



Extended Annual Review Report

Project Number: 43922
Investment/Loan Number: 7308/2620
October 2013

Loan Zvartnots Airport Expansion Project (Phase 2) (Armenia)

In accordance with ADB's public communication policy (PCP, 2011), this extended annual review report excludes information referred to in paragraph 67 of the PCP.

Asian Development Bank

CURRENCY EQUIVALENTS

Currency Unit – dram (AMD)

		At Appraisal	At Project Completion
		13 February 2010	30 August 2012
AMD1.00	–	\$0.00262	\$0.00244
\$1.00	–	AMD381.50	AMD409.36

ABBREVIATIONS

ADB	–	Asian Development Bank
AIA	–	Armenia International Airports
AmIA	–	American International Airports
DEG	–	Deutsche Investitions-und Entwicklungsgesellschaft
EAP	–	environmental action plan
EBITDA	–	earnings before interest, taxes, depreciation, and amortization
EBRD	–	European Bank for Reconstruction and Development
ECG	–	Evaluation Cooperation Group
EIA	–	environmental impact assessment
EMP	–	environmental management plan
EROIC	–	economic return on invested capital
ICAO	–	International Civil Aviation Organization
IEE	–	initial environmental examination
OSPF	–	Office of the Special Project Facilitator
RAP	–	resettlement action plan
ROIC	–	return on invested capital
RRP	–	report and recommendation of the President
WACC	–	weighted average cost of capital
ZIA	–	Zvartnots International Airport

NOTES

- (i) The fiscal year (FY) of the Government of Armenia ends on 31 December. FY before a calendar year denotes the year in which the fiscal year ends, e.g., FY2010 ends on 31 December 2010.
- (ii) In this report, "\$" refers to US dollars.

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BASIC DATA
Zvartnots Airport Expansion Project (Phase 2)
(7308/2620 – Armenia)

Key Dates	Expected	Actual
Concept Clearance Approval	22 February 2010	22 February 2010
Board Approval	26 March 2010	26 March 2010
Loan Agreement	7 July 2010	7 July 2010
Loan Effectiveness	7 July 2010	7 July 2010
First Disbursement	29 October 2010	29 October 2010
Commercial Operations Date	1 September 2012	5 October 2011
Loan Closing	1 July 2013	1 July 2013
Months (effectiveness to commercial operations date)	38 months	27 months

Project Administration and Monitoring	No. of Missions	No. of Person-Days
Due Diligence	4	10
Project Administration	1	3
Extended Annual Review Mission	1	8
Others (RAP consultations)	5	10

RAP = resettlement action plan

EXECUTIVE SUMMARY

In March 2010, the Board of Directors of the Asian Development Bank (ADB) approved a direct loan of \$40 million to Armenia International Airports (AIA) for the Zvartnots Airport Expansion Project (Phase 2). The funds were used to finance the construction of a new land-side terminal building and install equipment and facilities to supplement the air-side concourse built during phase 1. Cofinanciers were the European Bank for Reconstruction and Development, which lent \$40 million, and Deutsche Investitions-und Entwicklungsgesellschaft, which lent €15 million.

AIA implemented phase 1 and 2 and has the right to manage and operate Zvartnots International Airport (ZIA) under a 30-year concession agreement which ends in 2032. Phase 2 of the project commenced commercial operation in October 2011 and was declared complete on 30 August 2012.

Four main criteria are used to evaluate the project: (i) development impact, (ii) profitability of the ADB investment, (iii) quality of ADB work, and (iv) ADB's additionality. The results of the evaluation have been aggregated to derive an overall project rating.

The development impact of the project is rated *satisfactory* and was derived from four categories: (i) private sector development; (ii) business success; (iii) contribution to economic development (economic sustainability); and (iv) environment, social, health, and safety performance.

The contribution to private sector development is rated *satisfactory*. The success of AIA's project implementation and ongoing operation of ZIA is an example of a successful public-private partnership through concession and provided a framework for other arrangements in the water and sewerage sectors. The technical and managerial expertise of the sponsor, American International Airports, has been transferred to local staff, who make up the majority of airport employees.

AIA's business success is rated *satisfactory* and AIA's economic contribution is rated *satisfactory*.

AIA's environmental, social, health, and safety performance is rated *satisfactory*. The project's potential environmental impacts and outstanding issues identified during the audit—which include dust, noise, occupational health and safety issues during construction, sewage discharge, storm water run-off, noise, air emissions, and waste management during operation—have been, or are being, mitigated through the implementation of the environmental management plan and environmental action plan. With regards to social safeguards, the implementation of the resettlement action plan and intensive consultations with the 506 affected families is ongoing. Completion of the resettlement action plan is expected in December 2014.

ADB investment profitability and work quality are both rated *satisfactory*, whilst additionality is rated *excellent*. The project is ADB's first private sector investment in Armenia and first financing of a private sector infrastructure project with the European Bank for Reconstruction and Development. ADB's loan was a rapid and timely crisis response intervention and was critical in mobilizing much-needed external investment on comparable terms to complete the modernization of the ZIA to a high technical standard and ahead of schedule.

Overall, the project is rated *satisfactory*. ADB's participation in the project contributed to (i) meeting a vital infrastructure need in the Armenian aviation sector which is contributing to the economic growth of the country; and (ii) meeting high levels of service, safety, and security in line with international standards for civil aviation.

I. THE PROJECT

A. Project Background

1. In March 2010, the Board of Directors of the Asian Development Bank (ADB) approved a direct loan of \$40 million to Armenia International Airports (AIA) for the Zvartnots Airport Expansion Project (Phase 2). The funds were used to finance the construction of a new land-side terminal building and installation of equipment and facilities to supplement the air-side concourse which was built during phase 1 of the modernization program.¹

2. Cofinancing for phase 2 consisted of \$40 million from the European Bank for Reconstruction and Development (EBRD) and €15 million from Deutsche Investitions-und Entwicklungsgesellschaft (DEG).

3. AIA was established in May 2002 to implement a concession agreement between Armenia and Corporacion America.² AIA is currently 100% owned by American International Airports (AmlA, also the sponsor), a Delaware-registered holding company created in 2002 with the aim of conducting airport-related activities. AmlA operates out of New York and the ultimate owner is Eduardo Eurnekian, who has substantial interests in airport management, agriculture, energy, fuel distribution, pharmaceuticals, real estate, beverages, and media.

4. The project was ADB's first involvement in civil aviation in Armenia and was consistent and aligned with ADB's Strategy 2020; Economic Report and Interim Operational Strategy for Armenia, 2006–2009; and country operational business plan for Armenia, 2008–2009.³ ADB's investment in the development of civil aviation in Armenia strengthens the country's connectivity to other countries and modernizes an international transport corridor, which in turn increases trade and business opportunities. The project promoted public–private partnerships and private sector engagement, fostered collaboration with other development agencies, and increased regional cooperation.

5. On 5 July, 16–17 July, and 19 July 2013 ADB fielded a mission to strengthen the review and gather information from AIA and EBRD management.

B. Key Project Features

6. As a result of the concession agreement granted in 2001, AIA was given the exclusive right to administer and operate Zvartnots International Airport (ZIA) and its related property and equipment and conduct all business for a period of 30 years plus any extension required to

¹ Phase 1 involved the construction of a new international terminal in 2006–2007 which was financed by the European Bank for Reconstruction and Development (EBRD) (\$20 million) and Deutsche Investitions-und Entwicklungsgesellschaft (DEG) (\$10 million).

