ALMATY AIRPORT

ENVIRONMENTAL & SOCIAL ANNUAL PUBLIC REPORT

MARCH 2023

1. INTRODUCTION

TAV Airports Holding Co. (TAV) has completed the purchase of Almaty International Airport, Kazakhstan. As part of the purchase, an expansion of the existing terminal facilities has continued, comprising a new international terminal and upgrades to the existing terminal to convert it to a domestic facility. The new international terminal has started to built where the VIP terminal currently is located and a visualization of this can be seen on **Figure 1**. The VIP terminal building has been relocated within the airport. The construction works has included associated infrastructure such as road alterations, vegetation removal and drainage upgrades.

Figure 1-Visualization of Landside View of New International Terminal

To understand the impacts of the proposed development on the environment and people in the area around the airport, an Environmental and Social Impact Assessment (ESIA) has been undertaken by Mott MacDonald, supported by Eco Socio Analysts LLC, on behalf of TAV. The ESIA assesses what the project environmental and social impacts are, and outlines mitigation measures that the scheme needs to include to reduce potentially negative effects.

Finance for the scheme is being sought from the International Finance Corporation (IFC) and European Bank for Reconstruction and Development (EBRD).

The airport is located approximately 12 km to the north-east of central Almaty, on the outskirts of the city. It is bordered by a mix of open land and residential settlements.

The airport is located north of the settlement of Guldala, and north-east of other city districts, including Tbilisskaya and Kolhozshy, all of which lie within the wider region of Almaty. **Figure 2** provides an indication of the location and selected airport facilities.

