

# ACI World AIRPORT DEVELOPMENT NEWS

A service provided by ACI World in cooperation with Momberger Airport Information [www.mombergerairport.info](http://www.mombergerairport.info)  
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## Focus on the INDIAN SUBCONTINENT

### PAKISTAN

**After a series of delays, it is now expected that construction of the new Islamabad Airport will be completed by December 2017 so that the largest, technologically advanced, and most modern airport ever seen in Pakistan can be unveiled.** The uniqueness of the new airport lies in its ability and capacity to control more than 4,500 passengers at any one time. It offers 15 aircraft parking bays and terminal gates and will be able to accommodate the A380 aircraft. Also, the airport is equipped with innovative technologically advanced equipment and software to take care of services like cargo handling, security and protection, passenger assistance, and car-parking facilities.

**At a time when the New International Islamabad Airport at the Fateh Jang site has seen yet another deadline pass, the Civil Aviation Authority hit a new problem with the proposal of a third runway.** The issue was taken up in the Senate Standing Committee where Civil Aviation Authority (CAA) officials were apparently not quite prepared to face questions from senators. Officials of the Committee were told that the need for a new runway at the still under-construction airport had been considered given future expansion plans and the expected air traffic in the capital. Officials said that two runways built at the airport cannot support simultaneous take-off and landing of two aircraft since their wings would collide with each other. The Public Accounts Committee was stunned to learn about the technical fault and was further shocked when it was informed that the American consultant hired for the project had left the country without finalizing the project.

The same Committee had earlier been told that the opening date of the airport had been pushed back to December 2017 from its much-advertised date of 14 August, Pakistan’s Independence Day. **The third delay in inaugurating the airport since 2007 has seen its cost more than double from the initial PKR 32 billion (USD 304 million) to PKR 82 billion (USD 780 million) because of poor planning** (initial plans for the airport did not include funds for radars, lights and water supply) with officials now confirming that 97% work on the facility has been completed. Top officials of the CAA told the panel that 19 projects relating to the new Islamabad Airport were currently under way, including the construction of link roads, and most of them were close to completion.

The panel’s chairperson Senator Talha Mehmood had asked why the inauguration of the airport had to be delayed for a third runway and Senator Yousaf Badini asked CAA Director-General Asim Suleiman as to why a decision on the third runway was not taken in the initial plans of the project. To this Suleiman replied: When the plans were first being drawn up, there were financial constraints. He added that the runway was added to the plans on the directives of the Prime Minister to handle the increased air traffic in future. When Senator Badini again asked why land for the runway had not been purchased and why the master plan of the airport was not final, the DG said he could not answer the question.

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**Construction work on Gwadar International Airport was scheduled to start by the end of September 2017 after approval of a grant by the Chinese government.** Official sources told **the project will be completed within three years and will cost USD 230 million.** The Chinese government has agreed to provide funds for building the airport and had approved a grant in this regard during Prime Minister Nawaz Sharif's recent visit to China. Officials said that the China/Pakistan Economic Corridor (CPEC) will turn Gwadar in to a regional economic hub and, in preparation for this, special emphasis is being given for the development of New Gwadar International Airport which is part of the CPEC short-term plan and will be completed by the end of 2019 or in early 2020. Construction of an international-standard airport at Gwadar is aimed at facilitating the movement of international investors and visitors. According to officials, around 4,300 acres of land 26 km northeast of the existing airport and 14 km north of Gwadar City have already been acquired. The airport at Gwadar carries geographically strategic importance and, therefore, has witnessed a lot of major development and commercial activities in recent years. The Government has directed the Civil Aviation Authority (CAA) for the swift completion of development work on the airport.

## NEPAL

**Construction of Pokhara International Airport in Kaski district of central Nepal, being developed with Chinese assistance, has started.** The airport, to be constructed in the country's premier tourist city, is one of the three new international airports planned in the Himalayan country. Currently, the only operating international gateway is Tribhuvan International Airport in Kathmandu which is overcrowded, often forcing airlines to wait up to 45 minutes for landing, particularly during the tourist season. Pradip Adhikari, Chief of the Pokhara International Airport Project, has affirmed that the process of contractor mobilization for the construction has begun.

**China's Export-Import Bank has pledged a soft loan of USD 215.96 million for the project.** The Bank had agreed to provide 25% of the loan interest-free and had set an interest rate of 2% per annum for the remaining amount, with a payback period of 20 years. Loan effectiveness has paved the way to disburse the loan amount and the project developer will be able to acquire 15% of total project cost in advance.

