The Arteries of Growth: Expressways of Uttar Pradesh

By Mishika Nayyar and Vivek Sigchi
Strategic Investment Research Unit, Invest India
The Arteries of Growth:
Expressways of Uttar Pradesh
Message

The Government of Uttar Pradesh has worked relentlessly towards improving infrastructure and providing last mile connectivity to every district in the state. Being a landlocked region, Uttar Pradesh now boasts extensive connectivity through a vast network of expressways, state highways and economic corridors crisscrossing the state.

To further facilitate trade and improve connectivity, the Government of Uttar Pradesh has developed multiple expressways such as the 340-kms Purvanchal expressway and has several projects lined up such as 296-kms Bundelkhand expressway, 91-kms Gorakhpur Link expressway and the 594-kms Ganga expressway. These expressways will bring about the much needed overall socio-economic development in the state. Once this extensive network of expressways is complete, Uttar Pradesh will have a total network of 1,788 kms of expressways, the highest in the country, rightly earning the sobriquet of ‘Expressway Pradesh’.

Aiming to showcase the many economic opportunities that the upcoming expressways in Uttar Pradesh will open for the world, I would like to congratulate the Strategic Investment Research Team (SIRU) at Invest India for undertaking this initiative to launch the report on The Arteries of Growth: Expressways of Uttar Pradesh.

Yogi Adityanath
Chief Minister, Government of Uttar Pradesh
The Arteries of Growth: Expressways of Uttar Pradesh
Uttar Pradesh has undergone infrastructural transformation and has developed an evolved outlook towards infrastructure development in the state. There has been a paradigm shift in the approach towards building infrastructure in Uttar Pradesh, from need based to an integrated long-term development strategy.

A vast network including expressways, state highways and economic corridors crisscrossing the state, are accelerating the overall socio-economic development. Innovative financing models are being implemented to generate funding for greenfield expressway construction. To reach targets for infrastructure development, the state government has increased its infrastructure spending significantly in the last four years.

As the Government of Uttar Pradesh continues to implement a series of path-breaking measures to facilitate trade, improve connectivity and boost socio-economic development in the state, this report on The Arteries of Growth: Expressways of Uttar Pradesh by the Strategic Investment Research Team (SIRU) at Invest India aims to highlight the role of expressways in economic transformation of Uttar Pradesh.

I hope the readers find the report informative.
Invest India
New Delhi

Message

High quality road networks will be the key to bring prosperity to Uttar Pradesh. Set up with same vision to lay the foundations of the state’s economic progress, Uttar Pradesh Expressways Industrial Development Authority (UPEIDA) was set up by the state government under the U.P. Industrial Areas Development Act 1976, in December 2007 for the development of Expressways in Uttar Pradesh.

Fulfilling the Hon’ble Prime Minister’s vision of making Uttar Pradesh a “Expressway Pradesh” and under the able guidance of Hon’ble Chief Minister of Uttar Pradesh, UPEIDA is ensuring that the wide network of 1788 kms expressways will crisscross the important industrial hubs of the state. This will not only improve connectivity but also lead to industrial development striving for regional balance within the state. These expressway project have been conceived as a critical high-speed access-controlled road infrastructure between eastern, southern region of Uttar Pradesh and state capital as well as national capital of country.

This report on The Arteries of Growth: Expressways of Uttar Pradesh by the Strategic Investment Research Team (SIRU) at Invest India will showcase how the upcoming expressways in Uttar Pradesh will be harbingers of prosperity, connectivity and economic growth.

I hope the readers find it engaging and useful.

Awanish Kumar Awasthi
Chief Executive Office
UPEIDA
Managing Director and CEO, Invest India

Deepak Bagla

Message

Infrastructure continues to one of the most important accelerators of trade and economic development that the state of Uttar Pradesh is currently witnessing. An efficient and reliable expressway network in the state will act as an enabler for expanding the foreign markets for indigenous goods, unique to the region of Uttar Pradesh.

An efficient logistics ecosystem with several expressways crisscrossing the state will continue to encourage investments in Uttar Pradesh which have been flowing in huge numbers especially with recent announcements made by PepsiCo, Von WelNx, IKEA, AB Mauri. For a growing economy such as that of Uttar Pradesh with a large geographical spread, logistics planning and cost optimization through better transport infrastructure become critical to remain competitive in domestic and global markets.

Showcasing how expressways will be a key driver of Uttar Pradesh’s inclusive and rapid economic growth, this report by Strategic Investment Research Unit by Invest India on The Arteries of Growth: Expressways of Uttar Pradesh will also serve as a repository of information for all potential investors.