² In December 2001, the government negotiated a concession agreement with Corporacion America, an Argentinean company controlled by Eduardo Eurnekian (an Argentinean citizen of Armenian descent). To implement this concession agreement, ownership of the airport assets was transferred from Zvartnots Airport Company to full state ownership, after which the airport concession was granted to Corporacion America exclusively for the management of the entire airport operation for 30 years. The concession agreement became effective in May 2002. Following the grant of the concession, Corporacion America transferred the concession rights to its affiliate, AIA, which is a special-purpose Armenian company.

³ ADB. 2008. *Strategy 2020: The Long-Term Strategic Framework of the Asian Development Bank, 2008–2020*. Manila; ADB. 2006. *Economic Report and Interim Operational Strategy: Armenia, 2006–2009*. Manila; ADB. 2007. *Country Operations Business Plan: Armenia, 2008–2010*. Manila.

ensure a 20% internal rate of return. AIA was required to prepare a master plan in 2003 and update it every 5 years. AIA has only applied for one aeronautical tariff increase, which was approved by the government in 2010 and by the International Civil Aviation Organization (ICAO) in 2011.

7. Phase 2 of the project included a new land-side terminal building to replace the existing terminal (built during Soviet times⁴) and complement the air-side concourse built in phase 1. The ground floor contains a customs clearance hall and the public land-side arrivals hall and the upper floor contains the departure hall consisting of 48 check-in desks, passport control, and security control areas. Other project works included

- (i) a new outbound baggage handling system with two sorting carousels, X-ray screening equipment, and automatic scanners;
- (ii) all other electrical, heating, and air-conditioning services, communications systems, water and sewerage systems, and drainage and fire protection systems required as part of a fully operational terminal building;
- (iii) a raised roadway for vehicular access to the departure hall;
- (iv) a two-story covered short-term car park that accommodates 600 vehicles; and
- (v) other uncovered parking areas and access roads.

8. AIA negotiated and awarded a single-source services contract to Europort for the project design and implementation. It included management, supervision, and coordination of all design, works, equipment, and materials supply contracts. AIA used Europort for the construction of phase 1. AIA has a long-standing relationship with the company, having used it to construct and/or manage multiple airport projects in Latin America from 2003 to 2013.

9. The lenders' supervisor was Nippon Koei UK.

C. Progress Highlights

10. Design work for phase 2 commenced in 2008 and construction commenced in 2010. Though substantial completion was originally scheduled for September 2012, the works associated with the arrival areas, internal mechanical and electrical systems, external road, and final architectural finishing works were completed in October 2011 in time for the 20th anniversary of Armenia's independence. The departure area was completed in November 2011 and the VIP facilities in March 2012.

11. Nippon Koei UK issued the physical completion notice and terminal operational readiness notification to lenders on 3 August 2012, and lenders confirmed and declared the physical completion of the project on 30 August 2012.

II. EVALUATION

A. Project Rationale and Objectives

12. The project's objectives, as set out in the report and recommendation of the President (RRP),⁵ were as follows: (i) to meet a vital infrastructure need in the Armenian aviation industry and contribute to economic growth; and (ii) for the proposed terminal to meet high levels of

⁴ The original terminal building was built in the 1960s and prior to the breakup of the Soviet Union in 1991 operated as a domestic airport. After 1991, ZIA assumed the role of the country's main international gateway.

⁵ ADB. 2010. *Report and Recommendation of the President to the Board of Directors: Proposed Loan for the Zvartnots Airport Expansion Project (Phase 2) in Armenia*. Manila.

service, safety, and security in line with international standards, as well as improve air connections between Armenia and other countries by enabling increases in the number of destinations served by ZIA and the frequency of flights. These objectives were relevant and were achieved by the project. The project was ADB's first involvement in civil aviation in Armenia and it was also ADB's first private sector collaboration with the EBRD and DEG.

B. Development Impact

1. Private Sector Development

13. Armenia is dependent on air transport for a significant portion of the cross-border movement of passengers and goods because of a limited railway system, restricted use of the southern border in times of extreme climatic conditions, closed borders with some neighboring countries, and lack of road network infrastructure. ZIA is the country's main international airport and serves the vast majority of passenger and freight traffic between Armenia and the Caucasus, Russia, and Europe. The combination of operational improvements and capital expenditure associated with phases 1 and 2 of the project has resulted in significant benefits at ZIA for its clients, partners, contractors, and employees. This has resulted in consistently increasing passenger, plane, and cargo traffic, which has continuously exceeded the expectations at the appraisal stage. To further improve operations, AIA is working closely with the government and regulators to open Armenian skies to allow operators to compete for landing and takeoff slots on a competitive basis. Since commencement of commercial operations of the new terminal in October 2011, up until June 2013 ZIA had served 140,000 passengers, 1,550 aircraft movements, and 980 cargo tons per month on average, which compares favorably with the projections at appraisal stage of 125,000 passengers, 1,390 aircraft movements, and 900 cargo tons per month.

14. Within Armenia, the privatization of ZIA and the ongoing success of both phase 1 and phase 2 of the project has played a demonstration role and encouraged the government to pursue similar undertakings in other sectors, such as water and sewerage, within the capital Yerevan and regional areas of Armenia. AIA's positive governance behavior—such as timely audited financial accounts, transparent reporting, open engagement with the government and regulators, and sympathetic support for residents requiring relocation from the airport apron—provides a benchmark for private sector operators in Armenia.

15. The successful completion of phases 1 and 2 of the project and the engagement of ADB, EBRD, and DEG has attracted the interests of local banks, which have commenced discussions with AIA on financing future capital expenditure projects. This interest was not evident at the time of arranging phase 2 financing.

16. At the AIA company level there has been a significant transfer of know-how and skills from international partners AmlA (overall airport management expertise) and Europort (project construction expertise) to local Armenian companies, contractors, and employees. AmlA provided both equity and support for (i) formulating business plans, negotiating with government bodies, financial planning, and sourcing additional funding; (ii) training AIA staff; and (iii) administering commercial and services-related activities at ZIA and in aviation management. Europort not only contributed its project management and contracting expertise to ensure the project was completed ahead of time, to budget, and to the required quality but it also trained and developed local contractors and staff to ensure indigenous capacity and capability for ongoing operation and maintenance and future capital expenditure programs.

17. Since commencement of phase 2 of the project, AIA's staff profile has remained stable. In 2013, women represent 23% of the workforce (up from 20%), the proportion of younger employees (22 – 28 years old) has increased to 63% from 59%, and employees with greater than 4 years of service now represent 69% of the workforce compared to 42% in 2008. Whether employing unskilled, semi-skilled, or skilled workers, AIA has always given preference to local people. Since commencement of phase 2, expatriate staff levels have fallen from more than 10 down to one (the chief executive officer). AIA has become an employer of choice because of its rigorous recruitment and selection procedures, extensive on-the-job training, periodic reviews of remuneration, provision of key benefits such as comprehensive medical insurance, clear-cut organizational structures and promotional career paths, and established policies of just treatment and nondiscrimination.

18. Within the airport itself, business such as duty-free sales, components of operation and maintenance, and food and retail have been let out to private providers on a competitive basis.

19. Overall, the private sector development impact of AIA is rated *satisfactory*. The new terminal built under phase 2 has been providing ease, comfort, safety, and security for passengers, planes, and cargo. ADB's close cooperation with the government in the modernization of ZIA has supported the creation of an enabling environment for private sector investment in the development of civil aviation infrastructure in Armenia. Private sector development indicators and ratings are presented in Appendix 2.