During the monsoon season, Nepali government officials said the contractor started work by building a shelter for its staff, quarry identification, equipment shipment, hiring manpower, and other temporary works. Full-fledged ground works will begin after the monsoon is over.

China CAMC Engineering Co. Ltd won the construction contract in May 2014 under the Engineering, Procurement and Construction (EPC) model. According to Adhikari, the Civil Aviation Authority of Nepal (CIAA), the executing agency of the project, is in the process of approving the airport design submitted by the contractor. The airport is expected to enhance the regional balance in economic development. "Construction of an international airport in the country's key tourist hub will help increase the tourist arrivals manifold," said Adhikari. -- **Nepal has felt the urgent need for development of more international airports for emergency situation like the deadly earthquake in April 2015 and to manage increasing international air travellers.** The Pokhara project will cover just over 200 hectares of land at Chinnedanda. The airport with a 2,500-m by 45-m runway will be able to handle aircraft like the Boeing 757 and Airbus 320, which is expected to significantly ease congestion at Tribhuvan International Airport.

## INDIA

**The country's aviation segment will need INR 2.4 trillion in investments over the next decade to meet rising air passenger traffic which has been grown in high double digits all through the years, making India the fastest-growing aviation market.** India would have to treble airport capacity in the next ten years, said a report by the independent domestic credit rating agency ICRA Ltd. The country invested around INR 520 billion over the last decade at various airports. The projected investment requirement is more than four times the amount envisaged by the national

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airports operator AAI at INR 650 billion. According to ICRA, the airports infrastructure sector is increasingly getting constrained by the strong growth in traffic since Financial Year 2014. During the period between FY14 and FY17, passenger traffic has grown by 57% while aircraft traffic has grown by 33%, while capacity addition has been moderate. The new airports in New Delhi and Mumbai and other key cities have already crossed their projected traffic for 2020 by many millions. Only Bengaluru and Hyderabad are yet to cross the installed capacity, the ICRA report said. As of now, capex plans to the tune of INR 650 billion have been finalized by the Airports Authority of India (INR 175 billion for the next five years) and around INR 220 billion for brownfield expansion in Delhi, Mumbai, Hyderabad, and Bengaluru by private operators and around INR 210 billion for greenfield airports.

Harsh Jagnani, VP and Sector Head at ICRA, said the past model of funding plans - debt and equity, deposits from real-estate and long-term concessionaires, and securitized debt and airport development fees - will not work. "Going forward, as the capex need increases significantly, funding may see greater diversification with exploration of sources like bonds backed by securitization of user development fees receivables; listing of airports, greater funding from states and private equity," Jagnani said.

Airports operators had healthy balance sheet with moderate capex over the past few years and healthy cashflows, leaving their leverage profile comfortable. Their total debt stood at around INR 190 billion in the last fiscal year. Of this, 63% is funded by banks/financial institutions and 28% by forex bonds, the rating agency said. The national operator AAI, too, has mostly used internal accruals to fund capex in the past. "But the situation is likely to change going forward with higher requirement of non-equity funding. As per ICRA estimates, AAI's financial position gives it capability to raise debt of around INR 200 billion. But this is too low given the scale of capex needed. "So this calls for greater participation from private players," said the report. "Private players' participation has slowed down after the initial burst of 2004-2006 when the Delhi, Mumbai, Bangalore, and Hyderabad airports were privatized. "Issues that hampered private participation included regulatory uncertainties, restricted capacity of major infra players given their liquidity constraints, funding constraints of banks, and concerns regarding absorption of AAI's sizeable employee base in case of privatization," Jagnani pointed out. -- The Government has sanctioned new international airports in Delhi, Mumbai, Pune, and Goa.

## **GVK Power & Infrastructure Ltd has won the Maharashtra State Cabinet approval for developing the INR 160 billion Navi Mumbai Airport project at Ulwe after having secured the mandate with the Project Monitoring Committee which approved its financial bid.**

With the Cabinet approval, the nodal agency for airport development, City & Industrial Development Corporation (CIDCO), will issue a letter of intent to GVK. GVK Power, which owns Mumbai International Airport Ltd (MIAL) together with the Airports Authority of India (AAI) and a GVK Industries Ltd-led consortium, won the contract in February 2017. The project will be built through public-private partnership (PPP) on a 'design, build, finance, operate, and transfer' (DBFOT) basis. GVK beat GMR Airports, which constructed the Delhi Airport, during bidding in February 2017 as MIAL offered a higher revenue share to CIDCO, the land-owner, for the project.