Sincerely yours,

Deepak Bagla
Introduction

A good road network is an essential requirement for the rapid growth of any economy. Roads improve connectivity to remote areas, open up backward regions and facilitate smoother and faster access to markets, institutions, trade and investments. In India, the Ministry of Road Transport & Highways is mandated with the development and maintenance of road networks. Under the ministry, the sector has witnessed a consistent increase in budgetary allocations for construction and maintenance of the road network. India, today, has the second-largest road network in the world, spanning a total of 6.4 million kilometres (Mn kms). This road network transports 64.5% of all goods in the country and 90% of India’s total passenger traffic uses road network to commute. Road transportation has gradually increased over the years with improvement in connectivity between cities, districts, towns and villages in the country.

Expressways

Expressways are the highest class of roads in the Indian road network. They are controlled-access highways where entrance and exits are controlled by the use of ramps that are incorporated into the design of the expressway, whereas National highways are at-grade roads. These four to six lane expressways make faster transport networks between many major cities and ports of India. The Golden Quadrilateral is a highway network in India connecting Delhi, Mumbai, Kolkata and Chennai. This is the largest highway project in India, initiated by Atal Bihari Vajpayee. Another famous expressway in India is Mumbai-Pune Expressway, India’s first access-controlled expressway. According to the data released by Department for Promotion of Industry and Internal Trade Policy (DPIIT), the construction development sector attracted Foreign Direct Investment (FDI) inflow worth INR 1,878 Tn (USD 26.08 Bn) in between April 2000 and March 2021. Focus on critical infrastructure building through an integrated approach, right from a number of strategic tunnels and bridges to several green expressways, is bound to place India in the league of advanced nations like the US, UK and Australia in the coming few years.
Top 5 states having the largest road connectivity in India are:

- Rajasthan
- Uttar Pradesh
- Maharashtra
- Andhra Pradesh
- Karnataka
Uttar Pradesh

the hub of connectivity

Connectivity determines a region’s economic output and activity. The better connected you are, the faster you are going to progress and for a landlocked state such as Uttar Pradesh, access to gateways (such as inland container depots, ports, etc.) which link production centers within the state to key domestic and international markets is essential to link in with global value chains, and boost export growth.

Home to 17.22% of India’s population, Uttar Pradesh ranks number 2 in the Ease of Doing Business (EoDB) 2019 state ranking as per Business Reform Action Plan (BRAP). The state of Uttar Pradesh has portrayed exemplary performance in not only implementing notable reforms like Nivesh Mitra – single window system, but also attracting big names like PepsiCo, Von Wellx, IKEA, and AB Mauri among others bringing in huge investments. Being a landlocked state, Uttar Pradesh boasts extensive connectivity through its 6-8 lane expressways, linking National Capital to provide a huge market for products and services. Apart from the upcoming Asia’s largest international airport at Jewar, investors find the Government’s hand holding process and time-bound clearances without procedural delays as a significant cause for choosing Uttar Pradesh as the right destination to do business.

To further facilitate ease of doing business in the state, the Government has developed multiple expressways and has projects lined up for several more. While the Yamuna expressway, which came up in 2012, and the Agra-Lucknow Expressway that opened to public in 2018 started the trend, it is the four upcoming ones — the 340-km Purvanchal, 296-km Bundelkhand, 91-km Gorakhpur Link and the 594-km Ganga expressways — that are scripting a silent transformation in the state, once notorious for its decrepit road infrastructure. All the four expressways, interlinked, will bring the remotest and backward regions closer to not only the state capital Lucknow but also to Delhi and beyond, opening up markets and giving a big boost to socio-economic development in the region.
Once these are complete, UP will have a total network of 1,788 km of expressways, the highest in the country. Currently, the total expressway network in India is around 1,822 km. No wonder, the state has earned the sobriquet of ‘Expressway Pradesh’ by Hon’ble Prime Minister Narendra Modi. Uttar Pradesh Expressways Industrial Development Authority (known by its acronym UPEIDA) set up by the State Government under the U.P. Industrial Areas Development Act 1976, in December 2007 for the development of Expressways in Uttar Pradesh is laying new seeds to grow UP’s economic output.
Highway construction in India increased at 17% CAGR2 between FY16-FY21. Despite the COVID-19 pandemic and lockdown, India has constructed 13,298 kms of highways in FY21. In the entire last fiscal, a total of 10,237 kms highway length was constructed and 10,855 kms in 2018-19. The pace of highway construction was just 12 km/day in 2014-15 and now the Minister for Road Transport & Highways and Micro, Small and Medium Enterprises, Nitin Gadkari is targeting to construct 40 kms per day in FY22. In June 2021 alone, the Ministry of Road Transport and Highways constructed 2,284 kms of national highways compared with 1,681 kms in June 2020. The Government of India has also allocated INR 111 lakh crore INR 111 Tn (USD 1.5 trillion) under the National Infrastructure Pipeline for FY 2019-25. The road sector is likely to account for 18% capital expenditure over FY 2019-25. As on March 31, 2021, works on 2,108 highway projects with a cumulative length of 64,010 km, costing INR 9.224 Tn (USD 128.11 bn)3, were ongoing, according to the Ministry of Road Transport and Highways.