2. Business Success

20. Project design began in 2008 and commercial operations commenced nearly a year ahead of schedule in October 2011. AIA's fiscal year (FY) 2012, the first full year of ZIA operations with the new terminal built under phase 2, saw a year-on-year increase in passenger growth of 6%, aircraft movements of 5%, and cargo serviced of 15%. However, 2012 also saw the start of the demise of Armavia, the Armenian national carrier and major AIA customer, which concluded with its bankruptcy in March 2013. In April 2013, AIA reached an agreement with existing ZIA users such as Alitalia, Austrian Airlines, and CSA Czech Airlines to increase the frequency of their flights to fill the void left by Armavia. In parallel, AIA has been working closely with Armenian authorities to promote an open-skies policy to accommodate these changes. There is, however, some reluctance because of the government's concerns that a lack of an Armenian national carrier could lead to deterioration indigenous aeronautical skills, capabilities, and employment opportunities in Armenia. Consequently, government efforts to refloat a national carrier are ongoing. Armavia's demise had an immediate negative impact on AIA's business volumes, revenues, and profitability but, as Armavia was inconsistent in paying its bills and received government-mandated discounts from AIA, its replacement by carriers that pay full fees and meet their obligations is expected to result in improved business for ZIA in the medium to long term.

21. The return on invested capital (ROIC) was calculated to be above AIA's weighted average cost of capital (WACC).

22. The project is rated *satisfactory* for business success.

3. Economic Sustainability

23. The project is rated *satisfactory* for economic sustainability.

4. Environmental, Social, Health, and Safety Performance

24. **Environment.** The project was classified environment category B and an initial environmental examination, including an environmental management plan to mitigate the potential impacts, was prepared. To address the environmental, health, and safety issues associated with the existing airport operations, an environmental audit was conducted and an environmental action plan (EAP) prepared.

25. Impacts related to the project construction were minor and mitigated as follows:
- (i) dust, through periodic water spraying and covering of construction materials;
 - (ii) noise, through appropriate scheduling of machinery operations and use of low-noise equipment;
 - (iii) major incidents, through contractors enforcing workers' use of personal protective equipment and adopting of height and fall protection measures, and by increasing the awareness of workers of health and safety measures; and
 - (iv) building collapse during earthquakes, by constructing the building on seismic isolators.
26. Impacts related to ongoing operation were also minor, as follows:
- (i) Gaseous emissions such as nitrous oxides and carbon dioxide from the natural-gas-fired boiler were within government standards.
 - (ii) Increased air emissions from additional flights are expected to be offset by lower emissions from newer aircraft.
 - (iii) Future noise levels are expected to be reduced by use of quieter newer aircraft and updated noise-abatement procedures, wherein inbound and outbound aircrafts are not allowed to fly above areas adjacent to the airport that are susceptible to noise.
 - (iv) Health and safety hazards to airport personnel are avoided through training before and during employment.
 - (v) ZIA has an emergency response plan in place which includes general provisions on organization, procedures in case of aviation accident, air traffic control directives, emergency rescue and fire protection procedures, and security-related and other incident provisions.
27. AIA implemented most of the recommendations in the EAP, as follows:
- (i) Storm water basins were constructed to store and treat storm water run-off from air-side traffic areas.
 - (ii) Soil testing was conducted and showed no contamination in most locations and insignificant contamination in a few locations. Contaminated soil was recommended for use as refilling material in areas with no potential for groundwater pollution.
 - (iii) Fuel tanks were renovated and repaired and fuel storage areas were clearly marked and equipped with secondary containment.
 - (iv) The fire station was renovated. Fire fighters were supplied with new personal protection equipment.

- (v) Solid waste is now segregated. Containers of hazardous and nonhazardous waste are appropriately labeled and waste is disposed of by an authorized waste disposal company.

28. The implementation of the project environmental management plan and EAP are monitored by a designated environmental manager. The project and ongoing operations of ZIA met the international safety and environmental standards of both the International Civil Aviation Organization (ICAO) and the European Aviation Safety Agency.

29. **Social safeguards.** The new terminal was built to the southeast of Terminal 1 on vacant land owned and used by ZIA; therefore, no land acquisition or involuntary resettlement was required. Under the 2002 concession awarded to AIA and as part of the master plan for the rehabilitation of ZIA, the Government of Armenia committed to relocate 506 residents in four residential buildings inside the airport territory. However, as the government lacked the financial resources to implement the relocation, when the project was being processed by ADB and the EBRD the AIA agreed assumed the responsibility to plan and implement the relocation of the residents. As the relocation was supposed to happen simultaneously with the construction of the new terminal, it was deemed good practice to apply international standards and a resettlement action plan (RAP) was prepared based on EBRD's performance requirements prior to ADB's involvement. The RAP was also deemed satisfactory with respect to ADB's Safeguard Policy Statement requirements on involuntary resettlement, and the project was categorized A for involuntary resettlement, despite the fact that the relocation of the building residents was not a result of the ADB-financed project. Following intensive consultations with residents, an updated RAP with an improved resettlement package was prepared and approved by ADB. After some delays, construction of new apartments is nearing completion and the first group of residents is expected to move to their new apartments by December 2013, with the remainder moving by June 2014. With respect to the entitlements in the RAP, ADB and the EBRD expect positive development impacts, particularly with regard to the group of building residents who are presently informally occupying rooms in two dilapidated and rundown hostels owned by the airport. Other residents are expected to benefit as replacement apartments are not only at least 10% larger in area but are also being built and finished with high-quality construction materials and will be turned over to the residents with property registration certificates. For this reason, the social dimension of this project is rated *satisfactory*. RAP implementation will be continuously monitored until its completion in 2014. The building residents are all Armenian and the project did not trigger ADB's Safeguard Policy Statement on indigenous peoples.

30. **Other social dimensions.** AIA has a human resources policy which includes provisions compliant with Armenian labor laws. AIA ensures there is no discrimination in terms of salaries and benefits and provides equal opportunities for men and women as well as qualified local residents. About 30% of AIA's approximately 1,100 employees are women. There are no cases of, or complaints related to, discrimination, forced labor, or child labor. There have been no labor problems other than a court case filed by two security personnel who were dismissed because they were purchasing items from the duty-free store. Nearly all (95%) workers at the airport are members of a trade union which regularly communicates with AIA's management and human resources department on employee concerns including salaries, vacations, working conditions, medical benefits, and financial assistance in cases of death or illness of family members. Since AIA took over the airport, salaries are three times higher than they were in 2000. AIA also supports capacity building of staff through ongoing health, safety, security, and professional technical training.

31. AIA continues to support the community initiatives of Corporacion America by providing financing for community projects in Yerevan and Arevadasht town, including computers for schools, water wells, kindergarten schools, first aid medical facilities, ambulances, and as well as food donations to various orphanages.

32. The rating for environment, social, health, and safety performance of the project is *satisfactory*.

C. ADB Investment Profitability

33. The relative risk of ADB's investment was evaluated by comparison with the colenders—the EBRD and DEG. As these institutions have the same interest rates as ADB, investment profitability is rated *satisfactory*.

D. ADB Work Quality

34. ADB's effectiveness in the area of screening, appraisal, and structuring is rated *satisfactory*. The project was aligned with ADB's Strategy 2020 for developing the country's infrastructure and partnering with other development agencies, and was also consistent with Armenia's strategy of promoting the private sector and regional cooperation. The project supported ADB's economic report and interim operational strategy for 2006–2009 for Armenia (footnote 4) as well as ADB's country operations business plan for 2008–2010 (footnote 4). AIA's success in implementing phases 1 and 2 of the project and improving the overall airport operations has demonstrated that public–private partnership can be a successful model for infrastructure development in Armenia and has encouraged the government to apply it to other sectors such as water and sewerage.

