

Policy Brief

Development of the Civil Aviation Industry in Six Selected CAREC Countries: Georgia, Kazakhstan, the Kyrgyz Republic, Mongolia, Turkmenistan, Uzbekistan

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Summary

The current civil aviation systems of six selected CAREC member countries: Georgia, Kazakhstan, the Kyrgyz Republic, Mongolia, Turkmenistan, Uzbekistan, which were developed from the legacy of the civil aviation sector of the former Soviet Union, have a long history and a relatively sound foundation for development. Since independence, six countries have generally attached great importance to promoting the modernization of the civil aviation transport industry.

Considerable achievements in the civil aviation industry have been acquired by the six countries after long-term efforts, including airport infrastructure construction, aircraft upgrades, civil aviation safety management and operation, airline competitiveness promotion, domestic and international air route network construction, and the promotion of civil aviation facilitation. They have supported the significant improvement of air connectivity in six countries, domestically and internationally.

With the remarkable economic progress in the six countries, especially the rapid development of tourism and high-value industrial systems, the civil aviation markets continue to prosper, and the performance indicators of the civil aviation industry grow steadily. The civil aviation industry has become an essential part of the national economy in the six countries, playing a pivotal role in promoting the expansion of trade, the introduction of international capital, high-level talents, modern technology, and the promotion of national economic diversification strategy.

In recent years the six countries implemented a series of measures to promote the marketoriented and open development, like promoting free competition and improving the business environment in the civil aviation industry in response to competitive pressure from the international and domestic markets. These extraordinary measures enable the six countries to embrace a cleaner, more relaxed, and equitable skies under a sustainable framework in the future.

At the same time, due to the influence of historical and current factors, the development of the civil aviation industry faces many severe challenges and threats, such as an inadequate legal system, weak competition, insufficient market, lacking financing capacity, low management effectiveness, insufficient talent, and low openness, poor connectivity between countries inside CAREC region, imbalance, enlarging imbalance gap of development in the civil aviation sector in six countries.

In the future, further liberalization of civil aviation control, promotion of a high level of open development of the civil aviation sector, and acceleration of the establishment of a regional civil aviation market would be critical measures to accelerate the modernization of the civil aviation industry in all six countries.

Main Findings

Strategy and Policy

Since the 1990s, civil aviation transportation in six countries has acquired significant achievements and is accelerating the development of modernization. The civil aviation sectors have become an essential and integral part of national comprehensive transport systems. The civil aviation industry is a crucial primary industry for national economies of the six countries.

At the same time, due to historical and practical factors, the modernization of the civil aviation industry in Central Asian countries has long been faced many challenges, mainly a lagging market mechanism; low level of modernization of civil aviation infrastructure; weak competitiveness of civil aviation enterprises; low efficiency of civil aviation management; the growing imbalance in the development of CAREC regional civil aviation; lack of high-level control and technical personnel; and considerable pressure on the civil aviation industry caused by the COVID-19 pandemic, etc.

Over the past five years, civil aviation authorities in all six countries have adopted a number of new strategies in the civil aviation sector to meet the new development demand like sustainability, digitalization, and inclusive development under the above challenges. Meanwhile, they hope to build a more robust civil aviation system to support the need for economic diversification in each country.

- In Georgia, the civil aviation industry has been positioned as a foundational industry supporting the revitalization of Georgia's tourism industry, further contributing to advancing the country's economic diversification strategy. The main objective of the national strategy in the civil aviation sector is to reduce travel costs by air and improve travel facilitation by air for people. The strategic measures are taken to further open the civil aviation market and to create a more convenient business environment.
- 2) In Uzbekistan, the civil aviation industry has been positioned as a central pillar in the national economic system. The objective of the national strategy is to promote the modernization of the civil aviation industry. The main strategic measures are aimed at transforming the civil aviation administration mechanism from a national monopolistic and closed operation mode to a marketization and open mode. Currently, the authority of civil aviation in Uzbekistan has been actively promoting the introduction of market competition mechanisms, progressively deregulating the civil aviation industry, and implementing a periodical sky-opening policy.
- 3) Turkmenistan's national economic strategy has gradually transformed into diversified development, focusing on constructing a multimodal transportation hub in Eurasia, among which the construction of an air traffic hub is also a critical part. The main strategic measures have been taken to promote the modernization of the civil aviation industry. Many national fiscal investments have been put into airport construction and fleets procurement.

