

Airport Carbon Accreditation and ACERT – Airports Response to Climate Change



MAPPING | REDUCTION | OPTIMISATION | NEUTRALITY



The Climate Change issue is around us!

CO₂ growth rate
(parts per million/year)

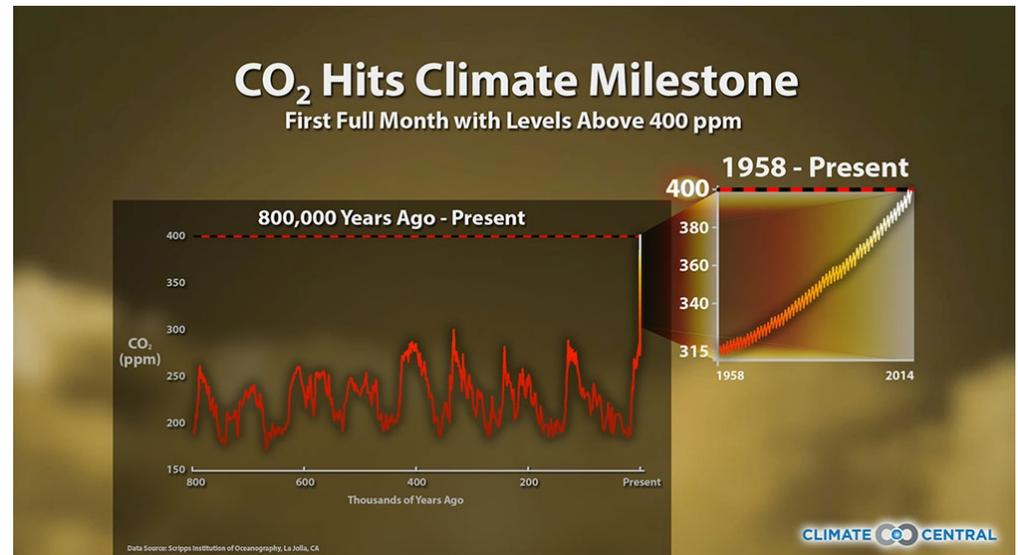


“CO₂ concentrations rose 2.9 parts per million (ppm) between 2012 and 2013, the biggest annual increase since 1984.”

Source: World Data Centre for Greenhouse Gases

FT

“safe upper limit for atmospheric concentrations of carbon dioxide is no more than 350 ppm”



The Climate Change issue is around us!

“In the meantime, almost 200 governments around the world have agreed to try to work out a deal by the end of 2015 to limit the global average temperature increase to two degrees Celsius”



Airports Response to Climate Change

- ACERT is an inventory **tool** to calculate Carbon and Greenhouse Gas for airports



- *Airport Carbon Accreditation* is a **programme** to assess and recognize airports' effort in Carbon and Greenhouse gas initiatives.

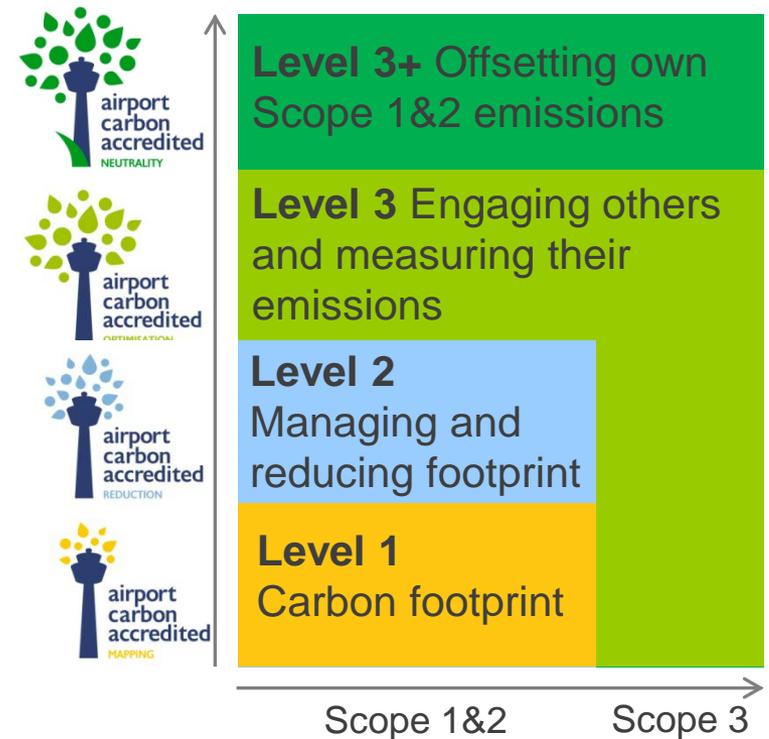


- *ACERT has been approved for Airport Carbon Accreditation Level 1 (Mapping) and Level 2 (Reduction)* subject to independent verification.