35. Monitoring and supervision quality is rated *satisfactory*. Private Sector Operations Department staff undertook multiple monitoring missions and were supported by the project's lenders' engineer who provided technical assessments and validations during the construction and commissioning phases. In addition, an ADB social safeguards specialist participated in and closely monitored the consultation and relocation process related to the affected residents. The Armenia Resident Mission has been kept informed of and provided support in relation to the project and activities of the RAP. During the extended annual review mission, AIA management indicated that it has not encountered any problems dealing with ADB since 2009.

36. ADB's role and contribution to the project is rated *excellent*. In addition to the project being processed and administered in line with relevant ADB policies and procedures, ADB took a leading role amongst the colenders in the areas of safeguards, technical oversight, and financial and commercial analysis by deploying in-house and consulting specialists on behalf of the lender group. ADB leadership has ensured that responsibility for implementation of the RAP remains with AIA and has not reverted to the government (which is actually responsible for the relocation under the concession agreement but was unable to fulfill that responsibility in a timely manner), and in parallel supported the AIA to meet or exceed ADB safeguard standards. ADB also ensured that AIA has been able to withstand financial shocks, such as the demise of Armavia operations, by setting and monitoring prudent debt and capital expenditure limits and analyzing and approving (on an annual basis) AIA's operating budget. These actions have collectively contributed to ensuring AIA's commercial robustness and resilience.

E. ADB's Additionality

37. ADB's additionality is rated *excellent*. The project is ADB's first private sector investment in Armenia and also the first partnership with the EBRD to finance a private sector infrastructure project. ADB's loan was a timely crisis response intervention and was critical in mobilizing much-needed external investment to complete the modernization of ZIA, and has increased the international business community's confidence in Armenia.

F. Overall Evaluation

38. The project's overall rating is *successful*. Please refer to the summary of ratings in Table 2 below.

Table 2: Evaluation of the Zvartnots Airport Expansion Project (Phase 2)

Indicator/Rating	Excellent	Satisfactory	Partly Satisfactory	Unsatisfactory
Development Impact		x		
Private Sector Development		x		
Business Success		x		
Economic Sustainability		x		
Environment, Social, Health, and Safety Performance		x		
ADB Investment Profitability		x		
ADB Work Quality		x		
Screening, Appraisal, and Structuring		x		
Monitoring and Supervision		x		
Role and Contribution	x			
ADB's Additionality	x			
	Highly Successful	Successful	Partly Successful	Unsuccessful
Overall Rating		x		

ADB = Asian Development Bank.

III. ISSUES, LESSONS, AND RECOMMENDED FOLLOW-UP ACTIONS

A. Issues and Lessons

39. At the time of ADB's intervention both international and local finance was at a premium because of the onset of the global financial crisis. ADB's ability to provide countercyclical financing ensured Armenia benefitted from a major infrastructure project and a world-class airport facility when it needed them most, rather than have them delayed whilst waiting for the international financial situation to improve.

40. Phase 2 of the project represented ADB's first nonsovereign infrastructure financing in the Caucasus region and, by partnering with the EBRD and DEG, ADB was able to process the transaction rapidly and efficiently and effectively share the monitoring and administration responsibilities, resulting in a flexible, responsive, and client-focused offering.

41. The concession agreement was awarded in 2001 as a selected negotiation because of a lack of competitive interest from the market. Such an approach runs the risk of being suboptimal in terms of project time, cost, and design because of a lack of competitive tension and market forces. By selecting a concessionaire with a social motive and a proven track record, and by coupling this with robust support and oversight from ADB, the EBRD, and DEG, the project

demonstrates that noncompetitive tenders for concessions can yield successful outcomes. Furthermore, the public–private partnership concession has been successful in balancing the private sector contribution (delivered through AIA’s resources), management skills, and technologies with public sector contribution (delivered through the Government of Armenia Regulatory Agency and the civil aviation department) to provide a holistic solution which serves the public and private interest.

42. AIA has relied on Europort’s⁶ professional and technical expertise in airport management and operations and partnered with them since the construction of phases 1 and 2. AmlA has also partnered with them over many years and many projects. Their close relationship allowed for a solution-focused approach to solving the type of problems inherent in a complex project executed in an operating airport. It also allowed for rapid and significant transfer of technical skills to local staff and contractors.

43. One of the lessons learned in this project is in applying the triggers of ADB’s Safeguard Policy Statement Safeguard Requirements 2 (SR2), which is triggered by physical and economic displacement as a result of involuntary acquisition of land, or involuntary restrictions on land use or access to legally designated parks and protected areas. Construction of phase 2 did not require any land acquisition, restrict access, or require any relocation of residents. ADB’s policy requirements were triggered merely as a good practice such that the AIA follows international standards in delivering the relocation program which the government promised prior to ADB’s involvement. Future projects should ensure that SR2 is triggered strictly by the requirements of the ADB-financed project.

44. Another lesson learned is the importance of stakeholder engagement. Delays by the government in allocating land for the new residences, coupled with AIA’s focus on completing the airport and subsequent further delays on commencement of the new residences, resulted in a build-up of suspicion, complaints, and demands by the residents. To assure residents of their commitment to completing the relocation project, AIA began holding regular (every 60 days) briefings and consultations with residents. In addition, the EBRD, DEG, and ADB responded by ensuring social safeguard and operations staff were closely involved, supporting the relationship between AIA and the residents, and providing support to the residents during both the pre- and post-move phases. AIA’s efforts to gain the trust, confidence, and cooperation of the residents and involve the lenders’ specialists (ADB and EBRD) in the process are all commendable, but possible earlier and more personalized intervention may have helped to defuse some of the build-up of frustration. However, a number of residents also reneged on previous verbal and finally written framework agreements. Hence, a final lesson learned is the need to be consistent and ensure that agreements with residents are documented and notarized and all steps in the process made legally binding.

B. Recommended Follow-Up Actions

45. The bankruptcy of Armavia airlines will be detrimental to ZIA’s financial operations in the short term. However, over the medium to long term, losing a nonpaying and highly subsidized customer and replacing it with multiple competing customers should be a benefit to AIA, which is trying to persuade the government to adopt a more open-skies policy and allow other interested airlines to fill the void and opportunities left by Armavia. Activity from other airlines

⁶ Europort is an Italian service provider with significant experience in supplying goods and services in aeronautical and associated business.

has already increased and AIA financials will be closely monitored to ensure these translate into improved revenue and profitability and ongoing secure debt servicing capability.

46. The success of phases 1 and 2 has prompted AIA to propose a significant capital expenditure plan and approach local lenders to provide financing. Whilst admirable and in some cases necessary, ADB, EBRD, and DEG will need to ensure AIA's plans are bankable and commercial and do not put current loan covenants in jeopardy.

47. The Office of the Special Project Facilitator has deemed that the relocation process being undertaken by AIA is fair and complies with ADB policy and procedures. To strengthen the communications between the complainants and the project, AIA will prepare printed information materials on the criteria for allocation of apartments, change or purchase of extra space, among others, and will also expedite the legal contracts for the allocation of units. ADB and the EBRD also recognize that sustainable arrangements for operations and maintenance of the common facilities are critical to the success of the RAP implementation. The lenders are considering developing a capacity building program to assist the residents to form residential community associations and devise ways to generate funds for building maintenance. Technical assistance funds that could be used for this purpose are being sourced from other lenders. ADB will continuously monitor RAP implementation, and consider providing external resettlement monitoring assistance in addition to the technical guidance provided by the project team to AIA up to completion in December 2014.