GVK now has to secure the Government's approval, which is likely in early November 2017, following which CIDCO will issue the letter of intent allowing GVK to begin work on the project. As per the procedure, the Monitoring Committee will recommend the GVK bid to the Maharashtra government and the Cabinet will provide its stamp of final approval. The project has seen inordinate delays, first in the conception stage, when environmental roadblocks seemed to halt the project, and later at the bidding stage.

Addressing GVK's Annual General Meeting in September 2017, GVK Chairman Reddy had said: "We are awaiting the LoI for quite some time. There has been quite some delay. However, we expect this to be issued by middle of October." Meanwhile, pre-airport development works worth over INR 20 billion, including site levelling, removal of a major rock, reclamation of land, changing a water course, and rehabilitation of people living in three villages, have already been awarded. The rehabilitation of villagers is at an advanced stage and is expected to be completed once the monsoon season is over.

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**Phase 1 of the project is expected to be ready by December 2019** (or within 36 months of the start of work). CIDCO will offer three plots of land in an auction in prime areas within a 15-km radius of the airport to hotel owners and developers in an effort to attract global hoteliers. Two of the plots are off an arterial highway that links to the Mumbai - Pune Expressway, while a third land parcel is in Belapur. The Maharashtra government sanctioned the project in 2007 but it got entangled in environmental concerns and land acquisition problems. CIDCO has now set a May 2020 deadline to get the airport ready. But experts believe that the project may face a few more hurdles. "The project is likely to see challenges in terms of funds. With the volatile nature of the aviation sector, a major surge in international crude prices could have an impact on the timeline. Since the project will be developed by MIAL, there would not be any need for a special-purpose vehicle. The project will also be relatively easier to develop as it is a greenfield airport. In the INR 160 billion PPP project, MIAL will have equity of 74% while the AAI and CIDCO will have 13% each.

**Hyderabad's 'Rajiv Gandhi International Airport' (RGIA), operated by the GMR group, has drawn up plans to embark on a massive expansion drive, which will eventually expand its annual handling capacity by more than three times to 60 to 70 million passengers a year.** The airport, commissioned in 2008 with an initial capacity of 12 million passengers, had handled 15.24 million passengers in financial year 2016/17. It expects the passenger traffic to touch 18 million this financial year. "With the rapid increase in passenger traffic, we are taking up the second-phase expansion which will see doubling of capacity to 25 million passengers. The expansion works, which will begin in January 2018, will be completed in two years," SGK Kishore, Chief Executive Officer, GMR Hyderabad International Ltd (GHIAL), told the media. However, he refused to reveal investment details. "We are waiting for the clearance from regulators. We will give the details once we get the go-ahead," he said. On the further expansion, Kishore said: "We expect to cross the milestone of 25 million annual passengers in three to four years. Then, we will go for a second runway and a second terminal which will also have a capacity of 25 million. We should start developing the second terminal in 2020. Our eventual target is to have an annual capacity of 60 to 70 million passengers at Hyderabad Airport," he said. Meanwhile, GHIAL, Malaysia Airports Holdings Bhd (MAHB) and Malaysia Tourism Promotion Board (MTPB) have joined hands to promote tourism from the catchment area of the RGIA here to Malaysia. The efforts are aimed at enhancing the visibility of 'Destination Malaysia' in Hyderabad and the catchment area of RGIA

Telangana, Andhra Pradesh, parts of Odisha and Karnataka. GHIAL CEO Kishore, Datuk Mohd Badlisham Ghazali, Managing Director, MAHB, and Dato' Sri Abdul Khani Daud, Deputy Director General (Promotion), MITBP signed a Memorandum of Agreement (MoA) in the presence of Dato' Hidayat Abdul Hamid, High Commissioner of Malaysia. The tri-partite MoA involves collaborative market research, strategy development, promotional campaigns and marketing efforts, according to GMR. The trend shows that some 100,000 passengers are going to Malaysia every year through various airlines from Hyderabad and the traffic has grown by 28% CAGR in the last five years, Kishore said. "We will see the number of passengers travelling to Malaysia from Hyderabad to double in two years in the wake of this agreement," he further said.