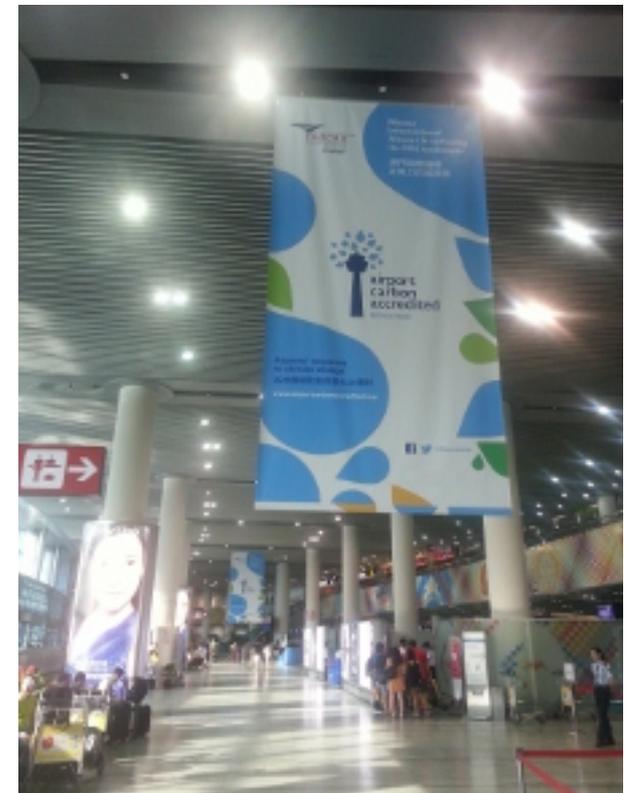
Airport Carbon Accreditation - Summary

- ❑ Voluntary programme
- ❑ Specifically designed for the airport business
- ❑ Covers on-site airport operational activities that contribute the most to carbon emissions
- ❑ Best practice carbon management processes and gain public recognition
- ❑ 4 ascending levels of performance