05

3. Highway construction target raised manifold, to construct 40 km roads per day, Financial Express, 26/06/2021
Initiatives at the Centre

- Under Phase-I of Bharatmala Pariyojana, the Ministry has approved the implementation of 34,800 kms of national highways in five years with an outlay of INR 5.35 Tn (USD 74.31 Bn). Under this scheme, 22 greenfield projects (8,000 kms length) are being constructed; this is worth INR 3.26 Tn (USD 45.28 Bn).

- The government also aims to construct 23 new national highways by 2025.

- In April 2021, the NHAI has decided to deploy a Network Survey Vehicle (NSV) to enhance the quality of the national highways. Carrying out road condition surveys using NSV on the national highways was made mandatory for certifying completion of the project and every six months thereafter.

- In March 2021, the Mizoram–Myanmar Road project, which was launched under SARDP-NE, completed 92% work and is scheduled to be completed by June 2021.

- Under the Union Budget 2021-22, the Government of India has allocated INR 1.08 Tn (USD 15 Bn) to the Ministry of Road Transport and Highways.

- The NHAI awarded 1,330 km of highways in the first half of FY21, which was 1.6x of the total awards in FY20 and 3.5x of the FY19-levels. NHAI, the nodal authority for building highways across the country, has set a target of awarding 4,500 km of projects in FY21.

- In December 2020, the MoRTH proposed to develop additional 60,000 kms of national highways (in the next five years), of which 2,500 kms are expressways/access-controlled highways, 9,000 kms are economic corridors, 2,000 kms are coastal and port connectivity highways and 2,000 kms are border road/strategic highways. The ministry also intends to improve connectivity for 100 tourist destinations and construct bypasses for 45 towns/cities.
● In December 2020, the Ministry of Road Transport and Highways signed a memorandum of understanding (MoU) with the Federal Ministry of Climate Action, Environment, Energy, Mobility, Innovation and Technology of the Republic of Austria on technology cooperation in the road infrastructure sector.

● The highways sector in India has been at the forefront of performance and innovation. India has a well-developed framework for Public-Private-Partnerships (PPP) in the highway sector. Asian Development Bank ranked India at the first spot in PPP operational maturity and also designated India as a developed market for PPPs. Almost 40% (824) of the 1,824 PPP projects awarded in India until December 2019 were related to roads. The government has successfully rolled out over 60 projects worth over USD 10 bn based on the Hybrid Annuity Model (HAM). HAM has balanced risk appropriately between private and public partners and boosted PPP activity in the sector. Moreover, the increasing pace of highway construction, analysts believe, is the result of a slew of relief measures the government initiated in recent times like shifting from milestone-based billing (typically ranging between 45-75 days) to monthly billing and release of retention money, performance security in proportion to the work already executed which have helped in reducing cash conversion cycle favouring the contractors.

● As one of the biggest reforms, the NHAI has gone ‘Fully Digital’, with the launch of a unique cloud-based and artificial intelligence powered Big Data Analytics platform – Data Lake and Project Management Software. The entire project management workflow of NHAI is transformed from manual to online portal based, wherein the complete project execution operations including ‘workflow with timelines’ and ‘alert mechanism’ have been configured. All project documentation, contractual decisions and approvals are now being done through the portal, thereby reducing the time taken drastically.
Outlay for Roads under the respective Union Budget (USD Billion)

<table>
<thead>
<tr>
<th>Year</th>
<th>FY16</th>
<th>FY17</th>
<th>FY18</th>
<th>FY19</th>
<th>FY20</th>
<th>FY21</th>
<th>FY22</th>
</tr>
</thead>
<tbody>
<tr>
<td>Outlay</td>
<td>6,397</td>
<td>4,335</td>
<td>7,400</td>
<td>6,000</td>
<td>8,948</td>
<td>10,467</td>
<td></td>
</tr>
</tbody>
</table>

Projects Awarded by NHAI (in kilometers)

<table>
<thead>
<tr>
<th>Year</th>
<th>FY16</th>
<th>FY17</th>
<th>FY18</th>
<th>FY19</th>
<th>FY20</th>
<th>FY21</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kilometers</td>
<td>6,397</td>
<td>4,335</td>
<td>7,400</td>
<td>6,000</td>
<td>8,948</td>
<td>10,467</td>
</tr>
</tbody>
</table>
Pillars of Growth

Bharatmala Pariyojana
- 66,100Km.  By 2025

Setu Bharatam

Economic Corridors

5 Industrial Corridors
- Delhi Mumbai ~ 1483 km
- Amritsar Kolkata ~ 1839 km
- Bengaluru Mumbai ~ 1000 km
- Vizag Chennai ~ 800 km
- Chennai Bengaluru ~ 560 km

