China

Lanzhou Zhongchuan Airport Expansion Project

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Field Survey: October 2004

1. Project Profile and Japan's ODA Loan

Project Site Location Map

Lanzhou Zhongchuan Airport Terminal Building

1.1 Background

Since China adopted the reform and opening-up policy in 1978, the traffic volume of the aviation sector in China has rapidly increased to record annual growth rates of 18% for passenger traffic volume and 15% for cargo traffic volume from 1980 to 1990 on average. An even sharper increase was achieved during the period from 1991 to 1995, recording annual growth rates of 25.3% for passenger traffic volume and 22.3% for cargo traffic volume. As of 1996 (appraisal time), passenger traffic volume and cargo traffic volume were predicted to reach 100 million persons and 2 million tons respectively by the year 2000.

Gansu Province, which located in Northeastern China[1] near Xinjiang Uygur Autonomous Region and Central Asia, plays an important role in terms of politics and economics. Since the surrounding areas including the Tarim Basin are abundant in oil reserves, transportation of materials in the province was expected to increase when the development of oil fields started on a large scale. Lanzhou, the capital city of Gansu Province, was expected to function as a base for the transportation of resources and people, and the demand for air transport was predicted to increase, boosted by the development of energy and tourism resources. Considering that the flight routes connecting Europe and Central Asia to Central China pass mostly over mountain ranges including mountains over 8,000m as well as deserts, there was a need to develop an airport in Lanzhou at the center of China that can serve as a site for emergency landings in this

[1] Gansu Province, Xinjiang Uygur Autonomous Region, Ningxia Huizu Autonomous Region, Shaanxi Province and Qinghai Province

region.[2]

1.2 Objective

The project's objective was to newly construct a runway except for the existing runway and a passenger terminal building in the former runway area of Lanzhou Zhongchuan Airport situated 70km northwest of the urban district of Lanzhou, Gansu Province in order to cope with the predicted increase in the demand for air transport, thereby contributing to activating economic activities in the northwestern region. At the same time, the project aims to grade up the aforesaid airport serve as an emergency or alternative airport, thereby contributing to the improvement of aviation safety in the northwestern region.

Fig.1 Northwestern China

1.3 Borrower/Executing Agency

Government of the People's Republic of China/ Civil Aviation Administration of China

Practical executing agencies: CAAC Gansu Province Administration (as of appraisal)

Gansu Airport Group Co., Ltd. (as of evaluation)

[2] Lanzhou Zhongchuan Airport, which opened in 1970, was constructed adjacent to a mountain due to an inevitable situation at the time and it did not have enough airspace necessary for safe operation. In addition, the runway caved in at several points and suffered severe damage from soil swelling caused by freezing and the operation of aircrafts with weights exceeding the design load. Even after the air traffic control radar and security system were improved in 2000 as part of the Civil Air Traffic Control Modernization Project, concerns remained over the safety of the flight area including the runway.

1.4 Outline of Loan Agreement

Loan Amount / Loan Disbursed Amount	6,338 million yen / 6,299 million yen
Exchange of Notes / Loan Agreement	December 1996 / December 1996
Terms and Conditions - Interest Rate - Repayment Period (Grace Period) - Procurement	 2.3% 30 years (10 years) General untied
Final Disbursement Date	June 2002
Main Contract	Local companies
Consultant Contract	—
Feasibility Study (F/S) etc.	September 1995 F/S (Chinese Government) September 1997 Basic Design (Chinese Government

2. Results and Evaluation

2.1 Relevance

At the time of appraisal, the aviation sector focused on ensuring the safety of civil air transport, modernizing airports and improving services. In the Ninth 5-Year Plan (1996-2000), expansion/construction of the core airports[3] in Beijing, Guangzhou, and Shanghai and construction of the trunk line airports in capital cities of 32 provinces and tourist cities were identified as specific targets. The Gansu Province Development Plan emphasized the importance of the expansion and construction of 4 airports in the province[4] in order to activate the regional economy, especially the tourism economy. This project was to expand the Lanzhou Zhongchuan Airport, one of the above-mentioned 4 airports, in the capital city Lanzhou from a local airport to a trunk line airport, and it was of high priority at the time of appraisal.