- 4) In Kazakhstan, the civil aviation industry has been determined as a national priority strategy. The strategic objective is to promote Kazakhstan to become a Eurasian air traffic hub. The strategic measures have been taken to continuously promote the construction of international airports and the renewal of modern aircraft fleets and launch a number of civil aviation industry development plans that meet the current global requirements in such core areas as civil aviation administration, supervision, and security and risk control.
- 5) In Mongolia, the civil aviation industry has been positioned as an essential industry for modernization. The main objective is to take advantage of its geographical location and improve its transit transportation capacity. The strategic measures have been taken to promote the opening up of the civil aviation industry, encourage the introduction of PPP investments into the civil aviation industry, and develop the general aviation industry.
- 6) In the Kyrgyz Republic, the civil aviation sector has been positioned as a pillar industry supporting national economic development. The strategic objective is to promote the Kyrgyz Republic as an international civil aviation transit hub on the Eurasian continent. The main strategic measures have been taken on modernizing Osh and Manas airports, promoting policies of free competition in the civil aviation market, and encouraging tourism industry development.

According to the strategies of the civil aviation industry of Georgia, Kazakhstan, the Kyrgyz Republic, Mongolia, Turkmenistan, and Uzbekistan, the key advanced priority policy areas can be summarized as follows:

- 1) Promoting openness in the skies. The civil aviation industries of six countries Georgia, Kazakhstan, the Kyrgyz Republic, Mongolia, Turkmenistan, and Uzbekistan – are at different levels of openness. However, each government is committed to promoting the opening policy of its country's skies, because the transformation can bring better financial, technical, and market resources into the civil aviation industry.
- 2) Improving the safety of civil aviation. All six countries Georgia, Kazakhstan, the Kyrgyz Republic, Mongolia, Turkmenistan, and Uzbekistan – are now dedicated to developing new policies and regulations of aviation safety that comply with ICAO common civil aviation safety standards.
- **3) Promoting travel facilitation.** Countries including Georgia, Kazakhstan, the Kyrgyz Republic, Mongolia, and Uzbekistan are rolling out a robust policy framework for promoting travel convenience by expanding visa-free entry, developing low-cost airlines, and reducing tariffs to further increase air passenger satisfaction. The measures will give full play to the civil aviation industry's supporting role in facilitating tourism recovery and promoting diversified economic development in each country.
- 4) Improving the business environment for investment and trade in the domestic civil aviation industry. Georgia and the Kyrgyz Republic emphasize creating a favorable business environment for investment and marketing, and encouraging the public-private partnership models in the civil aviation industry. The civil aviation industry in Uzbekistan has gradually moved from a monopolistic and closed operation approach to an open development mode. It has been actively promoting the introduction of market competition mechanisms, gradually deregulating the civil aviation industry.

5) Promoting environmental progress. Given that the civil aviation industry has become one of the fastest-growing sources of greenhouse gas (GHG) emissions and a contributor to local noise and pollution, improving the environmental performance of the aviation sector in the six countries has also become a priority through the establishment of national plans to reduce aviation emissions and the establishment of local standards for aircraft noise levels.

Airports

Overall, airport infrastructure, operation, and management in all six countries have improved significantly; some new airports have been planned or completed, and more airports have gained international airport status.

