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# ASEAN's Perspective on Airport Sustainability : Airports of Thailand PLC.

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Vice President

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# Talking Points

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## Airport Sustainability





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# ASEAN



ASSOCIATION  
OF SOUTHEAST  
ASIAN NATIONS



**ASEAN 50**  
\*\*\*\*\*2017\*\*\*\*\*



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# ASEAN : a growing region

## Rapidly growing region

### GROWING TRADE IN THE REGION

ASEAN is the **7th largest economy in the world**



combined GDP of around USD2.4tn

ASEAN-China trade corridor: USD491bn  
**grew more than 7X** from 2000-2013



**26%** of ASEAN's 2013 trade is Intra-ASEAN

Source: Standard Chartered Global Research

### POSITIVE OUTLOOK 2015 - 2016

ASEAN 5 projected to grow at **5.2%** compared to 3.5% global growth in 2015



Source: International Monetary Fund

## ASEAN: Growth in the fast lane

### POPULATION

Set to rise by more than **10%** to 690 million by 2020



### INVESTMENT

ASEAN attracted **9%** of global foreign direct investment in 2013 (more than China)



### GROWTH

**2% faster** than average global growth from 1990-2013



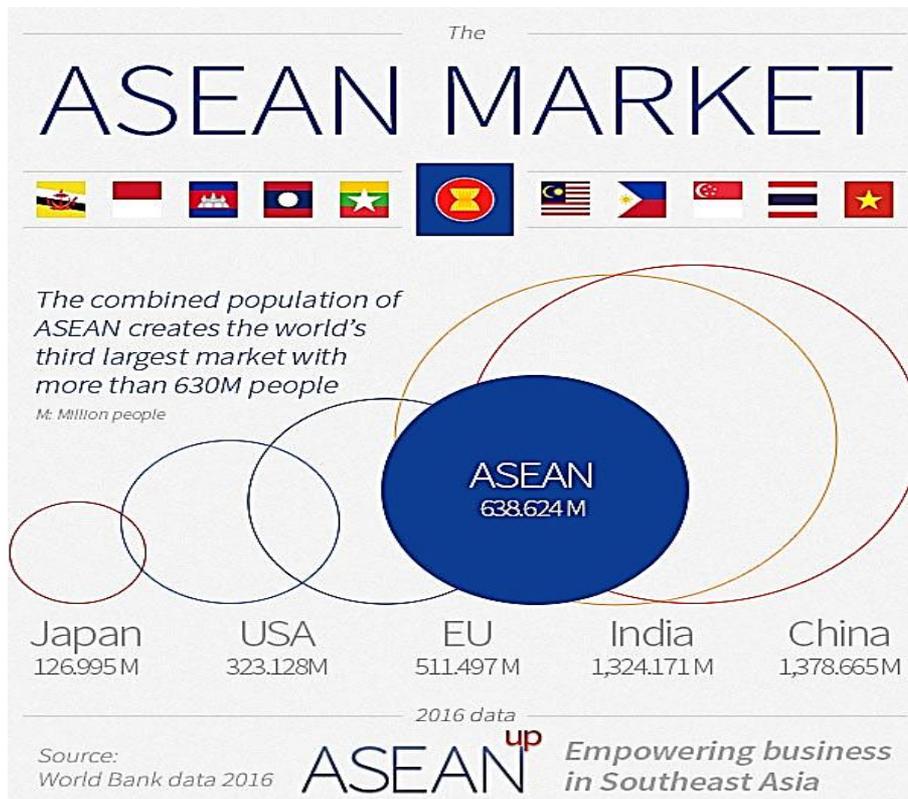
## Emerging economies are a global phenomenon

World map of emerging countries



Source: IHS Global Insight, Airbus

<https://www.sc.com/en/sustainability/performance-and-policies/impact-reports/asean.html>  
<https://aseanup.com/asean-infographics-population-market-economy/>