**On 1 October 2017, President Ram Nath Kovind inaugurated the newly-built Shirdi International Airport, the first airfield developed and managed by the Maharashtra Airport Development Company Ltd (MADC) in Maharashtra's Ahmednagar district.** Developed by the MADC, the airport in Rahata sub-district, around 240 km north-west of Mumbai, has been built at an approximate cost INR 3.5 billion (USD 53.6 million). Reportedly a portion of the investment for the airport, nearly INR 0.5 billion, was contributed by the Shri Saibaba Sansthan Trust (SSST), which is among the richest religious bodies in the country. Permitted initially for daytime operations by the DGCA, the new airport will slash the travel time between Mumbai and Shirdi, from six hours to barely 45 minutes. **The airport was sanctioned in 2010 in a bid to promote religious tourism.** The

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inauguration of the airport marks the start of the year-long centenary celebrations of Shri Saibaba Samadhi for which over 11 million pilgrims are expected from around the world.

Shirdi Airport has a 2,500-m runway, which can handle narrowbody aircraft, such as the Airbus A320 and Boeing 737. The 400-hectare airport has a 2,750-m<sup>2</sup> terminal and a hangar for parking four aircraft. The airport will be equipped with night landing facilities in upcoming months. -- Alliance Air, the regional carrier Zoom Air, and the Hyderabad-based regional carrier TruJet have filed schedules for flights to Shirdi from Mumbai and Hyderabad, respectively. Budget carrier IndiGo has also applied for launching air services to Shirdi.

\* **The Maharashtra government has signed an agreement with the Civil Aviation Ministry and the Airports Authority of India for developing ten airports in the State under the centre's regional connectivity scheme (RCS).** RCS, which is part of the ambitious 'National Civil Aviation Policy 2016', is aimed at developing regional connectivity through fiscal support and infrastructure development from the Central Government. "The MoU, signed in presence of Civil Aviation Minister Ashok Gajapathi Raju, aims to facilitate regional air connectivity by making it affordable by enacting different concessions offered by the Centre, the State government, and the operators," Chief Minister Devendra Fadnavis said. The ten airports – Kolhapur, Shirdi, Amravati, Gondia, Nashik, Jalgaon, Nanded, Solapur, Ratnagiri, and Sindhudurg - will be developed, with the State contributing 20% of the cost of Viability Gap Funding, whereas the Centre will bear the remaining 80%.

**The Central Government is working with the Tamil Nadu State Government on firming up plans for a second airport in Chennai and creating urban development around it.** Union Minister of State for Civil Aviation, Jayant Sinha, told reporters that efforts were on to acquire 1,000 to 2,000 acres of land to develop a world-class airport from scratch and **make Chennai a global hub for aviation.** The Minister said the aero-city would be developed on the lines of Gurgaon with globally-advanced facilities. He also said the new airport would be built within the next five years as Chennai Airport (MAA) would have attained saturation by then.

Simultaneously, the present 'Arignar Anna International Terminal' will be built as part of Phase II expansion of Chennai Airport. "From the date of bidding [in January 2018], it will take 24 to 36 months to complete the entire second phase of the Chennai Airport expansion," the Minister said. Expansion work is likely to cost more than INR 20 billion, and would include moving sidewalks within and connecting terminals, like in several new airports where distances between gates are too long to walk.

The Minister also said that the first phase of the regional connectivity scheme has been a success with large players like Indigo, Jet Airways and Spicejet wanting to take part in the bids under the Second Phase. **"There are 400 airstrips in India, and under the First Phase, we are planning to open 100 of them.** So, we still have 300 more airstrips to be opened," he said. The Minister also revealed that he was looking into suggestions of having more international flights to Coimbatore and Tiruchy and improved services to Madurai.

## SRI LANKA

**India is in advanced talks with Sri Lanka to operate Mattala Airport on the southern tip of the island, where China had invested heavily as part of its 'Belt and Road' initiative.** India proposes to operate, manage, maintain and develop the airport through a joint venture, holding 70% of the equity for 40 years. Civil Aviation Minister Nimal Siripala said that the Government had been looking for alternative investors in the Hambantota area, where China has built a seaport and is in discussions to build an investment zone and a refinery. "It was during this time, India came up with a proposal," Siripala said. "They were ready for a joint venture with the Airport & Aviation Services Ltd," he said, referring to the Government company that runs Sri Lanka's main airport in the capital Colombo and the one in the south, in Mattala.