National Corridors
- 13,100 km  National Corridors by 2025

Pradhan Mantri Gram Sadak Yojana
- 1,25,000 kms  to be upgrade by 2024

Pillars of Growth
Expressways propelling the growth of Uttar Pradesh

Uttar Pradesh will become the first state in India to have an expressway stretching across its entire length. When all the expressways that government of Uttar Pradesh has envisaged are complete, almost every second district of the state will have an expressway passing through it. This will be critical in removing regional disparities and achieving balanced economic growth for the state. High quality road networks will be the key to bring prosperity to Uttar Pradesh, especially to the Eastern and Bundelkhand regions of the state. The wide network of expressways, criss-crossing important industrial hubs of the state, will not only improve connectivity but also lead to generating more revenue for industries by cutting short on the lead time for transportation of goods. For example, the Purvanchal expressway in eastern UP will boost the social and economic development of the covered areas as well as the income of agriculture, commerce, tourism and industries. An expressway in eastern UP will act as a catalyst for setting up of the handloom industry, food processing units, storage plant, mandi and milk-based industries.

Sectors/Clusters in Uttar Pradesh that will receive a major boost from the coming up of expressways are:

<table>
<thead>
<tr>
<th>Western Zone Districts</th>
<th>Key Sector</th>
<th>Western Zone Districts</th>
<th>Key Sector</th>
</tr>
</thead>
<tbody>
<tr>
<td>GB Nagar, Ghaziabad, Meerut, Saharanpur, and Aligarh</td>
<td>Food processing, electronics, and metals</td>
<td>Agra and Firozabad</td>
<td>Leather and metal products</td>
</tr>
<tr>
<td>Kanpur, Unnao, and Lucknow</td>
<td>Food processing and leather and its products</td>
<td>Sonibhadra, Allahabad, Varanasi, and Gorakhpur</td>
<td>Chemicals and basic metals</td>
</tr>
<tr>
<td>Amroha, Bijnor, and Moradabad</td>
<td>Chemicals and basic metals</td>
<td>Jhansi and Chitrakoot</td>
<td>Aerospace and defense</td>
</tr>
</tbody>
</table>
For a growing economy such as that of Uttar Pradesh with a large geographical spread, logistics planning and cost optimization through better transport infrastructure become critical to remain competitive in domestic and global markets. As Uttar Pradesh gallops towards becoming a Trillion Dollar economy, it is important to understand that infrastructure will play a critical role towards achieving this goal.

**Infrastructure sector received a huge boost in the annual state budget 2021 of Uttar Pradesh with thrust placed on developing metro networks, greenfield airports and expressways.** The state government’s total budget outlay for this FY year is INR 5.12 Tn (USD 71.11 Bn), which is INR 331.59 Bn (USD 4.61 Bn) higher than last year.

The state budget has provisioned INR 106.5 Bn (USD 1.48 Bn) for various expressways. While INR 34.5 Bn (USD 479.17 Mn) has been allocated for the three under-construction expressways in the state — INR 14.92 Bn (USD 207.22 Mn) for the 296-km long Bundelkhand Expressway, INR 11.07 Bn (USD 153.75 Mn) for the 340-km long Purvanchal Expressway and INR 8.7 Bn (USD 120.83 Mn) for the 91-km long Gorakhpur Link Expressway, the government has also allocated a whopping INR 72 Bn (USD 1 Bn) for the land acquisition of the 594-km long Ganga Expressway project and INR 4.89 Bn (USD 67.92 Mn) for its construction work.

This continued spending on infrastructure is most likely to contribute 50% of growth at 2.5 economic multiplier where additional capital expenditure of approx. INR 30-32 Tn (USD 417-444 Bn) will be required over next five years. Other feasible ways to strategize investments for infrastructure could revolve around increasing state’s annual infrastructure budget, focusing on expanding central infrastructure spending in UP (Railways, National Highways, Industrial Corridors) and opening up feasible sectors to private investments through most investible PPP models.
While expressways help in improving connectivity, the advantages brought in by an extensive expressway network is not just limited to it. A well laid out network reduces time significantly between two points, thus helping in faster commutes and savings in both time and fuel. There is greater safety, comfort and convenience for drivers and passengers, and lower vehicle operating costs. Faster movement of goods and services ensures that businesses are growing at a rapid pace. A lot of new industries also start coming up seeing the wide economic opportunities available while the existing ones experience a rise in their revenues. Thus, expressways significantly help in boosting the socio-economic development of the region as an industrial corridor.

Having an extensive expressway network helps in integration of the economy and a more integrated economy is what every nation wishes to achieve. Uttar Pradesh has already started laying seeds for India. Both the existing and upcoming expressways in Uttar Pradesh are being built to aid the development of the state. These networks will help the state in major ways and promote the idea of sustainability at the same time.

