagnostic and Imaging Services

- PPP-run MRI, CT scan, pathology labs in district hospitals and CHCs
- **Wipro GE Healthcare and SRL Diagnostics** leading partners in Bundelkhand and Poorvanchal
- Concession model: Per-scan or per-report cost-sharing with government

#### B. Ambulance and Emergency Response

- **102/108 ambulance fleet** operated via PPP with **Ziqitza HealthCare and EMRI-GVK**
- GPS tracking and centralized control centre (Lucknow)

#### C. Telemedicine and Health ATMs

- PPP-operated **tele-health kiosks** under Ayushman Bharat – 13 districts
- **Private kiosks in CHCs**, offering 20+ diagnostic parameters (e.g., glucose, BP, ECG)

#### Example:

In **Mahoba and Lalitpur**, PPP-based diagnostic labs reduced patient turnaround time from **4 days to 12 hours**, boosting rural OPD visits by 28% in 2023–24.

### 7.2 PPP in Rural Education

#### A. Smart Classrooms and Digital Literacy

- Private partners installing **smart boards, tablets, solar backup, and Wi-Fi** in government schools
- Funded via CSR, operated under PPP (O&M for 5 years)

#### B. Skill Development and Vocational Training

- Rural PMKVY centres run by **private skilling partners**, focusing on tailoring, welding, logistics
- PPPs in **ITI modernization**, e-learning kiosks, drone and agri-tech training

#### C. School Infrastructure

- **PPP-based school toilets**, water purifiers, and kitchen sheds (Adopt-a-School Model)

#### Example:

In **Gonda**, 43 rural schools adopted under a CSR-PPP model now have **smart classrooms, gender-sensitive toilets, and rainwater harvesting**, funded by Bharat Petroleum and managed by a local NGO.

### 7.3 PPP in Agriculture and Allied Sectors

#### A. Agri-Markets and Mandis

- **Private operation of sorting/grading/packhouse units** under AIF and ODOP clusters
- Cold chains in **Kushinagar (banana), Chandauli (rice), and Pratapgarh (amla)** on PPP basis

#### B. Agri-Processing and Export

- **SHG-led turmeric, mentha, and guava processing units** co-run with private buyers
- PPP-based **solar dryers, vacuum packing, and barcoding** in 8 districts

### C. Farm Mechanization and Technology

- PPP centres offering **rental services of tractors, harvesters, and drones** to small farmers
- **Drone spraying startups** working on PPP basis with FPOs in Barabanki and Etawah

#### Example:

In **Azamgarh**, PPP-based **banana flour units** managed by women SHGs, with packaging support from private food tech firms, are now selling through e-commerce platforms and exporting to UAE.

### 7.4 Sericulture and Fishery-Based PPP Models

- **Sericulture cooperatives** working with **silk buyers, designers, and exporters** under PMMSY and MIDH
- Fish hatcheries and feed centres run under PPP by **agri-startups and university partnerships** in Jaunpur and Sitapur
- FPO-linked marketing units for **fingerlings, feed, and cold storage**

### 7.5 Strengths of PPP in Rural and Social Sectors

- **Service reach** in underfunded blocks
- **Women-led and SHG-integrated entrepreneurship**
- Leverages **private innovation and technology access**
- Reduces government's CAPEX burden in Tier 3–4 areas
- Builds **community ownership and inclusive models**

### 7.6 Key Limitations and Risks

- **Low financial return** in remote areas without viability support
- **Monitoring and contract enforcement** challenges
- Needs **customized models** (not copy-pasted from urban PPPs)
- Requires **trust-building with local communities**

#### Conclusion of Section 7

PPP in rural and social sectors is no longer experimental—it's **essential**. For Uttar Pradesh, these partnerships are helping bridge the service delivery gap in **last-mile districts**, turning **SHGs into entrepreneurs**, and enabling **agri-value chains to touch global markets**. To succeed, such PPPs must remain **inclusive, flexible, and locally co-designed**.

### Section 8: Administrative, Legal, and Financial Bottlenecks in Uttar Pradesh's PPP Ecosystem

**"A good project can fail in a bad system. For PPPs to succeed, the foundation must be as strong as the vision."**

While Uttar Pradesh has launched **ambitious PPP projects** across sectors, many still suffer from **executorial fatigue, legal ambiguity, and institutional gaps**. Without addressing these, PPPs risk becoming **transactional rather than transformational**. This section explores the **deep-rooted administrative, legal, and financial hurdles** that limit the success and scale of PPP initiatives in the state.