Hambantota sits near one of the world's busiest shipping lanes and is an important part of the Belt and Road initiative, aimed at building trade and transport links across Asia and beyond to Europe. China runs

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the seaport with a 99-year lease and was planning to expand its footprint in the area with the refinery that would be Sri Lanka's largest, and an investment zone of about 6,000 hectares. Beijing's projects, backed by loans extended by the Chinese government and initiated by a previous Sri Lankan government, have faced widespread opposition. Local residents facing eviction to make way for the projects have staged numerous protests. Other critics say the Sri Lankan regime signed up for unnecessary and loss-making projects, pushing the country into long-term indebtedness. **India now has offered to set up a joint venture with Sri Lanka to manage and expand facilities at the loss-making Mattala Airport.** The initial investment would be USD 293 million, of which India will provide 70% on a 40-year lease, according to a Sri Lankan Cabinet paper that details the Indian plan to make the airport viable. The airport, built at a cost of USD 253 million, part-financed by China, has been dubbed the world's emptiest airport for its long, empty corridors. The Indian government source said India had proposed establishing a flying school and a maintenance hub at Mattala to boost airport revenues while it builds up traffic. There are also hopes the airport could be a destination for Indian tourists. China said it was not aware that Sri Lanka was considering allowing India to manage the airport. China also put in a bid to operate the facility, but the two sides failed to agree on financial terms.

\* As in the case of the seaport, Mattala Airport it was built under the former President Rajapaksa with a USD 190 million loan from the Exim Bank of China. **Opened in 2013, the airport has proved a major financial strain, with barely two daily flights.** As operational losses persisted, Sri Lanka in December 2016 sought expressions of interest to operate the airport through a public-private partnership. The Government received a total of eight proposals, but the recent Cabinet Committee has been asked to evaluate India's proposal alone.

**Batticaloa Airport (BTC), up to now accommodating only military-controlled flights, has been opened for private jets and commercial flights.** The Airport & Aviation Sri Lanka Ltd (AASL) will be running the airport once all approvals are granted. Hoteliers and connected industries would benefit from this opening as this would mean improved accessibility to the East coast from the West coast. This domestic airport could accommodate corporate jets and 50-seat aircraft on its 1,200-m runway. AASL would have to fulfil certain requirements like obtaining certification from the CAA in order to engage in commercial operations at the airport. -- Following Cabinet approval the gazette notification was issued on 1 July 2016 stating that Batticaloa Airport was handed over to the CAA with effect from 31 May 2016. As a result, the Civil Aviation Ministry had allocated LKR 1 billion for construction and renovation work at the domestic airport. However, military operations on the ground will continue with a separate access point for the Sri Lanka Air Force (SLAF).

**The Northern Provincial Council (NPC) has called for the reconstruction of Palaly into a regional airport.** The Council voted unanimously in favour of developing the airport into one with regional international flights. The resolution, however, stipulated that the airport development should be carried out without using any land of Tamil civilian properties. The Council also called for Indian government involvement in the development activities.

**A new terminal for Bandaranaike International Airport was designed to cater to another 9 million passengers annually and with that expansion, airport capacity will be increased up to 15 million passengers per year.** The government of Japan, through JICA, is supporting airport expansion with JPY 74,397 million (approx. LKR 95 billion). The scope of the new project includes construction of a multi-level terminal building with two pier buildings, an elevated roadway, construction of a new parking apron with 23 stands, taxiways, a multi-storey parking garage, a new sewage treatment plant, a solid waste disposal incinerator, and a water treatment plant. The total scope of works has been divided into two contract packages.

The proposed new Terminal 2 concept is that arriving and departing passengers are vertically separated. Departing passengers are processed on the upper level and the arriving passengers on the lower level. The terminal will also provide facilities for operating new large aircraft (like the A380) by providing two

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contact gates with double-storied boarding bridges. Many environmentally friendly initiatives have been incorporated in the design to promote energy efficiency while mitigating adverse environmental effects. The new terminal shall use natural daylight and natural ventilation to minimize energy use. Low E glass has been proposed to limit heat gain and lighting controls to reduce energy use. Sensor-operated tap urinals and water-saving sanitary fittings have been proposed to reduce water usage. Universal design features have been incorporated to assist people with disabilities.

## BANGLADESH

**A new international airport for Dhaka is likely to be built on the other side of the Padma River, and Prime Minister Sheikh Hasina Wazed is going to announce the location very soon.**

In line with the election manifesto of the ruling Awami League, the Government in 2011 had finalized Arial Beel as the location for the new airport and a satellite city, without conducting any feasibility study. The Government then had to backtrack in the face of violent protests by locals.