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# ASEAN Plus+

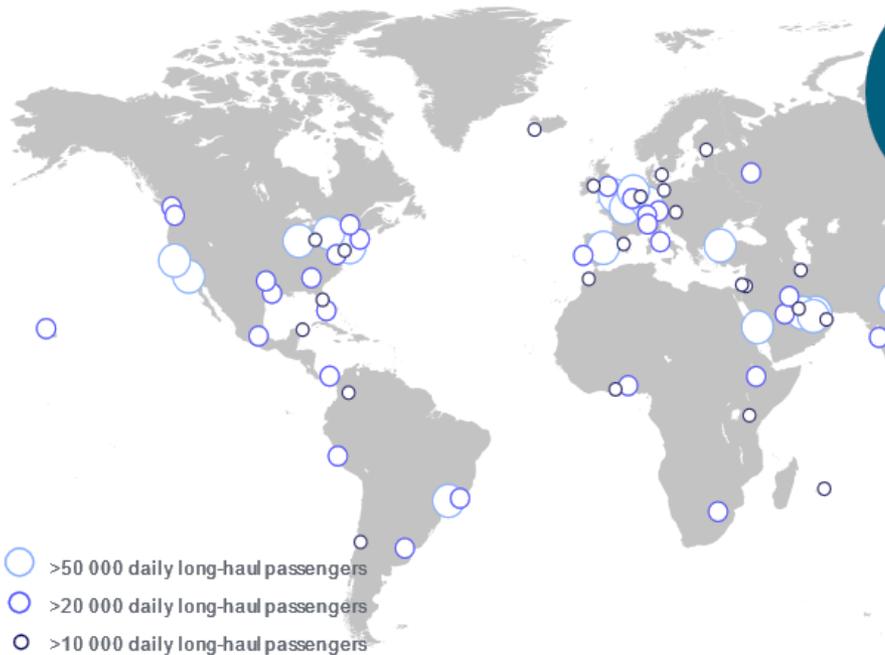


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# ASEAN Plus++ a jigsaw of big picture