#### 8.1 Administrative Bottlenecks

##### A. Weak Institutional Coordination

- Departments (Urban, Health, Energy, PWD, MSME) often operate in **silos**, with **no integrated planning cell**
- PPP Cells at line departments are either **understaffed or ad hoc**

#### Example:

In the **Bundelkhand Solar Park**, lack of coordination between Energy, Environment, and Land departments delayed commissioning by 14 months.

##### B. Dispute Resolution Mechanism is Weak

- No specialized **PPP Arbitration Tribunals** or fast-track redress forums

- Minor disputes often escalate into full-blown contract cancellations

**Example:**

In **Barabanki**, a floriculture PPP was terminated prematurely due to a billing dispute—eventually ending in court without a proper arbitration pathway.

**C. Regulatory Uncertainty in Sensitive Sectors**

- Heritage PPPs (tourism) face **conflicts with ASI norms**
- Education PPPs constrained by **Right to Education (RTE) Act provisions** on fee caps and admission quotas

**8.3 Financial and Risk-Sharing Bottlenecks****A. Low Project Viability Without VGF**

- Projects in health, solid waste, or rural markets lack private takers **without government subsidy or VGF**
- Delays in disbursement from **central Viability Gap Funding pool (DEA)** reduce private sector interest

**B. Unpredictable Revenue Models**

- PPP contracts often lack **assured cash flow streams**, especially in service delivery
- **User charges (e.g., parking, water, tickets)** are not rationalized or protected contractually

**Example:**

In **Agra's multilevel parking PPP**, expected ticket revenue dropped by 47% as local bodies refused to increase rates after public resistance.

**C. Credit and Banking Constraints**

- Private players—especially **startups, SHGs, FPOs**—struggle to secure working capital for PPP execution
- Banks demand **collateral or clear escrow mechanisms**, which many rural PPPs lack

**8.4 Monitoring and Contract Management Gaps**

- Most departments lack a **dedicated Contract Enforcement Cell**
- SLAs (Service Level Agreements) are vague or **unenforceable due to political pressures**
- No regular third-party performance audits beyond flagship projects

**Example:**

In **Saharanpur**, a PPP-run compost plant was found dysfunctional for 7 months, but no penalty was levied due to missing monitoring protocol in the contract.

**8.5 Local Governance and Political Risks**

- **Change in political leadership or DM postings** often leads to **renegotiation or review** of existing PPP contracts
- Local protests against user charges or land use changes can derail approved PPPs
- **Absence of Gram Panchayat representation** in rural PPP planning causes alienation

**Conclusion of Section 8**

UP's PPP journey cannot rely solely on project announcements—it must be backed by **administrative depth, legal clarity, financial predictability, and decentralized capacity**. Without institutional reforms, PPPs will remain **elite urban projects**, missing the transformative potential they hold for **equitable state-wide development**.

**Section 9: Strategic Suggestions and Best Practices from Other States and Countries**

**“The strength of a PPP lies not in how much is built, but in how equitably and efficiently it serves.”**

For Uttar Pradesh to become a **national benchmark in PPP execution**, it must evolve beyond project announcements toward **systemic innovation, legal reform, and decentralized implementation**.

**9.1 Legal and Institutional Reforms**

**A. Enact a Dedicated PPP Law for Uttar Pradesh**

- Define rights, duties, risk-sharing, and dispute resolution processes
- Mandate **single licensing authority** for cross-departmental PPPs
- Establish **PPP Grievance Redress Tribunal** for fast-track resolution

**Best Practice:**

**Gujarat** enacted the **Gujarat Infrastructure Development Act**, providing clarity on asset ownership, revenue sharing, and contract renegotiation.

**9.2 Strengthen Departmental and Local Capacity**

- Create **PPP Resource Cells** in each major department with trained staff
- Institutionalize **contract lifecycle monitoring** at DM and CEO-SPV level
- Link PPP officers to **Incentive-Based KPIs** (e.g., revenue generation, SLA compliance)

**Best Practice:**

**Andhra Pradesh's Department of Infrastructure and Investment** runs a **PPP Academy** to train municipal and district officials in model contracts, risk assessment, and citizen engagement.

**9.3 Expand Viability Support for Rural and Social Sector PPPs**

- Create a **State Viability Gap Fund (SVGF)** in addition to central VGF
- Allow **Mini-VGF schemes** for health, school, mandi, and tourism PPPs under ₹25 crore
- Encourage **CSR-PPP hybrids** with NGO or SHG participation in social infrastructure

**Best Practice:**

**Rajasthan's Hybrid Annuity Model (HAM)** for primary healthcare centers offers minimum revenue guarantee for private operators in remote districts.

