

**PROJECT INFORMATION DOCUMENT (PID)  
APPRAISAL STAGE**

Report No.: PIDA653

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<b>Project Name</b>	China: Jiangxi Shangrao Sanqingshan Airport Project (P123729)
<b>Region</b>	EAST ASIA AND PACIFIC
<b>Country</b>	China
<b>Sector(s)</b>	Aviation (80%), Public administration- Transportation (20%)
<b>Lending Instrument</b>	Specific Investment Loan
<b>Project ID</b>	P123729
<b>Borrower(s)</b>	Ministry of Finance
<b>Implementing Agency</b>	Shangrao Sanqingshan Airport Construction Office (PMO)
<b>Environmental Category</b>	A-Full Assessment
<b>Date PID Prepared</b>	27-Dec-2012
<b>Estimated Date of Appraisal Completion</b>	10-Jan-2013
<b>Estimated Date of Board Approval</b>	09-May-2013
<b>Decision</b>	

**I. Project Context**

**Country Context**

During the past few decades, China has enjoyed continued rapid economic growth with its booming transportation infrastructure. By 2010, the end of China's "Eleventh Five-Year Plan", China has developed a multimodal transportation system with 3.98 million km highway network, 91,000km railway network, 95 national ports, and 175 civil airports . The greatest parts of the national investment in transportation, however, remain in the road and railway sectors, the air transport sector only attracted about 4.6 percent of the total investment during the last five years .

The country has recognized air transport's vital role in promoting economic and social development, reducing regional disparities, and relieving natural disasters. Despite the relatively small amount of investment and the recent global recession of the industry, China has become the world's second largest market in air transport. The country is now giving increasing attention and investment in building and renovating airports, especially feeder airports. In the National Civil Airport Development Plan, the Civil Aviation Administration of China (CAAC) has envisioned 244 civil airports by end of 2020.

**II. Sectoral and Institutional Context**

Air transport is China's fastest growing mode of transport. In 2011, China's air passenger throughput had increased by 10 percent from the previous year to reach 621 million, and cargo tonnage reached 11.6 million tons. By the end of 2011, China has 47 airline companies, with 38 state-owned and 9 privately owned. The total number of scheduled air routes has reached 2290, with 1847 domestic and 443 international routes. The domestic routes cover more than 175 cities . China is now the world's second largest air transport market in traffic volume after the United States . During the Eleventh Five-Year Plan (2005-2010), China's civil aviation infrastructure received investment of RMB 250 billion (USD 38 billion), which is equivalent to the total investment combined during the previous 25 years. As of the end of 2010, China has 175 civil aviation airports with 33 newly built ones during the last five years. International routes provide regular air service to 110 cities in 54 countries. Using the airport service radius standard of accessibility within 100 km or 1.5 hours of ground transport, the existing airport network now can serve 70% of counties, and their catchment area covers 76% of total population and 91% of the economy measured by total Gross Domestic Products (GDP). Decades of emphasis on safety has paid off with China now recognized globally as a provider of safe air transport.

The CAAC is the administrative institution responsible for civil aviation in China, now under the Ministry of Transport which was newly created in 2008. CAAC's responsibility includes planning for airports, setting domestic and international aviation tariffs, managing airport construction fees, setting and monitoring safety and security standards, administering air traffic control and conducting civil aviation airspace planning. In recent years, CAAC has carried out major administrative and regulatory reforms for better functioning and development of civil aviation sector in China. In 2001, 10 major airlines were consolidated into 3 super carriers: Air China, China Eastern Airlines, and China Southern Airlines to optimize resource allocation. Foreign investors were allowed in 2002 to invest in airport construction, including terminal buildings and runways, with up to 49% share of equity. Domestic airlines were allowed in 2004 to invest in airports to a maximum of 25% of total investment. Airport ownership has been transferred within the CAAC from the central to the provincial level since 2002 .

China plans to build 69 additional airports for a total of 244 civil airports by 2020 which would require investment of RMB450 billion. If successful, all the province capitals, major cities, and major tourism destinations, will be connected by a functional hub, trunk, and feeder airport network. The overall capacity of air transport infrastructure and its integration with other transport modes will be notably improved. By that time, more than 80 percent of counties will be within 100 km or 1.5 hours by ground transport access to an airport, and the total air transport catchment area will account for 82 percent of total population and 96 percent of total GDP .

Despite the large airport infrastructure development, the provision of efficient airport service is still lagging behind, in part because, (i) air transport resources and function between airports in some regions is not optimized, (ii) lack of integration of air transport with local urban planning and surface transport planning. Furthermore, some large airports have reached their capacities; while some feeder airports are underutilized. The number of feeder airports and feeder airlines is relatively small and geographical coverage is yet to be optimized. Issues such as poor connectivity with regional airports, poor operational efficiency, and low utilization of feeder airports are restraining China from building a

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mature and efficient air transportation network. The 12th Five Year Plan of China Civil Aviation recognizes these problems and aims to deepen the reform of airport operation to optimize the service provision, and to integrate and configure capacities of airports.

