



MINISTRY OF TRANSPORTATION REPUBLIC OF INDONESIA
DIRECTORATE GENERAL OF CIVIL AVIATION
DIRECTORATE OF AIRPORT

*"Airport is the place where travelers get their first impression
of a country, and the last they bring home"*

INDONESIAN ECO AIRPORT CONCEPT

AS THE IMPLEMENTATION OF AIRPORT EMS IN INDONESIA

Enhance climate change action Workshop
Bali, 19 December 2019



IMPLEMENTATION OF AIRPORT EMS IN INDONESIA

LEGAL BASE


- ❑ Aviation Law No. 1/2009,
- ❑ Environmental Protection and Management Law No. 32/2009,
- ❑ Government Regulation No. 40/2012 regarding Airport Construction and Environmental Management,
- ❑ Government Regulation No. 27/2012 regarding Environmental Permit,
- ❑ Blue Print DGCA Year of 2005 – 2024,
- ❑ DG DECREE NO. 124/VI/2009 regarding Eco Airport.
- ❑ DG INSTRUCTION NO. 11/2017 regarding Actions for Reducing Greenhouse Gas Emissions in Airport

OTHERS

- ❑ ICAO Annex 16 : Environmental Protection,
- ❑ ICAO Doc 9184 Part II: Land Use & Environmental Management (4th ed)
- ❑ ASEAN – Japan Studi, ASEAN Japan Air Transport (AJAT) – 3 of Eco Airport Guideline.

DGCA LETTER OF DECREE No. SKEP /124 /VI/2009 of Implementation of Eco Airport Guideline

Consist of :

- 
- ***Eco Airport \simeq RKL RPL plus***
 - ***Global and regional scale***
 - ***Implementation up to characteristic of each airport***
 - ***Establishment of Eco Airport Council***
 - ***Setting up of environment targets***
 - ***Evaluation of eco airport implementation***
 - ***Report of eco airport implementation***
 - ***Internal audit by Eco Airport Council***
 - ***Eco airport evaluation by DGCA***

THIS IS AN INDONESIAN FORM OF AIRPORT EMS

DEFINITION OF AN ECO AIRPORT

ECO AIRPORT

(Ecological Airport)

Is an airport which has passed a detailed measurement concerning components that potentially give effect to the surrounding environment.

*The objective is to create a **healthy environment** for the airport and its surroundings.*