**9.4 Improve Risk Mitigation and Revenue Design**

- Introduce **Output-Based Performance Payments** (e.g., per diagnosis, per clean ton of waste)
- Offer **Revenue Protection Clauses** (e.g., indexed user fees, shadow tolls)
- Allow **blended finance**: AIF + CSR + NABARD + SHG equity + private partner

**Best Practice:**

**Colombia's Rural Road PPPs** use shadow tolls and seasonal subsidies to incentivize private maintenance in low-traffic areas.

**HYBRID ANNUITY MODEL**

Highway development projects get a facelift

**HAM = mix of EPC & BOT**

- 40% by Govt. (similar to Engineering Procurement & Construction)
- 60% by Private (similar to Build operate Transfer (Annuity))
- No Traffic Risk (Win-win situation)

**Risk Mapping across existing models**

	BOT (Toll)	BOT (Annuity)	EPC
Construction Risk	✓	✓	✓
Maintenance Risk	✓	✓	✗
Traffic Risk	✓	✗	✗

**9.5 Enhance Transparency, Citizen Engagement, and Monitoring**

- Mandate **public consultations** for PPPs above ₹10 crore
- Develop a **state-wide PPP Dashboard** for real-time tracking of cost, impact, and delays
- Engage **academic or third-party monitors** (IITs, IIMs, audit firms)

Sector	Innovative PPP Models to Adopt
Rural Health	Telemedicine-on-Wheels PPP with diagnostic kits and payment-per-visit
Education	CSR-led Adopt-a-School PPP with O&M, digital infra, and meals
Solid Waste	Waste-to-Value PPP with decentralized composting and plastic recycling
Urban Mobility	Green Bus PPP with e-buses, battery stations, and ad-based revenue
Water	Output-Based O&M PPP for 24x7 supply in Tier-2 towns
Tourism	Eco-Circuit PPP with community homestays and heritage site leasing
Agriculture	PPP for Farmer Service Hubs (machinery banks, weather kiosks, dryers)

**Best Practice:**

**Delhi’s PPP Performance Tracker** publishes real-time metrics on water, transport, and education PPPs for public scrutiny.

**9.6 PPP Model Innovation for Uttar Pradesh**

**9.7 Create a “District PPP Performance Index”**

- Rank all 75 districts based on:
  - Projects implemented
  - SLA compliance
  - Revenue recovered
  - SHG/FPO participation
- Link top-performing districts to:
  - **Infrastructure acceleration grants**
  - **Officer awards and exposure visits**
  - **Access to international PPP funding agencies (ADB, JICA)**

**Conclusion of Section 9**

If implemented systematically, these reforms can help Uttar Pradesh transition from being a **PPP adopter** to a **PPP leader**. By embedding **legal safeguards, local capacity, viability support,** and **citizen ownership,** the state can make Public-Private Partnership a truly **people-driven process,** unlocking **inclusive, innovation-led development** across its cities and villages.

**Section 10: Way Forward and Conclusion – Toward a Model PPP Ecosystem in Uttar Pradesh**

**“When governance opens its doors to collaboration, development walks in with speed, scale, and sustainability.”**

Uttar Pradesh stands at a **transformational moment** in its developmental journey. With its massive population, rising urbanisation, demographic dividends, and a ₹1 trillion economy target, the state cannot afford to rely on

public spending alone. **Public-Private Partnership (PPP)** is not just an instrument—it is a **strategic governance model** that will define how UP delivers infrastructure, welfare, and innovation in the 21st century. But to realize this vision, PPPs in UP must evolve from **project-centric contracting** to **systemic public service delivery models**, rooted in **inclusiveness, transparency, financial viability, and multi-stakeholder ownership**.

### 10.1 Pillars of a Strong PPP Future in UP

1. **Legal Backbone:** Enact a robust, state-level PPP legislation with dispute resolution, fiscal rules, and public accountability
2. **Decentralised Capacity:** Empower municipalities, SPVs, and district authorities to design, monitor, and audit PPPs
3. **Blended Financing Models:** Integrate Viability Gap Funding (VGF), CSR, SHG equity, and CSR co-funding
4. **Sector Diversification:** Extend PPPs into **social sectors, climate adaptation, rural livelihoods, and digital public infrastructure**
5. **Citizen-Private-Public Convergence:** Create trust-driven platforms involving **citizens, startups, and SHGs**

### 10.2 Vision Statement for PPP in UP

By 2030, Uttar Pradesh should aspire to:

- Become India's **leading PPP state** in social infrastructure
- Deploy **₹1 lakh crore worth of PPP projects** across rural, urban, and agri-value chains
- Enable **every district to implement at least 10 successful PPP models** in local sectors
- Achieve **75% PPP project SLA compliance** through digital tracking and third-party audits
- Position PPP as a **governance culture**, not just a procurement tool

### 10.3 Concluding Insight

*"In a state as large and complex as Uttar Pradesh, PPP is not about outsourcing responsibility—it's about co-creating resilience."*

If governed with vision, backed by reform, and powered by partnerships, Uttar Pradesh can build a **model PPP ecosystem** that not only accelerates infrastructure but also **redefines inclusive and equitable development** for India's most populous state.

