

Airport Accreditation Programme


Istanbul, Turkey 



Istanbul Ataturk Airport Accreditation Programme

As a member of ACI EUROPE (Airports Council International Europe) the Turkish Airports company TAV Airports Holding committed to reduce the carbon emissions in June 2008. In June 2009 ACI EUROPE launched the Airport Carbon Accreditation global standard for carbon management at airports. The programme aims to reduce greenhouse gas emissions via carbon and energy management [2]. TAV Airports Holding is also a member of this Airport Carbon Accreditation Programme. The company operates four airports in Turkey, including Istanbul Ataturk International Airport. Istanbul Ataturk International Airport not only aims to reduce greenhouse gas emissions but also considers waste, water conservation and wastewater re-use.

Country/ City Profile

	Country		City	
	Population (2014)	78 million [3]	Population (2014)	14 million (metropolitan) [3]
	Land area (km ²)	783,562	Land area (km ²)	5,461 [5]
	GDP per capita (2014, US\$, at purchasing power parity)	10,830 [4]	GDP per capita (2008, US\$, at purchasing power parity)	14,591 (metropolitan) [6]
	Region	Europe, Asia	Region	Coastal
City's physical geography	Location	<ul style="list-style-type: none"> ✓ Located in north west of Turkey, Marmara Region ✓ The city extends over two continents; Europe and Asia, divided with Bosphorus 		
	Climate	<ul style="list-style-type: none"> ✓ Mild wet winters, dry hot summers; average temperature: 13.5°C 		

Initiating context

Based on the need to take climate change seriously, ACI EUROPE (Airports Council International Europe) developed the Airport Carbon Accreditation Programme, a global standard for carbon management at airports. As greenhouse gas emissions are the main cause of climate change, considerable regulatory attention is needed. Therefore, ACI EUROPE developed environmental strategies and started to control the operational activities of member airports in terms of carbon and energy management [7]. It started to assist member airports to reduce their carbon footprints and thus calling airports attention to eco-friendly and sustainable operation.

Project description

The Airport Carbon Accreditation Programme aims to encourage and enable airports to implement best practice carbon and energy management measures and to gain public awareness for their success. The airports need to measure their CO₂ emissions in accordance with the World Resources Institute GHG Protocol. Airports are certificated at four levels of improvements as level 1-2-3 and 3+ levels. Istanbul Ataturk International Airport is certificated at level 3 [7]. Istanbul Ataturk International Airport not only aims to reduce greenhouse gas emissions but also considers waste, water conservation and wastewater re-use.

At Istanbul Ataturk International Airport e.g., a trigeneration system, which generates electric, heating, and air conditioning energy from a single unit within the terminal is used in order to eliminate the energy losses during transmission and distribution. The carbon footprint has been measured since 2010. The Airport has identified the sources of carbon emissions and calculated and reported on an annual base since it has participated in the Carbon

Disclosure Project. Beyond GHG reductions also wastewater treatment has been considered and a system to collect wastewater was created at the terminals. A closed-loop sewage system collects wastewater and leads it to a treatment facility. Additionally also efforts to increase the share of recycled waste have been undertaken [1].

Implementation process

Besides implementing specific measures for CO₂ emission reduction and waste and wastewater treatment, Istanbul Ataturk International Airport also launched the ACI Global Training Centre in 2011. Trainings cover all aspects of sustainability including ethics, transparency and employee relations respective to the environment and the economy. In addition, waste management training sessions are organised [1].

Projects implementation details

Process	<ul style="list-style-type: none">✓ Implementation of specific measures for CO₂ emission reduction and waste and wastewater treatment✓ Global Training Centre of ACI✓ Training programmes for employees✓ TAV Academy's Environmental Training Programme✓ Waste Management Training Sessions
Financing	<ul style="list-style-type: none">✓ TAV Airport Holding
Involved stakeholders	<ul style="list-style-type: none">✓ Airport Council International (ACI) Members

Results

Istanbul International Ataturk Airport became Turkey's first Green Airport in 2011. Electricity consumption has been reduced by 45% via the installation of LED lighting products. Rainwater is collected and used for irrigation of green spaces which led to a decrease of 45,000 m³ in water consumption. In addition, 40,000m³ water is conserved via backwashing. Also in 2011, Istanbul Ataturk International Airport has already managed to get 13% of total waste to be recycled [1].

Lessons learned

At Istanbul Ataturk International Airport energy specific measures implemented under the Airport Carbon Accreditation Programme ensure energy savings and contribute to an increase in efficiency. Further specific measures in the area of waste and wastewater re-use decreased waste generation and enabled water conservation. Public awareness and acceptance of those measures are ensured by encouraging people to voluntarily participate in various processes of carbon, energy, waste or wastewater management and by ensuring transparency of all steps of operation [1]. Following those concept any city can achieve a high environmental performance of their airports.

References

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- [5] Istanbul Metropolitan Municipality, webpage: <http://www.ibb.gov.tr/tr-tr/kurumsal/pages/ilceveilkademe.aspx>
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