The Tenth 5-Year Plan (2001-2005) also calls for the construction of local airports in the northwestern region as well as continued expansion and construction of the core airports and trunk line airports. In the Gansu Province Development Plan, increasing the share of air transport and securing aviation safety are listed among priority issues. This project aims to meet the demand for air transport while ensuring the safety of flight routes over the northwestern region and therefore is still highly important today.

[3] Airports in China are generally classified into three categories according to their functions and the types of aircrafts they can accommodate: core airport (national and regional revel), trunk line airports, and local airports. As of 2003, there are 4 national level core airports in the 3 cities of Beijing, Shanghai (Hong Qiao Airport and Pudong International Airport), and Guangzhou, 6 regional level core airports in Shenyang, Wuhan, Chengdu, Xian, Kunming and Urumchi, 49 trunk line airports, and 73 local airports.

[4] Lanzhou Zhongchuan, Dunhuang, Qingyang, and Jiayuguan

2.2 Efficiency

2.2.1 Output

The output listed below was planned at the time of appraisal. The ODA Loan covered the entire foreign currency portion of the required funds.

(1) Civil engineering works (runway, parallel taxiway, apron, hangar)

(2) Construction of a passenger terminal building

(3) Construction of a cargo terminal building

(4) Construction of an air traffic control tower

(5) Installation of air navigation facilities (Instrument Landing System (ILS)[5], Non-Directional Radio Beacon (NDB)[6])

(6) Improvement of other facilities (water and sewage system, fuel supply system, etc.)

The planned output was mostly achieved except that the floor area of the cargo terminal building was expanded from the initially planned 2,000 m^2 to 3,328 m^2 (increased by 66%) because the warehouses for the airline companies and the space for the customs were expanded in view of the expected increase in the demand for cargo transport and also from the viewpoint of functions and services based on the result of basic designing after the appraisal.

2.2.2 Project Period

At the time of appraisal, the whole project was scheduled to be implemented in a period of 38 months (reckoning from the signing of the Loan Agreement (L/A)) from December 1996 to February 2000, whereas actually it took 56 months (extended by 47.4%) from December 1996 to August 2001. Main reasons for the delay in implementation are: (1) L/A took effect later than planned due to the time required for the procedures at the Chinese Government; (2) F/S was not accurate enough, and therefore it took time to modify the shopping list and make adjustments for the changes in the output that occurred at the stage of basic design after the appraisal; and (3) the construction work was delayed due to unfavorable weather[7].

2.2.3 Project Cost

The total project cost was 20,326 million yen, 48.2% more than the amount planned at appraisal time, 13,717 million yen. However, the disbursed amount of the ODA Loan was 6,293 million yen, which was within the approved amount (6,338 million yen). The primary reason that caused the total project cost to exceed the planned amount is believed to be that the actual prices were significantly higher than those based on which the project cost was estimated at the

[5] A device that emits guiding radio waves indicating the direction of approach and the angle of descent to guide the aircraft to the end of the runway, thus ensuring safe landing even when the visibility is poor due to bad weather

[6] A device that emits non-directional medium to low frequency radio waves enabling direction detecting on the aircraft

[7] The project site was hit by a huge flood in 1997.

appraisal time reflecting the price escalation triggered by the policy shift of the central government in 1997 (transition from controlled to market prices). The second reason is derived from the inaccuracy of F/S that lead to the expansion of the cargo terminal building in the basic design completed after the appraisal, which resulted in an increase in the project cost by 84 million yuan (1,273 million yen).

2.3 Effectiveness

2.3.1 Handling of Demand Increase for Air Transport

2.3.1.1 Airport Facilities

Table 1 is a comparison of major facilities of Lanzhou Zhongchuan Airport before and after the project was implemented. The new passenger terminal building (opened to air traffic in November 2001) has an area of approx. 27,500 m^2, about 5.5 times larger than the old one and can accommodate 1,300-1,500 passengers at peak time. Also, the cargo terminal building with an area more than 5 times larger than that of the old one contains spaces for disposal of cargos, customs, and warehouses for airline companies that were not available in the old terminal building. In addition, construction of a 3,600m runway enabled landing of large size aircrafts in addition to the small size aircrafts that the old airport accommodated.