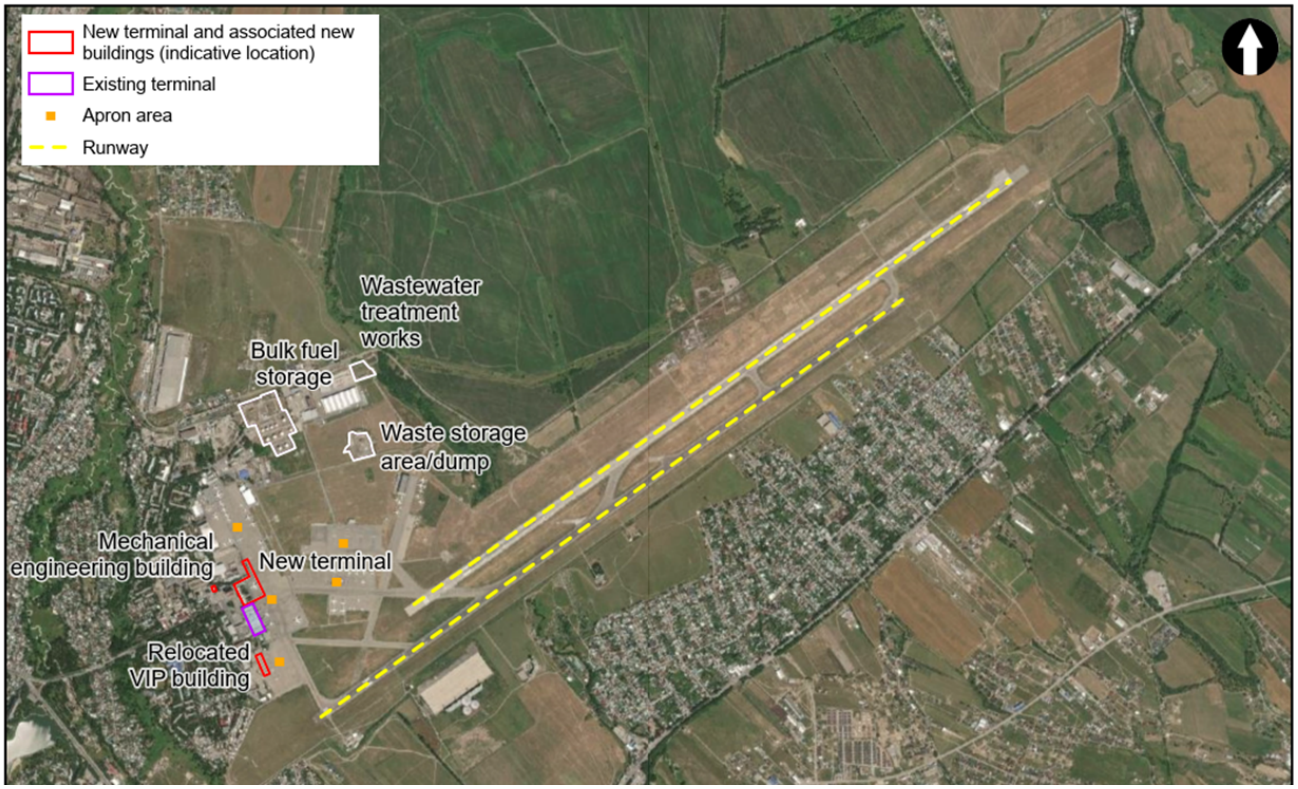

Figure 2-Almaty Airport Site Plan

The airport currently consists of two parallel runways, apron areas (comprising taxiways and aircraft parking stands), helipads, and associated facilities and infrastructure. These include car parks, a wastewater treatment facility, further buildings (such as for storage, mechanical engineering, air traffic control, hangars, fire station and offices), and storage areas. The airport fuel depot, with associated rail sidings and above-ground pipework, is located within the northern area of the airport.

2. ENVIRONMENTAL AND SOCIAL COMMITMENTS

We are delighted to report that ALA has made significant strides in advancing our environmental and social commitments. As part of this effort, we have created the Environmental and Social Affairs department.

The department includes a Head Environmental and Social Coordinator, an Environmental Specialist, and a Social Affairs Specialist (acting CLO). This new structure allows for greater specialization and delegation of key issues between specialists, enabling us to more effectively fulfill our commitments to our lenders and other stakeholders.

The Environmental and Social Coordinator will lead the development and implementation of policies, programs, and practices that promote environmental and social sustainability across our operations. This includes identifying and mitigating potential environmental and social risks and ensuring compliance with relevant regulations and standards. The department will also be responsible for organizing the monitoring, analysis, and reporting of key environmental and social parameters, as well as the procurement of necessary means to achieve required standards.

Furthermore, the department, through the Community Liaison Officer, will play a pivotal role in building and maintaining relationships with our stakeholders, particularly in the local communities where we operate. This includes engaging with community leaders, responding to concerns and feedback, and collaborating with other departments to address community-related issues.

The department is responsible for a wide range of activities, including stakeholder engagement, environmental and social monitoring, grievance management, and quarterly and annual reporting. Our team is dedicated to organizing means to improve the parameters of the airport in terms of environmental and social sustainability.

At ALA, we are fully committed to promoting environmental and social sustainability in all aspects of our operations. We believe that our recent organizational changes will enable us to better manage our environmental and social impacts, while contributing to the long-term sustainability of our operations. We look forward to continuing to make progress in this area, and to reporting on our achievements in our annual reports.

They key goal currently is to bring all of the environmental and social parameters in-line with IFC and EBRD standards, through the Environmental and Social Action Plan (ESAP).

3. PROGRESS

The airport has already achieved several key milestones in regards to environmental and social parameters, which are outlined in this report.

As of 2023, ALA can present the following quality ISO certificates:

- ISO 14001:2015 Environmental Management System Certification, expiring on 05.02.2026.

  A standard for environmental management systems that provides a framework for organizations to manage and improve their environmental performance. Certification to this standard demonstrates that an organization has established effective systems and processes for identifying and managing environmental risks and opportunities, reducing environmental impacts, and complying with environmental regulations.

- ISO 9001, expiring on 05.02.2026.

  ISO 9001 is a standard for quality management systems that provides a framework for organizations to consistently meet customer and regulatory requirements, enhance customer satisfaction, and continuously improve their processes and products. Certification to this standard demonstrates that an organization has established effective quality management systems and processes to consistently deliver products and services that meet customer needs and expectations.

- ISO 45001:2018, expiring on 05.02.2026.

  ISO 45001:2018 is a standard for occupational health and safety management systems that provides a framework for organizations to manage and improve their occupational health and safety performance. Certification to this standard demonstrates that an organization has established effective systems and processes for identifying and managing occupational health and safety risks and opportunities, preventing work-related injuries and illnesses, and complying with relevant occupational health and safety regulations.

TAV Construction similarly achieved ISO 14001 Environmental Management System that expired on 17.04.2022. Recertification was completed at 14.04.2022 and the new certificate expiration date is 17.04.2025.

