1. In the last few years, many new airports have come up in India, whereas, the older ones have got upgraded. The overall performance of these airports has been praiseworthy. What in your opinion, have been the prime movers of this welcome change? Analyse.

Approach

Introduce what have been the recent progress made by Aviation sector.In next part write what have been the prime movers of this progress.Also mention the recent measures taken by Indian government to revitalise the sector after Covid induced lockdowns.In conclusion summarise the body part and mention future prospects.

Introduction

The civil aviation industry in India has emerged as one of the fastest growing industries in the country during the last three years. India has become the third largest domestic aviation market in the world and is expected to overtake UK to become the third largest air passenger market by 2024.But the pandemic has caused halt on this sector in view of travel restriction by various countries and also internal lockdowns being announced by Indian government.

Body

In an increasingly globalised economy, air transport is a vital element of the country's transport infrastructure. By itself, the Civil Aviation Sector contributes significantly to the process of development by generating employment opportunities directly and indirectly besides facilitating enhancement of productivity and efficiency in the movement of goods and services. Civil Aviation is a key infrastructure sector that facilitates the growth of business, trade and tourism, with significant multiplier effects across the economy.
Prime movers of Indian aviation sector in last few years :

- Rising domestic Gross Domestic Product (GDP):Growth rate of the economy has been steadily rising. For instance, in the period 1990-91 to 2003-04, the CAGR of India's GDP works out to 5.7% which then rose to 8.6% during 2004-05 to 2010-11. The growing economic activity resulted in greater business travel24 by professionals and greater leisure travel by individuals.
- Expanding middle-income group :These income groups drive the consumption pattern in India and are primarily concentrated in urban areas. NCAER analysis reveals that the middle income group population in 2010 stood at 160 million individuals i.e. 13.3% of the total population, which is expected to rise to 547 million in 2025 (i.e. 37.2% of the total population)
- Demographic dividend : 62% of the population is in the working age group of 15-60 years and this proportion is set to increase in future indicating a larger employee base, greater business travel and greater economic activity.26
- Rising urban population : McKinsey Global Institute's projections state that India's urban population will be 590 million by 2030 i.e. about 40 percent of

the total population of India. The number of million plus cities will increase to 68 by 2030 of which 13 cities will have more than 4 million and six cities will have more than 10 million persons.

- Significant market developments : Low Cost Carrier (LCC) model which made air travel affordable for common man got established firmly in the domestic market since 2004. This stimulated the pent up demand for air travel. LCCs along with the LCC brand of Full Service Carriers (FSCs) constituted 63.3% of the market share in 2009.This has increased further over the years.
- Investments in Airport and related infrastructure : Opening up of the airport infrastructure to private sector participation fuelled the growth of the air traffic in India. Total investment made by private airport operators in the last five years was to the tune of Rs 30,000 crores spread across Greenfield development of Hyderabad and Bengaluru international airports and modernization of Delhi and Mumbai international airports.
- Growing tourism : In line with the trend observed in growth of India's GDP, the tourism sector has displayed stellar performance during the last decade. During the period from 2001 to 2010, the average annual growth rate of foreign tourist arrivals in to India and Indian National departures from India grew by 9.2% and 11.5% respectively.
- Thrust on Remote area Connectivity : In areas with difficult terrain, air transport offers the fastest mode of connectivity to remote and inaccessible regions. Given the thrust of the Government of India to enhance connectivity in remote and inaccessible regions of the country and concerted efforts of some State governments in this respect, there is a strong likelihood of demand emanating from these areas in future.The schemes such as UDAN has connected airports of hinterland to increase the choices of passengers .
- Untapped market potential : The air traffic density can be measured by linking Urban Per capita income with air passengers. Taking 1000 passengers per Million Urban Capita32, a recent study has arrived at a comparative picture. Air traffic density in India using this measure is very low at 72 as compared to China (282), which is 4 times higher; Brazil (231), which is 3 times higher; Malaysia (1225) is 17 times higher, U.S.A. (2896) is 40 times higher and Sri Lanka (530), which is 7 times higher This indicates the untapped market potential given the projected burgeoning young population and rising disposable income levels in future.
- Global integration of businesses : Greater economic activity and the consequent greater integration of businesses globally would mean greater business travelers across national boundaries. Also, the growing trend of outbound Mergers and Acquisitions (M & A) i.e. Indian firms acquiring International firms in order to capture markets and resources abroad, where the M & A transaction value for the year 2020 touched almost $ 50 billion34 and is set to grow further in future implies greater business related travel.
- Shift in traffic : Global air traffic is seen shifting to Asia Pacific region during the last few years. This is on account of the slowdown in Europe and North America.