Table 1. Comparison of Major Facilities Before and After the Project Completion

	Old Airport (before the project)	New Airport (after the project)
Floor area of the terminal building	5,000 m^2	27,495 m^2
Floor area of the cargo terminal building	600 m^2	3,328 m^2
Runway	3,400m x 45m	3,600m x 45m
Number of aircrafts that can park on the loading apron at the same time	Small size aircrafts: 4 Medium size aircrafts: 2	Small size aircrafts: 6 Medium size aircrafts: 5

Source: Gansu Airport Group Co., Ltd.

2.3.1.2 Number of Takeoffs and Landings

As the number of flight routes to and from Lanzhou Zhongchuan Airport increased from 21 in 1995[8] to 26 in 2004[9] including the new routes from/to Hangzhou, Changsha, Nanjing, Taiyuan, and Jinan, the number of regular flights were increased nearly five-fold from 67 flights a week

[8] Based on the flight schedule for 1995.10.29-1996.3.30
[9] Based on the flight schedule for 2004.3.28-2004.10.30

in 1995 to 344 flights a week in 2004 mainly as a result of the increase in the flights from/to and from Xian, Urumchi, Dunhuang, and Beijing. Consequently, the number of takeoffs and landings increased from 6,200 in 1995 to 9,500 in 1999, the year following the opening of the new runway. As of the time of the field survey, the number was predicted to reach 17,200 in 2004.

Table 2. Number of Takeoffs from and Landings at Lanzhou Zhongchuan Airport

	1995	1996	1997	1998 (Completion of Runway)	1999	2000	2001 (Project Completion)	2002	2003	2004*
Number of Takeoffs and Landings	6,200	7,200	7,200	9,000	9,500	10,200	11,200	12,100	13,400	17,200
Growth Rate (%)		16.13	0.00	25.00	5.56	7.37	9.80	8.04	10.74	28.36

Source: Gansu Airport Group Co., Ltd.

*Estimation

2.3.1.3 Number of Passengers

As shown in Table 3, the number of passengers who traveled through the airport was 679,000 in 2000, 664,000 in 2001, 703,000 in 2002, and 805,000[10] in 2003. Although the number decreased in the project completion year, 2001, severely affected by the September eleven terrorist attacks, it has been on the increase since 2002.

Comparing it to the target of 1.3 million for 2000 set at the appraisal time, the achievement rate is only 52.2%. When the number of passengers was estimated, the high growth rate of over 20% in the first half of the 1990s was predicted to continue, and the average annual growth rate from 1994 to 2002 was estimated at 23%. However, the period of extremely high growth rate ended in the latter half of the 1990s, and ever since the number has been growing at a certain high rate. Although the growth rate in the demand for air transport is lower than predicted, given the predicted economic growth rate of Gansu Province, the number is predicted to reach the 2001 target of 1.3 million in 2007[11], and the 2005 target of 2.6 million, which can satisfy the amount invested in this project, is predicted to be achieved in 2012.

[10] Nearly equal to the number of passengers through Izumo Airport (aprox.800, 000)

[11] In the aviation sector, it is said that the number of passengers is in proportion to the degree of economic growth. Looking at these relations globally, the average growth rate of passengers on regular flights from 2000 to 2004 was 6.3% (International Air Transport Association (IATA)) and the economic growth rate from 2001 to 2004 was 3.6% (International Monetary Fund (IMF)), and the value of elasticity was 1.75. Applying this value to the economic growth rate of Gansu Province, which is 9%, the growth rate of the number of passengers is calculated to be 15.75%, and therefore number is predicted to reach 1.3 million in 2007.

Table 3. Changes in the Number of Passengers who Traveled Through Lanzhou Zhongchuan Airport

	1994	1995	1996	1997	1998	1999	2000	2001 (Completion)	2002	2003
Estimate (thousand persons)	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	1300	N.A.	N.A.	N.A.
Actual (thousand persons)	383	515	585	550	529	572	679	664	703	805
Achievement Rate (%)	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	52.23	N.A.	N.A.	N.A.
Growth Rate (%)	N.A.	34.46	13.59	-5.98	-3.82	8.13	18.71	-2.21	5.87	14.51

Source: Gansu Airport Group Co., Ltd.