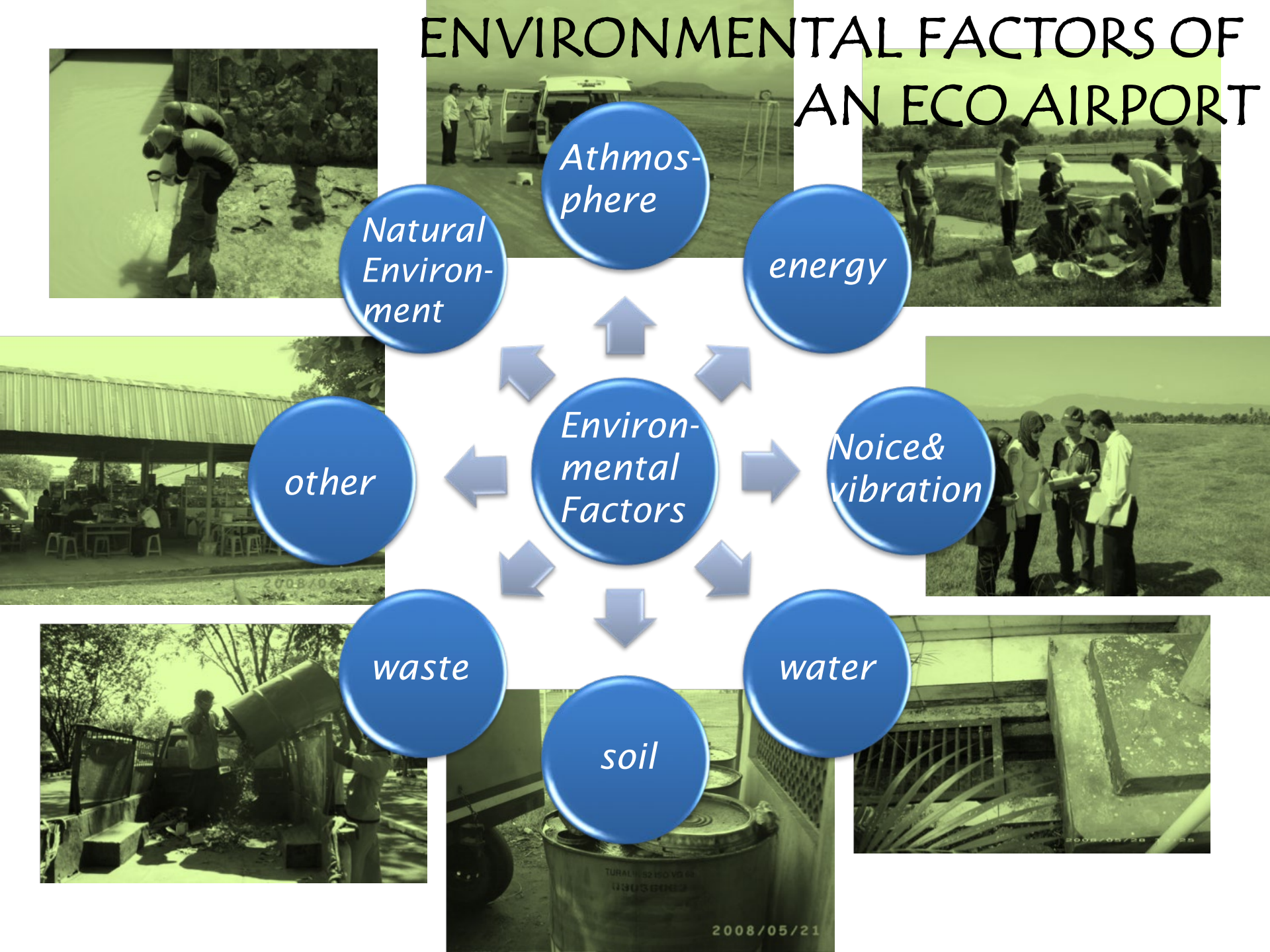


THE AIM OF AN ECO AIRPORT

- ❑ an airport with *a global environmental perspective*;
- ❑ an airport that is *integrated with the local environment*;
- ❑ an airport that *can achieve sustainable development* based on reduce, reuse, recycling.



ENVIRONMENTAL FACTORS OF AN ECO AIRPORT



SETTING ENVIRONMENTAL TARGETS

- 1. Atmosphere & air quality:*** *by reducing the volume of air pollutants*
- 2. Energy:*** *by reducing energy consumption from airport operations*
- 3. Noise & Vibration:*** *by reducing the level of noise and vibration*
- 4. Water:*** *by preventing pollution and contamination of waterways and groundwater from drainage water*
- 5. Soil:*** *by preventing ground pollution from oil, chemicals and agents and other materials used in airport*
- 6. Waste:*** *by encouraging greater reuse of waste products generated at the airport as resources,*
- 7. Natural Environment:*** *by conserving and creating ecosystems within the airport to a healthy natural environment.*
- 8. Other:*** *by setting environmental targets in accordance with the individual character of each airport such as public health, social economic and social culture.*

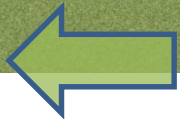
ESTABLISHMENT OF ECO AIRPORT COUNCIL



*Head of Airport Operator should **build** and **establish** the *Eco Airport Council**

*Eco Airport Council **lead** by the Head of Airport Operator and the member will consist of all stakeholders such as companies and institutions related to airport operation*

Eco Airport Council be made with respect to each airport's characteristics



Duties of ECO AIRPORT COUNCIL

1. **Establish** Airport Environmental Plan,
2. **Undertake** the management of airport environment based on the approved Airport Environmental Plan,
3. **Evaluate** the undertaken management and monitoring actions for airport environment,
4. **Report** the evaluation of airport environmental management to the Director General of Civil Aviation.



AIRPORT ENVIRONMENTAL PLAN

- CONSIST OF:
- ☐ Environmental Factors,
 - ☐ Environmental Management Plan,
 - ☐ Environmental Monitoring Plan,
 - ☐ Implementation target of each environmental factors,
 - ☐ Target time.