There will be 93 Aviation Mega-Cities by 2035

2035 Aviation Mega-Cities



**93**  
Aviation  
Mega-cities

**2.5M**  
Daily Passengers:  
Long-Haul traffic  
to/ from/via Mega-  
Cities

**95%+**  
of long-haul traffic  
on routes  
to/from/via  
93 cities

**35%**  
of World  
GDP  
in 2035

**12 Aviation Mega-Cities are in Asia Pacific**

<http://www.airbus.com/company/market/forecast/>

Source: McKinsey, UNPD, Airbus GMF 2016

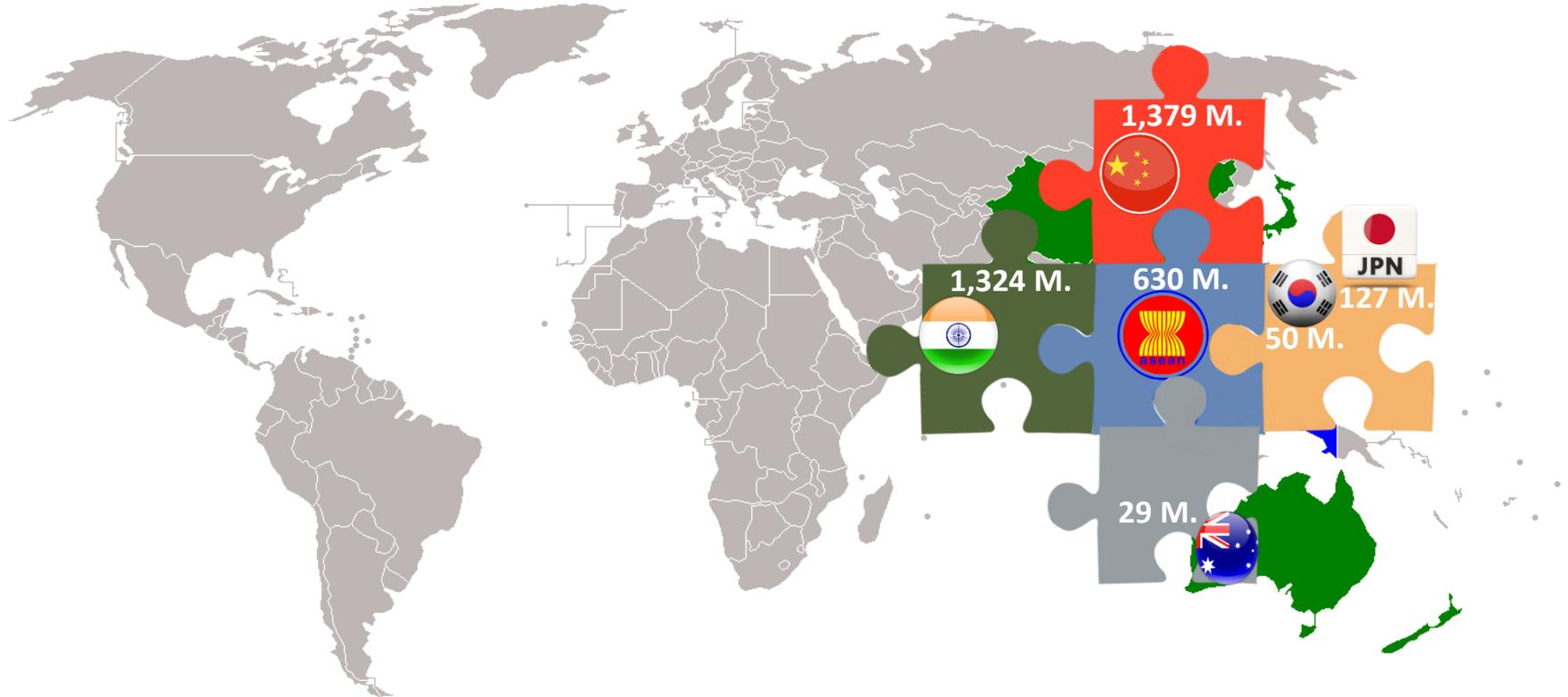


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## ASEAN Plus+ a jigsaw of big picture



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## ASEAN Single Sky



### Many Miles to go

The Open Skies policy, known as the ASEAN Single Aviation Market (ASEAN-SAM), is intended to increase regional and domestic connectivity, integrate production networks and enhance