2.3.1.4 Cargo Volume

At the time of appraisal, the cargo volume was estimated to be 10,000 tons for 2000 and 15,000 tons for 2005. The actually handled volume in 2000 was 10,901 tons[12], and the target was achieved. In 2001, the air traffic volume all over China declined significantly due to the influence of the multiple terrorist attacks in September. As Lanzhou Zhongchuan Airport did not accommodate cargo flight services, the cargo volume dropped below 10,000 tons as a result of the decrease in takeoffs and landings of passenger aircrafts. Since 2002, the cargo volume has been on the increase and recovered to the 10,000 tons level in 2003, achieving 10,445 tons.

Table 4. Changes in Cargo Volume Handled at Lanzhou Zhongchuan Airport

	1994	1995	1996	1997	1998	1999	2000	2001 (Completion)	2002	2003
Plan (ton)	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	10,000	N.A.	N.A.	N.A.
Actual (ton)	5,592	7,347	7,838	8,075	7,887	9,399	10,901	9,250	9,481	10,445
Achievement Rate (%)	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	109.01	N.A.	N.A.	N.A.
Growth Rate (%)	N.A.	31.38	6.68	3.02	-2.33	19.17	15.98	-15.15	2.50	10.17

Source: Gansu Airport Group Co., Ltd.

2.3.2 Improvement of Takeoff and Landing Safety through The Improvement of Airport Facilities

Before the project was implemented, the space between the runway and taxiway and the width of the taxiway, etc. did not satisfy the ICAO standards. Also the runway with its surface stripped off and caved in due to the loess stratum not only made passengers feel uncomfortable at takeoff and landing but also could cause the aircraft to overrun the landing area. Moreover, there was only one Instrument Landing System (ILS), which navigates landing aircrafts, at the north side of the runway, and landing at the south side was performed using the Non-Directional

[12] Nearly equal to the cargo volume handled at Takamatsu Airport (aprox.10, 000 tons)

Radio Beacon (NDB). In order to function as an alternative airport[13] in Northwestern China, Lanzhou Zhongchuan Airport was improved into a new airport satisfying the ICAO standards under this project. Also under this project, an additional ILS was installed to enable landing with ILS from both north and south sides[14], and 2 NDBs were newly installed at the south and north side respectively. Thus, it can be said that the safety of aircraft landing and takeoff is ensured.

2.3.3 Others

As other effects of this project, crowdedness in the passenger terminal building at peak time has been reduced and the convenience has been improved. At the time of appraisal, the passenger terminal of Lanzhou Zhongchuan Airport was very crowded during the hours when many aircrafts were departing. Due to the completion of the project, check-in counters have increased from 7 to 20 and the baggage inspection area is divided into two zones for checked and unchecked baggage, and as a result crowdedness has been eased in general. As for convenience, boarding bridges are now available for departing passengers, who used to walk or use buses to get on the aircraft. Elevators for handicapped persons and handrails for walkers were also installed. According to the questionnaire given to 26 airport staff, 88.5% of the respondents indicated that airport facilities have been improved.

Near the security inspection counter of the airport, there is a plate stating that this airport was constructed with the support of Japan's ODA Loan, showing their consideration for publicity.

2.3.4 Recalculation of Financial Internal Rate of Return (FIRR)

Recalculation of Financial Internal Rate of Return (FIRR) of this project assuming that the project life is 30 years resulted in a negative value[15]. This value is less than 4% calculated at the time of appraisal because the project cost was larger than planned and the income from airport operation as of appraisal time was less than estimated.

