



POWERING NEW INDIA

CIVIL AVIATION

Giving Wings to Connected UP.





**CIVIL
AVIATION**
in
UP



GLOBAL SCENARIO

- Globally, the civil aviation market had 37.96 Lakh passengers in 2016, with an average annual increase of 5.6% over 2001-2016.
- The freight traffic has grown to 5.26 Cr ton in 2016, with the average annual increase of 1.8% over the past five years.
- The largest international and domestic traffic passenger kilometers has been the highest in Asia and Pacific (32.9%) followed by Europe (26.5%), North America (23.8%), Middle East (9.5%), Latin America and Caribbean (5.2%) and Africa (2.1%).
- The industry supported the livelihood of 6.3 Cr people and contributed INR 1,75,50,000 Cr to global GDP in 2015
- In 2015, the aviation sector had a workforce of nearly 10 million people managing a fleet of 26,000 aircraft averaging 1,00,000 flights a day over a global network of 51,000 routes.
- The fall in the oil price has been the major driver of improved profitability of airlines. This is further reinforced by increased ancillary revenues and improved aircraft utilization.

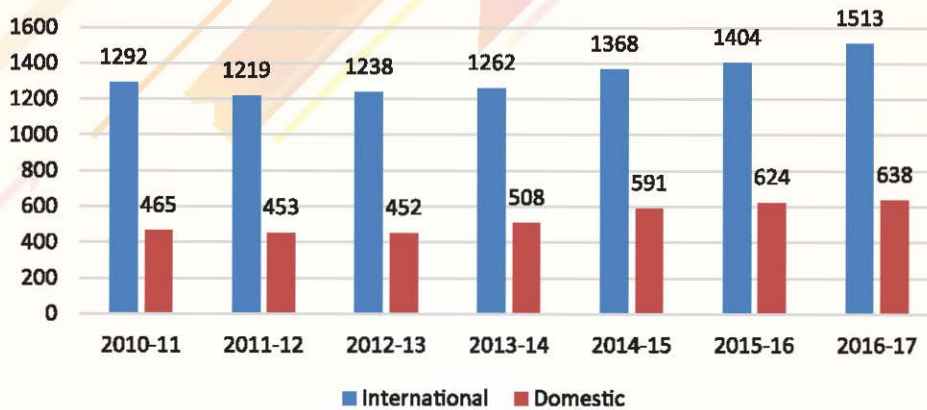


INDIA SCENARIO

- India is the 9th largest civil aviation market in the world and is projected to be the 3rd largest by 2020.
- Scheduled Indian operators had a fleet of 448 aircrafts in 2016. It is expected the Indian carriers will increase their fleet size to about 800 aircrafts by 2020.
- Indian scheduled airlines carried more than 10 Cr domestic passengers during FY 17 against 6.1 Cr in FY 14, recording growth of ~19%.
- Scheduled domestic flight movements during FY 16 was 7 Lakh which improved to 8.1 Lakh in FY 17.
- Cargo traffic registered 10% CAGR growth in 2014-17. It reached to 21.51 Lakh MT from 17.7 Lakh MT in FY 14.
- Liberal FDI policy, attractive incentives, reduced regulatory burdens and improved ease of doing business are complementing the huge market potential.

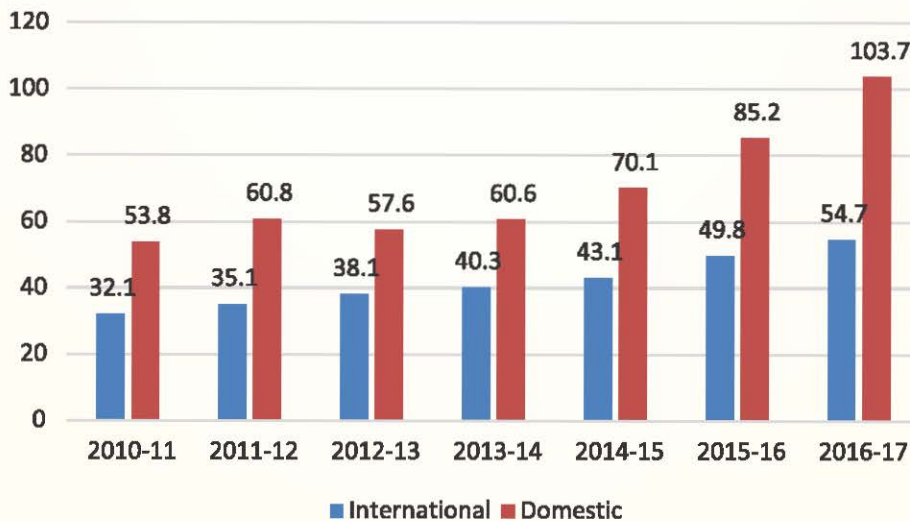


Air Passenger Traffic in India (in millions)