CHRONOLOGICAL OF ECO AIRPORT IMPLEMENTATION

2007	2008	2009
<ul style="list-style-type: none">❑ The 1st ASEAN-Japan Eco Airport Workshop, Narita-Japan Maret '07❑ Declaration of Eco Airport BSH, Padang 30 August '07	<ul style="list-style-type: none">❑ The 2nd ASEAN-Japan Eco Airport Workshop" Tokyo –Japan Januari '08❑ Consultation Meeting of EA Guideline KLH -DJU, 14 March '08❑ The 6th ASEAN-J STOM Leaders Conference" Chiba-Japan 10-11 Juni '08❑ ASEAN Japan Transport Ministry Meeting, Manila–Philipina 6-7 Nop '08	<ul style="list-style-type: none">❑ Workshop of EA Implementation in Tarakan 21-22 Oct '09❑ Socialization Eco Airport Implementation Guideline (SK DJU No: SKEP/124/IV/2009

2010	2011	2012	2013
<ul style="list-style-type: none">❑ Socialization Eco Airport Implementation Guideline (SK DJU No: SKEP/124/IV/2009	<ul style="list-style-type: none">❑ Workshop EA Implemetation, Malang 17-18 Nov '11❑ Workshop EA Implementation, Bandar Lampung 17-18 Nov '11❑ Socialization Eco Airport Implementation Guideline (SK DJU No: SKEP/124/IV/2009	<ul style="list-style-type: none">❑ Workshop EA Implemetation for airports of PT AP I, Jakarta 9-10 Mei '12❑ Workshop MP EA PT AP II, Pangkal Pindang 4-6 Juli '12❑ Socialization Eco Airport Implementation Guideline (SK DJU No: SKEP/124/IV/2009	<ul style="list-style-type: none">❑ SocializationMP EA Bandara PT AP II, Palembang 9-11 Januari'13❑ Study:<ul style="list-style-type: none">- Renewable energy- Airport waste management❑ Socialization Eco Airport Implementation Guideline (SK DJU No: SKEP/124/IV/2009



CHRONOLOGICAL OF ECO AIRPORT IMPLEMENTATION

2014	2015	2016
<ul style="list-style-type: none">❑ Study:<ul style="list-style-type: none">- Phasing, implementation and reporting of Eco Airport.- Model of eco airport implementation.	<ul style="list-style-type: none">❑ Draft of MOT Decree of Implentation of Eco Airport in Indonesia.❑ Draft of MOT Decree of Airport Waste Management.	<ul style="list-style-type: none">❑ Workshop Environmental Impact Assessment and Eco Airport.❑ Implementation of Eco Airport (Survey and Identification of Measurement Eco Airport in 2 airports: Soekarno Hatta International Airport – Jakarta and I Gusti Ngurah Rai International Airport – Denpasar.
2017	2018	2019
<ul style="list-style-type: none">❑ Ministry of Transport stipulated Decree No. 54 year 2017 concerning Airport Waste Management❑ Director General stipulated DG Instruction No. 11 year 2017 regarding Actions for Reducing Greenhouse Gas Emissions in Airport	<ul style="list-style-type: none">❑ Socialization of Ministerial Decree No. 54 year 2017 regarding Airport Waste Management❑ Socialization of DG Instruction No. 11 year 2017 regarding Actions for Reducing Greenhouse Gas Emissions in Airport	<ul style="list-style-type: none">❑ Workshop Environmental Impact Assessment and Eco Airport.❑ ARISE+ project workshop concerning Climate Change and Airport EMS in Thailand and Indonesia.



Phasing of Eco Airport Implementation

“IMPLEMENTATION OF ECO AIRPORT EXECUTED BY GRADUAL”

Reff: Airport Construction and Environmental Management Government Regulation No. 40/2012

1st PHASE → International Airports dan
Hub Airports

NEXT PHASE → Domestic and spoke airports



Phasing of Eco Airport Implementation

PHASE I

Airports operated by DGCA

Maimun Saleh – Sabang|Hang Nadim – Batam| Iskandar – Pangkalan Bun|Juwata – Tarakan|Mutiara – Palu|Halueleo – Kendari| Sultan Babullah – Ternate|Mopah – Merauke|Mozes Kilangin – Timika| Domine Eduard Osok – Sorong| Mutiara Sis Al Jufri – Palu|

PT. Angkasa Pura I (Persero)

Adi Sumarmo – Solo|Ahmad Yani – Semarang|Adi Sutjipto – Yogyakarta|Juanda – Surabaya| I Gusti Ngurah Rai – Denpasar|Lombok Baru – Lombok Tengah|Eltari – Kupang| Syamsuddin Noor – Banjarmasin|Sepinggan – Balikpapan|Sam Ratulangi – Manado| Sultan Hasanuddin – Makassar|Pattimura – Ambon|Frans Kaisiepo – Biak| Sentani – Jayapura|