Generally, small and regional airports lack the critical volume of traffic to be commercially profitable. Recognizing that the availability of air transport is a catalyst of regional economic growth, governments at times finance shortfalls from public funds or provide financial cross-support from larger airports while some are maintained by industry (e.g. manufactures) or the local private sector (e.g. chamber of commerce). This places even greater pressure to ensure that investments are appropriately sized and mechanisms for optimizing revenue generation are realized. In 2007 and 2008, CAAC introduced several subsidy policies to support small and medium airports and feeder airlines. In addition, starting from 2011, passengers will be exempted from airport construction fees if their flight departs from or arrives at a feeder airport.

In addition, environmental issues, such as solid waste, water pollution, as well as carbon emission, are also identified as strategic level issues. As a user of fossil fuels and contributor to green house gas emissions, air transport is under pressure to provide more energy efficient transport and to reduce its carbon footprint. Moreover, treatment of solid waste and airport waste water are to reach 85 percent according the CAAC's 12th Five Year Plan.

The World Bank, together with the Ministry of Finance and the National Development and Reform Commission, identified in a June 2009 workshop on innovation, air transport as an area where the World Bank could bring value. Subsequently air transport workshops sponsored by the World Bank were held with government officials and industry specialists in September 2009 and June 2010 to discuss the challenges facing air transport in China and how the Bank could assist in mitigating these challenges. Three principal areas of cooperation were identified: transport modal integration, environmentally friendly airport design and operation, and economic and financial sustainability. Shortly thereafter a pilot investment project was identified whereby these issues could be addressed: the Shangrao Sanqingshan Airport project, the first Bank - financed air transport project in China.

The project involves various stakeholders including the government agencies from the national level, including CAAC and NDRC, and the local level, including the Shangrao Municipal Development and Reform Committee (MDRC), Shangrao Municipal Finance Bureau (MFB), Transport Bureau, and Municipal Planning Bureau. An airport management office was established in 2010 for the preparation of the project. In addition, the Shangrao Municipal Government (SMG) has recently established the Shangrao Sangqingshan Airport Corporation, which will be responsible for the operation of the airport once construction is completed.

Aside from the primary project development objective of improving air transport connectivity, the Bank's involvement will bring value and innovation to China's air transport sector in following four major areas.

- (a) Multimodal transport integration: the airport will be integrated into the transport network of Shangrao city and North Eastern Jiangxi region through the provision of technical support to develop an integrated transport plan for the region.
- (b) Environment sustainability: the project will adopt the most environmentally sensible and practical decisions in airport design and operation with a view to developing a 'green' airport.
- (c) Economically sustainability: the project scope is designed to ensure proper demand forecasts and appropriate airport sizing to meet the demand by taking into account the existence of high-speed trains and other modes that will compete or complement with air transport.
- (d) Financially sustainability: an appropriate business and operational model will be adopted for the airport to make it a model of financial sustainability for China's other feeder airports, including through identifying other non-operating revenues (such as commercial development and airport economic planning) to reduce the fiscal burden for SMG. In addition, the project will support key operational elements, like route design, environmental management during operations, targeted passenger groups, marketing and negotiating with airline companies to enhance the financial viability of the airport.

Shangrao Sanqingshan Airport is included in the CAAC's National Civil Airport Development Plan for 2020. The municipality of Shangrao is located at the junction of Jiangxi, Zhejiang, Fujian, and Anhui province, and it connects the Yangtze River Delta economic zone, the Pearl River Delta economic zone, and the Western Taiwan Straits economic zone. With famous tourism destinations such as Wuyuan, Sanqingshan (UNESCO Natural Heritage), and Poyang Lake, Shangrao accommodated 29.15 million domestic tourists and 170,000 international tourists in 2011, its tourism income was more than RMB 21.54 billion and tourism foreign exchange exceeded \$63.78 million.

The catchment area for the airport will include the areas within 100 km of radius or 1.5 hours of ground transportation. In this area, the Shangrao and Yingtan municipalities are included, totaling a population of 8.5 million and a total area of 26,000 km<sup>2</sup>. In 2011, the Shangrao municipality GDP reached RMB 111 billion, a 13% increase from the previous year, and Yingtan had RMP 42 billion for a total catchment GDP of RMB 144 billion. Special agriculture, mineral resources and tourism are the mainstay of Shangrao's economy, while non-ferrous metals, new energy, electrical and mechanical optics, new building materials have become the city's four leading industries.

The proposed Shangrao Sanqingshan airport is of significant importance to the economic development of Shangrao Municipality and the Northeastern Jiangxi Province. It will facilitate the growth of the region's tourism resources and complement the comprehensive transport system. In the project's pre-feasibility study, the passenger traffic for 2020 is estimated to be 500,000 with a 14% annual growth rate. Cargo tonnage is estimated to be 3,000 tons by 2020. Given the large population in the catchment area and the booming regional tourism that has reached 14.7 million visitors, the forecasted 500,000 passengers by 2020 appears reasonable. The pre-feasibility study concludes that the airport will be financially sustainable if the annual passenger flow is above 350,000. It is estimated that, during the early opening years after the airport becomes operational, financial subsidies from the municipal government will be needed to maintain the airport operation.

