

# *Airport Carbon Accreditation and ACERT – Airports Response to Climate Change*

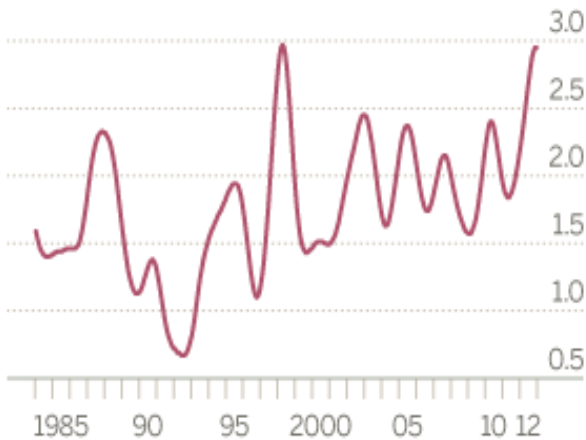


MAPPING | REDUCTION | OPTIMISATION | NEUTRALITY



# The Climate Change issue is around us!

CO<sub>2</sub> growth rate  
(parts per million/year)

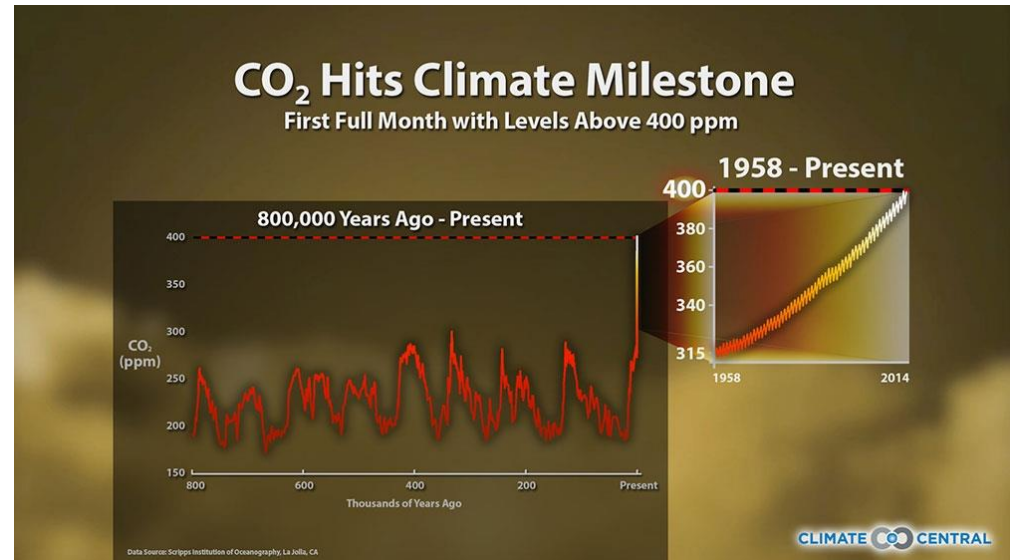


*“CO<sub>2</sub> concentrations rose 2.9 parts per million (ppm) between 2012 and 2013, the biggest annual increase since 1984.”*

Source: World Data Centre for Greenhouse Gases

FT

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



# Airports Response to Climate Change

- ACI **Guidance** for GHG emission Management

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

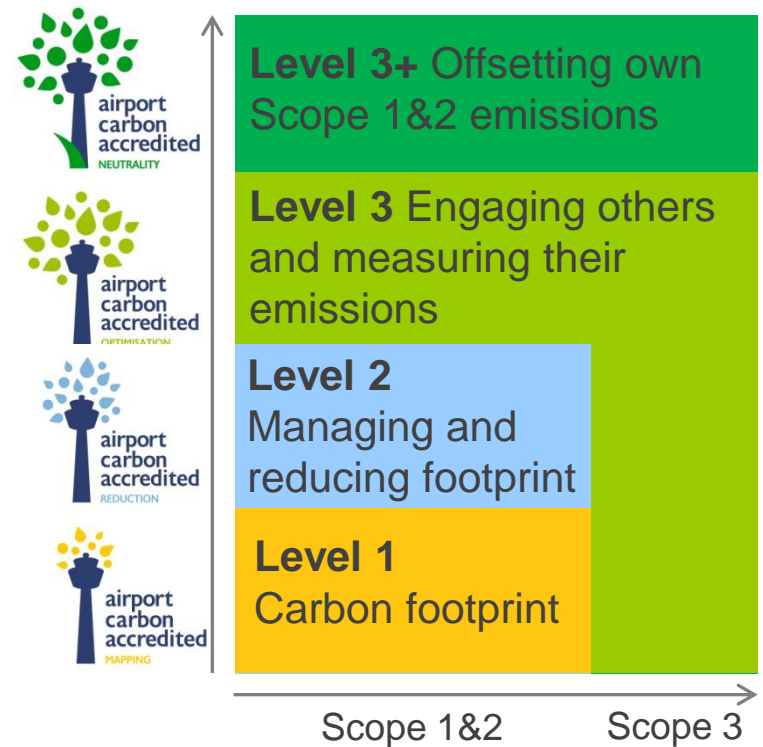


- *Airport Carbon Accreditation* is a **programme** to assess and recognize airports' effort in Carbon and Greenhouse gas initiatives