regional trade by allowing airlines from ASEAN member states to fly freely throughout the region via the liberalization of air services under a single, unified air transport market.



## ASEAN International Airport Association



**ASEAN International Airport Association : AAA**  
*a focal point of ASEAN Airport to work collaboratively in technical sharing and policy making which address the needs and limitations of each member country in order to unify working procedures for the better airport management in ASEAN Community*



**Environmental Working Group : AAA-EWG**  
*A special platform set up by AAA members to work for airport environmental management.*

## ASEAN's Focus





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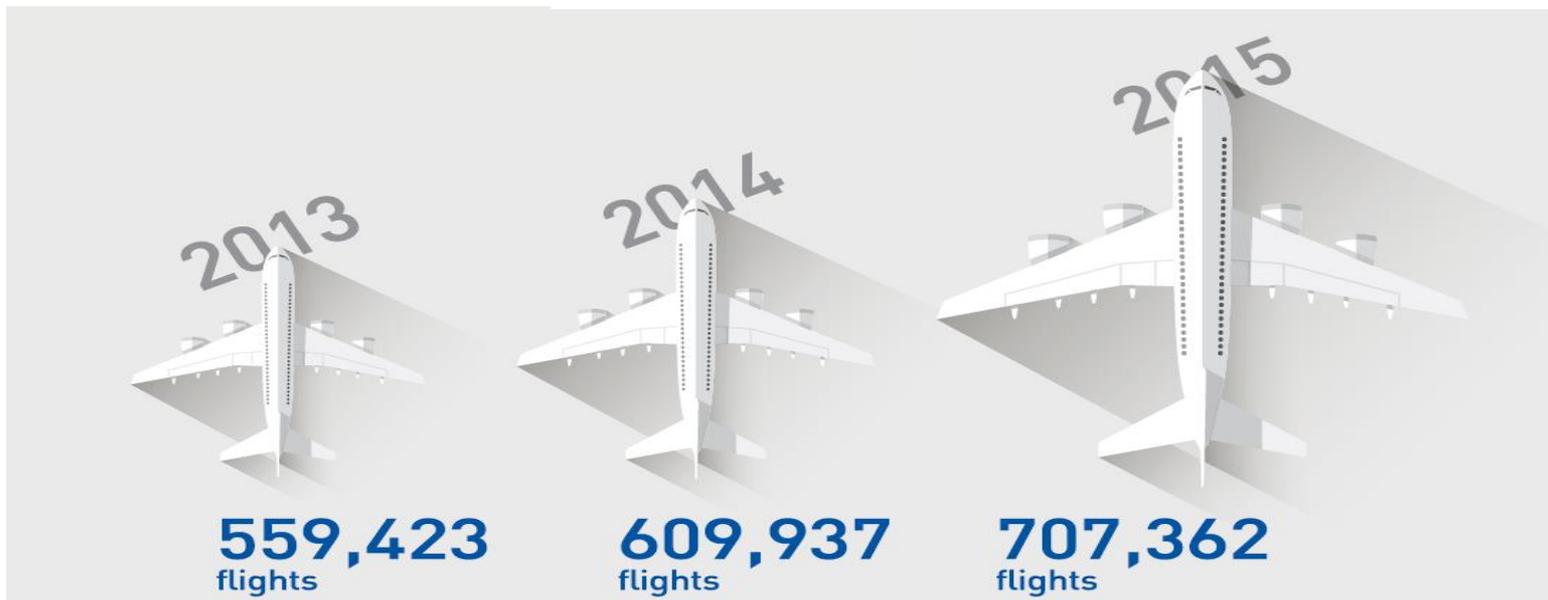
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Airport