PROJECT-RELATED DATA
Investment Summary

A. Investment Identification

1.	Country	Armenia
2.	Investment Number/Loan Number	7308/LN2620
3.	Project Title	Zvartnots Airport Expansion Project (Phase 2)
4.	Investee Company/Borrower	Armenia International Airports
5.	Sponsor	American International Airports
6.	Amount of Approved ADB Assistance	
	- Direct loan	\$40 million
7.	Environment Category	B
	Involuntary Resettlement	A
	Indigenous Peoples	C
8.	Project Completion Report Number	1421

PRIVATE SECTOR DEVELOPMENT INDICATORS AND RATINGS

Impact of the Project	Ratings				Justification/ Annotations
	Impact to Date	Potential Impact (Sustainability) and Risk to its Realization		Combined Rate ^a	
1. Beyond Company Impact	Rating ^b	Rating	Risk ^c		
1.1. Private sector expansion. Contributes as a pioneering or high-profile project to facilitating or preparing for more private participation in the sector and economy at large	Satisfactory	Satisfactory	Low	Satisfactory	AIA has created opportunities for the private sector to venture into similar investments and participate in various businesses in the airport (i.e., retail concessions, etc.). In addition, the success of the Zvartnots PPP has encouraged the government to enter into similar arrangements in the water and sewerage sectors.
1.2. Competition. Contributes new competition pressure on public and/or other sector players to increase efficiency and improve access and service in the industry	Satisfactory	Satisfactory	Low	Satisfactory	AIA has demonstrated consistent improvement in operating efficiency, in part by bringing private sector competitive tension to subcontracts during the construction phase and by introducing competitive tendering to selected providers of outsourced airport operations. AIA also aims to provide equal terms to all carriers to boost competition amongst airport users.
1.3. Innovation. Demonstrates efficient new products and services, including areas such as marketing, distribution, tariffs, production, and technology; and ways to cover or contain cost, manage demand, etc.	Satisfactory	Excellent	Low	Excellent	AIA continuously introduces and implements new services and technology such as biometric identification, online check-in, and mobile check-in (which is a new service in the region).
1.4. Linkages. Relative to investments, contributes notable upstream or downstream linkage effects to business clients, consumers, suppliers, key industries, etc. in support of growth	Excellent	Excellent	Low	Excellent	As a result of building an international-standard terminal, new retail business opportunities have been created, including an electronics store, a flower shop, demonstration of cars, a new local bank branch, taxi reservation services, and three international brand coffee shops. In addition, both upstream and downstream airport logistics support businesses were introduced. Collectively these initiatives created new business and job opportunities.

Impact of the Project	Ratings				Justification/ Annotations
	Impact to Date	Potential Impact (Sustainability) and Risk to its Realization		Combined Rate ^a	
	Rating ^b	Rating	Risk ^c		
1.5. Catalytic element. Contributes by including pioneering and/or catalytic finance, mobilizing, or inducing more local or foreign market financing and/or foreign direct investment in the sector	Satisfactory	Satisfactory	Low	Satisfactory	ADB participation catalyzed cofinancing with EBRD and DEG thus strengthening the viability, transparency, and good governance practices adopted by AIA. It has also opened linkages to local banks. Demand for new investment is demonstrated by AIA's current plans for expansion and upgrading which are being considered for approval by ADB, EBRD, and DEG. Local lenders have been approached and have shown considerable interest in financing the plans.
1.6. Affected laws, frameworks, regulation. Contributes to improved laws and sector regulation for PPP, concessions, joint ventures, and BOT projects, and to liberalizing markets as applicable for improved sector efficiency	Satisfactory	Satisfactory	Medium	Satisfactory	The Government of Armenia is slowly moving towards air transport liberalization which will boost competition in the sector to ensure higher service quality and promote economic growth for the country. Tenders will be invited to create a new Armenian carrier after the bankruptcy of Armavia, with operational permits issued for up to 5 years. AIA plays an integral part in promoting and supporting the government's efforts to change existing policies.
2. Company Impact with Wider Potential					
2.1. Skills contribution. Contributes to new strategic, managerial, and operating skills with actual or potential wider replication in the sector and industry	Excellent	Excellent	Low	Excellent	AIA's involvement has resulted in access to international-standard operations and has included training and skills transfer programs for local staff.

Impact of the Project	Ratings				
	Impact to Date	Potential Impact (Sustainability) and Risk to its Realization		Combined Rate ^a	Justification/ Annotations
	Rating ^b	Rating	Risk ^c		
2.2. Demonstration of new standards. Demonstrates new ways to operate the business and compete, and investee performance against relevant best industry benchmarks and standards	Excellent	Excellent	Low	Excellent	When employing unskilled, semiskilled, and skilled workers for the project, AIA gives preference to local people. AIA has employed the best employees with success attributable to rigorous recruitment and selection procedures, extensive on-the-job training, periodic review of remuneration, provision of key benefits (such as comprehensive medical insurance for the employee and his or her family members), a clear-cut organization structure, promotional career path, and established policies of just treatment and nondiscrimination.
2.3. Improved governance. As evident in set standards in corporate governance, stakeholder relations, ESHS fields, and/or good energy conservation standards	Satisfactory	Satisfactory	Medium	Satisfactory	AIA has been promoting the interest of affected residents in the relocation. Furthermore, audited financial statements are disclosed and interactions with regulators are transparent. AIA is committed to a 50% reduction in gas use and 30% reduction in electricity use by 2013. As of December 2012, gas use has been reduced by 28% and electricity use by 20% per square meter.
3. Overall PSD Rating. Unsatisfactory, partly satisfactory, satisfactory, and excellent. The rating is not an arithmetic mean of the individual indicator ratings, and does not have fixed weights. Actual positive or negative impacts, future impacts, and risks to its realization need to be considered	Excellent	Excellent	Low	Excellent	Phase 2 of the project was the first ADB private sector financing in Armenia and also the first financing partnership with EBRD. AIA has successfully modernized its international airport which provides comfort and safety for travelers. The demonstration effect of this undertaking is that more private sector entities are engaging in PPPs (e.g., water) in the country and ADB has ventured into another infrastructure investment (i.e., Sevan-Hrazdan).

ADB = Asian Development Bank, = ; AIA = ; AmlA = ; BOT = build–operate–transfer; DEG = ; EBRD = ; ESHS = environmental, social, health, and safety; PPP = public–private partnership; PSD = private sector development; RRP = report and recommendation of the President; ZIA = Zvartnots International Airport.

^a The combined rating should weigh future impact and risk to its sustainable realization.

^b Unsatisfactory, partly satisfactory, satisfactory, and excellent.

^c Rating Scale: Risk: high, medium, modest, and low.

Source: Asian Development Bank

INDUSTRY AND OPERATIONS REVIEW

A. Recent Trends and Outlook in Civil Aviation

1. There are around 1,670 commercial airports worldwide, of which approximately 450 have significant private sector participation.