As analyzed in 2.3.1.3, although the passenger traffic volume has not reached the planned level, both the number of passengers and the handled cargo volume has been increasing on a

[13] An airport at which an aircraft lands when it is not able to land at its original destination airport because of poor visibility or other reasons, which is determined as part of the flight plan prior to departure according to the conditions of the aircraft and the airport.
[14] Another one was transferred from the old runway.
[15] The costs are calculated based on the project cost and the maintenance cost provided by the executing agency and the benefits were calculated based on the income from airport operation.

steady basis. The problem of crowdedness in the passenger terminal building at peak time has been solved, and the number of landings and takeoffs has increased significantly. Also, as the air traffic zone satisfying ICAO standards is established, and the safety of aircraft landing and takeoff is ensured, the airport is equipped to function as an alternative airport. Thus, although management improvement is required for the future considering that Internal Rate of Return is a negative value, the objective of the project has mostly been achieved.

2.4 Impact

2.4.1Ensurement of Aviation Safety in the Northwestern Region

If there is something wrong with an aircraft in flight, the aircraft may make an emergency landing at the nearest airport along the flight route. Since Lanzhou Airport is located along the flight route connecting the coastal region and the inland region and, moreover, as it is in the center of China as already mentioned, this project including the expansion and development of the flight zone was regarded as important in ensuring aviation safety over the northwestern region. At the time of appraisal, there were only two airports that accommodated large size aircraft in this region: Urumchi Airport and Xian Airport. As a result of this project, Lanzhou Zhongchuan Airport was added to this list, and now there are three alternative airports in this region. Since the completion of the Lanzhou Zhongchuan Airport project in 2001, the airport has been used for emergency landings of medium and large size aircrafts and as an alternative airport 189 times, thus contributing to aviation safety.

2.4.2 Activation of Economic Activities in the Northwestern Region

One of the effects that an airport has on economic activities is an increase in tourists. Gansu Province has a “golden area” for tourists dotted with a number of ancient cultural ruins such as Dunhuang, which the Silk Road passes through. Following the expansion of Dunhuang Airport in 2001, flight service between Dunhuang and Shanghai started. However, because the annual passenger handling capacity of Dunhuang Airport is as small as 300,000, Lanzhou Zhongchuan is still the air gateway to Gansu Province. The number of foreign tourists who visited the province increased 2.3-fold from 100,000 in 1996 (year of appraisal) to 230,000 in 2002, and domestic tourists increased nearly 3-fold from 3.4 million to 10.35 million. Although it is difficult to prove direct causal relationships, Gross Regional Domestic Production (GRDP) increased from 71.48 billion yuan in 1996 to 116.143 billion yuan in 2002 and 130.46 billion yuan in 2003. These facts indicate that the project contributes to activating the regional economy to a certain degree.

2.4.3. Impact on Environment and Society

2.4.3.1 Residents Relocation

From the area where the noise level was 75dB or more (an area of 3.75km^2 surrounding the airport), 1,365 residents of 273 households were relocated under the Land Control Law of China. According to the executing agency, the relocation process was implemented without any problem, and a total of 4,095,000 yuan was paid as compensation. As a result, there is no noise impact on the residents around the airport. Relocation had already been completed at the time of appraisal, and it had been confirmed that there was no problem.

2.4.3.2 Environment

At the time of appraisal, environmental measures were considered concerning noise, waste disposal, and drainage. According to the results of environmental monitoring around the airport obtained from Yongdeng County Observatory of Lanzhou Municipal Government Environmental Protection Bureau as described below, no adverse impact of this project on the environment has been observed.

The noise levels of all observation points have been maintained below the standard 70dB set by "Category II Aviation Environmental Quality Standards for Areas around Airports"[16]. Garbage from aircrafts, living garbage, and coal ash generated by the boiler are properly treated at the waste incinerator constructed under this project. At the waste incinerator and the boiler, which are emission sources of air pollutants, dust removal measures are taken. The monitoring results as of 2004 show that the levels of dust and sulfur dioxide were below the values of "Category II Standards for Air Pollutant Emissions from Boilers"[17] and "Standards for the Control of Pollution by Incineration of Living Garbage"

2.5 Sustainability

2.5.1 Executing Agency

2.5.1.1. Technical Capacity

The flight zone and the terminal buildings are respectively operated and maintained by the Power Department and Terminal Buildings Management Department of Facilities Maintenance Division. Respectively, the above-mentioned departments have 130 employees and 70 employees. About 70% of the employees of the Power Department are senior employees with over 20 years of service, and about 20% of the employees of the Terminal Building Management Department have 15-6 years of service, and the rest are new employees. New employees are provided with the opportunity to receive training and are obliged to obtain

[16] Category I is applied to special housing/cultural and educational areas and Category II is applied to other residential areas, including areas around airports.