PT. Angkasa Pura II (Persero)

Sultan Iskandar Muda – Banda Aceh|Kualanamu – Medan|Minangkabau – Padang| H. AS. Hanandjoeddin – Tanjung Pandan| Sultan Syarif Kasim II – Pekanbaru|RH. Fisabilillah – Tanjung Pinang| Fatmawati – Bengkulu|Radin Inten II – Tanjung Karang| Tjilik Riwut – Palangkaraya| Depati Amir – Pangkal Pinang|Sultan Thaha – Jambi|S. M. Badaruddin II – Palembang| Husein Sastranegara – Bandung| Soekarno - Hatta – Jakarta| Halim Perdanakusuma – Jakarta|Udara Supadio – Pontianak|



The Eco Airport Concept as Indonesia's Airport EMS

Actualizing Eco Airport Concept needs a good management and coordination among airport stakeholders

Eco Airport Council

- ❑ Formed by the airport operator
- ❑ Consists of airport stakeholders including: (a) DGCA regional office, (b) airlines, (c) ground handling companies, etc
- ❑ Lead by the principal of the airport operator
- ❑ Being established according to local environmental characteristics and to fit with environmental management to be carried out at the airport.

Establishment of Eco Airport Council

Setting up an Airport Environmental Plan (AEvP)

Implementation of AEvP

Evaluation

Report to DGCA

PLAN

DO

CHECK

ACTION

Review
AEvP

* PDCA cycle approach



The Eco Airport Concept as Indonesia's Airport EMS

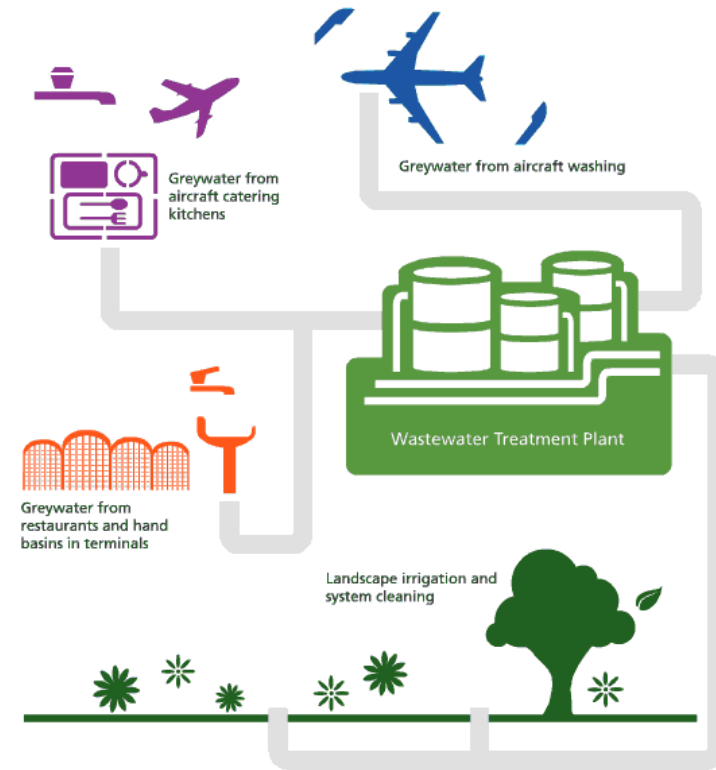
**“Every airport shall implement
eco-friendly airport concept”**

(Ref. Government Regulation No. 40 Year 2012 regarding the
Development and Conservation of Airport Environment)

The usage of renewable energy is
one of three main actions to reduce
greenhouse gas emission at the
airport according to Ministerial of
Transport Decree No. KP.201 Year
2013: National Action Plans and
Inventory of Greenhouse Gas for
Transportation Sector

GOAL: Contributing on reducing
**GHG Emission at airports
amounting to 3.25 million
tons of CO₂e in 2020**

-
- Implement Greening Program
 - Usage of Light Emitting Diode
 - Utilization of renewable energy



DG Decree No. INST 011 Year 2011 is a tool to monitor and evaluate the environmental programs at airport level particularly in the effort to reduce greenhouse gas emissions due to airport operation and aircraft operation at the airport including the utilization of renewable energy



Thank You

**MINISTRY OF TRANSPORTATION REPUBLIC OF INDONESIA
DIRECTORATE GENERAL OF CIVIL AVIATION
- DIRECTORATE OF AIRPORTS -
2019**