2. Armenia is a member state of the International Civil Aviation Organization (ICAO) which sets standards and recommended practices for safe and orderly development of international civil aviation. Its main mission is to foster a global civil aviation system that consistently and uniformly operates at peak efficiency and provides optimum safety, security, and sustainability.¹

B. Armenia and Civil Aviation

3. The Armenian civil aviation industry is characterized by lack of competition and low connectivity levels. Armenia has had a constant population of 3.1 million during 2008–2012. The country is landlocked and has a total area of about 29,800 square kilometers, of which 80% is mountainous. Armenia depends on transport and cross-border access but only two international borders are open and its climate is severe. The result is high transport costs, particularly for traded goods, and expensive infrastructure development and maintenance. Strong and efficient aviation infrastructure is thus needed. The modernization of Zvartnots International Airport (ZIA) has helped improve the efficiency of passenger and goods movement in and out of the country.

4. Economic conditions in Armenia have improved as the repercussions of the global economic and financial crisis in 2009 have faded. Domestic demand has continued to recover and continued inflows of remittances from countries that have traditionally hosted Armenian labor, particularly Russia, have helped improve social and economic conditions for the population. Armenia had current gross domestic product growth of 7.2% in 2012, a significant improvement from 4.7% in 2011. Despite this, improvements in international relations with neighboring countries—Turkey and Azerbaijan—remain stalled.²

5. The General Department of Civil Aviation is an executive authority which elaborates and implements public policies in the aviation industry, and administers and supervises aviation services and aviation infrastructure in Armenia.

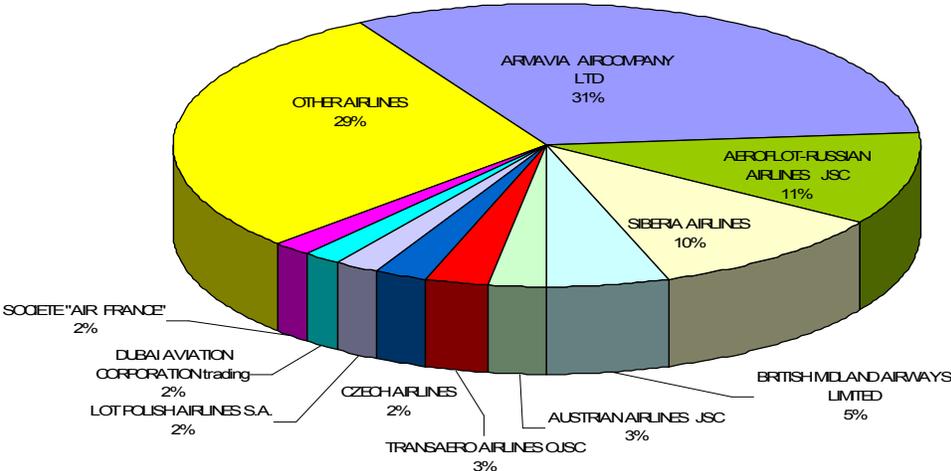
6. Full operation of ZIA phase 2 started in 2012. Aircraft movement, passenger traffic, and cargo movement was already noticeably higher than in 2011. The busiest months were July and August in terms of passenger traffic and aircraft movement. There were 35 airlines operating to and from Yerevan in 2012, and Armavia Airlines had the largest share in terms of both aircraft movement (31%) and passenger traffic (24%).³ This was followed by Aeroflot Russian Airlines, which constituted 18% of the total 2012 traffic for both aircraft and passenger movements. Figures A3.1 and A3.2 give a graphical presentation of the airlines, with corresponding passenger traffic and aircraft movement shares.

¹ <http://www.icao.int/about-icao/Pages/Strategic-Objectives.aspx>

² Economist Intelligence Unit. 2013. *Country Report on Armenia*. 2nd Quarter.

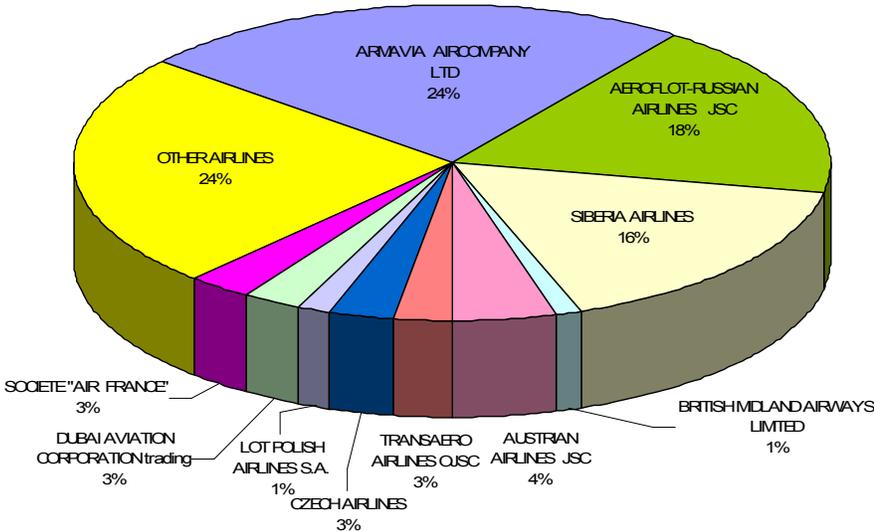
³ However, 2012 also saw the start of the demise of Armavia, which concluded with its bankruptcy in March 2013. In April 2013, Armenia International Airports (AIA) reached an agreement with existing ZIA users such as Alitalia, Austrian Airlines, and CSA Czech Airlines to increase the frequency of their flights to fill the void left by Armavia. Armenian authorities are considering an open-skies policy but there is concern that a lack of an Armenian national carrier could lead to deterioration in indigenous aeronautical skills, capabilities, and employment opportunities.

Figure A3.1: Aircraft Movement by Airlines, 2012



Source: Armenia International Airports

Figure A3.2: Passenger Traffic by Airlines, 2012



Source: Armenia International Airports

ENVIRONMENTAL IMPACT

A. Project Overview

1. The project is phase 2 of the modernization and expansion of Zvartnots International Airport (ZIA) in Yerevan, Armenia. The shareholder and sponsor is American International Airports. The project is implemented by Armenia International Airports (AIA), a wholly owned subsidiary of American International Airports. The project financed the construction of a new land-side terminal building to supplement the air-side concourse building built during phase 1. The project comprised civil works for the new building, equipment purchase, and establishment of other support infrastructure for the airport. The new terminal is expected to increase the passenger handling capacity of ZIA to about 3.2 million a year from the current level of about 1.8 million–2.0 million a year. In addition to the Asian Development Bank (ADB), the European Bank for Reconstruction and Development also provided financing support for the project.

2. Phase 2 construction was completed in July 2012.¹ The new land-side terminal houses the new arrival and departure halls and a new baggage screening and handling system. Also constructed were a new multistory public car park and buildings to replace residential apartment buildings and dormitory hostels which were removed for safety and security reasons. The new public departure hall is equipped with 48 check-in counters connected to a new outbound baggage system taking the baggage to carousels located in the basement where security, customs clearance scanners, new X-ray equipment, and tomographers analyze the documented luggage. Support systems such as electrical, heating and air-conditioning, communication, water and sewerage, drainage, and fire protection systems were installed.

3. The project impacts are few and minor, are mostly site specific, and are readily mitigated through the application of proven and tested mitigation measures. The project was classified environment category B. An initial environmental examination (IEE) was required to identify and assess the impacts, and recommend mitigation measures. The IEE was based on the environmental impact assessment (EIA) prepared by AIA. The EIA conformed to Armenia's environmental protection norms. An environmental audit of the existing airport facilities conducted in 2008 by the consultant, Environmental Resources Management, recommended the implementation of an environmental action plan (EAP) to address outstanding environmental, health, and safety issues not directly attributed to the project but associated with the existing airport operations.