Vehicular Emissions and Air Quality

1. Among the various pollution sources, air pollutants emanated from traffic related activities have the most profound impact on the environment and human health.
2. Like many other parts of the world, air pollution from motor vehicles is one of the most serious and rapidly growing problems in urban centres of India.
3. The transport sector is a major contributor to air pollution in India.
4. Sustained economic growth, improved road infrastructure and increased disposable income of households have led to the rising demand for road transport.
5. In India, the number of vehicles increased from 0.3 million in March, 1951 to 295 80 million up to 31st March, 2019
6. About half the vehicles are concentrated in 39 metropolitan cities (cities with population of over one million).
**Road Network & Vehicular pollution**

1. India has the second largest road network in the world spanning a total of 58.90 lac kms
2. Road network is vital for sustained and inclusive growth of the economy and consolidation of social diversification of the nation. Road Network transports 64.50% of all goods in the country and 90% of India’s passenger traffic.
3. Various studies have found the presence of ultra fine particles at roadside.
4. Major Reasons for increasing vehicular pollution problems in urban India are as below:-
   - High vehicle density in Indian urban centres
   - Older vehicles predominant in vehicle vintage
   - Improper traffic management system road conditions
   - Absence of effective mass rapid transport system intra city railway networks

**Expressways & Pollution Reduction a Collaborative Approach**

- For improving Economy, faster mobility is an absolute must.
- Remotest corners of the state are sought to be provided with Expressway facility in order to provide them faster mobility and to bring them in the commercial Loop.
- Tourism gets a boost with good quality roads and reduced Origin Destination time.
- Much of the vehicular air pollution can be avoided providing smooth, obstruction free roads where frequent braking of vehicles and gear changing is not required.
- Vehicles travelling on uneven roads at slow speeds, standing on the road crossing or in traffic jams cause more pollution.
- Over 75% of road transport particulate emissions come from tyre and brake wear, not exhausts
Vehicular Pollution Control Initiatives in India can broadly be categorized into Technical Non Technical Measures

The Technical Instruments for controlling vehicular Pollution include:-

• Implementation of stringent emission norms for both new in use vehicles, improvement in vehicular technology, improvement in the quality of fuels, switching over to cleaner vehicles as well as fuels, etc

• Better traffic management system, augmentation in public transport system etc.

• All Expressways built/Under Construction/ Proposed to be built in Uttar Pradesh with Toll Plazas across the Main Carriageway only at the beginning of Expressway and at End Point of Expressway so there are no mandatory stops in between.

• For Intermediate destinations, Ramp Plazas on entry exit ramps have been planned.

• This avoids any concentration of vehicles on Expressways reducing pollution due to standing vehicles.

Some of the major steps taken by the Union

Government to check vehicular pollution include:-

• India will leap frog from BS IV norms to BS VI and Notification for implementation of BSVI emission norms for all categories of new vehicles from 01 April, 2020 has been issued.

• Fuel efficiency norms for passenger cars have been notified on 23 April, 2015.

• Promotion of electric/hybrid vehicles through National Electric Mobility Mission Plan 2020 and Faster Adoption and Manufacturing of (Hybrid Electric Vehicles.

• Introduction of cleaner alternate fuels such as LPG, CNG, Bio Diesel Blends, Battery Operated, Hydrogen and Solar Operated vehicles.
Mitigating Measure by UPEIDA

- UPEIDA is ensuring that a dedicated corridor of Forest by way of focussed plantation approximately 40 m Wide is developed along the Expressway, i.e. about 1200 Hectares of Natural Forest in a 300 Km long Expressway.
- About 4 00 lacs trees have been developed along Agra Lucknow Expressway.
- Similarly, about 4 50 Lacs plants are being developed along Purvanchal Expressway.
- A dedicated team of Forest Officials has been pressed into service by UPEIDA for maintaining the plantation along Expressways.
- A fully grown tree absorbs approximately 21 Kg of Carbon Dioxide every Year.
- Thus, the forest strip developed by UPEIDA shall be absorbing approximately 8400 Tonnes of Carbon Dioxide per annum along its Agra Lucknow Expressway and an equivalent amount along Purvanchal Expressway in coming years.

Mitigating Measure by UPEIDA

- CNG Stations are being set up along the Expressways along with regular Fuel Stations.
- Electric Charging points are also proposed to be set up along the Expressways in near future to encourage Electric Vehicles.
- As the proportion of Clean Green Fuel increases, the Vehicular Emission’s ill effects on environment is expected to decrease.
Talking about sustainability,

India ranks 3rd (7% global share) in the list of carbon emitting nations. India has also promised to cut its emissions to net zero by 2070 at the COP26 Summit. These targets cannot be achieved overnight and without taking crucial measures. The expansion of expressways is a step forward to achieving this goal. Our expressways will go a long way in reducing carbon emissions to a significant extent and help us become a net zero economy.
Prime Minister Shri Narendra Modi inaugurated Purvanchal Expressway on 16 November 2021. The inauguration entailed an Airshow on the 3.2 km long airstrip constructed on the Expressway in Sultanpur district. The Prime Minister said, “this expressway will lead to a better future at a faster pace, this expressway is for Uttar Pradesh’s development, this expressway is for the building a new Uttar Pradesh, this expressway is a reflection of modern facilities in Uttar Pradesh, this expressway is a proof of accomplishment of resolutions in UP and this is the pride and wonder of UP.”
Agra-Lucknow Access Controlled Expressway Project (Greenfield)

Total length
302.222 km

Form of expressway
6 Lane (expandable to 08 lanes) access controlled (greenfield) expressway with 08-lane wide structures for future expansion of the expressway to 08 lanes

Starting and ending point
The expressway starts at Agra inner ring road, passes through Firozabad, Mainpuri, Etawah, Auraiya, Kannauj, Kanpur Nagar, Hardoi, Unnao distt. and ends on SH-40 in Lucknow.