[17] 250 mg/m^3 or below for dust and 1200 mg/m^3 or below for sulfur dioxide

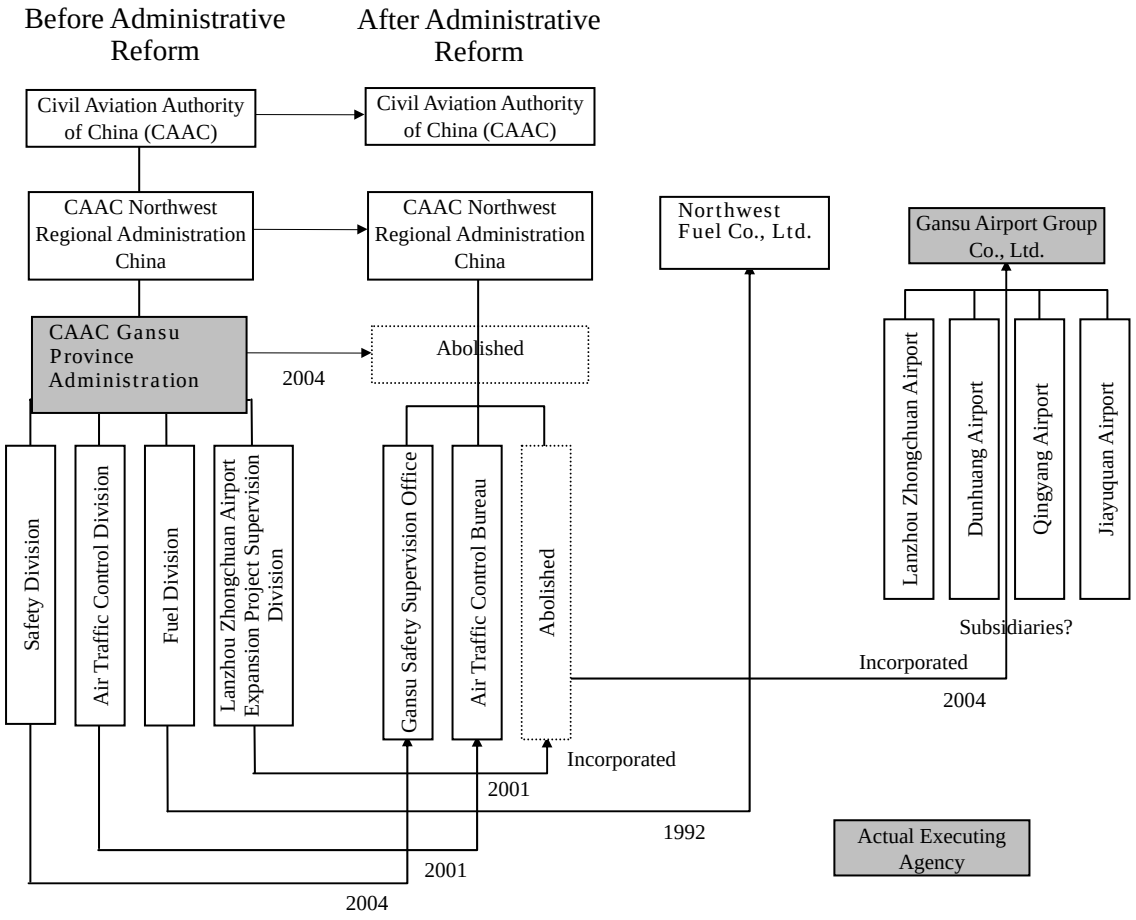
licenses for the jobs that require technical skills such as the operation of the boarding bridge. Ultimately they all must take OJT before starting their duties. Technical employees are doing their duties after passing examinations properly designed every year, and therefore there is no problem with the technical level of employees. Also the company has a variety of training and safety education programs for brushing up acquired skills and acquiring new skills, which counts to more than 90 times a year. Procedures for emergency or abnormal situations are in place, and the system for minimizing troubles in the event of accidents, etc. has been developed.