- Kazakhstan currently has 23 airports, with 17 international airports (the number of international airports will be expanded to 19 in line with national plan by 2025). In 2019, Almaty International Airport overtook Karachi International Airport in Pakistan to become the largest airport in the six countries.
- 2) Uzbekistan has 12 international airports. Main hub airports, including Tashkent International Airport, Samarkand International Airport, Tashkent International Airport, Termez International Airport, and Andijan International Airport, have been upgraded and expanded to own the capacity of serving large and medium-sized aircraft landing and taking off. Tashkent International Airport in Uzbekistan has become an important international air hub in Central Asia.
- 3) Georgia has 20 civilian airports, among which Tbilisi Airport, Batumi Airport, and Kutaisi Airport are international airports. Over the past ten years, Tbilisi Airport has been the fastest-growing major airport in the CAREC region, with passengers increasing from 700,000 in 2009 to 3.7 million in 2019.
- 4) Mongolia has 19 airports, including five international airports. Many airports in Mongolia are small airstrips with grass runways or tarmac, which are only suitable for small propeller-driven aircraft. The new Genghis Khan Airport in Mongolia has been completed and put into use with Japan's financial support. It is operated and managed by a joint venture between Mongolia and Japan (Japan's share is 51%).
- 5) The Kyrgyz Republic has 11 airports, including five international airports. The Kyrgyz Republic's Manas international airport and Osh international airport are the most important hub airports that have been making progress in recent years in terms of terminal building, apron, runway and avionics equipment, and other facilities renovation and expansion.
- 6) Turkmenistan has eight airports (one is under construction), including six international airports. Since 2010, Turkmenistan civil aviation authorities have renovated and expanded four airports and built two new ones. Ashgabat Airport, Turkmenistan's largest airport, can handle large airliners such as the Airbus A380 and Boeing 747-8 after it was rebuilt in September 2016.

The ownership of airports in six countries -- Kazakhstan, the Kyrgyz Republic, Uzbekistan, Georgia, Turkmenistan, and Mongolia -- is mainly controlled by local governments or state-owned enterprises. Most airports are still operated and managed by state-owned airport management

enterprises. For example, the airports in Georgia are managed by the Georgian Airports Union, a subsidiary of the National Civil Aviation Authority, established in November 2010. Uzbekistan Airports is responsible for operation and management of the nation's central hub airports. Recently, countries have been experimenting with introducing international airport management companies to host their airports. For example, NUBIA Limited Liability Company, a joint venture between Mongolia and Japan, will be responsible for the new Genghis Khan International Airport's operation for 15 years in Mongolia.

Generally, there are still many constraints to the development of airports in six countries, which are the main obstacles to further advance the development of the civil aviation industry: (1) some major hubs continue to lack capacity to handle the take-off and landing of large aircraft, as well as the lack of support facilities for the maintenance of modern aircraft; (2) the number of international hub airports is still low; (3) the geographical coverage of most of the international airports is inadequate; (4) municipal services and road and subway transport infrastructures from airports to urban areas or to second cities are generally lacking or aging; (3) there is under-investment in the civil aviation sector on the one hand, and over-investment on the other, such as Turkmenistan airports still having idle capacity problems.

Fleet

Since independence, the old Soviet-made aircraft which once dominated the civil aviation fleets of the six countries have been gradually replaced by modern fleet, including Boing and Airbus. Kazakhstan, Uzbekistan, Georgia, and Turkmenistan have completed the modernization of old Soviet-made aircraft and own a fleet of modern Boeing and Airbus aircraft. Mongolia and the Kyrgyz Republic have yet to complete the modernization of their fleets, but the progress of upgrading old aircraft is also accelerating.

The number of modern commercial and civil aircraft registered in six countries is generally small, less than 100 on average, and Kazakhstan is an only country with more than 50 commercial aircraft. In addition, the structure of aircraft types is relatively the same in each country, the number of commercial wide-body aircraft is small, and most aircraft are narrow-body and regional aircraft types.

While the six countries are also looking to move forward with fleet renewal by leasing new aircraft, many aircraft are owned by airlines rather than rented: many airlines do not have the reliable credit ratings required for leasing, and leasing aircraft is not developed effectively in six countries.

Airlines

In recent years, the state-owned airlines inherited from the former Soviet Union have undergone privatization or corporate restructuring successively. Most of them have survived and developed into flagship airlines after the throes of reform. And, with the gradual liberalization of the civil aviation market, many small airlines have been established. Though the number of civil aviation

airlines is increasing, by comparing with the international civil aviation big airlines, most of the airlines in these six countries are very small in scale, lack competitiveness, have low operating efficiency, and lack the sustainable capacity for profitability.