Source : Handbook on Civil Aviation Statistics, 2016-17

Freight Traffic carried by scheduled carriers (in thousand metric ton)



Source : Handbook on Civil Aviation Statistics, 2016-17



CIVIL AVIATION IN UTTAR PRADESH

- The passenger air traffic in Uttar Pradesh grew by 30% to 6.1 million passengers in the year 2016-17 on year over year basis and air cargo traffic was 5.89 MMT (million metric tonnes) during 2016-17.
- Uttar Pradesh is one of the least penetrated air markets with 0.031 per capita air trips as compared to Indian national average of 0.04 trips per capita per annum, 0.3 in China and more than 2 in the USA. This reflects the immense untapped potential in air transport sector in the state.
- Category-III B Instrument Landing System (ILS) – an advanced navigation and landing equipment aiding aircrafts to land under dense foggy conditions, reducing delays, cancellations and rerouting commissioned at Lucknow airport assuring airlines all weather access to airport. Jaipur and Delhi are the only other Category-III B compliant airports in India.
- Common User Domestic Cargo Terminal (CUDCT) operationalised at Lucknow airport.
- Low business cost and quality trainable manpower availability skilled at top institutions like Rajiv Gandhi National Aviation University - India's first aviation university at Amethi, Aeronautical Training Institute (ATI), Lucknow etc.
- Focus sector status, attractive incentives, sector specific policy and improved ease of doing business in the state complementing the huge civil aviation market of the state.

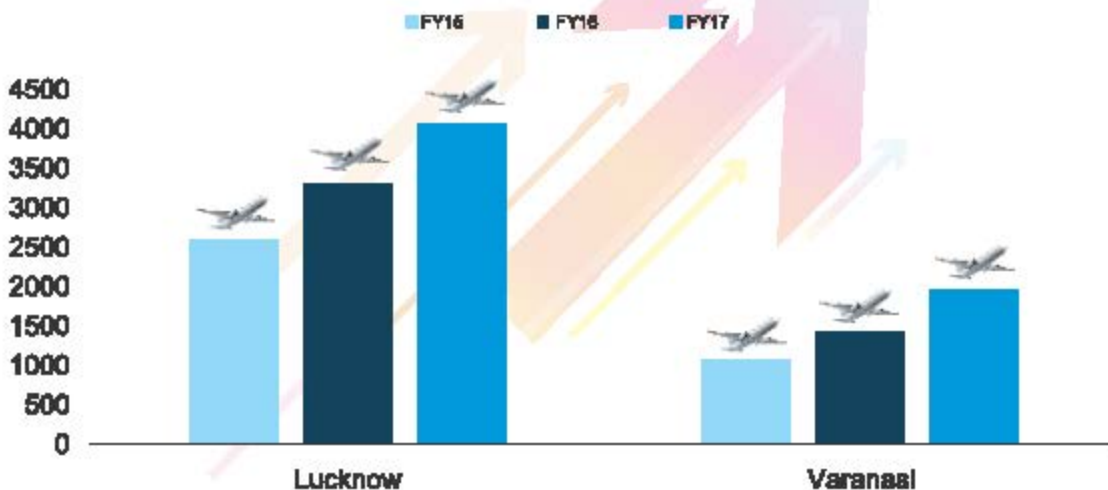
Key Investment & Growth Enablers

Infrastructure

- Lucknow, Varanasi, Allahabad, Gorakhpur, Agra and Kanpur airports in Uttar Pradesh are providing intra-state and inter-state air connectivity. Lucknow airport serving 65% of the passenger air traffic demand followed by Varanasi 32%, Allahabad 2.4% in 2016-17.

