Sustainability and Environmental Management Systems

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Environmental Management System (EMS)

Is a management system used to develop, implement and manage the environmental policies, objectives and targets of an institution.

EMS results can be measured against the organization environmental performance.

Why Is It Important?

Enable an organization to develop and implement its environmental objectives

Identify environmental aspects and associated liabilities

Reduce operation costs and enhance sustainability

Life Cycle Cost Analysis

An economic evaluation technique that determines the total cost of owning and operating a facility over a certain period of time.

Africa Scenario

Airports in Africa are characterized by heavy traffic

Some of the airports with heavy traffic:
South Africa, Egypt, Kenya and Morocco

Millions of carbon emissions are produced during operations

Airports key business is not environment conservation yet its depletion can have fatal effects on our business.

Kenya Airports Authority (JKIA)

Landing:

27 International Airlines

4 Domestic Airlines

13 Cargo Companies

7 Charters

Number of vehicles

An average of 64,000 per month

Traffic projections 3.3 million vehicles per year

Sources of Carbon Emissions

Aircraft

Vehicles

Air Conditioners

Backup Generators

Running Cost Kenya Airports Authority (per month)

Electricity

Electricity bill **Ksh 11,500,000 (USD 153,333.33)**

Running Cost Kenya Airports Authority (per month)

Garbage Collection

Garbage collection Ksh 394,000(USD 5,253)

Running Cost Kenya Airports Authority (per month)

Fuel

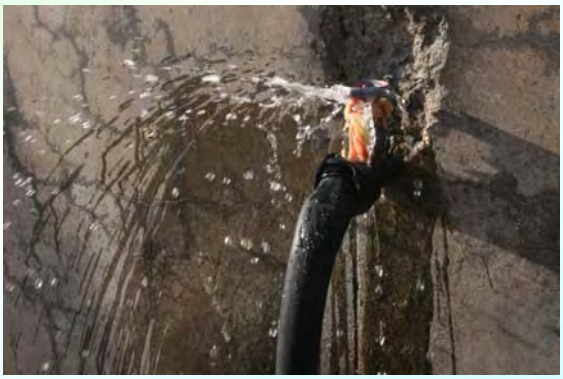
Fuel (Motorized equipment) ksh 1,400,000(USD 18,666)

Running Cost Kenya Airports Authority (per month)

Water

Water bill Ksh 1,500,000(USD 20,000)

Water: Usage 1,276,000 liters per month.



Running Cost Kenya Airports Authority (per month)

Waste

Solid waste: paper and food remains: 8 tonnes per day

Setting up an Environmental Management System

Noise

Local Air Quality

Water Use and Waste Water Management

Solid Waste Management and Recycling

Energy use and climate Change

Habitat and Wildlife Management

Africa Airports Green Initiative

A proposed initiative geared towards:

1. Cost Reduction through Green practices up to 30% in four areas.
2. Pollution Reduction: Reduce, Re use and Recycle
3. Natural resources management: Rehabilitation and conservation
4. Corporate Social Responsibility

Africa Airports Green Initiative

Case study KAA
Cost Reduction through Green practices up to 30% in four areas.

		Current cost per month		Saving per Month		Saving per Year	
		Ksh	$	Ksh	$	Ksh	$
1	Water	1.5 m	20,000	450,000	6,000	5.4m	72,000
2	Electricity	11.5 m	15,333	344,000	4,599	41.4m	552,000
3	Waste & Garbage	0.394m	5,253	118,192	1,575	1.4m	18,912
4	Fuel	1.4m	18,666	419,985	5,599	5.04m	67,200
			$ 59,252		$ 17,773		$ 710,112

1$ = ksh75

Africa Airports Green Initiative Process

Assessment

Select team to drive the process

Training on Green Practices

Set Goals

Monitor and Reward

Offset your carbon Emissions

Prestigious African Airports Green Initiative Awards

How ACI can Assist the Regional and Environmental Issues

Standardized Environmental Management Systems

Promote training and Implementation of quality EMS

Corporate Social Responsibility

Way Forward

1. **Mitigate liabilities associated with environmental impacts through implementation of Airports green initiative.**
2. **Identify approaches and practical solutions to the real environmental needs of the region.**
3. **Sustainability policies and recommended practices**
4. **Public awareness**

Green Africa Foundation and its Partners are proud to be associated with Airports Council International