Air Astana Airlines (Kazakhstan), SCAT Airlines (Kazakhstan), Turkmenistan Airlines, and Uzbekistan Airways are the four largest airlines of the six countries, which have formed relatively large-scale domestic and international air transport capacity. Most airlines in the Kyrgyz Republic, Mongolia, and Georgia are small enterprises, and most do not have the operation qualification and ability to open international routes.

Georgia, Kazakhstan, the Kyrgyz Republic, and Mongolia have been actively encouraging the registration of new airlines and the introduction of various international airlines for a long time. The number of registered domestic airlines showed a rapid growth trend. For example, by the end of 2020, Georgia had 49 airlines registered, including 12 domestic and 37 foreign airlines.

Uzbekistan Airways is the only airline in Uzbekistan that operates domestic and international routes. It has a modern fleet of Boeing and Airbus airliners and can repair and maintain large and mediumsized planes, making it competitive in the global market.

Turkmenistan Airlines is the only airline in Turkmenistan, operating over 50 domestic and international passenger routes, of which international routes account for 60%. On an average, Turkmenistan Airlines carries 3 million passengers a year.

The number of international and domestic routes operated by airlines in six countries is also growing, driving the improvement of civil aviation connectivity. However, the air connectivity of the six countries to other CAREC countries is still weak. For example, in addition to Kazakhstan and Uzbekistan, which serve 8 and 6 CAREC countries, respectively, Turkmenistan, the Kyrgyz Republic, Georgia, and Mongolia have only opened routes to 5, 4, 3, and 2 countries in the CAREC region, correspondingly.

Operation

Before the global outbreak of COVID-19, the operational indicators like passenger and freight transportation by air maintained a stable development trend in six countries:

- Kazakhstan become the second largest aviation market in the CAREC region, with passenger traffic reaching 11.7 million in 2019, including 5.4 million domestic tourists, accounting for 46.15%, and 6.3 million international tourists, accounting for 53.85%.
- Georgia and Uzbekistan have similar aviation market sizes, with a total passenger volume of 5.2 million and 5.4 million in 2019, of which 100,000 (1.92%) and 700,000 (12.96%) are domestic passengers, 5.1 million (98.08%) and 4.7 million (87.04%) are international passengers, respectively.

- 3) The Kyrgyz Republic, Mongolia, and Turkmenistan have small domestic civil aviation markets, with passenger volumes of 3.1 million, 2.1 million, and 1.6 million, respectively. In 2019, domestic passengers were 60,000 (19.35%) in the Kyrgyz Republic, 1.3 million (59.09%) in Mongolia, and 70,000 (12.96%) in Turkmenistan. International passengers were 2.5 million (80.65%) in the Kyrgyz Republic, 90 million (75%) in Mongolia, and 4.7 million (40.91%) in Turkmenistan.
- 4) Georgia, Uzbekistan, the Kyrgyz Republic, and Mongolia receive most of their passenger traffic from the international market, and their domestic civil aviation traffic is negligible. Kazakhstan and Turkmenistan's civil aviation international and domestic passenger volume is relatively balanced, and the domestic civil aviation market has been developed to a certain extent.

Cargo is an important income source for airlines and airports in the six countries. Before 2020 Kazakhstan, Uzbekistan and Azerbaijan were the largest air cargo markets among the six countries, with 33 tons, 20 tons, and 80,000 tons of cargo transported in 2019, respectively. The air cargo market in the Kyrgyz Republic, Georgia, Mongolia, and Turkmenistan was small, below 30,000 tons in 2019.