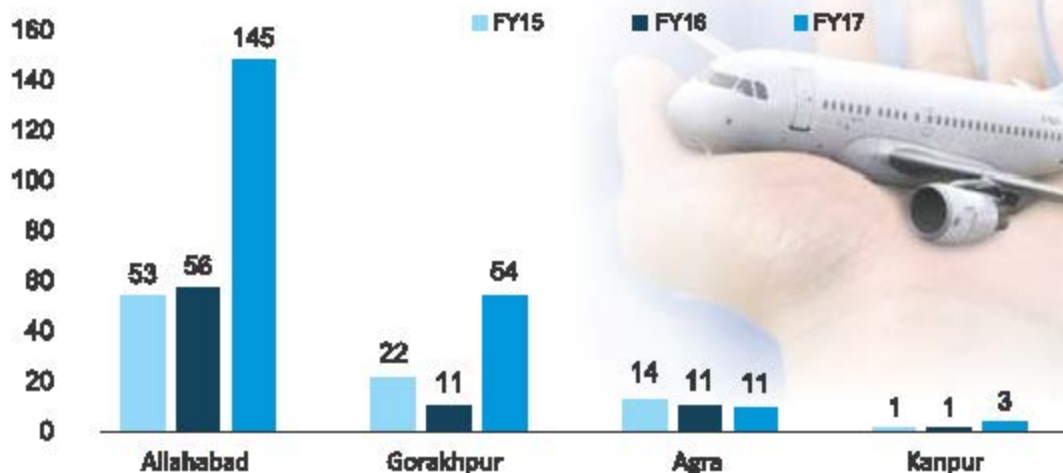


Air Passenger Traffic at Major Airports in UP (In Thousands)



Source : AAI, Civil Aviation Dept, GoUP

Air Passenger Traffic at other Airports in UP (In Thousands)



Source: Civil Aviation Dept, GoUP

Following is an indicative list of 29 unserved airports/airstrips in Uttar Pradesh

Unserved airports/airstrips in UP					
330	Akbarpur	340	Jagatpur	350	Mulrpur(Korba)
331	Aligarh	341	Jhansi	351	Phaphamau
332	BekahiKaTalab	342	Jhingura	352	Parthiganj
333	Bareilly	343	Kanpur(Chakeri)	353	Rajwari
334	Etawah	344	Kanpur(Civil)	354	Saharanpur(Sarsawa)
335	Fatehabad	345	Kanpur(Kalyanpur)	355	Sah-baj-quli
336	Fursatganj (IGRUA)	346	Kasla	356	Sardarnagar
337	Ghazipur	347	Lalitpur	357	Shravasti
338	Hindan	348	Madhosingh	358	Sultanpur(Amhal)
339	Iradatganj	349	Meerut		

(as per Annexure 18 of Regional Connectivity Scheme(RCS))

AIRPORTS

List of operational/well connected airports in Uttar Pradesh	Under process to become operational soon
<ol style="list-style-type: none">1. Lucknow2. Agra3. Varanasi4. Kanpur5. Allahabad6. Gorakhpur	<ol style="list-style-type: none">1. Aligarh2. Azamgarh3. Bareilly4. Chitrakoot5. Jhansi6. Moradabad7. Myrupur (Sonbhadra)8. Shravasti