# Profile



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## Airports of Thailand Plc.



## Connecting World Destination





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## Airports of Thailand Plc.

**9.83%**

Air traffic movements  
(flights) Growth



776,922  
Flights  
2016

**12.30%**

Total passenger volume  
(persons) Growth



119,923,998

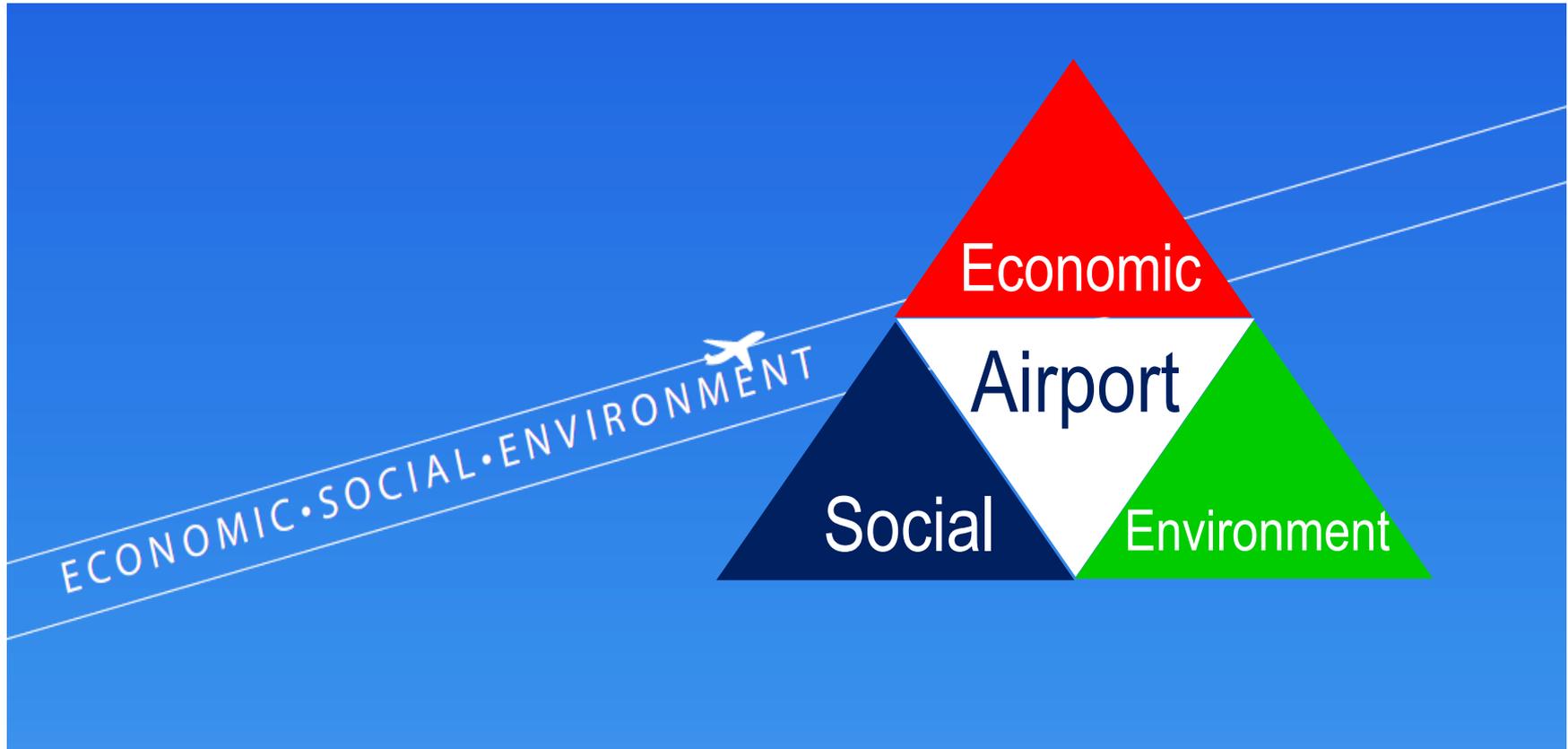


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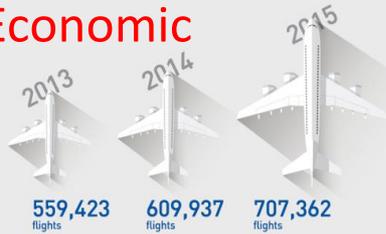
## Airport Sustainability



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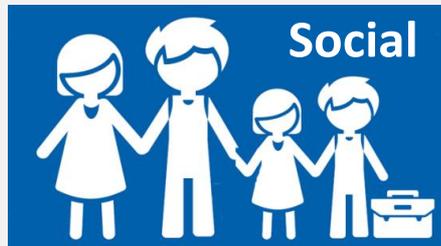
## Airport Sustainability

### Economic



*“Sustainability driven by strong economic growth”*

- Creating & Delivering Values to Stakeholders
- Expanding & Strengthening **Airport Network**
- Supporting National & Regional **Economic Gateway**



*“being a good neighbor”*

- Corporate **Social Responsibility**
- Airport Environmental Fund
- Engagement with stakeholders

### Environment



*“Green Airport Green Destination”*

- Green Design
- Green Initiatives
- Low CO<sub>2</sub> Airport : ACA - ACI





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## Economic : Airport Experience



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# Social : Noise Compensation Program



## NEF > 40 ( Residential Buildings)

NEF>40: from 640 buildings built before 2001, AOT has purchased lands and buildings with land title transfer of 186 buildings at the amount of 1,117,792,661.64 Baht. For the owners who do not want to sell the property, AOT has provided a total of 115,232,145.22 Baht financial assistance to 426 buildings for improvement. This accounts for 96% of the total buildings affected.



Places sensitive to noise such as educational institutes, hospitals and religious buildings: AOT provided building improvement assistance to 23 buildings, amounting to 303,600,392.25 Baht.

## NEF 30- 40 ( Sensitive Public Buildings)

NEF 30-40: Out of 15,288 buildings completed before 2001, AOT has supported improvement of 14,606 buildings, totaling 2,937,663,522.55 Baht. This represents 95.54% of the total buildings affected. Out of the total, 48 buildings are waiting for the owners to receive the compensation and 40 building owners did not agree with the appraised asset value while 11 buildings are abandoned/no owner found.