Civil Aviation Safety

The civil aviation safety supervision mechanism and system have been effectively improved by implementing work programs and targets in line with global aviation safety standards in six countries. However, according to USAOP, there are significant differences in civil aviation safety in the six countries:

- Georgia's civil aviation safety management has made significant progress according to the USAOP2018 results, but the airport, navigation, and accident investigation indicators were still below the world average. Georgian civil aviation safety management mechanism is transitioning to the EU Civil Aviation Safety Management system, which has more stringent requirements for civil aviation safety.
- 2) Uzbekistan's civil aviation safety level is being continuously improved by implementing more stringent requirements, standards, and enforcement procedures in the civil aviation sector. But institutional, organizational, and accident investigation indicators were below the world average, according to the results of USAOP 2018.
- 3) The Kyrgyz Republic's civil aviation safety management has been in a poor situation for years. Although the country has made some progress in civil aviation safety management, it is still below the world average in terms of airport, operation, and accident investigation indicators, according to USAOP 2020. The country is on the EU blacklist for civil aviation safety.
- 4) Turkmenistan has been subject to the Air Safety Supervision Audit (USOAP) since 2019, and the results show that most audit indicators are still below the world average.
- 5) Mongolia's civil aviation safety level is relatively better than in the other five countries. All USOAP indicators in 2017 in Mongolia were higher than the world average, but Mongolia's civil aviation safety indicators are still lower than developed countries and regions.

6) Kazakhstan has strengthened safety regulations in the civil aviation industry, and the USOAP results 2019 showed significant progress achieved.

Civil Aviation Cooperation with China

China is the largest trading partner of the Kyrgyz Republic, Mongolia, Turkmenistan, and Uzbekistan, the second-largest trading partner of Kazakhstan, and Georgia's third-largest trading partner. The sound economic and trade cooperation has promoted the steady development of the civil aviation industry between China and the six countries.

China has signed bilateral civil aviation agreements with all six countries: Georgia in 2006, Kazakhstan in 1993, the Kyrgyz Republic in 1995, Mongolia in 1989, Turkmenistan in 1992, and Uzbekistan in 1994.

Before the COVID-19 pandemic, China's airlines operated regular air routes with six countries. There were three fixed flights per week between China and Georgia, 30 fixed flights per week between China and Kazakhstan, ten fixed flights per week between China and the Kyrgyz Republic, 13 fixed flights per week between China and Mongolia, four fixed flights per week between China and Turkmenistan, but the COVID-19 pandemic has temporarily disrupted these routes. After June 2022, flights between China and Kazakhstan, the Kyrgyz Republic, and Turkmenistan are gradually resuming.

At present, China is committed to building the Air Silk Road. In the future, by deepening the alignment of China's "Air Silk Road" Construction plan with the civil aviation strategies of member states and CAREC2030 transport strategies, the civil aviation cooperation between China and the six countries will be further facilitated.

Administration Management

Recently, all six countries have accelerated the reform progress of their civil aviation administrative systems. Although the political and economic development environment is different in each country, their goals of reform and development of the civil aviation administration system are similar. They expect to build a modern civil aviation management system based on a market mechanism for the allocation of resources, while the government will continue to be responsible for macro regulation and market supervision.

Today, the administrative and management systems of the civil aviation sector in five countries --Georgia, Kazakhstan, the Kyrgyz Republic, Mongolia, and Uzbekistan -- have formed a similar modern management structure. The Civil Aviation Authority (or the Civil Aviation Commission in Kazakhstan), attached under the authority of the state ministry, is the state administrative body responsible for the formulation of civil aviation law, the implementation of strategies and policies, the overall planning and the supervision of the safe operation of civil aviation industry among other tasks. Furthermore, the above five mentioned countries are continuously optimizing their civil aviation operation and management system: Kazakhstan's new Civil Aviation Authority, established in 2019, has been transformed into a wholly state-owned enterprise responsible for providing technical support, managing airport services, strengthening flight safety supervision, and ensuring the sustainable development of civil aviation in Kazakhstan. The National Civil Aviation Centre, established in Mongolia in February 2020, is responsible for the operational aspects of air traffic control, civil aviation information services, airport services, and personnel training to promote air navigation and airport services in Mongolia to meet international standards.

The Uzbekistan aviation sector has also been transformed from non-profit state entities under the administration of the State Cabinet into four operational institutions: Uzbekistan Airways, Uzbekistan Airports, Uzbekistan Aero-Navigation, and Civil Aviation Development Fund. In 2019, Uzbekistan Airways was restructured from a state-owned enterprise to a shareholding system. Georgia's Civil aviation authority was transferred from the deputy minister in charge of transport to the deputy minister in charge of tourism.