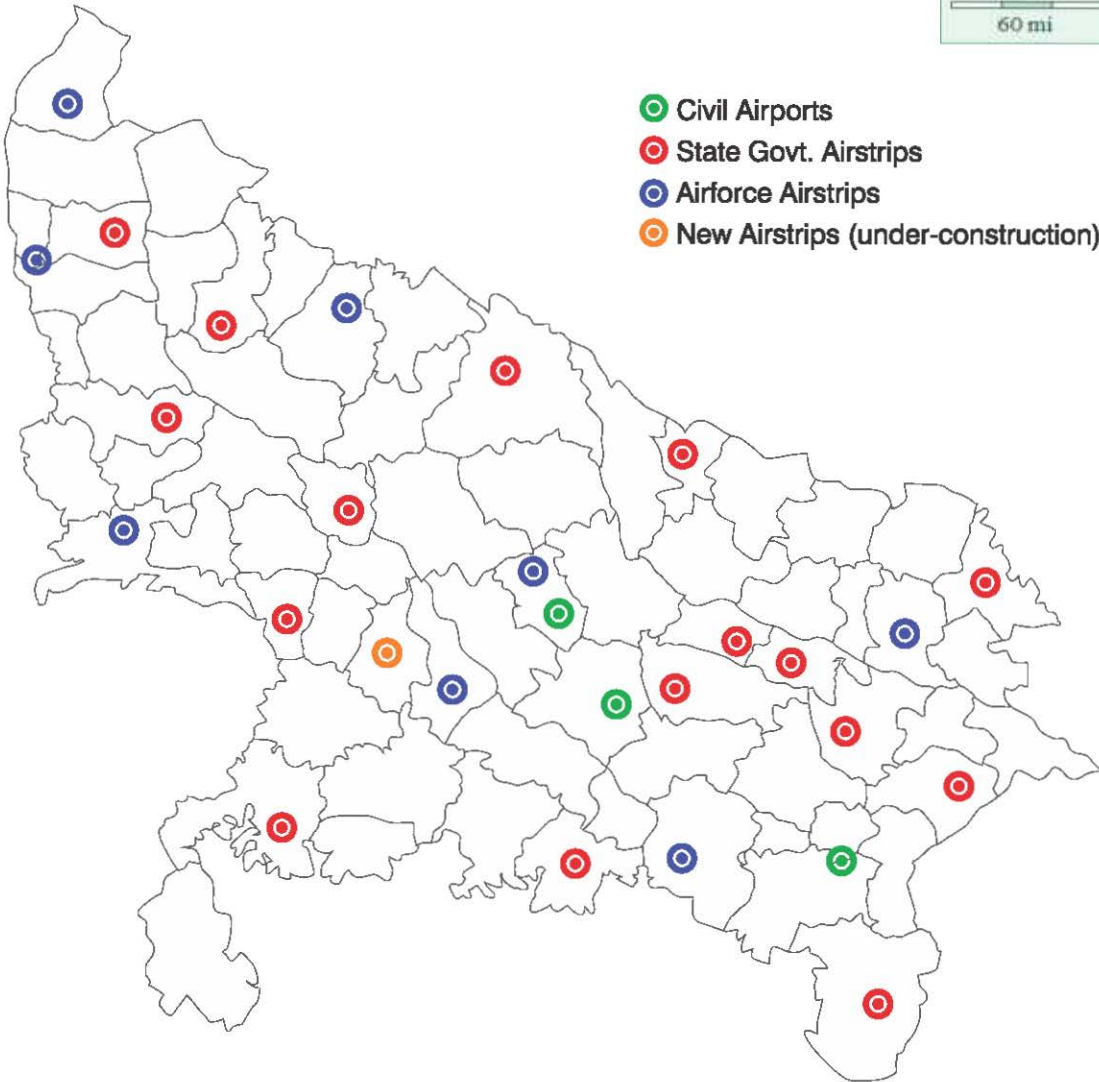
NEW ROUTES

Regional Connectivity Scheme-1	Regional Connectivity Scheme-2
<ol style="list-style-type: none">1. Agra-Jaipur2. Kanpur-Delhi3. Lucknow -Gwalior4. Delhi-Kanpur-Varanasi5. Agra-Delhi	<ol style="list-style-type: none">1. Azamgarh- Lucknow2. Bareilly-Delhi3. Bareilly - Lucknow4. Chitrakoot- Lucknow5. Jhansi-Lucknow6. Moradabad-Lucknow7. Myrupur-Lucknow8. Shravasti-Lucknow9. Allahabad-Lucknow10. Allahabad-Bangalore11. Allahabad-Bhopal12. Allahabad-Bhubaneshwar13. Allahabad-Mumbai14. Allahabad-Dehradun15. Allahabad-Gorakhpur16. Allahabad- Indore17. Allahabad-Kolkata18. Allahabad-Nagpur19. Allahabad-Patna20. Allahabad-Pune21. Allahabad-Raipur



- State Government is exploring possibility to upgrade 10 airstrips to no-frills airports in 10 divisions initially, i.e. Meerut, Moradabad, Faizabad, Saharanpur, Jhansi, Chitrakoot, Azamgarh, Aligarh, Sonbhadra (Mirzapur) and Shravasti (Gonda/Deviptan).
- Uttar Pradesh is a top tourist destination with around 212 million domestic travellers (2nd highest in India) and 3 million foreign travellers (3rd highest in India) visiting the state in 2016.
- Out of the top tourist destinations in Uttar Pradesh only Agra, Varanasi/Samath, Kushinagar, Allahabad, Lucknow, Ayodhya/Faizabad, Jhansi, Chitrakoot, Dudhwa (Palla airstrip) have functional airport/airstrips Nainisharanya, Chandra Prabha etc.
- The Government is considering development of helipads/heliports to connect the tourist destinations like Vrindavan, Mathura, Nainisharanya, Chandra Prabha, Mahoba, Chunar, Deogarh.
- RCS flights can be successfully connected with other parts of the country through airports/airstrips at Kushinagar, Kanpur, Hindan (Ghaziabad) and Palla (Kheri- near Dudhwa National Park).

