



# AIRPORT ENVIRONMENTAL MANAGEMENT

**04-08 October 2015**

**Abu Dhabi, UAE**

**Module 4: Sustainable Development  
and Environmental Management**

## Module objectives

- To demonstrate the consequences of the failure to address Sustainable Development priorities
- To identify the primary implications for the air transport sector arising from Sustainable Development
- To link required the actions to the qualities of effective environmental management
- To establish the basis of effective and efficient environmental decision-making

## Environmental Perspective

- A sustainable society is one in which .....
  - Resources are consumed more slowly than the Earth produces them. (e.g. Oil)
  - Wastes generated slower than the Earth absorbs them. (CO<sub>2</sub>)
  - Physical degradation is minimised.
- and that .....
  - Human needs are met worldwide

## Compensating for growth

- There are limits to growth, or the environmental implications of growth.
- Sustainable Development does not imply absolute limits, but rather limits imposed by the present state of technology and social organisation and the ability of the Earth to absorb the effects of human activities.
- We need to ensure growth is compensated for through technological improvement or manage social expectations.

## Government perspective

- Seeks to achieve the independent and mutually supporting goals of economic, environmental and social progress.
- **UK Government:**
  - Living within environmental limits.
  - Strong, healthy and just society.
  - Sustainable economy.
  - Good governance (social and environmental responsibility).
  - Decisions based on sound science.
- **Abu Dhabi Government:**
  - Entities should meet and strive to exceed relevant legislation through an EHSMS

## Estidama in Abu Dhabi

“The Abu Dhabi Urban Planning Council (UPC) is recognized internationally for large-scale sustainable urban planning and for rapid growth. Plan Abu Dhabi 2030 urban master plan addresses sustainability as a core principle. Estidama, which is the Arabic word for sustainability, is an initiative developed and promoted by the UPC.”

“The leadership of Abu Dhabi are progressing the principles and imperatives for sustainable development, through Estidama, while recognizing that the unique cultural, climatic and economic development needs of the region require a more localized definition of sustainability.”



## **Airports failing to address these priorities**

- Unable to make full use of their infrastructure due to environmental constraints such as noise or air quality.
- Failing to gain approval for further growth due to the projected environmental impacts of noise, air quality or habitat destruction.
- Spending tens of millions of dollars annually to manage or mitigate their environmental impacts (noise, wastes) or secure adequate resources (energy or water) to ensure efficient operations and meet passenger/airline expectations.
- Wasting significant funds in failing to utilise resources and manage wastes efficiently.

## Implications for aviation I

- Emphasise commitment to continued eco-efficiency improvements:
  - Technology enhancement – diffusion of best practice
  - Operational changes
  - Optimising modal mix (full life-cycle assessments)
  
- Demonstrate efforts being made to reduce absolute increases in environmental impacts:
  - Systematic approach to environmental management including use of performance indicators
  - Corporate reporting
  - Stimulate competition on the basis of environmental performance



## Implications for aviation II

- In terms of addressing environmental limits, choices are more difficult:
  
- Step changes in technology
- Reduce demand for travel
- Determine acceptable levels of increases in social and environmental impacts:
  - Understand and communicate impacts more fully
  - Impact trade-offs (or trading)
  - Compensate for loss of amenity (stakeholder dialogue)

## Actions and messages

- Effective
- Consistent
- Trustworthy
- Legitimate

HOW?

A SYSTEMATIC APPROACH IS CALLED FOR!

**Systematic  
Approach**

Executive commitment of the airport operator, airport services providers & community stakeholders

**Requires:**

Identification & prioritization of environmental impacts associated with the operation of the airport

Development of an environmental management policy and associated plans

Allocation of human, financial and technical resources to achieve policy goals, objectives and targets

Development of accountable management structures to monitor progress and ensure the most effective use of resources

Review the outcomes of the various initiatives on a regular basis and provide recommendations for the future

**That's an environmental management system!**

## Critical issues

- Responding to the challenge of Sustainable Development requires:
- Maximising social and economic benefits of aviation
- Delivery of eco-efficiency improvements
- A systematic approach to environmental management if effective and efficient decisions are to be made
- Demonstration of the credibility of decisions through the provision of appropriate information

**So how can effective and efficient decisions  
be made?**

## Information requirements

- Effective = impact against a given goal/target
- Efficiency = maximising return from a given amount of effort (e.g. labour or financial resource)
- *Requires information on priorities, capabilities and return on investment*

## Environmental priorities informed by...

- External pressures
  - Regulations - regional, national, international
  - Policy – international, national, local, industry (ACARE, IATA)
  - Market – APD, EU ETS, competitors
  - Stakeholders – customers, local community, media, communities of expertise, NGOs, etc.
- Internal capabilities
  - Human resources – skills, expertise, willingness
  - Financial resources

## Social nature requires...

- Constant horizon scanning
- Negotiation with stakeholder groups
- Rational for, and communication of, company position
- Demonstration of improvement against adopted agenda

*All communication activities*



## Demonstrating progress



## Conclusions

- Reconciling economic growth with environmental protection requires social and technological change
- Commercially and environmentally effective decisions must be based on appropriate evidence (activity and impact data)
- Environmental management systems help assimilate the data, empower organisations to act and communicate improvements

**Any questions?**