Benefits
It has facilitated a high-speed corridor, connecting state capital Lucknow to Agra in western Uttar Pradesh and further to the National Capital, New Delhi through Yamuna Expressway. The travel time between Agra and Lucknow has reduced considerably to 03 hrs and further to New Delhi via Yamuna Expressway to 5 ½ hrs. The reduction in travel time has resulted in substantial saving in the consumption of fuel and a reduction in carbon footprint.

Total cost
INR 115.27 Bn
(USD 1.6 Bn)
(excluding cost of land)

Status
100% completed
## Yamuna Expressway

<table>
<thead>
<tr>
<th>Total length</th>
<th>165.537 km</th>
</tr>
</thead>
<tbody>
<tr>
<td>Form of expressway</td>
<td>6-lane (extendable to 8 lane) access-controlled expressway</td>
</tr>
<tr>
<td>Starting and ending point</td>
<td>The expressway connects Pari Chowk in Greater Noida with Kuberpur on NH-2 in Agra</td>
</tr>
</tbody>
</table>

### Benefits

1. The Expressway cuts in half the travel time from New Delhi to Agra.
2. The Yamuna Expressway Project is conceived with the idea to not only reduce the travel time between New Delhi and Agra but also to open up avenue for Industrial and Urban development of the region and provide the base for convergence to tourism and other allied industries.
3. The Yamuna Expressway corridor has huge impact on the economic and industrial growth of not only Uttar Pradesh but also the adjoining states of Rajasthan, Madhya Pradesh and Haryana.
4. Relieves NH-2 which is already congested and runs through the heart of cities like Faridabad, Ballabgarh and Palwal.

### Status

100% completed
Purvanchal Expressway Project

The Purvanchal Expressway will “act as the backbone of Eastern Uttar Pradesh” and open up some of the most backward areas and link the eastern part of Uttar Pradesh, right from the Ghazipur [Uttar Pradesh-Bihar] border, through the Agra Expressway and the Yamuna Expressway, to the National Capital [on the western border of Uttar Pradesh].

On the northern side of the expressway is Gorakhpur, on the southern side is Prayagraj, and it passes through districts like Barabanki, Amethi, Sultanpur, Ayodhya, Ambedkar Nagar, Azamgarh, Mau and Ghazipur, where connectivity is needed. Reaching Azamgarh from Lucknow took at least four to five hours earlier and with this expressway now the travel time will now be reduced to half.

Despite the blockade caused by the Covid-19 pandemic, the government ensured that the construction of the expressway by the builders of all the packages move at the pre-pandemic progress rate. Till mid-June, the work of clearing and grubbing is 100% completed, earth work 99.89% completed, subgrade work 99.28% completed, granular subbase (GSB) work 99% completed, Waste Mix McAdam (WMM) work 98.53% completed, Dense Bituminous McAdam (DBM) work 98% completed, Bituminous Concrete (BC) work 76% completed and structures work is 99% completed.
The minimum tender in building this world class expressway project has come down by about 5.19% from the estimated cost, which has given a profit of about INR 6.14 Bn (USD 85.28 Mn) to UPEIDA, the body managing the expressway work. Airstrip is being developed on the expressway in Sultanpur district for the Air Force for emergency purposes. Important to note that close to 9,000 people have directly and indirectly got employment in the construction work of this expressway.

**Total length**
340.824 km

**Form of expressway**
Fully access-controlled
06 lane expressway

**Districts benefitted**
Lucknow, Barabanki, Amethi, Sultanpur, Ayodhya, Ambedkar Nagar, Azamgarh, Mau, Ghazipur

**Starting and ending point**
The expressway starts at Village Chand Sarai, located at Lucknow–Sultanpur Road (NH-731), district Lucknow and ends near village Haidaria on National Highway No. 19, before 18 km of UP-Bihar border, in district Ghazipur.
Benefits

1. With the Construction of Purvanchal Expressway, an accelerated convenient mode of transportation shall be available between the Eastern boundary of the State and the National Capital via State capital through other similar Expressways in the State viz. ‘Agra to Lucknow Expressway’ and ‘Yamuna Expressway’.
2. Being an Access Controlled Expressway, benefits like fuel-saving, time-saving, control in pollution levels and reduction in total accidents will be achieved.
3. The project will boost the social and economic development of the covered areas. Sectors like agriculture, commerce and tourism will benefit. Industrial development will also get a fillip.
4. It will be helpful as an industrial corridor to connect the various production units, development centres and agricultural production areas located in the areas covered by the expressway with the state capital and national capital.
5. Opportunities will also be available for the establishment of Industrial Training Institute, Educational and Training Institute, Medical Institute, etc. near the expressway.
6. The Expressway will act as a catalyst for the setting up of Handloom Industry, Food Processing Units, Storage Plant, Mandi and Milk-based industries.