## NEF 30- 40 ( Residential Buildings)

## Social & Community Engagement



Organic Farming



Learning Center

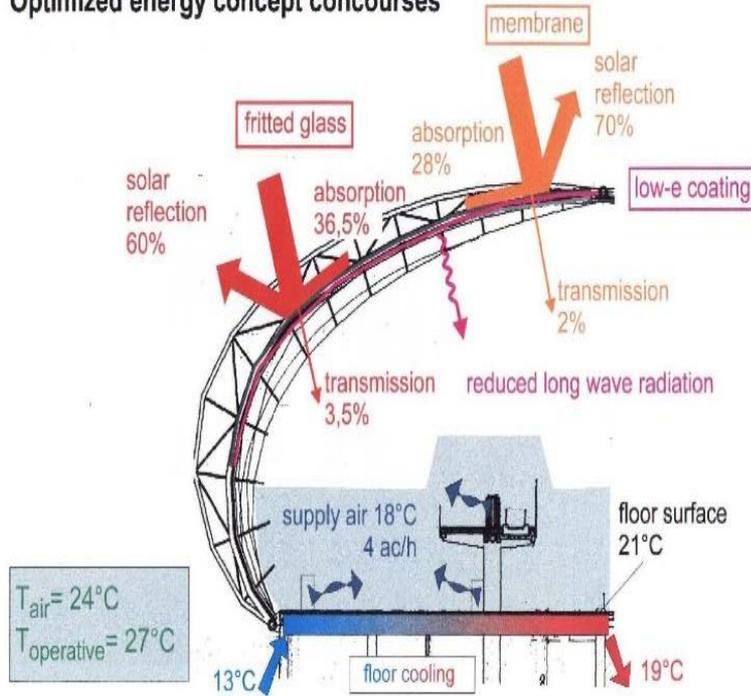


Green Airport  
Green Community

AOT believes that sustainability can only be achieved when the livelihood of the surrounding community is improved as well.

# Environment : Green Buildings

Optimized energy concept concourses



Suvarnabhumi Airport ( BKK)





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## Environment : Renewable Energy

Policymakers and industry stakeholders meet to discuss setting up sustainable aviation fuel industry in Southeast Asia

The roadmap would target key stakeholder groups and provide recommended actions on

- priority commercialization initiatives;
- promising regional feed stocks and technologies;
- priority research and development efforts;
- supply chain gaps and barriers to be removed; and
- best practices for de-risking investment

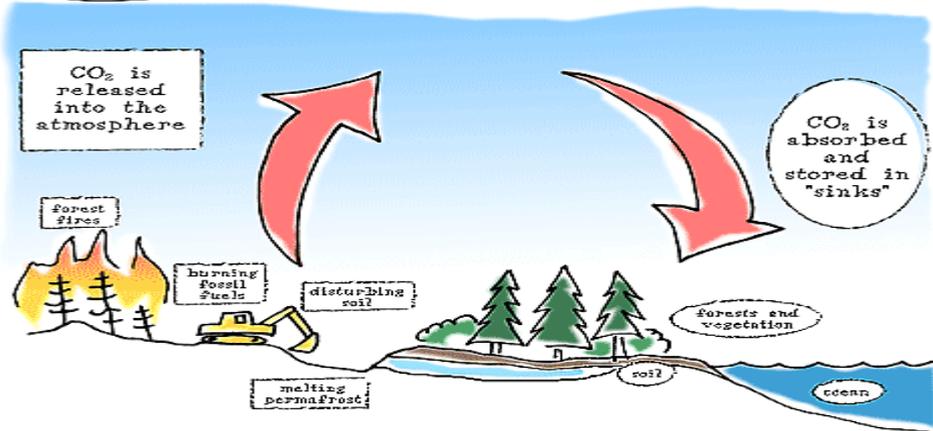


Electricity-Steam-Chilled Water



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The Carbon Cycle:



## Environment : Carbon Sink

A **carbon sink** is a natural or artificial reservoir that accumulates and stores some carbon-containing chemical compound for an indefinite period. The process by which carbon sinks remove carbon dioxide (CO<sub>2</sub>) from the atmosphere is known as carbon sequestration.



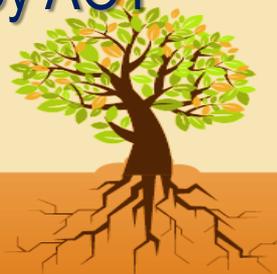
Source : [https://en.wikipedia.org/wiki/Carbon\\_sink](https://en.wikipedia.org/wiki/Carbon_sink)

## Mangrove Reforestation by AOT



2013

5,000



2014

9,999



2015

9,999



total of 3 years

24,998 (trees)