AVIATION MAP OF UTTAR PRADESH



Source: Civil Aviation Department, GoUP
* Indicative map. Not to scale



HUMAN RESOURCE

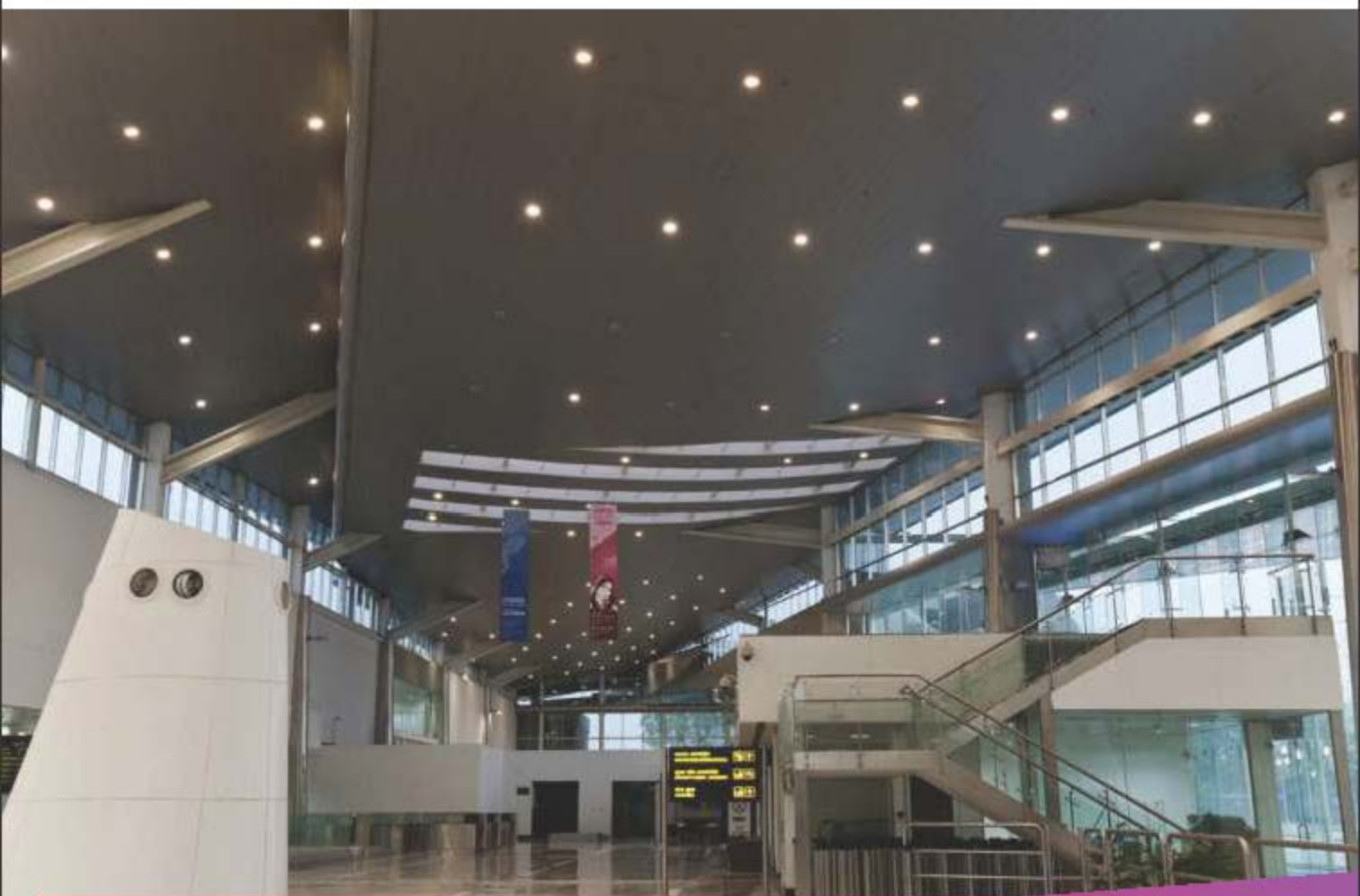
- With a total population of more than 200 Million, Uttar Pradesh boasts of a labour force of over 70 Million of which over 40 Million are non-agricultural labour force.
- Commercial pilot license (CPL) courses approved by Directorate of Civil Aviation conducted at Indra Gandhi Rashtriya Uran Academy (IGRUA), Amethi and six private flying training academies, viz. 3 at Aligarh, 1 each at Faizabad, Sultanpur and Kanpur.
- Every year 40 cadets are trained at IGRUA, which is expected to rise to 110 cadets per year after an MoU is signed with Canadian Aviation Electronics (CAE) Inc. The university has also recently started the 1st Executive Aviation Course in the country.
- Diploma courses for Aircraft Maintenance Engineering (AME) in airframe & engine, avionics, helicopter operations and power plant at Aeronautical Training Institute (ATI), Lucknow of the State Government. The ATI, Lucknow has an annual intake of 90 students per year.
- Human resource support under Civil Aviation Policy 2017 of Uttar Pradesh:
 - State Government to promote aviation related courses in premier institutes/universities in Uttar Pradesh e.g. IITs, NITs and universities at Lucknow, Allahabad, Aligarh, Agra, BHU, Rohilkhand, Meerut etc. to generate skilled workforce and professionals for civil aviation sector.
 - State government to facilitate the training of aviation professionals by:
 - (a) Extending the scholarship scheme available for diploma and graduate courses, to the courses related to AME, cabin crew and other civil aviation professionals.
 - (b) A special cell is proposed at directorate level to engage with airlines to support placement services to graduating and aspiring civil aviation professionals of Uttar Pradesh.