On the construction of the new Bangabandhu International Airport, PM Hasina on 1 February 2017 had told Parliament that a feasibility study on building the airport will begin soon. On 22 September 2016, the CAAB signed a BDT 1.20 trillion deal with Nippon Koei in Japan to conduct feasibility studies, select a suitable site and prepare a master plan for the airport to meet the growing air traffic demand. Under the agreement, the Japanese firm will finish its job in one and a half years. **The new airport will replace the capital's 'Hazrat Shahjalal International Airport' (DAC) from being the local hub.** The existing airport had been constructed in the 1960s for domestic use with just one runway and an annual capacity of 8 million passengers. **The CAAB says that it is impossible to expand the airport due to residential areas nearby and that its maximum capacity would be reached between 2028 and 2035.**

The existing Dhaka airport has two terminals to handle international passengers and a small domestic terminal. The Government has approved the airport's expansion project worth BDT 5.708 trillion to meet immediate air transport demand. Earlier, the Cabinet Committee on Government Purchases selected four companies as consultants for the detailed design of the airport. The four are Nippon Koei Co Ltd, Oriental Consultants Global Japan, CPG Consultant Private Ltd Singapore, and Development Design Consultant Ltd Bangladesh. The consultancy firms will submit their reports on building a third terminal with an annual capacity of 12 million passengers and other infrastructural development at the airport. According to a report by the Civil Aviation Authority of Bangladesh (CAAB), the existing terminal building will be insufficient by 2018 and a new terminal will be required by 2019. The volume of passengers is on the rise by some 10% each year.

**Once the T3 project is completed, passenger handling capacity will increase to 20 million, up from the current 8 million per year.** The cargo handling capacity will increase to 500,000 tonnes instead of 200,000 tonnes now. The project's soft opening will be held in December 2019 while the total construction work is expected to be completed in April 2021. The cargo handling capacity of Shahjalal Airport has already been reached. At the same time, the passenger-handling capacity will be saturated in 2018. Meanwhile, a Korea-Singapore-Bangladesh joint venture consulting company has conducted the feasibility study, updated the Master Plan on DAC which suggested expanding the airport to meet the growing air traffic, a CAAB official said. The consulting firm has also prepared the detailed design for Terminal 3 to handle 12 million passengers by 2025 with an estimated cost of BDT 136.1 billion. "Now the newly-appointed Japanese consultant (Nippon Koei) will update the design and necessary other works for the airport. It will also prepare a document for inviting tenders as soon as possible. The firm will also supervise the construction work of T3," CAAB Director Nurul Islam said. According to the project proposal, the CAAB will build the third terminal, a multi-level parking garage with tunnel, a new cargo complex, a VVIP complex, the parking apron at T3, taxiways, etc. The CAAB has taken a target to build the third terminal by June 2022.

CAAB sources said they planned to end the expansion project by 2018, but the bureaucratic process delayed initiating the project work which would lead to a total chaos in order to cope with the passenger rush at the airport. Considering air traffic growth, the Government has taken up the expansion project.

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After getting the detailed design from the consultancy companies, the Government will take further steps. The objective of the project is to expand airport facilities as well as ensure international-standard safety and security by expanding airport terminal facilities and developing related infrastructure. Industry insiders said the expansion project would expedite economic growth in the country.

According to the CAAB, **the country has three international and 12 domestic airports. Very soon one of the domestic airports, Cox's Bazar, will be turned into an international airport.** The second most important airport, 'Shah Amanat International Airport' at Chittagong is also undergoing major development work. In the development project, this airport will have an asphalt overlay of the runway and a new parallel taxiway that will enhance the airport capability. Similarly, the third international gateway, 'Osmani International Airport' at Sylhet, will get a runway overlay and construction of a parallel taxiway. Saidpur Airport, a domestic airport in the northern part of Bangladesh, is being transformed into a regional hub through major expansion work for a new terminal building, new navigational aids, connecting taxiways, and the strengthening of the runway is under way. At least 38 airlines use Bangladeshi airports. The infrastructural facilities of the country's existing airports are not enough to meet the growing air traffic. -- In South Asia, Bangladesh has the third-largest economy after those of India and Pakistan, and has the second highest foreign exchange reserves after India. Against such a huge potential, the State of Bangladesh has taken sustainable measure in line with the ICAO Strategic Objectives of Safety, Air Navigation Capacity and Efficiency, Security and Facilitation and Economic Development of Air Transport.