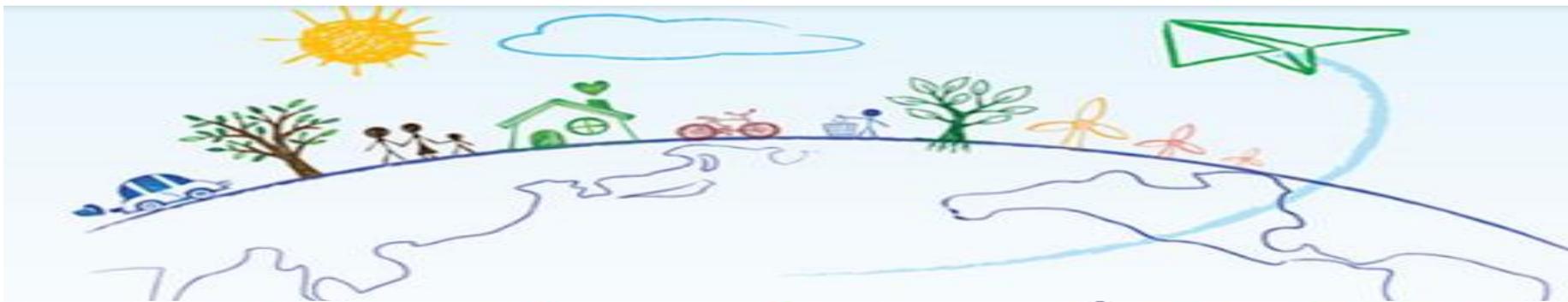


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### Environment : Airport Carbon Footprint 2015-16



**BKK**

Suvarnabhumi  
Airport



**DMK**

Don Mueang  
International Airport



**HKT**

Phuket International  
Airport



**CNX**

Chiang Mai  
International Airport



**CEI**

Mae Fah Luang  
Chiang Rai  
International Airport



**HDY**

Hat Yai International  
Airport

**1.72**

**1.46**

**1.04**

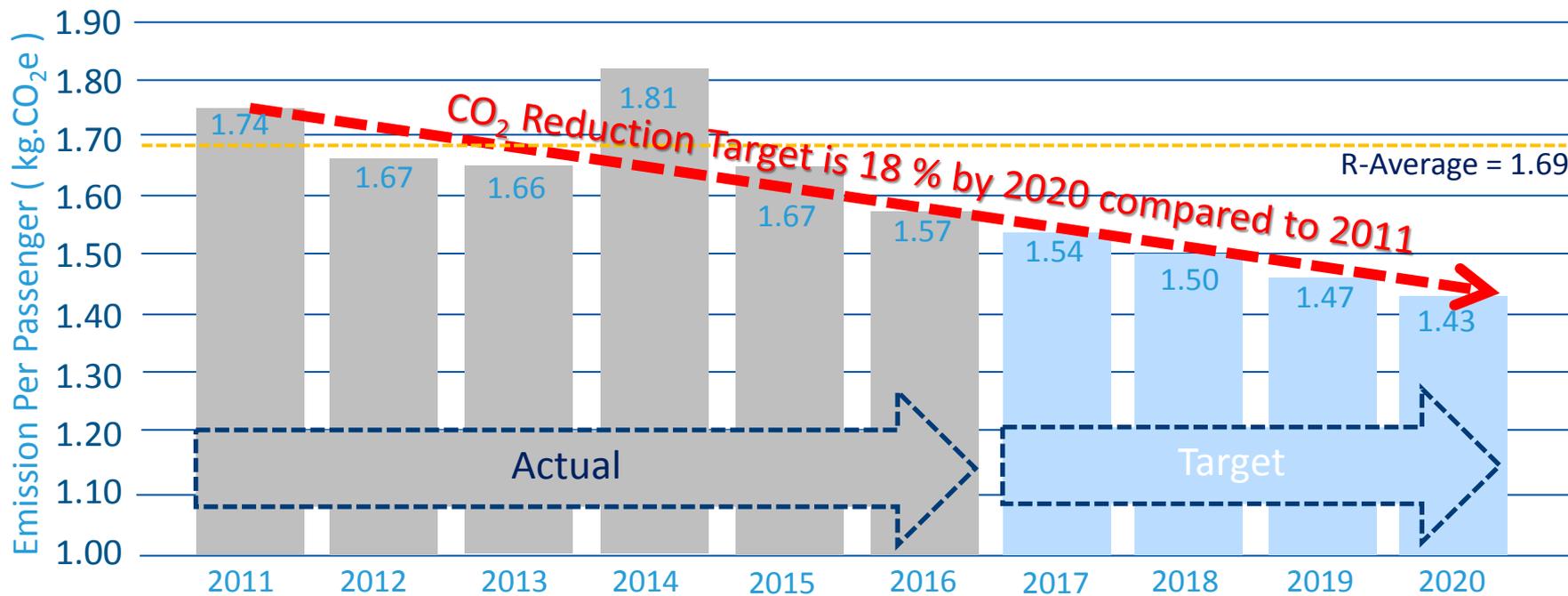
**1.30**

**0.84**

(Kg CO<sub>2</sub> per passenger)