ECOSYSTEM SUPPORT

- In order to boost passenger traffic, under the Civil Aviation Policy 2017, the Government has proposed to expand the air travel through Leave Travel Concession (LTC) to certain categories of officers and employees on RCS flights for all official purposes.
- Publicity support for RCS routes will be provided by State Government through Information and tourism department
- Dedicated to and fro bus service from airport will be provided by Uttar Pradesh State Transport Corporation.
- Road connectivity of all RCS airports will be ensured and maintained by state Public Works Department on priority.
- To promote medical tourism in Uttar Pradesh the Department of Tourism and Department of Medical Health of the State Government will facilitate airlines to collaborate with reputed medical Institutions and hospitals.



CIVIL AVIATION POLICY 2017 OF UTTAR PRADESH

FISCAL INCENTIVES

Summary of Incentives and concessions for RCS airports/routes under Civil Aviation Policy 2017, Uttar Pradesh.

S.No	Description of Incentive/Concession	Incentives/Concessions for Regional Connectivity Scheme (RCS) Routes/Airports
Mandatory Support by State Government under RCS and MoU		
1	VAT on ATF	Zero for 10 years
2	Viability Gap Funding (for 50% of total seats)	20% State share as per RCS
3	Security arrangements at RCS Airports (Mandatory support by State Government under RCS)	Will be provided by the State Government
4	Fire Services	Will be made available by the State Government free of cost
5	Electricity	Will be made available by the State Government at concessional rate (Rate of subsidy will be INR 4/unit up to 30,000 units per month)
6	Water	Will be made available by the State Government free of cost
7	Provision of ATF fuelling facilities at RCS airports	The State Government will facilitate and provide necessary land at zero rental to Oil Marketing Companies to develop ATF fuelling facilities at RCS Airports owned by the State Government
8	Road Connectivity	Road connectivity for all RCS airports will be ensured and maintained by the PWD Department of GoUP from its own resources.
9	Bus service to the nearby main city	Bus service to all RCS airports will be ensured and maintained by UPSRTC.
10	Ambulance and medical facilities	Will be made available by the Medical and Health Department of the State Government

Source : <http://grua.gov.in/RTI/Manual2.pdf>

Additional support by state government

11	Underwriting of Non VGF seats (from remaining 50% of total seats) @INR 2500/- underwritten seat	100% for category-1 Aircraft connecting Lucknow with Divisional Headquarters (initially for 3 years) 30%-for other categories of Aircraft or on other routes (initially for 3 years)
12	Reimbursement of S-GST on sale of air tickets on RCS flights as applicable	100% reimbursement initially for 3 years
13	Airport Parking/Night Halts at RCS Airports	Zero Charges (initially for years) at Airports/ Airstrips owned by the State Government
14	Space at No-Frills Airports for office of airlines up to 100 sq.mt. and aircraft maintenance engaged in RCS in Uttar Pradesh	Zero Rental (initially for 3 years) at Airports/ Airstrips owned by the State Government
15	Route Navigation and Facilitation Charges (RNFC)	50% of RNFC (up to Rs 2000) will be reimbursed on RCS Airports or flights connecting Divisional Headquarters (initially for 3 years)

KEY PROJECTS IN PIPELINE

Jewar Airport

One of the most ambitious greenfield international airport of India is being planned to be set up at Jewar at Gautam Budh Nagar district of Uttar Pradesh. Some of the salient features of the upcoming airport are as follows :

- i. Second Airport in National Capital Region – Planned to be world class international airport.
- ii. The site clearance (around 3000 hectare) has already been provided by the Government of India to develop the airport.
- iii. The airport capacity is expected to be 30-50 million passengers annually – The first phase to handle 20-25 million passengers with one terminal and one runway in 1000 hectare.
- iv. The total expected outlay for the project is INR 15,000 - INR 20,000 crores.
- v. Metro connectivity from Greater Noida Metro station to Jewar Airport has been assured by Government of Uttar Pradesh.
- vi. Yamuna Expressway Industrial Development Authority (YEIDA) will be the nodal agency for the project.
- vii. The airport area is planned to be developed as an Aerotropolis with industrial clusters and education centres around it.

Kushinagar Airport

Kushinagar airport (Kasia airport) is one of the proposed international airports in Uttar Pradesh intended to cater to the needs of the international tourist traffic in the district which is a prominent Buddhist pilgrimage site.

Salient features of the project are:

- I. The expected project cost is INR 354 Cr to be developed under PPP model.
- II. It will be pursued on Design-Build-Finance-Operate-Transfer (DBFOT) basis.
- III. Airport will have a runway of 3,200 meters and estimated to serve 250,000 tourists annually.
- IV. The State has already acquired 550 acres of land for the project.