B. Review Findings

1. Compliance with Environmental Requirements

4. The project is deemed responsive to the Armenian Law on Environmental Impact Expertise and the relevant requirements of ADB's Safeguard Policy Statement (2009). The Ministry of Nature Protection accorded clearance to the project, for which an EIA was prepared and deemed by the ministry as responsive to the Armenian Law on Environmental Impact Expertise. The project IEE identified the potential impacts, assessed the level of significance, and recommended measures to mitigate the environmental, health, and safety impacts of the project. The surrounding communities were informed and consulted about the project at an early

¹ This is based on the final construction monitoring report dated March 2013 of Nippon Koei UK, the lenders' supervisor.

stage of project development. AIA's commitment to engage with stakeholders is manifested in its Internal and External Communication document which details its engagement procedure.

5. Implementation of the project environmental management plan and EAP are monitored by a designated environmental manager. AIA monitors that air emissions and sewage effluent levels are within government standards. The latest annual environmental and social report, dated 18 April 2013, submitted to ADB showed that sewage effluent values (in terms of suspended solids, biochemical oxygen demand (BOD), chemical oxygen demand (COD), and nitrates) discharged to the municipal system and air emissions (carbon dioxide and nitrous oxide) were within government standards. Sewage effluent levels are also within the World Bank Indicative Values for Treated Sanitary Sewage Discharges.

6. ADB and the European Bank for Reconstruction and Development reviewed annual environmental monitoring reports and visited the project site during implementation. ADB evaluated the project's compliance with the applicable environmental and social requirements through review of annual environmental reports covering (i) ongoing environmental, health, and safety performance; and (ii) the status of implementation of environmental mitigation and improvement measures specified in the EAP. Based on these reviews and the mission fielded in April 2013, ADB concluded that the environmental, health, and safety records and performance for phase 2 were satisfactory.

7. The further upgrade of the facilities and operations of ZIA were designed to meet international safety and environmental standards of the International Civil Aviation Organization (ICAO) as well as of the European Aviation Safety Agency. AIA has developed and is implementing an environmental management system according to the International Organization for Standardization (ISO) 14001, and a health and safety management system according to the Occupational Health and Safety Advisory Services (OHSAS) 18001 to manage its environmental monitoring program, and to seek continuing improvement of its environmental, health, and safety performance.

2. Environmental Impacts and Mitigation Measures

8. The project's aesthetic and physical impacts are deemed minor and were readily mitigated. There is no aesthetic impact since the terminal is within the premises of the existing airport. Impact on groundwater is nil since groundwater levels are generally 4–8 meters deeper than the building's foundation.

9. During construction, impacts such as dust and noise and occupational health and safety issues were deemed minor. Dust generated by the excavation activities was mitigated through periodic water spraying, and construction materials were covered during transport. Despite the absence of hospitals or schools near the airport, noise from excavation, transportation of materials, and operation of construction equipment was minimized through appropriate scheduling of machinery operations and use of low-noise equipment. There were no major incidents during the construction of the terminal building. With respect to construction works of replacement buildings, ADB recommended that AIA ensure contractors strictly adhere to health and safety measures through the provision of personal protective equipment to workers, heights and fall protection measures, and information dissemination to workers on safety measures. A potential health and safety issue involves building collapse during earthquakes. To absorb the impact of major earthquakes, the new building was constructed on seismic isolators.

10. During operation, impacts such as air emissions and noise are deemed not significant. Recent records² of air emissions (nitrous oxide and carbon dioxide) from the natural-gas-fired boiler were not significant and met the stipulated government emission standards. Congestion-related air emissions are negligible because access roads were designed with ample capacity to accommodate additional traffic. The increased air emissions from additional flights will be offset by lower emissions from newer aircraft expected to be operating in the airport compared to existing aircraft. Future noise levels will be lower since newer aircraft will be significantly quieter than current aircraft (e.g., old Russian jets). The ICAO has set a time limit to phase out Chapter 2 aircraft that emit higher noise levels. In addition, aircraft are required to follow a noise abatement procedure wherein inbound and outbound aircrafts are not allowed to fly above areas adjacent to the airport that are susceptible to noise. Health and safety hazards to airport personnel are avoided through training given before employment and at the worksite. Training is conducted twice a year. ZIA also has in place its Emergency Response Plan (2007) including general provisions on organization and procedures for aviation accident and air traffic control, emergency rescue and fire protection, security and airport activities, medical, aircraft operators' activities, emergency center, communication, and aviation accident outside the airport territory.

11. AIA implemented most of the recommendations in the EAP, an output of the audit cited in para. 3. Three storm water basins were constructed to store and treat storm water run-off from air-side traffic areas through the provision of separators prior to gradual release to surface water. Soil testing to determine the potential soil contamination from fuel and oil showed insignificant contamination in a few locations and no contamination in most locations. The contaminated soil was recommended for use as refilling material in areas where no groundwater pollution could occur (e.g., basements and trenches). Fuel tanks were renovated and repaired and a new fuel pipeline was also installed. The storage areas inside the fueling area are now clearly defined and marked with specific signs and equipped with secondary containment. Wastes are segregated and marked in containers as hazardous or nonhazardous and are disposed by an authorized waste disposal company. The removal of vehicles and machinery scrap from the airport has been done. Fire fighting vehicles are housed in a renovated fire station and personnel have been provided with new personal protection equipment.

C. Conclusion

12. ZIA has engaged with the surrounding community and other stakeholders to address their environmental, health, and safety concerns, and has demonstrated its commitment to addressing compliance issues that may arise as exemplified in its implementation of not only the EMP but also the EAP.

² Annual Environmental and Social Report dated 18 April 2013.

SOCIAL IMPACT

A. Introduction

1. The new terminal was built southeast of Terminal 1 on vacant land owned and used by Zvartnots International Airport, and therefore no land acquisition or involuntary resettlement was required. However, as part of the master plan for the rehabilitation of Zvartnots International Airport, the Government of Armenia was supposed to relocate 506 people residing in four residential buildings inside the airport territory. However, as the government lacked the financial resources to implement such relocation, this has been pending since Armenia International Airports (AIA) took over the concession in 2002. When the project was being processed by the Asian Development Bank (ADB) and European Bank for Reconstruction and Development (EBRD), AIA assumed the responsibility to plan and implement the relocation of the residents. Since the relocation was supposed to happen simultaneously with the construction of the new terminal, it was deemed good international practice to apply ADB's Safeguard Policy Statement Safeguards Requirements 2 on involuntary resettlement. AIA prepared a resettlement action plan (RAP) in line with ADB and EBRD policy requirements.

2. In April 2013, an extended annual review mission was fielded to determine the progress of the RAP implementation and construction of replacement apartments. Other social dimensions of the project were also reviewed, such as labor and working conditions and compliance with labor laws consistent with internationally recognized core labor standards.

B. Review Findings

3. **Resettlement.** As originally intended in the 2009 RAP, residents were supposed to move to the new apartments in February 2012. However, in 2010, when AIA was about to start construction of the new apartment buildings, they found that a third party had used the land allocated by the Yerevan city government. An additional adjacent parcel of land was identified in 2011, thus causing delays in the RAP implementation. Complaints were received from the building residents about noise and dust during construction as well as repairs of common areas and power and water utilities at the hostels. AIA addressed these complaints and implemented the required repair. In addition to this, a nongovernment organization also prompted and assisted some residents to write letters of complaint about the size of the proposed new apartments. ADB and EBRD worked closely with AIA and provided technical guidance, particularly in resolving the issues related to the delays and complaints from the residents. AIA held regular quarterly meetings with residents to update them on progress and consult them on the building and apartment layout and design.