Human Resources and Social Performance

Furthermore, ALA has recently updated our HR policy, P-MAA 50, to further strengthen our commitment to our employees' social and occupational wellbeing. The updated policy includes more detailed information on our internal grievance mechanisms, providing our employees with clear guidance on how to voice grievances and manage them through our HR department. This reflects our commitment to creating a safe and supportive workplace environment for all of our employees, and to continuously improving our internal social performance. This update will help us to better identify and address employee concerns, while also promoting a culture of open communication and respect within our organization. We are proud of our ongoing efforts to improve our social and occupational practices, and are committed to maintaining a high standard of employee safety and wellbeing at ALA.

In 2022 ALA has also been certified by Great Place to Work. The certification is awarded to companies that have achieved high scores on the survey and meet certain criteria for a supportive and positive workplace culture.

The social and occupational wellbeing of our employees is crucial to the success of our organization. Our commitment to creating a safe and supportive workplace environment aligns with our overarching goals for social and environmental responsibility. The efforts to improve our internal social performance are part of our larger strategy to identify, assess, and manage environmental and social risks and mitigate environmental impacts. With this in mind, we have established the following goals to guide our continued efforts towards social and environmental responsibility:

Almaty International Airport Goals

- Achieving and maintaining regulatory compliance with the legislative requirements of the Republic of Kazakhstan.
- Achieving and maintaining regulatory compliance with the requirements of IFC and EBRD to raise ALA to international standards of Environmental and Social performance
- Improvement of environmental performance.
- Continued work on the development of a strategy to reduce greenhouse gas emissions.
- Identify, assess, and effectively manage environmental and social risks.
- Mitigate environmental impacts and prevent pollution through the establishment of various environmental management plans specific to the identified risks and impacts.
- Avoid or minimize generation of waste by actively promoting reuse and recycling. Disposal of waste in a responsible manner
- Manage hazardous materials to avoid or minimize associated risks to human and environmental health.

Schemes and Initiatives

Furthermore, as part of our efforts to mitigate the environmental impacts our operations, in connection with the above goals we have joined several reporting programs across the holding, this includes but is not limited to: the ADP environmental reporting, TAV annual Environmental and Social reporting, TAV Sustainability System Management. These schemes promote data collection and accountability for many environmental parameters, allowing the airport to track and report it’s environmental performance locally but also be a part of a global effort in reducing the carbon footprint across the entire holding.

ACI Zero Carbon Emission Initiative

In connection with this, ALA has joined the ACI (Airports Council International) Zero Carbon Emission initiative. It is a global effort to help airports reduce the carbon footprint and achieve carbon neutrality. The program provides guidelines and tools to measure, report, and reduce airport emissions. The program has three levels of recognition for airports based on their progress in achieving carbon neutrality. Level 1 designation is given to airports that have measured and reported their carbon emissions and have developed a carbon management plan to reduce emissions. This designation shows the airport's commitment to reducing its carbon footprint and contributing to global efforts to combat climate change. ALA has set a goal of achieving Level 1 by 2025.

EDGE Advanced

Furthermore, the new international terminal has achieved EDGE ADVANCED certification, an internationally recognized standard for sustainable building design. The design team has implemented various energy efficiency measures, resulting in a 48.83% reduction in energy consumption. This includes the installation of efficient lighting and HVAC equipment, as well as reducing the window to wall ratio and using reflective paint/tiles for the roof and external walls. In addition, skylights have been installed to provide natural daylight to 30% of the top floor area. Water efficiency measures have also been implemented, resulting in a 55.79% increase in water efficiency within buildings. This includes the use of dual flush water closets, water-efficient urinals and faucets, and aerators. Finally, the use of steel columns instead of concrete has been implemented to reduce CO2 emissions and promote materials efficiency, achieving a 35.63% reduction.

4. MONITORING

Furthermore, as part of the initial steps towards this goal, ALA has drafted a comprehensive operational environmental monitoring programme. The programme covers a range of factors, including soil quality, groundwater quality, water body quality, air quality, and noise levels. To ensure accurate and consistent monitoring, these factors will be measured on a monthly basis, with quarterly and annual reporting. In 2022, we began preliminary monitoring to establish a baseline, and while no results were beyond permissible levels as dictated by local and international regulations, we have set targets to maintain and improve these levels. We recognize that environmental monitoring is a critical component of our sustainability efforts, and we remain committed to ensuring that our operations have the least impact possible on the environment. Please see the table below for our most recent monitoring results.