**Keywords -**

**Partnership-Driven Governance** – Collaborative development model beyond state monopoly **Infra Co-Creation Model** – Infrastructure designed, financed, and operated jointly **SPV Governance Architecture** – Special Purpose Vehicles as localised PPP enablers **Build-Operate-Transfer (BOT)** – Classical PPP model for roads, logistics, and metros **Viability Gap Funding (VGF)** – Government capital support to de-risk low-return PPPs **Output-Based PPPs** – Contracts based on performance indicators, not input spending **Blended Finance Ecosystem** – Public, private, and CSR funding converging in one model **Community-Embedded PPPs** – SHG and FPO-driven PPPs in agriculture, tourism, health **Urban Innovation Clusters** – Smart city PPPs for mobility, lighting, and digital governance **Service-Level Agreement (SLA) Monitoring** – Tools for holding private partners accountable **Mini-Metro PPPs** – Tier-2 and Tier-3 city transport innovations through PPP **Rural Infra-PPP Synergy** – Farm-to-market roads, e-mandis, cold chains through partnership **PPP-Ready Districts** – Districts equipped with project appraisal and contract management units **PPP Performance Index** – Ranking system for tracking PPP execution efficiency **One District, Ten PPPs Vision** – Goal to scale equitable PPP access across rural and urban UP

**Model Mains Question -**

**Q. Evaluate the evolving role of Public-Private Partnerships (PPP) in the development of Uttar Pradesh. Highlight sector-wise achievements, institutional challenges, and policy reforms required to create an inclusive and sustainable PPP ecosystem.**

**Answer-Writing Strategy and Format****Introduction (2–3 lines)**

Begin with a quote or fact:

*“When public intent meets private innovation, governance transforms into service.”*

Briefly define PPP and link it to UP’s infrastructure and service delivery needs.

**Body: Structured 3-Part Answer****1. Role and Achievements of PPP in UP**

- Roads and expressways (Yamuna Expressway, Bundelkhand Expressway)
- Urban infrastructure (Smart Cities, LED retrofits, solid waste management)
- Social sector PPPs (health diagnostics, skill centres, SHG-based processing units)
- Agricultural cold chains, solar parks, and eco-tourism via hybrid PPP models
- Smart governance models through SPVs and integrated command centres

Use data and examples.

**2. Challenges Hindering PPP in UP**

- Legal vacuum (no dedicated PPP Act)
- Risk-averse private sector in low-income districts
- Weak contract enforcement and SLA monitoring
- Low VGF penetration and delayed disbursements
- Capacity gaps in SPVs, DMs, and ULBs
- Public resistance due to tariff, user fees, and misinformation

**3. Reforms and Way Forward**

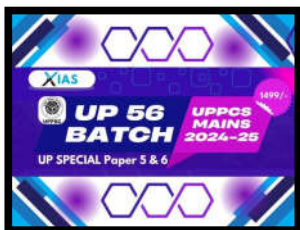
- Enact a UP State PPP Act
- Establish District PPP Cells and training units
- State-level Viability Gap Fund (SVGF) for rural-social PPPs
- SLA-linked performance dashboards for transparency
- Promote community-anchored PPPs with SHGs and FPOs
- Launch a “District PPP Performance Index” and reward top performers

**Conclusion (2 lines)**

*PPP in UP is not just a model of infrastructure—it’s a vision of shared development. To realise its full potential, PPP must be institutionalised, localised, and humanised.*

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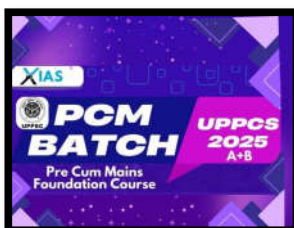


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**Conclusion & Publisher's Note:**

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In the journey of public service, knowledge backed with perspective becomes your most powerful asset. As you walk the path of preparation, may this book become your reliable companion—helping you write answers that reflect clarity, conviction, and administrative maturity.

Let this be your step toward becoming not just a successful aspirant, but a transformative officer in service of the people of Uttar Pradesh.

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