4. As a result of AIA's intensive engagement with the building residents, framework agreements were individually negotiated and building residents were offered a new and improved resettlement package, which was acceptable to more than 80% of the residents. Under the updated RAP (June 2013), residents will be provided with new apartments equivalent to or slightly larger than their present accommodation. Residents of buildings A and B will receive replacement apartments as follows: (i) an apartment with 43 square meters (m²) of interior space (total surface area of 61 m² including balcony) to replace existing 34–38 m² apartments; (ii) an apartment with 69 m² of interior space (total surface area of 90 m² including balcony) to replace 55–59 m² apartments; and (iii) 95 m² of interior space (total surface area of 118 m² including balcony) for apartments larger than 70 m². For residents of buildings C and D who are presently rent-free occupants of two rundown hostels, AIA will provide apartments with certificates of ownership registered under their names. These residents are occupying one or

more small rooms of about 10–20 m² and sharing kitchens, toilets, and bathrooms. Under the updated RAP, AIA will provide the following: (i) a 40.00 m² apartment consisting of 35.25 m² interior area plus a balcony (4.80 m²) for those with 1–3 family members losing a room of less than 20.00 m²; (ii) a 50.0 m² apartment consisting of 44.7 m² interior area plus a balcony (5.3 m²) for those with four or more family members losing a room of less than 20.0 m²; and (iii) a 64.0 m² apartment consisting of 58.2 m² interior area plus a balcony (5.8 m²) for those who have two separate rooms. AIA has allocated \$17.5 million out of its internally generated funds to undertake the relocation project. The funds allocated for this purpose are equivalent to 43% of the ADB financing of \$40.00 million, or approximately 9% of the actual total project construction cost (\$166.75 million).

5. Because of the delay in obtaining the ownership certificate for the additional land and protracted negotiations with the residents of buildings C and D, construction only commenced in November 2012. Completion of the new apartments for residents of buildings A and B is expected in October 2013, and for buildings C and D in June 2014. Residents of buildings A and B are scheduled to move into their new apartments by December 2013 and residents of buildings C and D by June 2014. AIA will assist the residents in the moving process and, for the first year, AIA and the construction contractors will regularly monitor the condition of the building, get the residents' feedback, and take corrective measures whenever necessary. It is also anticipated that operations and maintenance of the common facilities in the buildings will be an issue. AIA will facilitate the initial convening of a meeting of all owners to decide how issues related to the management of common shared property of the apartment buildings will be managed. Implementation of the RAP will continue to be monitored by international resettlement experts from ADB and its cofinanciers, including the EBRD.

6. **Other social dimensions.** AIA has a human resources policy which includes provisions compliant with Armenian labor laws. AIA ensures there is no discrimination in terms of salaries and benefits and provides equal employment opportunities to men and women as well as to qualified local residents. About 30% of AIA's approximately 1,100 employees are women. There are no cases of, or complaints related to, discrimination, forced labor, or child labor apart from a court case filed by two security personnel who were dismissed because they were purchasing items from the duty-free store. Since AIA took over the airport, salaries have been increased twice by 20%–25% each time such that present salaries are three times higher than in 2000. Benefits provided to staff include a year-end financial bonus equivalent to half of the monthly salary, performance bonus, social security for the family, regular health checks, medical insurance, and 3 years unpaid leave for staff who give birth. AIA also supports capacity building of staff through professional technical training as well as continuous training on health, safety, and security.

7. Nearly all (95%) workers at the airport are members of a trade union. The trade union regularly communicates with AIA's management and human resources department on employees' concerns such as salaries, vacations, working conditions, medical benefits, and financial assistance in cases of death or illnesses of family members. The trade union has a good working relationship with AIA management and worked closely with the human resources department to select the best and most reliable medical insurer in Armenia.

8. AIA continues to support the community initiatives of Corporacion America and has provided financing for community projects in Yerevan and Arevadasht town, including providing computers for schools, water wells, a kindergarten school, and first aid equipment.

C. Lessons Learned

9. One of the lessons learned in this project is in applying the triggers of ADB's Safeguard Policy Statement Safeguards Requirements 2. This requirement is triggered by physical and economic displacement as a result of involuntary acquisition of land, or involuntary restrictions on land use or on access to legally designated parks and protected areas. Construction activities of phase 2 did not require any land acquisition nor did they restrict access and did not require any relocation of residents. ADB's policy requirements were triggered merely as a good practice such that AIA follows international standards in delivering the relocation program which the government promised prior to ADB's involvement. Future projects should ensure that the Safeguards Requirements 2 is triggered strictly by the requirements of the ADB-financed project.

10. Another lesson learned is the importance of stakeholder engagement. From the beginning, AIA's engagement with the residents has been challenging. Many building residents were reluctant to believe that the relocation project would happen as they had been living with uncertainty for more than 20 years. During the first 2 years following ADB approval of the project, AIA focused on completing the airport expansion project to respond to the targeted completion date (i.e., 16 September 2011 in time for Independence Day) set by the Government of Armenia. This delay was compounded by the failure of the government to allocate additional land within the time frame originally agreed. As a result, complaints and demands began to surface. After that confrontational and defensive start, engagement with residents became more collaborative throughout 2012–2013 as the residents gained confidence from seeing real progress on their regular visits to the construction site. AIA continues to ensure that the lenders' resettlement specialists are consulted and engaged and are ready to respond to residents' queries on critical issues regarding entitlements during consultations. AIA's efforts to gain the trust, confidence, and cooperation of the residents, as well as involve the lenders' specialists in ADB and EBRD in the process, are commendable given that the relocation project was originally the responsibility of the government.

11. A final lesson learned is the need to be consistent and to document agreements with residents. Though AIA documented agreements with residents via framework agreements, these were not notarized and therefore not legally binding, resulting in some residents rejecting their validity. There remain a few unresolved issues with respect to residents still requesting more surface area or bigger apartments. These residents have filed a complaint with the Office of the Special Project Facilitator (OSPF). After discussing the complaint with the project team and verifying the complaint with the complainants themselves, the OSPF has concluded that the complaint is not eligible for the problem solving function of the accountability mechanism at this time. The OSPF is also of the opinion that the relocation process being undertaken is fair and complies with the ADB policy and procedures required. Together with the complaining residents or their representatives, AIA, ADB, and EBRD undertook joint measurements of the three apartments to address the dispute over the calculation of communal area. The OSPF recommended strengthening of the communications between the complainants and the project, and so AIA agreed to prepare printed information materials on items such as the criteria for allocation of apartments, changes to design, opportunities to purchase extra space, and expediting the actual legal contracts for the allocation of units.

D. Conclusions and Recommendations

12. Overall, ADB and EBRD expect positive developmental impacts, particularly to the group of building residents who are presently informally occupying rooms in two dilapidated and rundown hostels owned by the airport. Other residents are expected to benefit as replacement apartments are being built and finished with high-quality construction materials and will be turned over to the residents with property registration certificates. For this reason, the social dimensions of this project are rated *satisfactory*. However, ADB and EBRD also recognize that sustainable arrangements for operations and maintenance of the common facilities are critical to the success of the RAP implementation. The lenders are considering developing a capacity building program to assist the residents to form residential community associations and devise ways to generate funds for building maintenance. Technical assistance funds that could be used for this purpose are being sourced from other lenders. ADB will continuously monitor RAP implementation and consider providing external resettlement monitoring assistance in addition to the technical guidance to AIA up to project completion in December 2014.