- International Market Access : Open Sky Agreements between nations forge greater competition in the International air travel segment. Increasingly it is recognised that Nation States need to evolve viable mechanism by which they all stand to achieve trade gains and efficiency in international market access in as far as Air traffic rights are concerned.
- Measures to tackle Covid slowdown
  - Efficient Airspace Management : Route dispersal guidelines (RDG), mandates airlines to fly a certain percentage of flights in smaller, unprofitable air routes. The government announced that these restrictions on the utilisation of Indian airspace will be eased.This will lead to optimal utilization of airspace and reduction in fuel use.
  - Airports Development through PPP : In addition to the existing ones (e.g. Airports at Delhi, Mumbai, Hyderabad), six more airports will be auctioned under the Public-Private-Partnership (PPP) model for their development.
  - Global Hub for Aircraft Maintenance, Repair and Overhaul : The government intends to make India a global hub for Aircraft Maintenance, Repair and Overhaul (MRO) services.Also, the convergence between the Defence sector and the civil MROs will be established to bring down the maintenance cost of airlines.

Conclusion

The triad of reforms announced by the government to lift the domestic aviation sector are good long-term auguries, and will help it get back on its growth trajectory once the Covid-19 pandemic eases. In the decade through fiscal 2019, India was among the fastest-growing aviation markets with a compound annual growth rate of more than 11%.Thus it is just a matter of time when Indian aviation sector will be back on high growth trajectory and build over the success of New civil aviation policy of 2016 and UDAN scheme.

2. Discuss the prominent investment models that are operational in India's infrastructure sector. Also, assess their performance.

Approach

Define what is investment and introduce basic models in investment.In next part write each model in detail with examples.Further write what are advantages and limitations of these investment models. Write a reform based conclusion.

Introduction

Investing is the act of allocating resources, usually money, with the expectation of generating an income or profit. For an economy to grow there has to be constant investment in infrastructure for the further growth.There are three basic models of investment which are Public investment, Private investment and Public Private Investment (PPP).Depending on the type of project and urgency in its implementation various investment models are utilised by a nation to build infrastructure.

Body

- Public Investment Model: In this model Government requires revenue for investment that mainly comes through taxes.Properly targeted public investment can do much to boost economic performance, generating aggregate demand quickly, fueling productivity growth by improving human capital, encouraging technological innovation, and spurring private-sector investment by increasing returns.
- Private Investment Model: For a country to grow and increase its production investment is required. Presently tax revenue of India is not adequate to meet this demand so government requires private investment.Private investment can be source from domestic or international market.From abroad private investment comes in the form of FDI or FPI. Private investment can generate more efficiency by creating more competition, realisation of economies of scale and greater flexibility than is available to the public sector.

Public-Private Partnership Model: PPP is an arrangement between government and private sector for the provision of public assets and/or public services. Public-private partnerships allow large-scale government projects, such as roads, bridges, or hospitals, to be completed with private funding.

- In this type of partnership, investments are undertaken by the private sector entity, for a specified period of time.
- These partnerships work well when private sector technology and innovation combine with public sector incentives to complete work on time and within budget.
- As PPP involves full retention of responsibility by the government for providing the services, it doesn't amount to privatization.

- There is a well defined allocation of risk between the private sector and the public entity.
- Private entity is chosen on the basis of open competitive bidding and receives performance linked payments.
- PPP route can be alternative in developing countries where governments face various constraints on borrowing money for important projects.
- It can also give required expertise in planning or executing large projects.

Models of Public Private Partnership (PPP)

BOT: Build-Operate-Transfer (BOT)

- It is conventional PPP model in which private partner is responsible to design, build, operate (during the contracted period) and transfer back the facility to the public sector.
- Private sector partner has to bring the finance for the project and take the responsibility to construct and maintain it.
- Public sector will allow private sector partner to collect revenue from the users. The national highway projects contracted out by NHAI under PPP mode is a major example for the BOT model.

BOO: Build-Own-Operate (BOO)

- In this model ownership of the newly built facility will rest with the private party.
- On mutually agreed terms and conditions public sector partner agrees to 'purchase' the goods and services produced by the project.

BOOT: Build-Own-Operate Transfer(BOO)

- In this variant of BOT, after the negotiated period of time, project is transferred to the government or to the private operator.
- BOOT model is used for the development of highways and ports.

BOLT: Build-Operate-Lease-Transfer (BOLT)

- In this approach, the government gives a concession to a private entity to build a facility (and possibly design it as well), own the facility, lease the facility to the public sector and then at the end of the lease period transfer the ownership of the facility to the government.

DBFO: Design-Build-Operate-Transfer (DBFOT)

- In this model, entire responsibility for the design, construction, finance, and operation of the project for the period of concession lies with the private party.

LDO:lease develop operate

- In this type of investment model either the government or the public sector entity retains ownership of the newly created infrastructure facility and receives payments in terms of a lease agreement with the private promoter. It is mostly followed in the development of airport facilities.