2.5.1.2 Operation and Maintenance System

At the time of appraisal, the executing agency was the Civil Aviation Administration of China (CAAC) under the direct control of State Council[18], and actual operation and maintenance of the airport were conducted by CAAC Gansu Province Administration under the supervision of CAAC Northwest Regional Administration (under the direct control of CAAC). In the process of the administration reform of the aviation sector that started in 1987, the aviation fuel division and other divisions were separated from the above-mentioned organization to be incorporated (Northwest Fuel Co., Ltd). The supervision functions and asset management functions were separated by 2003. Of the supervision functions, the route supervision function (air traffic control division) was integrated into the Northwest China Air Traffic Control Bureau, and the safety supervision function (safety division) is performed by the newly established Gansu Safety Supervision Office under the control of CAAC Northwest Regional Administration. Asset management functions are performed by the Provincial Government of Gansu. The airport operation and maintenance division was incorporated as Gansu Airport Group Co., Ltd. in 2004. This company manages the 4 airports of Lanzhou Zhongchuan, Dunhuang, Qingyang (under construction), and Jiayuguan with 1,476 employees belonging to 3 departments of management, control, and production as of September 2004. In addition to repeated reorganization in the past, there is a move to make each airport a subsidiary company. We need to take heed of future development.

[18] Equivalent to the Cabinet of Japan

Fig.2. Organizational Relationship before and after Administrative Reform



2.5.1.3 Financial Status

Sales of Gansu Airport Group Co., Ltd. was 130 million yuan for 2000, 134 million yuan for 2001, 39 million yuan for 2002, and 46 million yuan for 2003 (Table 5). The sharp drop in 2002 is attributable to the lost of income from the route supervision function, which was transferred to the Northwest China Air Traffic Control Bureau in 2001 as part of administrative reform. Due to the borrowing and capital investment from 2002 to 2003, increase in the cost for depreciation is predicted for some years to come. However, there seems to be an upward trend in profitability as the net profit to sales ratio decreased from △455.4% for 2002 to △372.8% for 2003, and a sales increase rate of 17.7% was recorded during the same period. Deficits are to be compensated for by the national government up to 2005. While making a request for continued compensation for deficits for 2006 and beyond, the executing agency is now considering measures to increase profit.[19] Financial sustainability of this project should be examined continuously.

[19] Such as inviting an airline to set up a base at Lanzhou Airport in the first half of the period of the Eleventh 5-Year Plan (2006-2010) to increase the number of aircrafts stationed at the airport, establishing an organization specialized in service management and training in order to improve the quality of service, etc.

Table 5. CAAC Gansu Province Administration

Income and Loss Statement and Balance Sheet

	2000	2001	2002	2003
Income from Main Business	130,175,563	134,538,703	39,756,540	46,825,340
Cost of Main Business	(80,968,825)	(124,945,979)	(154,297,821)	(165,946,735)
Taxes and Additional Expenses on Main Business	(4,160,876)	(4,363,491)	(1,291,447)	(1,505,334)
Gross Profit (Loss on Sales)	45,045,863	5,229,233	(115,832,727)	(120,626,729)
Profit (Loss) from Other Businesses	(319,823)	(640,201)	1,613,527	2,776,589
Administrative Expense	(30,335,061)	(33,403,350)	(29,160,044)	(30,468,123)
Financial Expense	(1,904,407)	(1,478,626)	(19,068,465)	(19,894,327)
Operating Income (Loss)	12,486,572	(30,292,944)	(162,447,710)	(168,212,590)
Return/Loss on Investment	(174,614)	(101,629)	(124,302)	95,629
Non-operating Income	18,889	37,500	48,200	150,793
Non-operating Expenditure	(4,947,322)	(41,425,133)	(18,528,307)	(6,614,289)
Prior Period Adjustment	733,851	(2,309,456)		
Net Profit (Loss) before Taxes	8,117,375	(74,091,662)	(181,052,119)	(174,580,458)
Corporate Income Tax	0	0	0	0
Net Profit (Loss)	8,117,375	(74,091,662)	(181,052,119)	(174,580,458)
Gross Profit to Sales Ratio	34.60%	3.89%	-291.36%	-257.61%
Operating Profit to Sales Ratio	9.59%	-22.52%	-408.61%	-359.23%
Net Profit to Sales Ratio	6.24%	-55.07%	-455.40%	-372.83%
Sales Growth Rate		3.35%	-70.45%	17.78%