## Other Regions

### AUSTRALIA

**The new western Sydney Airport is preparing for take-off after the Federal Government gave the green light for construction work to begin at Badgerys Creek.** The move, hailed as a 'milestone event' by Urban Infrastructure Minister Paul Fletcher, means work will now get under way at the site by February 2018. The first request for tenders to begin work on the AUD 5.3 billion project was released on 10 October 2017, with 'commercial-in-confidence' documents calling for key geotechnical works and earthworks. The geotechnical works tender is the first issued by the newly formed Western Sydney Corporation, which was created after Sydney Airport Corporation gave up its right to develop the new airport in May 2017.

After decades of debate and wrangling, this represents the first on-site work since the Government announced the massive development would go ahead. "Western Sydney Airport will be the hub of a new third city for the greater Sydney area," Mr Fletcher said. "It will attract businesses and generate tens of thousands of jobs. This is a project that has been spoken about for decades but the Turnbull government is delivering it."

It is expected that more tenders for decontamination of the sprawling Badgerys Creek site, for early bulk earthworks, and for air and noise monitoring are shortly released. **The Government expects construction to begin in full in 2018, and for the first stage of the mega airport to be open by 2026.** The airport is expected to employ 9,000 people directly when open and the project is expected to generate 11,000 construction jobs alone between 2018 and 2026.

### COLOMBIA

**The Government is undertaking the most ambitious infrastructure programme in Latin America. Worth USD 70 billion and extending to 2035,** the plan includes 101 basic road projects covering more than 12,500 km, 52 projects aimed at integrating nearly 7,000 km, more than 1,600 km of new railway track, maritime projects on eight rivers that cover 5,000 km, **31 airport expansions** and port developments, and a scheme to reduce the country's housing shortage by 50%.

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To that end, the 20-year Intermodal Transport Master Plan was developed in 2015 between the Government and the Colombian Infrastructure Chamber, a business association that includes concessionaires, construction companies, and engineering firms. "To reach the Government's goal, it will be necessary to invest at least 2% of GDP per year, equivalent to USD 6 billion," says the former President of the Colombian National Infrastructure Agency ANI, Luis Fernando Andrade, who until August had presided over the country's infrastructure programme. "The bulk of these investments will be done through public-private partnerships (PPPs)."

The Fourth Generation (4G) is the latest iteration of a string of PPP regimes that the Government has rolled out in recent years. It was masterminded by ANI, which in 2011 replaced the former governmental agency overseeing the planning and funding of infrastructure, Colombia National Institute of Concessions (INCO). ANI adopted a more forward-thinking approach with the 4G regime, placing greater emphasis on finance. Specifically, the agency wanted to attract both local and international financial institutions to fund some USD 25 billion of transport infrastructure – primarily roads, with some railways, airports, and ports.

ANI looked to emulate what had worked in other LatAm countries. For example, it turned to Peru to borrow the country's innovative payment instruments – CRPAOs and RPI-CAOs – that successfully attracted many local and international investors to its milestone-based infrastructure projects. ANI adapted the concepts for its 4G programme creating 'vigencias futuras' (payments by the Government that are based on reaching certain milestones during a project's development). However, the 4G programme has not been without its growing pains and international financings have slowed in the past year. Some projects have been delayed by environmental or technical difficulties, while others have been impacted – directly or indirectly – by a corruption scandal involving Brazilian construction firm Odebrecht, which in December 2016 admitted to paying USD 11 million in bribes to win Colombian public works contracts between 2009 and 2014. "The Odebrecht issue is an important one for investors and commercial banks," says Jaime Ramirez, a member of the global energy, project and infrastructure finance group at law firm Milbank, Tweed, Hadley & McCloy. "It's the most recent test of a concession regime in Colombia in this context, particularly as it relates to the termination payment."

The first phase of 4G is currently being executed, involving the 4G Highway PPP Programme. **The airport component is well under way as well, with the expansion and modernization of all airports in the country's main cities aimed at keeping up with passenger traffic growth that has swelled from 36 million to 60 million per year between 2011 and 2016.** The cumulative investment during the period was USD 3.5 billion. The most ambitious project is the expansion of Bogotá's El Dorado Airport, a USD 400 million investment which should be delivered in the fourth quarter of 2017. **As for airports, the headline project is the second airport in Bogotá, valued at approximately USD 1 billion.** "During the next 12 months, the Government also plans to award the expansion of the Cartagena and San Andres airports," adds Andrade.