Total cost
INR 224.97 Bn
(USD 3.12 Bn)
(including land cost)

Status
100% completed
IMC Locations – Purvanchal Expressway Industrial Corridor
Purvanchal Expressway
Industrial Corridor – Industry types

- Electrical, Electronics & allied industries
- Building materials & allied industries
- Automobile & Heavy Engineering
- Medical supplies & instruments
- Nutraceuticals
- Textile & Apparel
- Agro & Food Processing
- Logistics warehouse & packaging
As part of the “Chief Minister’s vision for the Bundelkhand region”, this expressway was conceptualised to connect the state right from the border of Madhya Pradesh, passing through Chitrakoot, Banda, Mahoba, Hamirpur, Jalaun, Auraiya and Etawah and linking the region to Delhi. This four-lane divided carriageway is expandable to six lanes.

The expressway will “form the basic infrastructure for districts in the Bundelkhand region” and will prove critical for the success of the UP Defence Corridor as some of its proposed nodes, like Jhansi and Chitrakoot, lie in the Bundelkhand region. The expressway will join the Lucknow-Agra Expressway in Etawah, linking the semi-arid and drought-prone region to the National Capital Region through the Lucknow-Agra and Yamuna expressways.

Through meticulous, transparent and efficient e-tendering process, the minimum tender has come down by about 12.72 % from the estimated cost, which has given a profit of about INR 11.32 Bn (USD 157.22 Mn) to the state government.
Total length

296.264 km

Form of expressway

Fully access-controlled 04 lane (expandable up to 06 lanes) expressway and 06-lane structures

Starting and ending point

The expressway starts at Village-Gonda (District Chitrakoot), Jhasi-Allahabad (NH-35/76) near Bharatkoop and ends at the Agra Lucknow Expressway, near village Kudrail of Takha tahsil of Etawah district.
5. Opportunities will also be available for the establishment of Industrial Training Institutes, Teaching and Training Institutes and Medical Institutes, etc. near the expressway.
6. The Expressway will act as a catalyst for the establishment of handloom industry, food processing units, storage plants, mandi, and milk-based industries.

**Districts benefitted**
Chitrakoot, Banda, Mahoba, Hamirpur, Jalaun, Auraiya, and Etawah

**Total cost**
Rs 147.1 Bn  
(USD 2.04 Bn)  
(including land cost)

**Status**
80% completed
UPEIDA constructs one side of 840m bridge in record 18 months

Lucknow: The UP Expressways Industrial Development Authority (UPEIDA) claimed to have completed the construction of one side of the 840-mt-long bridge over Yamuna river in Jalaun district in record 18 months.

The bridge is a part of the 296-km Bundelkhand Expressway and UPEIDA CEO Awanish Awasthi said around 72% physical work of the project is complete. “The construction of a long bridge on Betwa falling on the expressway is also being put on the fast track. The work of bituminous level has been completed on a total length of 217 km which means that work on that stretch is over. Till now, 100% clearing and grubbing work and 96% earth work on Bundelkhand Expressway have been completed by UPEIDA.”
IMC Locations – Bundelkhand Expressway Industrial Corridor
Bundelkhand Expressway Industrial Corridor – Industry types

- Agro & Food Processing
- Textile & Apparel
- Building materials & allied industries
- Logistics warehouse & packaging
Gorakhpur Link Expressway Project

To connect Gorakhpur, the seat of the Gorakhnath Peeth which Chief Minister Yogi Adityanath continues to head as mahant, with the Purvanchal Expressway, a 92-km-long link expressway is being built. Originating in Gorakhpur, the Gorakhpur Link expressway is a four-lane (expandable to 6 lane) expressway stretching 91.3 km, will be linking four districts of eastern UP - Gorakhpur, Azamgarh, Ambedkarnagar, Sant Kabir Nagar to the Purvanchal Expressway. This total controlled access expressway will be covered in 5 hours of travel time.