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Environment : AOT's CO<sub>2</sub> Reduction Target



## Environment : ACI Airport Carbon Accreditation



**Carbon Management Plan**  
AOT set target to reduce carbon emission by 2 % annually from 2011 to 2020



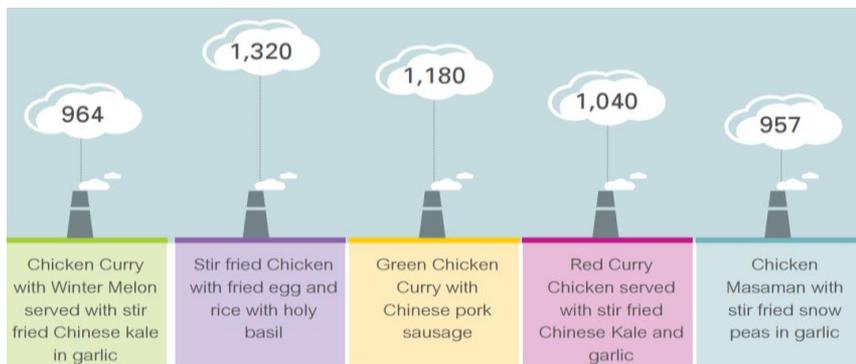
Bangkok (BKK)  
Don Muang ( DMK)  
Chiang Mai (CNX)  
Chiang Rai (CEI)  
Had Yai ( HDY)

## Environment : Airline's Green Initiatives



THAI, PTT, AEROTHAI and Boeing move ahead with the **“Aviation Biofuels Sustainable Project”**

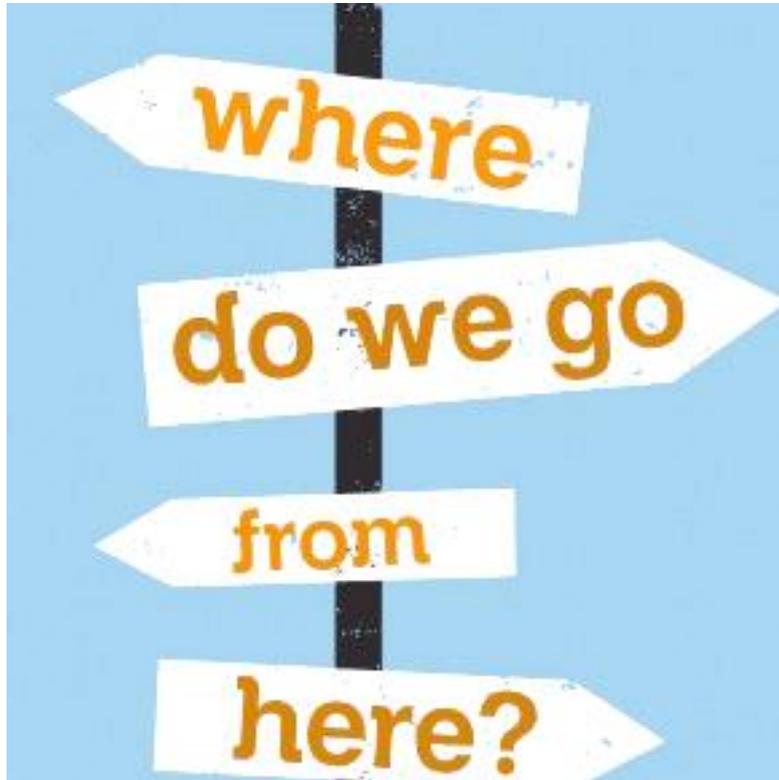
Thai Airways International Public Company Limited (THAI) together with PTT, Aeronautical Radio of Thailand (AEROTHAI) and The Boeing Company have joined forces to develop aviation biofuels in an effort to reduce global warming.



### Carbon Footprint in Menu Choices

THAI Airways was the first airline to introduce carbon footprint information for its menu on board in 2009

## Conclusion



- Airport Experience*
- Energy Management
  - Energy Efficiency
  - Renewable Energy
- CO<sub>2</sub> Management
  - CO<sub>2</sub> Reduction
  - Adaptation to Climate Change (Global and Local)
- Green Initiatives & Innovation
- Engagement



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# Thank you

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