Although there are 4 civil airports located within about a 200 km radius of the project (Jingdezhen, Wuyishan, Huangshan and Quzhou), the accessibility to these other airports by the Shangrao targeted passengers is restricted by mountainous terrain which results in longer travel time than suggested by the "crow-fly" distance. Therefore the proposed airport will provide easier access to Shangrao residents and visitors, ensuring the airport will remain the preferred choice.

It is intended that the project will enhance operations by setting up a proper business model, improving the identification of targeted passenger groups, designing proper air routes, incorporating environmental sustainability to achieve national carbon emission targets as well as energy saving. If successful, it is anticipated that this project will become a demonstration project for the development of future feeder airport projects in China.

The proposed project supports the concept of a Green Airport development and operation, which will focus on increasing energy efficiency in the following aspects:

- Energy efficient architecture and airport layout design. The architecture will be designed with energy efficient elements such as natural ventilation, double glass facades and large roof overhangs for solar shading, etc.; while the energy efficient airport layout would provide the most direct routes between runways and terminal gate to reduce taxiing time and delays.
- Alternative power sources. Alternative energy sources would be used for selected facilities using solar-generated electricity; diesel or natural gas whichever would be more readily available.
- Energy efficient equipment and infrastructure. The equipment and infrastructure will be designed to use energy efficient elements and materials, including LED for lighting, a self-contained drainage system for wastewater treatment, Fixed Electrical Ground Power (FEGP) and Pre-Conditioned Air (PCA) units for on-board power supply and ventilation, warm-mix asphalt or recycled content in pavement, hybrid or clean-energy fleet vehicles, intermittent functioning modes for elevators, escalators and pedestrian conveyors etc.

### III. Project Development Objectives

The Project Development Objective (PDO) is to improve airline connectivity in Northeastern Jiangxi Province and demonstrate the environment sustainability of the development and operation of the Shangrao Sanqingshan Airport.

### IV. Project Description

#### Component Name

Airport Infrastructure Development Component

Institutional Development and Capacity Building Component

### V. Financing (in USD Million)

For Loans/Credits/Others	Amount
Borrower	55.13
International Bank for Reconstruction and Development	50.00
Total	105.13

### VI. Implementation

The Shangrao Municipal Government (SMG) has established a Project Leading Group (PLG) to provide strategic leadership, policy guidance and institutional coordination on project preparation and implementation. The PLG, headed by a Vice Mayor, is composed of leaders and directors of several relevant municipal government line agencies.

Under the leadership of the PLG, the Project Management Office (PMO) was established for the project proposal submission and clearance, and submission and clearance of the feasibility studies in liaison with the functional departments of the provincial government. It is responsible for daily coordination during the project implementation and operation periods. In accordance with SMG's airport operation and management ordinance, it is responsible for the airport planning and preservation of aerial clearance.

The Shangrao Sanqingshan Airport Company Limited (SSAC) was established solely by Shangrao Municipal State-owned Assets Supervision and Administration Commission with registered capital of Rmb 50 million on 25 July 2011. The Director of the PMO is also the Chairman (Legal Representative) and the operating head of the SSAC. Currently, there are four divisions in the company including (a) administration division (three persons); (b) engineering division (four persons); (c) financial division (two persons); and (d) audit office (one person). During airport operation, a fifth division, operation division, will be added, with four persons (air traffic control, navigation, weather, and business operation). At the current moment the staffing of the PMO and SSAC are the same people.

The SSAC/PMO will be responsible for the day-to-day project management, including implementation of procurement, contract management, resettlement, social and environmental safeguards, loan disbursement requests, fiduciary compliance and evaluation, results monitoring, and reporting. SSAC will be the primary coordinating body responsible for communicating with the World Bank, ensuring that implementation is consistent with all relevant World Bank policies and procedures. The SSAC will also serve as the executing agency, responsible for implementing all TA studies.

### VII. Safeguard Policies (including public consultation)

Safeguard Policies Triggered by the Project	Yes	No
Environmental Assessment OP/BP 4.01	X	
Natural Habitats OP/BP 4.04		X
Forests OP/BP 4.36		X
Pest Management OP 4.09		X
Physical Cultural Resources OP/BP 4.11	X	
Indigenous Peoples OP/BP 4.10		X

Involuntary Resettlement OP/BP 4.12	<b>X</b>	
Safety of Dams OP/BP 4.37		<b>X</b>
Projects on International Waterways OP/BP 7.50		<b>X</b>
Projects in Disputed Areas OP/BP 7.60		<b>X</b>

**VIII. Contact point****World Bank**

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