Total length
91.352 km

Form of expressway
Fully access-controlled
04 lane expressway

Starting and ending point
The expressway starts near Jaitpur (District-Gorakhpur) NH-27 and ends near Salarpur (District Azamgarh) at Purvanchal expressway.
Benefits

1. The construction of the expressway will pave the way for all-round development of the entire state.
2. By controlling the entry of expressways, significant savings in fuel consumption and pollution control will also be possible.
3. The project will boost the social and economic development of the covered areas as well as the income of agriculture, commerce, tourism and industries.
4. It will be helpful as an industrial corridor to connect the various production units, development centres and agricultural production areas located in the areas covered by the expressway with the state capital and national capital.
5. Opportunities will also be available for the establishment of Industrial Training Institute, Educational and Training Institute, Medical Institute, etc. near the expressway.
6. Expressway will act as a catalyst for setting up of Handloom Industry, Food Processing Units, Storage Plant, Mandi and Milk-based industries.
Districts benefitted
Gorakhpur, Sant Kabir Nagar, Ambedkar Nagar, Azamgarh

Total cost
INR 58.77 Bn (USD 816.25 Mn) (including land cost)

Status
30% completed
Ganga Expressway

Proposed to be India’s second longest state expressway of India, the Ganga Expressway will pass through the districts of Meerut, Hapur, Bulandshahr, Amroha, Sambhal, Badaun, Shahjahanpur, Hardoi, Unnao, Rai Bareli, Pratapgarh and Prayagraj. It will be 6 lane expressway expandable to 8 lanes. The width of the Right-of-Way (ROW) of the expressway is proposed to be 120 metres on one side of the expressway. The land acquisition work of Ganga Expressway is going on a war footing. Almost 64% of the total 7,800 hectare needed for this expressway is being acquired.

Earlier, the Ganga Expressway was conceptualised on the banks of the Ganga but keeping in mind the eco sensitive zone, it was decided that the road will be constructed at a safe distance from the riverbank closer to district headquarters to improve connectivity.

The construction of the Ganga Expressway will cost around INR 400 Bn (USD 5.56 Bn), for which government is open to all models of funding such as international funding, national-level funding through PPP, it could also have EPC mode of funding. It is a project which requires a large investment. The banks till now have already proposed about INR 150 Bn (USD 2.08 Bn) for the project.

Total length
594 km approx.

Form of expressway
Fully access-controlled 06 lane (expandable up to 08 lanes) expressway; all the structures to be constructed of 08 lane width

Starting and ending point
The expressway is proposed to start on the Meerut-Bulandshahr Road (NH-334) near Bijauli village of Meerut district and end near Prayagraj Bypass (NH-19) near Judapur Dando village of Prayagraj district.

Benefits
1. Ganga Expressway project is the second-largest expressway project in the country that would cover 12 districts and provide smooth connectivity with the state capital, Poorvanchal Expressway, Agra-Lucknow-Yamuna expressway. The project would lead to the creation of about 20,000 jobs.
2. By controlling the entry of expressways, significant savings in fuel consumption and pollution control will also be possible.
3. The project will boost the social and economic development of the covered areas as well as the income of agriculture, commerce, tourism and industries.
4. It will be helpful as an industrial corridor to connect the various production units, development centres and agricultural production areas located in the areas covered by the expressway with the state capital and national capital.
5. Opportunities will also be available for the establishment of Industrial Training Institute, Educational and Training Institute, Medical Institute, etc. near the expressway.
6. Expressway will act as a catalyst for setting up of Handloom Industry, Food Processing Units, Storage Plant, Mandi and Milk-based industries.

**Districts benefitted**
Meerut, Hapur, Bulandshahar, Amroha, Sambhal, Badaun, Shahjahanpur, Hardoi, Unnao, Rai Bareli, Pratapgarh, and Prayagraj (number of villages covered: 529)

**Total cost**
INR 362.3 Bn (USD 5.03 Bn)
94% land purchased/acquired

**Status**
Approved
Way forward

Some of the issues that were impeding economic growth and preventing Uttar Pradesh from entering the league of India’s developed and industrialised states were the lack of roads, energy deficit, a weak policy framework, and the absence of a conducive investment climate. However, in recent years this has changed. Uttar Pradesh, today, is leading the charts at several places owing to improvements in road network connectivity. It has developed multiple expressways and several expressways are under construction. These expressways will prove to be milestones in the state’s infrastructure and help in speeding up economic growth alongside boosting growth in the agriculture, industry, commerce, and tourism sectors.

The expressways can serve as an industrial corridor, allowing the products of manufacturing units, development centres and agriculture to be transported seamlessly to the state capital and the national capital. In addition, they can act as a catalyst for setting up of handloom units, food processing units, storage plants, mandis and milk-based industries in nearby areas thus ensuring growth. Transportation of goods from the eastern parts of the state, with a predominantly agrarian economy, to larger markets is not only a time-taking and expensive affair at present but also results in large-scale wastage, especially of agri products like vegetables which have a shorter shelf life. These expressways will help fast pace economic development which the state had long desired.

In the last few years, the administration has performed proactively to create a favourable environment for investment and many effective steps have also been taken in this regard. This trend is only to continue from here as capital expenditure by the state on their roads is expected to witness consistent and robust growth over the coming years. Uttar Pradesh is not far from reaching its goals if it continues to progress in the same direction and become the next hub of India’s connectivity.
The Arteries of Growth: Expressways of Uttar Pradesh

INVEST INDIA. GOV.IN

World’s most awarded IPA

Invest-India

InvestIndia

InvestIndiaIPA