# Airport Carbon Accreditation - Summary

- ❑ Voluntary programme
- ❑ Specifically for airport business
- ❑ Airport operational activities
- ❑ Best practice carbon management
- ❑ Gain public recognition
- ❑ 4 ascending levels of performance



# Key benefits of participation

## 1. Raises sustainability profile & external credibility



# 1. Raises profile and credibility

- ❑ Recognised by key aviation and environmental institutional bodies
- ❑ It is formally endorsed by:



- ❑ And is formally supported by:



# Key benefits of participation

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



MINISTRY OF TRANSPORTATION-INDONESIA  
DIRECTORATE GENERAL OF CIVIL AVIATION



## The National Action Plan (Roadmap) on Carbon Emissions Reduction

	PROGRAMS	Mid-Term (RPJM)			Long-Term (RPJP)					
		2012	2013	2014	2015	2106	2017	2018	2019	2020
Legal & Cap Building	Develop Policy & Regulations	Establish policy, strategy, system, procedures, and regulations								
	Develop System, Data Base, Capacity Building	Establish the data base, methodology, analysis and calculation of emissions, perform capacity building of stake holders and dissemination of relevant information								
Eco Airport & Equipments	Renewable Energy for Electrical Power	Research & Development			10 airports: partial supply of 7.5 MW by renewable energy 50 airports: access road & open area lighting replaced by solar energy					
	Airport Green Plantations	Plant the airport area with 300 trees at 55 airports								
	Modernization of GSE and Mobile Vehicles	Research & Development			Partial use of 100% biodiesel for GSE and mobile vehicles					
	Improvement of the lighting system by using LED	Install LED light technology (1000) at each airport and runway on 30 airports								

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)





# Key benefits of participation

1. Raises sustainability profile & external credibility
2. Reduces exposure to climate change regulatory risks
- 3. Helps optimise airport capacity**



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4. **Encourages & facilitates knowledge transfer**



# Key benefits of participation

1. Raises sustainability profile & external credibility
2. Reduces exposure to climate change regulatory risks
3. Helps optimise airport capacity
4. Encourages & facilitates knowledge transfer
5. Improves the bottom line

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



Air Passengers Association of India (APAI) and Consumer 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

ACI | REDUCTION | OPTIMISATION | NEUTRALITY



### 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 200 kg of cargo) by the year 2015 from the 2008 baseline level.

In 2008, we conducted our first carbon audit of all 241 terminal facilities at the airport. The success of the first carbon audit laid the foundation for AHK to develop an airport-wide carbon reduction programme for our business partners in 2008. 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 entire 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.

In March 2013, AHK was awarded the "Optimisation" level in the Airport Council International's (ACI) Airport Carbon Accreditation scheme in recognition of the work we have done with our 43 airport business partners to map and reduce HKIA's carbon footprint. "Optimisation" is the second highest of four progressively demanding accreditation levels under the scheme. HKIA was the first airport in Asia-Pacific to achieve this rating, which is also the highest level achieved in this region.

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

Year	Scope 1 and 2 emissions (in tonnes of CO <sub>2</sub> e)	Intensity-based GHG emissions (in kgCO <sub>2</sub> e/kg)
2011	138,042.189	1.81
2012	124,835	1.61

\* Includes AAKM's facilities such as Terminal 1, Terminal 2, Retail Building, Concessions, Carpark, Hotel, Tower, Airport Security, Tower Control, etc. The operational facilities covers Scope 1, 2 and 3 and excludes Scope 3 emissions.

HKIA Carbon Reduction Programmes

香港國際機場成為首個亞太區機場  
獲得「國際機場航空碳減排」認證，標誌  
HKIA 獲頒發「國際機場航空碳減排」認證  
最高「優化」級別 Airport Carbon Accreditation "Optimisation" Level

Bournemouth Airport ACI 2013

# Airports achieved Airport Carbon Accreditation



- Currently 126 accredited airports globally, of which,
- 26 from Asia-Pacific



# The conference is invited to:

- Note the importance of Airport Carbon Accreditation and ACERT; and
- Encourage their aerodrome operators to adopt ACERT and participate in *Airport Carbon Accreditation*.
- Include Airport Carbon Accreditation into their State Action Plans.



# Thank You

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