Various advantages of public-private partnership (PPP):

- Access to private sector finance: India has a very large infrastructure need and an associated funding gap. PPPs can help both to meet the need and to fill the funding gap. PPP projects often involve the private sector arranging and providing finance. This frees the public sector from the need to meet financing requirements from its own revenues (taxes) or through borrowing.
- Better infrastructure: They provide better infrastructure solutions than an initiative that is wholly public or wholly private. By shifting the responsibility for finance away from the public sector PPPs can enable more investment in infrastructure and increased access to infrastructure services.
- Increased transparency in the use of funds: A well-designed PPP process can bring procurement out from behind closed doors. The PPP tender and award process based on open competitive bidding following international best practice procedures lead to transparency.
- Less delays: They result in faster project completion and reduced delays on infrastructure projects by including time-to-completion as a measure of performance and therefore of profit.
- Risk distribution: Transfer of risks is the most important advantage of PPP projects. In PPP projects, there is a possibility to transfer most or all of the risks to the private entity. The private entities explore opportunities, even though they involve risks.
- Constant cash flow: The state budget is formed of fixed budgets for each ministry. Major investments are temporary modifications of the budget of a ministry, and this problem can be difficult to deal with within the budgetary process. Avoiding major investments by having a constant cash flow is an important driver when the state looks at the advantages of PPP.

Various issues related to public-private partnership (PPP) in India:

- Uncertainties: PPPs often cover a long-term period of service provision (eg. 15-30 years). Any agreement covering such a long period into the future is naturally subject to uncertainty. If the requirements of the public sponsor or the conditions facing the private sector change during the lifetime of the PPP, the contract may need to be modified to reflect the changes. This can entail large costs to the public sector.
- Policy and regulatory gaps: Inadequate regulatory framework and inefficiency in the approval process have been considered as serious disincentives for developers and contractors. For example, more than two years were needed for the Gujarat Pipavav port project to receive the necessary clearances after achieving financial closure. Moreover, most of the large projects involve dealings with various ministries where coordination remains inefficient.
- Crony capitalism: In many sectors, PPP projects have turned into conduits of crony capitalism. It is worth noting that a large chunk of politically connected

firms in India are in the infrastructure sector, which have used political connections to win contracts in the past.

- Renegotiation: While private firms accept stringent terms of PPP contracts initially, they lose no opportunity for renegotiating contracts, in effect garnering a larger share of public resources than originally planned. Rather than being an exceptional clause, renegotiation has become the norm in PPP projects in India.

Conclusion

The success of Public-Private Partnership to a large extent depends on optimal risk allocation among stakeholders, the environment of trust and robust institutional capacity to timely implementation of PPP projects. To foster the successful implementation of a PPP project, a robust PPP enabling ecosystem and sound regulatory framework is essential.For this it’s necessary to implement Kelkar committees report to revitalise PPP as it is strategic imperative for developing country like India.

3. What are the key provisions of the Airports Economic Regulatory Bill? What are going to be its intended benefits?

Approach

Mention what is the bill which is being referred.In next part write its provisions.Further write what might be possible benefits of this bill in future.In conclusion mention what is larger target of all these reforms in aviation sector over the years.

Introduction

Recently, the Lok Sabha passed the Airports Economic Regulatory Authority of India (AERA) Amendment Bill, 2021.It was first introduced in March 2021 and subsequently referred to a parliamentary standing committee on transport, tourism and culture, which approved it without any changes.It seeks to amend the Airports Economic Regulatory Authority of India Act, 2008.

Body

Provisions of Airports Economic Regulatory (Amendment) Bill

- Definition:It proposes to amend the definition of major airport to include a group of airports.The 2008 Act designates an airport as a major airport if it has an annual passenger traffic of at least 35 lakh.The central government may also designate any airport as a major airport by a notification.
- Tariff: It will allow AERA to regulate tariff and other charges for aeronautical services for not just major airports with annual passenger traffic of more than 35 lakh, but also a group of airports.
- Profitable Clubbing:The government will be able to club profitable and non-profitable airports as a combination/package to bidders to make it a viable combination for investment under PPP (Public-Private Partnership) mode.

Benefits of New Amendment to AERA bill :

- The change in definition of major airports will grant Airports Economic Regulatory Authority of India to frame tariff policies for small airports as well as group of airports.This will bring all the airports in parity to receive investment and have a good administrative oversight.
- The clubbing of airports with profit making being clubbed with smaller and non profit making airports will attract investors to the smaller non viable airports and improve infrastructure and management of these airports.
- The new investment would flow to Tier 2 and Tier 3 cities which will give boost to regional development, increase tourism and increase faster movement of goods and services across India.
- Government of India with power to designate any airport as major airport could direct the flow of investments in this sector.

- These provisions will give rise to new employment in backward regions which will be away from bigger cities.This will help India achieve equitable regional development.
- The growth in new infrastructure at smaller airports will increase the capacity to handle more flights and increase the passenger traffic.This will make airlines profitable which is missing after the arrival of pandemic.
- It will help in expanding the air connectivity to relatively remote areas and as a result, expediting the UDAN regional connectivity scheme.
- It will bring foreign direct investment in Airports infrastructure in India.

Conclusion

India has over the last years focused to make air travel possible for common man with schemes like UDAN(Ude Desh Ka Aam Nagrik).Therefore the new amendments to the Airports Economic Regulatory Authority of India act will further this goal with incentivising development of smaller airports in mofussil towns which were not until on the aviation map of India.Further it will help India achieve the targets of National civil aviation policy 2016.