Key Investible Projects

MRO Facility near Jewar Airport

1.	Area of the Project	1000 Hectares
2.	Approx. Project Cost	INR 3000 Cr
3.	Present Status	Proposed
4.	Incentives	As per Civil Aviation Policy 2017 and IIEPP 2017
5.	Nodal Agency	UP-YEIDA
6.	Name of Contact Person	CEO YEIDA
7.	Contact No	0120-2395164
8.	Email Id	ceo@yamunaexpresswayauthority.com

Cargo Hub near Jewar Airport

1.	Area of the Project	500 Hectares
2.	Approx. Project Cost	INR 2000 Cr
3.	Present status	Proposed
4.	Incentives	As per Civil Aviation Policy 2017 and IIEPP 2017
5.	Nodal Agency	YEIDA
6.	Name of Contact Person	CEO YEIDA
7.	Contact No.	0120-2395164
8.	Email Id.	ceo@yamunaexpresswayauthority.com





INVESTMENT OPPORTUNITIES

Capitalising on the several demand factors for the sector in the state, investment opportunities lies across the value chain.

Towards this, the State seeks investment from all

- General aviation companies
- Air cargo & logistic service
- Fixed based operator companies
- Airport management companies
- Freight forwarders
- Aircraft service providers
- Air traffic management service
- Charter airlines and low cost carriers
- Ground handler companies
- Aviation insurance
- Airport infrastructure developers
- Maintenance, Repair & Overhaul (MRO Companies)
- Aircraft manufacturers
- Investment banks & financial institutes
- Aviation oil companies
- Aviation training providers/ institutions
- Training and simulation providers
- Aviation consulting companies
- Terminal interiors and lighting companies
- Security equipment companies

Following are the key investment opportunities offered by the state in the aviation sector:

a. New airports/ airstrips and upgradation

- Scope for development of greenfield/brownfield airports.
- Amended AAI Act allows Public-Private Partnership (PPP) model for development of Greenfield airports through 100% FDI automatic route.
- Airport Authority of India to develop the airstrips into no-frills airports.

b. Cargo hubs and MRO facilities

- State Government aims at facilitating setting up MRO facilities at existing airports or at new locations such as near the proposed Jewar Airport at Gautam Buddha Nagar District.
- With upcoming Inland waterways on Ganges between Allahabad and Haldia (Kolkata), airports at Allahabad and Varanasi will have potential for air cargo boom.

c. Aircraft manufacturing/assembly

- Given the huge demand factors, local ecosystem and favourable policy support, aircraft/helicopters manufacturing or assembling has immense potential in the state.
- The State Government aims to incentivise aircraft manufacturing/assembly by reimbursing the corresponding S-GST (State GST) receivable to Govt. of Uttar Pradesh for 10 years up to a maximum of 10 units such assembly units.
- In case airlines purchase aircraft/helicopter, which is manufactured or assembled in Uttar Pradesh and deployed primarily at routes in Uttar Pradesh (where at least 50% of take-offs are from airports in Uttar Pradesh), for at least five years, will be eligible for concessions and incentives as per Industrial Investment & Employment Promotion Policy of UP 2017 (IIEPP 2017) on plant and machinery for acquisition cost of aircraft, as per eligibility.



d. Connectivity to Non-RCS airports

- Attractive Incentives under Civil Aviation Policy 2017 and strong demand factors makes Inter connectivity of the 3 non-RCS airports in UP - Lucknow, Gorakhpur and Varanasi airports an attractive investment option.

e. Heliports and Helipads

- The State already has 68 helipads which is the 4th highest number in India.
- With helicopter service becoming an attractive mode of transit in tourism, particularly for religious tourism in the state which attracts high passenger traffic, investments in heliports and helipads in the state is an attractive investment option.
- The state seeks investments to connect all tourist destinations with helicopter service including Lucknow, Ayodhya, Varanasi, Prayag, Naini Sharanya, Chitrakoot, Kushinagar, Mathura and Vrindavan.
- As a potential logistic and business support infrastructure, heliport & helipads in key industrial hubs such as Mathura, Meerut, Agra etc. offer immense potential. It can also have a possible spillover effect of decongesting the nearby airports.



f. Business Aviation

- The state is one of the leading business destinations and the second largest economy of India. It hosts the highest number of MSMEs in the country and is home to several leading industrialists and businessmen. With an increased economic and business activity across the state, business aviation has immense growth potential in Uttar Pradesh.

g. Aerotropolis

- There is an immense potential for developing township, aviation-linked and other business hubs, logistic hubs and aerospace parks around key airports in Uttar Pradesh complementing the vision of Smart Cities in the state. The proposed greenfield Jewar International airport can be one such destination with large land bank and industrial agglomeration around the region and Chola in Bulandshahr.