Environmental Monitoring Results from 2022

- Wastewater monitoring
  Wastewater monitoring was conducted by TAV Construction once in 2022 in the third quarter. Sampling was conducted on 31.08.2022 and the testing took place from 02.09.2022 to 12.09.2022. Samples were taken from the wheel wash area, where run-off water feeds into the stormwater drainage system. All of the results were within permissible legislative norms, and in the majority of cases there was an absence of major pollutants all together.

- Air Quality
  The main objects of air pollution are boiler houses, Aviation Fuel Depot, Auto fuels and lubricants, diesel and heat generators, special vehicles.
  The company monitors emissions from 127 stationary and 46 mobile sources of air pollution based on actual fuel consumption and equipment operation time. There was a total of 6 studies conducted in 2022. The results are within the range of regulatory norms and comply with local requirements.

- Noise levels
  The data was collected on 22.08.2022 in Q3. The results were under the accepted value and thus complied with local requirements.

- Groundwater
  There were 7 studies conducted in 2022: 2 studies in Q1, 1 study in Q2, 2 studies in Q3 and 2 studies in Q4. The results were within the range of regulatory norms and complied with local requirements.

- Soil Sampling
  There were 5 studies conducted in 2022: 2 in Q1, none in Q2, 1 in Q3 and 1 in Q4.

- Water monitoring
  4 studies took place in 2022. There were 2 studies in Q2 and 2 studies in Q3. No sampling took place in Q4 due to the cold climate around that time. All the results were within the range of regulatory norms and complied with local requirements. Sampling is done at the following 6 locations:
    - Kotyrbulak river (lower stream on airport grounds)
    - Kotyrbulak river (further upstream within airport grounds)
    - Airport well
    - Wastewater treatment area
    - Past the wastewater treatment area
    - Storm water apron

Waste

An operational solid waste management plan is currently in development and will see to increase in waste sorting as well as recycling of operational and production.

Operational solid waste management will follow existing protocols for the current terminal. Waste is currently collected on site and stored in an underground storage before removal from site via an authorized waste carrier to a municipal waste management facility. Hazardous waste is segregated and stored in a separate facility on site at the northern extent of the airport apron. The existing system is deemed to have sufficient capacity to accommodate the proposed works. Waste management will be considered as part of the environmental management processes going forwards, captured as part of the ESMP.

Furthermore, ALA is now part of "PlastNet", a network created within the "Say Yes to Plastic Recycling" project with the support of The Coca-Cola Foundation. The cooperation will involve the following key areas: increasing the share of plastic waste collection and recycling in Kazakhstan, promoting measures for joint solutions to plastic collection and recycling problems, exchanging data and information related to plastic waste management, and mutual promotion of the PlastNet network and its members. The network also includes obligations for members of the network to provide support and materials for information and advertising campaigns, as well as to organize joint events and trainings for waste management. The network secretariat will provide information and training support to the members of the network and assist in the implementation of plastic waste separation on their premises. The network members will provide reports on the amount of plastic waste collected and processed every three months. ALA's function within the scope of "PlastNet", is included in the operational waste management plan.

5. CONSTRUCTION

The construction contractor for the infrastructure development and expansion works is TAV Construction (TAVC), who lead the construction activities on site.

An Environmental and Social Action Plan (ESAP) has been produced to detail how environmental and social issues will be managed by the company, along with any recommended actions to be undertaken. TAV Construction continues to work closely with the management of ALA to ensure cooperation on key environmental and social issues. Outlined below are completed construction works in 2022.

Construction Works Completed in 2022:

Mobilization

- Mobilization offices are established including main contractor office, subcontractor office, mess halls, training rooms, clinic, recreation areas.
- Airside & Landside separation and construction area fencing installation works are completed.
- Some parts of existing hotel building are closed in order to be used as daily used items warehouse.
- Garbage separation area is constructed. Vehicle wheel wash area is constructed.