**Much has been done by the Government to attract foreign investors, particularly the provision of stable and predictable payment streams that can support international financing** – for example the vigencias futuras, which contain a dollar-linked part that allows projects to easily tap international markets. The Government also put a termination payment within contracts that should be sufficient to cover the project's debt and maybe even the sponsor's equity, with the amount of the termination payment dependent on whether the concessionaire or the Government is at fault. Those efforts have paid off, according to Ramirez. "The fact that so many projects have attracted international banks is testament to the effort and time the Colombian government spent in designing the programme," he says.

The foreign lenders comprise three European banks (Credit Agricole, Caixa Bank, Banque de Commerce et de Placements), three Asian banks (Mizuho Bank, Sumitomo Mitsui Banking Corporation (SMBC), Korea Development Bank), two U.S. Banks (Goldman Sachs, JP Morgan) and two multilateral banks (Inter-American Development Bank, Central American Bank for Economic Integration). "The Colombian market is attractive because it is sizeable and there is a large pipeline of projects for the upcoming years," says SMBC's head of project finance for Latin America, Luis Fernando Perdigon.

# ACI World AIRPORT DEVELOPMENT NEWS

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## Green Airports

**At the 2017 ACI World & Africa Annual General Assembly (WAGA), hosted recently by Airports of Mauritius Co., the global airport industry issued an update on the progress it has been making in addressing its CO2 emissions, through the independent and voluntary global certification programme, Airport Carbon Accreditation.** Angela Gittens, Director General, ACI World, commented: "This past year has seen continued engagement from airports - with 36 new applications to Airport Carbon Accreditation and more airports reaching a higher level of certification within the programme. As a result, we are able to announce that we now have 201 airports participating in Airport Carbon Accreditation. These airports welcome over 39.6% of global air passenger traffic. To put that into context, that means more than 2.8 billion passengers now travel through airports certified at one of the four levels of the programme." She added: "From May 2016 to May 2017, accredited airports succeeded in collectively reducing the CO2 emissions under their direct control by 202,184 t of CO2." Participation growth in the African continent has been particularly remarkable – going from three airports in the programme in 2016 to 10 accredited airports today. These airports welcome 28% of African air passenger traffic. An additional six US airports also became certified for the first time, and US airports were also major contributors to the overall reduction of CO2 emissions achieved in 2016, with Dallas/Fort Worth International Airport (DFW) becoming the first airport in the Americas to reach carbon neutral status. These achievements reflect the continued commitment of US airports to addressing climate change, despite the withdrawal of the US from the Paris Agreement.

**ICAO members have agreed on a new strategy regarding the use of sustainable fuels by the aviation industry.** The new 2050 Vision for Sustainable Aviation Fuels aims to ensure that the traditional jet fuels will be replaced with sustainable alternatives to a large percentage by 2050. Discussions on the vision were held and formalised in the recently concluded second ICAO Conference on Aviation and Alternative Fuels, held in Mexico City. The participants agreed that any alternative fuel deployment must adhere to the sustainability criteria currently being developed by an ICAO task force. The Alternative Fuel Task Force (AFTF) intends to assess the potential reduction of greenhouse emissions (GHG) from the use of alternative fuels in the aviation sector until 2050. The task force also aims to evaluate the lifecycle of alternative fuels emissions and project the number of alternative fuels to be produced until 2050. According to ICAO Council president, Dr Olumuyiwa Benard Aliu, the current tools and achievements in the field of aviation's emissions reduction are not enough to meet the industry's 2020 ICAO targets. Aliu said: "Even after these have been accounted for, we are still left with a significant mitigation requirement. Sustainable alternative fuels are critical to closing this gap." -- Several airports have already started supplying sustainable aviation to interested airlines. It has so far helped to take off more than 40,000 sustainable aviation fuels flights.

**Publisher's note:** The articles in this special report, compiled for **ACI World**, are edited samples from the biweekly **Momberger Airport Information** newsletter, published since 1973. The newsletter is an advertising-free, global airport news service that consists of 8 modules and allows subscribers to customize their own newsletter package. The items in this **ACI World** report represent only a small sample of the main module (Airport Development) of **Momberger Airport Information**. Additional modules that subscribers can select include: Airport Operations (OPS), Ground Support Equipment (GSE), Air Traffic Services (ATC), Consultant & Contractor (CON), Airport Information Technology (AIT) and Maintenance Base (MRO). An extensive Calendar of Events (CAL) is part of every subscription. For more information and to order an annual subscription, please visit [www.mombergerairport.info](http://www.mombergerairport.info)