Although Turkmenistan still maintains a highly centralized administration management organization and mechanism in the civil aviation sector, the industry's management system is also changing. The unified Türkmenhowaýollary Agency (Turkmen Civil Aviation Agency) has established in 2019, which, as a Civil Aviation Operations Complex, is responsible for the operation and maintenance of Turkmen airlines, airports, and communication and navigation facilities. In addition, Turkmenistan Airlines has been transformed into a joint-stock company controlled by the state.

Conclusion and Recommendations

The six selected countries generally attach great importance to promoting the modernization of the civil aviation industry and have made remarkable progress in constructing civil airport infrastructure, enhancing the competitiveness of airlines, building domestic and international aviation networks, etc. The six selected CAREC countries have evidenced the continuous prosperity of the civil aviation market and the steady growth of civil aviation operating performance. At present, the civil aviation industry has become an essential part of their national economies.

The six countries implemented a series of new strategies and policies in the field of civil aviation, including developing new civil aviation laws, promoting market competition, expanding opening level, encouraging the integration of the civil aviation industry with tourism, e-commerce, business service, and other industries, improving travel facilitation, etc.

Overall, however, each country faces many significant development issues. For example, due to the small size and weak competitiveness of domestic civil aviation enterprises in Georgia, the market share of Georgian civil aviation is mainly occupied by international civil aviation. The civil aviation industry in Turkmenistan is still relatively closed. The civil aviation industries in the Kyrgyz Republic and Mongolia face similar challenges, such as insufficient investment, backward facilities, small

scale, and the weak competitiveness of domestic civil aviation enterprises. Kazakhstan's civil aviation industry has a low financing capacity to promote the modernization of the civil aviation industry.

In the post-epidemic era, the following are recommended:

- 1) **Keeping a high level of openness:** continue to promote the implementation of sky openness and gradually expand the geographical coverage of sky openness policy and maintain a high open policy in the civil aviation industry to promote the integration of civil aviation industry into the global and CAREC regional aviation markets.
- 2) **Fostering a sound business environment:** continuously promote the rule of law in the civil aviation industry, improve the legal system for the development of civil aviation and administrative efficiency, and promote free competition in the aviation market.
- 3) **Promoting the widespread development of civil aviation:** encourage the development of lowcost aviation, regional aviation, and general aviation business, and improve the operation efficiency of airports, airlines, and other relevant civil aviation enterprises based on ensuring the safety of civil aviation transport, constantly reduce the cost of civil aviation transport, promote the flow of logistics, people and information, and then promote the supporting role of civil aviation in promoting the development of the national economy.
- 4) **Building a bank financing and market financing system for the civil aviation sector:** develop financial support policies, make extensive use of policy-based financial tools, introduce leasing finance and other modern financial services, promote the public-private partnership collaboration and continuously broaden the financing channels for civil aviation enterprises.
- 5) **Enhancing the green technology application:** ensure that development in the civil aviation industry is sustainable, vigorously promoting research and development of green technologies and encouraging the use of clean energy in air transport.
- 6) **Strengthening the process of regional cooperation:** recommend starting the preparation and planning of the preliminary work of CAREC regional multilateral transport agreements on civil aviation to facilitate the level of investment and trade in the civil aviation industry and to push the drive towards a stable, orderly, and innovative development.
- 7) Expanding the economic supporting pillar role of the civil aviation industry: encourage the overall role of civil aviation development in promoting national economic growth can be considered holistically, for example, by integrating civil aviation transport, tourism, manufacturing, and agriculture under a single national development framework to promote the maximization of the value of civil aviation industry development.
- 8) Encouraging hub airports to develop multimodal logistics systems: promote the efficiency of logistics with hub airports, speed up the integration of hub airports with high-speed rail, urban rail, highways, and other modes of transport, promote the development of a multimodal transport system by sea, land, and air, and build a modern integrated transport system.