Passenger Terminal Building

- Existing Airside entrance is disassembled.
- Existing prefabricated buildings (TP-1 Substation, Admin Dept. Cleaning Office, Valve Chamber, Storage Room-1, Storage Room-2, Temporary Storage Room-1, Temporary Storage Room-2, Security Aviation Car Park Shelter, Security Cabines, Janitor Storage-1, Janitor Storage-2, Driver Rest Room-1, Driver Rest Room-2, Mini Bus Parking Shelter, Driver Office, Medical Emergency Room, Old Tools Storage, Advertisement Panels, TP-25 Substation Building, Business Aviation for Private Room) are disassembled.
- All building demolishment inside New Terminal area works are completed.
- Demolishing of the existing VIP building was completed on 3 November 2022.
- Excavation works are completed.
- Filling below foundation works are completed.
- Foundation R/C works are completed.
- Slab on Grade works are almost completed for Block B.
- MEP underground installation works are almost completed for Block B.
- Wall installation works are on-going.
- Secondary steel installation works for wet areas are on-going.
- Screed works are on-going for Block A.
- Epoxy flooring works are commenced for MEP rooms at Block A.
- Cable installation works are on-going.
- Duct installation & insulation works are on-going.
- HVAC,plumbing and firefighting piping installation works are on-going.
- Roof installation works are completed of Block A.
- Schuco profile & secondary steel installation works are almost completed for façade at Block A.
- Glazing installation works are almost completed for aluminium curtain wall glazed System for façade at Block A.

- Structural steel (column & beam & roof) installation works are on-going for Block B.
- Fireproof painting works are on-going for the steel structure at Block B.
- Slab R/C & Steel decking installation works are on-going for Block B.
- Delivery of the steel structure elements to the site is almost completed.
- Manufacturing of PBB & VDGS equipment is completed.
- Manufacturing of BHS system items are on-going.
- Manufacturing of HVTS items are completed.
- Manufacturing of MEP & IT items are on-going.
- Manufacturing of envelope items are on-going.
- Manufacturing of internal glazing items are on-going.
- Delivery of the floor covering items to the site is completed.
- Delivery of the blockworks to the site is on-going.
- Delivery of the gypsum boards to the site is on-going.
- Delivery of steel decking profiles to the site is completed.
- Delivery of kalzip panel to the site is completed.
- Delivery of vision glass materials to the site is on-going.
- Delivery of aluminium façade profiles to the site is on-going.
- Delivery of transformers to the site is completed.
- Delivery of HVAC pumps to the site is completed.
- Delivery of MV switchboards to the site is completed.

Central Utility Plant & Water Tanks

- Manufacturing & Delivery of MEP items are on-going.
- Paint works are completed.
- Envelope installation works are completed.
- MV & LV switchboard & Main distribution panel installation works are completed.
- Heat exchanger installation works are completed.
- Fire pumps installation works are completed.
- Duct installation & insulation works are almost completed.
- Cable installation works are on-going.
- HVAC piping installation works are on-going.
- Domestic water & Fire Suppression piping installation works are on-going.
- Booster & circulation pumps installation works are on-going.
- Delivery of air handling unit to the site is completed.
- Delivery of diesel tanks delivered to the site is completed.

Airside & Landside

- All terminal area is handover to contractor.
- Temporary Airside horizontal signalization marking is performed for determining the aircrafts movements during construction period at Taxiway area & related NoTAM is published.
- New TP-25 Substation handed over to Employer.
- Airside Phase-1 handed over to Employer.
- Delivery of the anchor bolts for Passenger Boarding Bridges to the site is completed.
- Trimming works are on-going for Airside Phase-2.
- Asphalt layers works are on-going for Airside Phase-2.
- Infrastructural works are on-going at Landside of the project.

Viaduct

- Demolition & Excavation & Backfilling works are on-going.
- Lean concrete works are on-going.
- R/C works are on-going.
- All structural steel is procured.
- Manufacturing of structural steel element is on-going.
- Delivery of steel structure elements to the site is on-going.
- Anchor bolt installation works are on-going.
- Steel structure installation works are on-going.

The New General Aviation Building and the New Government VIP Building

- Repair of the previous installation works are on-going due to the suspend of the works until 30 September 2022.
- Cable & Device installation works are on-going.
- MEP infrastructural installation works are on-going.
- Gypsum Board wall installation works are completed.
- Plaster & Paint works are on-going.
- Ceiling structure installation works are on-going.
- Ceiling finishes installation works are on-going.
- Ceramic floor installation works are on-going,
- Epoxy floor installation works are almost completed.
- Windows installation works are almost completed.
- Roof steel structure installation works are completed.
- Roof covering installation works are on-going.
- Façade installation works are on-going.
- Assembled works are on-going at its new location for Decorative Glass Frame & Decorative Fiber Concrete disassembled from the existing VIP Building.
- Delivery of outdoor lighting poles to the site is completed.