Key benefits of participation

1. Raises sustainability profile & external credibility



1. Raises profile and credibility

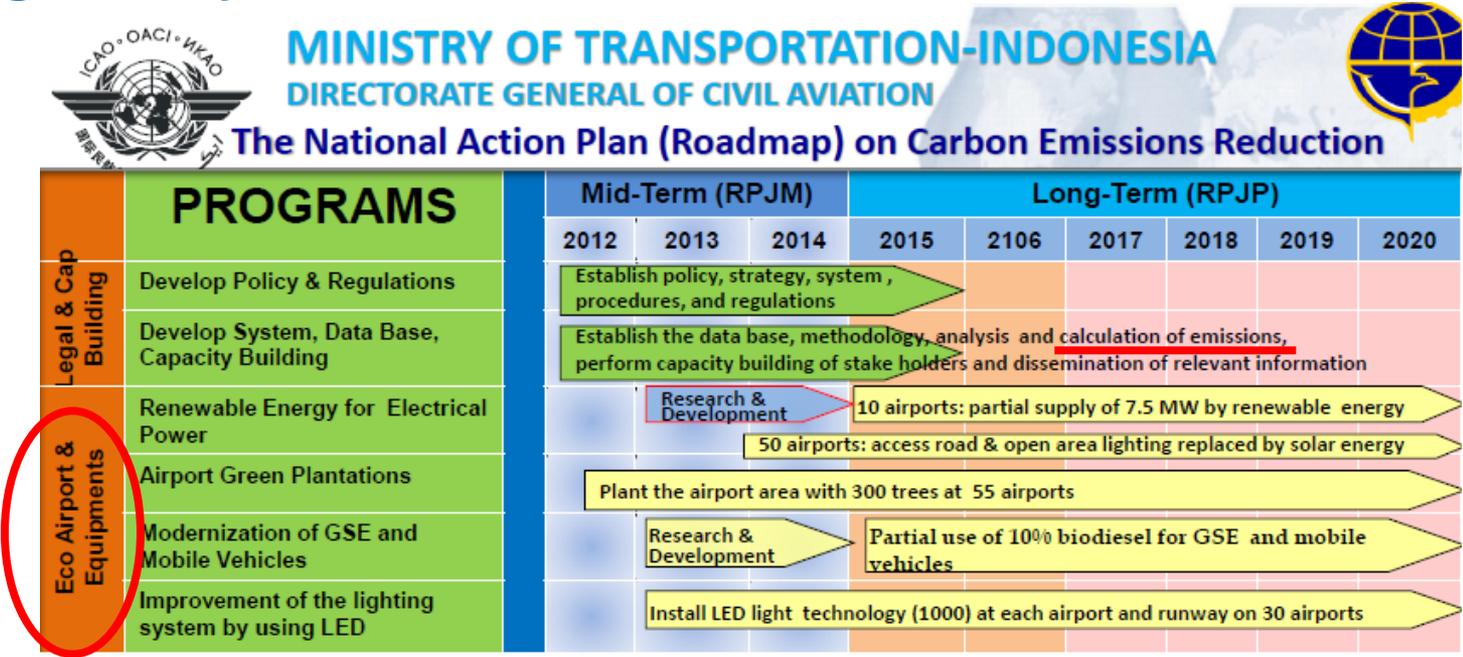
- ❑ *Airport Carbon Accreditation* is formally recognised by key aviation and environmental institutional bodies
- ❑ It is formally endorsed by:



- ❑ And is formally supported by:
 - ❑ The European Commission (EC)
 - ❑ United Nations Environment Programme (UNEP) and the
 - ❑ International Civil Aviation Organization (ICAO)

Key benefits of participation

1. Raises sustainability profile & external credibility
2. Reduces exposure to climate change regulatory risks



2. Attenuates regulatory risk

- ❑ Mitigates exposure to impending policy initiatives and regulation
- ❑ Compatibility and compliance with national or international environmental or sustainability goals
- ❑ Evidence of voluntary best practice carbon management



Benefits continued...

2. Exposure to regulatory risk (GHG)



United Nations
Framework Convention on
Climate Change

In Asia-Pacific

State	Target	Base Year
Australia	5% or 15-25% by 2020; 80% by 2050	2000
Bhutan	Not exceed sequestration capacity	Business as usual
China	40-45% by 2020	2005
India	20-25% per GDP unit by 2020	2005
Indonesia	26% by 2020	Business as usual
Israel	20% by 2020	Business as usual
Japan	25% by 2020	1990
Kazakhstan	15% by 2020	1992
Korea	30% by 2020	Business as usual
Maldives	Carbon neutrality as a country by 2020	NA
Marshall Islands	40% by 2020	2009
New Zealand	10%-20% by 2020	1990
Papua New Guinea	50% by 2030	NA
Singapore	16% by 2020	Business as usual
Mongolia	Twice by 2020; 2.5 times by 2030 per GDP unit	2006
Malaysia	40% by 2020	2005
Thailand	2% up each year until 2020	2005
Vietnam	8-10%	2010
Sri Lanka	26% by 2015, 49% by 2020	Business as usual

Greenhouse Gas Emission Reduction Targets

(Source: UNFCCC & ICAO)



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2. Reduces exposure to climate change regulatory risks
3. **Helps optimise airport capacity**



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4. Encourages & facilitates knowledge transfer
5. **Improves the bottom line**



Bournemouth Airport switches to LED lighting to save 72% on costs



Bournemouth Airport has switched its car park lighting to LED fittings that will result in energy cost savings of 72% and reduce the airport's annual CO2 emissions by 65 tonnes.

The new light fittings were installed by Greater Manchester-based company MHA Lighting, who replaced 209 150-watt SON fittings (170 watt with ballast) with its P30 fitting that is just 67 watts inclusive of ballast. The P30 fitting's intelligent controls will also save the airport an additional 25% on its energy bills by reducing operating hours from 12 to 9.