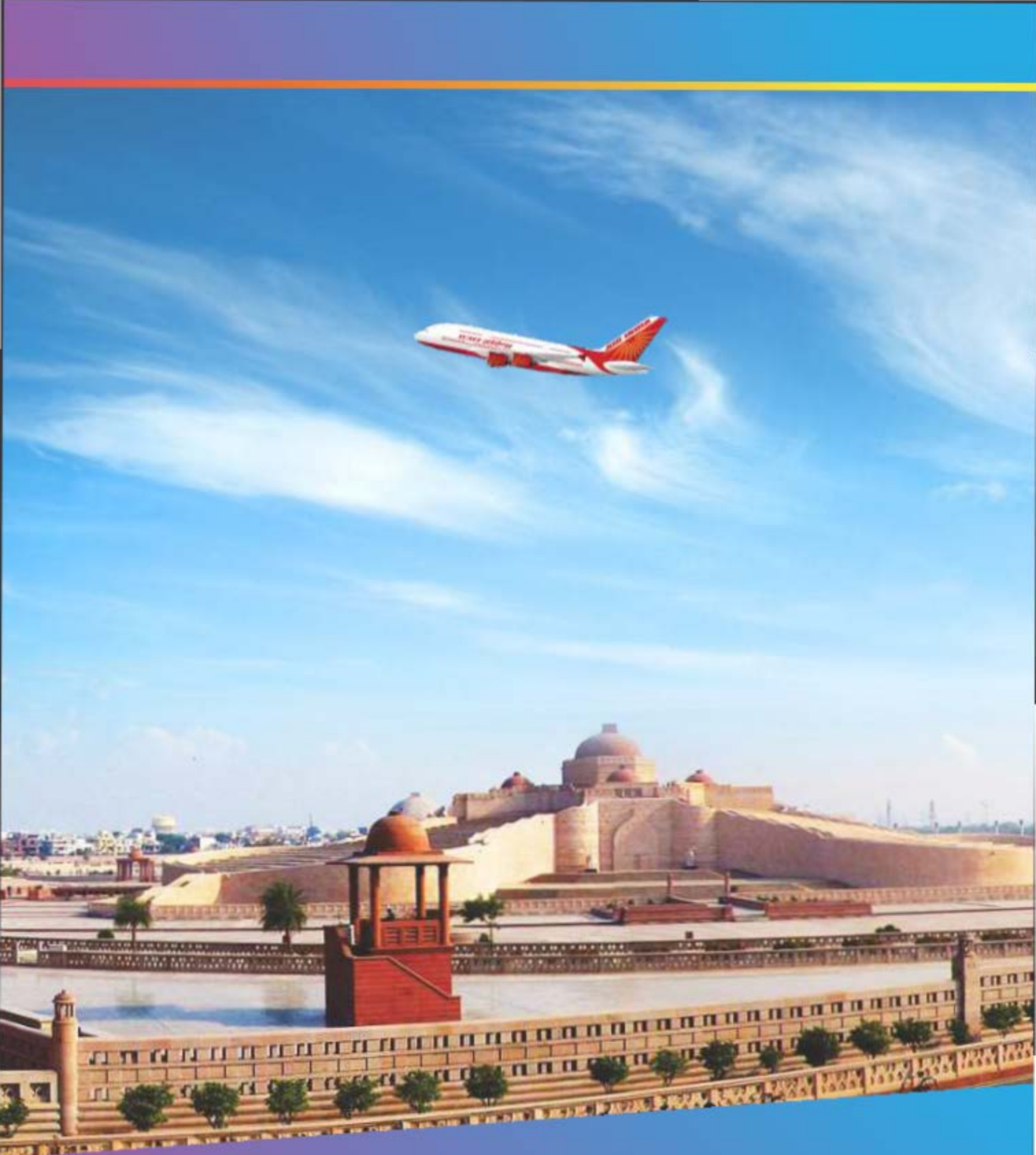
h. Training & Education

- In order to support growing needs across the aviation value chain and generate local pool of talent that captive clients such as airlines/airports and other aviation companies can tap into, there is a strong need for developing academic and vocational training facilities in UP. There is opportunity for investors in aviation training and education in areas like pilots, crew, technicians, mechanics, general management and other skills required to support the aviation industry. There is also a need for dedicated flight training centres.

i. Other allied opportunities in FBOs & Aviation Insurance

- With prominence, growth and development of airports across the state, opportunities in fixed base operations like ground-handling, passenger services, hospitality, maintenance support, lease and purchase of aircraft and helicopters and spare parts for various fixed-wing business jets and helicopters are also expected to spike. The rapid growth of the sector would also witness increased demand for aviation insurance.







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