	2000	2001	2002	2003
Current Assets	197,632,277	232,057,703	227,407,286	192,667,839
Fixed Assets	340,096,325	1,650,427,534	1,580,272,322	1,498,374,040
Other Assets	40,850	1,359,186	1,218,580	1,077,975
Total Assets	537,769,452	1,883,844,422	1,808,898,188	1,692,119,853
Current Liabilities	98,186,582	1,601,897,973	198,858,235	191,203,236
Fixed Liabilities	53,606,752	45,749,238	637,753,698	637,161,337
Total Liabilities	151,793,334	1,647,647,211	836,611,932	828,364,573
Total Shareholders' Equity	385,976,118	236,197,271	972,291,255	863,755,280
Total of Liabilities and Shareholders' Equity	537,769,452	1,883,844,482	1,808,903,188	1,692,119,853

Source: CAAC Gansu Province Administration

2.5.2 Operation and Maintenance Status

Facilities inspection and repair activities include regular inspection performed twice a year, weekly inspection, and daily inspection. Rules for operation and maintenance are established for each facility, and daily maintenance activities are carried out without any problem in accordance with procedure manuals developed based on these rules.

As stated above, the technical capacity and the operation and maintenance status are satisfactory, while the operation and maintenance system and the financial status needs to be observed closely for the future.

3. Feedback

3.1 Lessons Learned

None

3.2 Recommendations

To the Chinese Government and the executing agency

Not only Lanzhou Zhongchuan Airport but 3 other airports owned by the executing agency are also in the red. As of October 2004, the executing agency was considering converting these 4 airports into corporation, and continued business efforts are needed, though it would not be easy for large-scale local airports to make a profit. Considering that there is a limit to the efforts for management improvement by a company in a short-term and that airports are indispensable as the economic infrastructure which enhances development of a regional economy, it is advised that the provincial or national government should continue to consider providing the financial support necessary for ensuring the sustainability of the project. At the same time, efforts are required to improve management through diversification of airport operations in order to increase income from non-aviation business.

Comparison of Original and Actual Scope

Item	Plan	Actual
①Project Scope		
(1) Basic facilities		
Runway	3,600m X 45m	As planned
Parallel taxiway	3,600m x 23m	As planned
Apron	Loading: 71,400m^2	As planned
	Night stay: 54,800 m^2	As planned
(2) Passenger terminal building	25,000 m^2	27,495 m^2
(3) Cargo terminal building	2,000 m^2	3,328 m^2
(4) Control tower	4,000 m^2	As planned
(5) Hangar	4,000 m^2	As planned
(6) Aviation security facilities	Instrument Landing System (ILS): 1 Non-Directional Radio Beacon (NDB): 4	As planned
(7) Other facilities	Water and sewage system, fuel supply system, etc.	As planned
②Project Period	Dec.1996 – Feb. 2000 (38 months)	Dec. 1996 – Aug.2001 (56 months)
Flight zone	Jan. 1997－Mar. 1998	Jun. 1997 – Jul. 1998
Passenger terminal building	Apr. 1998－Dec.1999	Jul. 1999－Aug. 2001
Aviation security facilities	Dec. 1996－Aug. 1999	Dec. 1996－Dec. 1999
Supply facilities	Jul. 1997－Feb. 2000	Jul. 1997－Mar. 2000
Other facilities	Jan. 1997－Mar. 1999	Jan. 1997－Mar. 1999
③Project Cost		
Foreign Currency	6,338 million yen	6,293 million yen
Local Currency	7,379 million yen (in local currency: 615 million yuan)	14,033 million yen (in local currency: 926 million yuan)
Total	13,717 million yen	20,326 million yen
ODA Loan Portion	6,338 million yen	6,293 million yen
Exchange Rate	1yuan＝12yen	1yuan＝15.155yen