5. Improve the bottom line

ADAC



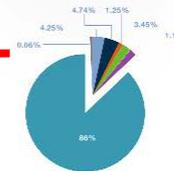
04 MANAGING OUR ENVIRONMENTAL IMPACT

MANAGING OUR ENVIRONMENTAL IMPACT

Through a range of initiatives targeted at reducing greenhouse gas emissions, ADAC has been certified as one of the 20 best airports in the world for its operations on the environment. Most notably, ADAC officially achieved Airport Carbon Accredited status at the 'Mapping Level', making it the first carbon accredited airport in the Middle East and North Africa (MENA) region - indeed, the first airport first certified outside of Europe. An Environmental Health and Safety Management System (EHSMS) is currently being implemented as part of ADAC's Integrated Management System (IMS), so as policies concerning waste management and resource optimisation.

AIRPORT CARBON ACCREDITED

Launched in Europe in 2005, the Airport Carbon Accreditation system - ACCA Europe, remains and the only institutionally endorsed carbon management certification standard for airports - was extended to include the Asia-Pacific region, allowing airports of those countries to apply for and achieve certification. It is one of the best levels of the programme, this accreditation is the world's only institutionally endorsed carbon management certification standard for airports, and it independently assesses and recognises the efforts of airports to manage and reduce their carbon emissions. As of January



Category	2011
CO2 emissions (t)	115,717.04
CO2 emissions (kg per passenger)	1,300.0
CO2 emissions (kg per kg of cargo)	1,907.0
CO2 emissions (kg per kg of fuel)	1,907.0
CO2 emissions (kg per kg of food)	1,907.0
CO2 emissions (kg per kg of other)	1,907.0
CO2 emissions (kg per kg of total)	1,907.0

Mumbai

- Air Passengers Association of India (APAI) and Consumers Association of India survey in 2009
- First international airport to win 'Airport of the Year' Award by Frost & Sullivan Aeronautical Excellence in 2008.
- Best Airport in India award by Air Passengers Association of India in 2007 and 2008 respectively

Chhatrapati Shivaji International Airport is participating in Airport Carbon Accreditation

Airports responding to Climate Change

airport carbon accreditation

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Hong Kong

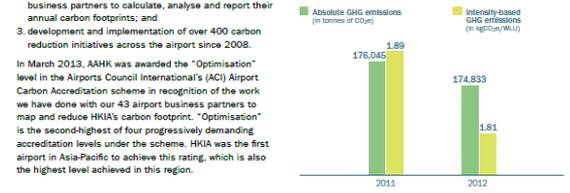
Climate Change and Carbon Reduction

Recognising that airports have a role to play in combating climate change, HKIA has pledged to reduce its carbon emissions by 25% per workload unit (WLU) (one workload unit is either one passenger or 100 kg of cargo) by the year 2015 from the 2008 baseline level.

In 2008, we conducted our first carbon audit of all AAHK-owned facilities at the airport. The success of the first carbon audit laid the foundation for AAHK to develop an airport-wide carbon reduction programme for our business partners in 2009. This programme includes three key components:

1. engagement with stakeholders at the airport through a series of educational workshops on climate change and carbon auditing;
2. development of an online carbon audit system to allow business partners to calculate, analyse and report their annual carbon footprints; and
3. development and implementation of over 400 carbon reduction initiatives across the airport since 2008.

Greenhouse Gas (GHG) Emissions from AAHK's Facilities*



* Includes AAHK's facilities such as Terminal 1, Terminal 2, North Satellite Concourse, SkyPass, HKIA Tower, Airport World Trade Centre, etc. The operational boundary covers Scope 1, Scope 2 and selected Scope 3 emissions.



Airports achieved *Airport Carbon Accreditation*



- Currently 111 accredited airports globally, of which,
- 21 from Asia-Pacific



Airport Carbon Accreditation

Truly **global** airports GHG standard...



North America

Europe

Asia-Pacific

Africa

Latin America-Caribbean
(12 Nov 2014)

*Available to **ALL** airports!*



Note for the conference

The Conference is invited to

- Note the importance of Airport Carbon Accreditation and ACERT as tools to assist airports in managing and reducing carbon emissions; and
- Encourage their aerodrome operators to adopt ACERT and participate in *Airport Carbon Accreditation*.



Thank You

Contact info:

ACI Asia-Pacific Regional Office: ken@aci-asiapac.aero

