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MINISTRY OF TRANSPORTATION - INDONESIA
DIRECTORATE GENERAL OF CIVIL AVIATION



Indonesia Civil Aviation Growth and Technical Cooperation

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Outline

- INTRODUCTION
- ICAO PROJECTS (PAST & PRESENT) IN INDONESIA
- INTERNATIONAL COOPERATION PROJECTS
- INDONESIA' S CIVIL AVIATION GROWTH
- ENVIRONMENTAL POLICY AND STRATEGY
- FUTURE COOPERATION BETWEEN ICAO AND
INDONESIA
- SUMMARY



Introduction

- ❑ ICAO has provided technical assistance to DGCA Indonesia for some 40 years under UNDP and Government of Indonesia cooperation
- ❑ Significant ICAO Technical Assistance support was given for the development of civil aviation in major areas:

- Airworthiness

- Navigation and Air Traffic Management

- Training Center, Human Resources Development and Capacity Building

- Regulatory Matters

- Airport and Aerodromes

- Safety and Security

- Industry Development : Airlines, Aircraft Manufacturers, Airports Aircraft Maintenance

- Inspection, Surveillance and Audit



Introduction (Con' t)

ICAO Technical Cooperation Project Objectives :

- To develop the DGCA capabilities, role, functions and responsibilities (incl. regulations and procedures) in line with the relevant ICAO Annexes, recognized best practices and procedures
- To develop the DGCA human resources (management, inspectorate and administrative personnel) to ensure that the DGCA's staff are fully trained and capable to fulfil the functions and responsibilities related to airworthiness, safety, security and the environment



ICAO Technical Cooperation Projects in Indonesia (past & present)

No	Subject/Project Name	Project	Year/Period	Remarks
1	Strengthening of Aviation Maintenance Safety Standards	UNDP/ICAO Project INS/96/003	1996	Airworthiness/Maintenance
2	Upgrading of Flight Operations Surveillance	UNDP/ICAO Project INS/95/016	1995	Flight Operations
3	Strengthening of Aviation Certification	UNDP/ICAO Project INS/95/027	1995	Airworthiness
4	Flight Safety Enhancement Through Technical Competency Training and Certification of Airport and Airways Facilities Maintenance Technicians	UNDP/ICAO Project INS/95/017	1995	Airworthiness/Maintenance
5	Enhancing Aviation Safety in Indonesia	MSA between ICAO and DGCA	2007-present	Aviation Safety and Security

ICAO Technical Cooperation Projects in Indonesia (past & present)

No	Subject/Project Name	Project	Year/Period	Remarks
6	Assistance to The Representation of Indonesia to the International Civil Organization	ICAO Project INS/08/802	2011-present	Aviation Policy and Management Advisory
7	Enhancement of Safety Oversight Capability of DGCA	ICAO Project INS/07/802	2009-present	Safety Oversight
8	Assistance to the Educational and Training Agency in Development of Aircraft Maintenance Training at ACAI Curug	ICAO Project INS/08/803	2010	Education and Training Agency of MOT
9	Assistance to the Educational and Training Agency in Development of Aircraft Maintenance Training at ACAI Curug	ICAO Project INS/08/804	2009-2012	Education and Training Agency of MOT
10	Institutional Strengthening of the Indonesian Civil Aviation Institute (ICAI)	ICAO Project INS/11/801	2012-2013	Human Resources Development of MOT

ICAO Technical Cooperation Projects in Indonesia (past & present)

No	Subject/Project Name	Project	Year/Period	Remarks
11	Assistance in the Development and Implementation of Environmental Measures for Civil Aviation	ICAO Project INS/13/801	2014-2017 Starting phase	Climate Change and Carbon Emissions Reduction



ICAO Technical Cooperation Projects

- ❑ **INS/08/802 “Assistance to the Representation of Indonesia to the International Civil Aviation Organization” (2011- present)**
 - ❑ **Objective: Effective support in the re-establishment and management of the Representative Office of Indonesia at the Headquarters of ICAO, in line with DGCAs Civil Aviation Strategic Action Plan (CASAP) for enhancing Indonesia’s capabilities in the field of aviation safety and security**
 - ❑ **ICAO Technical Assistance to the Representation Office of Indonesia and advice in Civil Aviation Policy and Management.**

ICAO Technical Cooperation Projects

- ❑ **INS/07/804 “Civil Aviation Transformation Team (CATT) for Implementation of Civil Aviation Strategic Action Plan” (2009 - 2012)**
 - ❑ **Objective: Effective management and implementation of the DGCA Civil Aviation Strategic Action Plan (CASAP) providing a roadmap for enhancing Indonesia’s capabilities in the fields of aviation safety and security to a level consistent with international standards.**
 - ❑ **ICAO Technical Assistance in Program Management for provision of support to the CATT.**



ICAO Technical Cooperation Projects

- **INS/07/802 “Enhancement of Safety Oversight Capability of DGCA Indonesia” (2009 - present)**
 - **Objective: To improve aviation safety by enhancing the capabilities of DGCA Indonesia in safety oversight through :**
 - ❖ **Enhanced organization**
 - ❖ **Properly trained and well qualified oversight personnel, including inspectors**
 - ❖ **Updated legislation, regulations and procedures,**
 - ❖ **Effective approval and certification processes, safety oversight inspection and surveillance**
 - ❖ **Full implementation and compliance with ICAO SARPs, procedures and GASP**



ICAO Technical Cooperation Projects

- **INS/07/802** provides technical assistance in the areas of:
 - ❖ **Flight Safety**
 - ❖ **Flight Operations**
 - ❖ **Airworthiness**
 - ❖ **Aerodrome Safety, and**
 - ❖ **Air Traffic Management and PBN**

International Cooperation Projects

DGCA Indonesia has established international cooperation with several countries, as follows:

- **for technical assistance regarding aviation safety, security, navigation and airports, in cooperation with:**
 - ❑ **CASA Australia): Transport Safety Assistance Package (ITSAP) (2008-2014)**
 - ❑ **Japan International Cooperation Agency (JICA): Project on Development of Aviation Safety (2006-2015)**
 - ❑ **Federal Aviation Administration (FAA), USA: Assistance in Runway Safety and Organizational Structure Study (2009-2010),**



International Cooperation Projects

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- **for technical assistance regarding aviation safety, security, navigation and airports, in cooperation with:**
 - ❑ **European Aviation Safety Agency (EASA), European Union: Assistance in safety and airworthiness (2008-2009)**
 - ❑ **Directorate General for Civil Aviation and Maritime Affairs (DGLM), Netherlands: SMS and International Regulation (2008-2009)**
 - ❑ **DGAC France : Assistance to strengthen the safety of air carriers (2014-present).**
- **for technical assistance regarding the environment:**
 - ❑ **Swedish International Development Agency (SIDA): Eco airports and green flight**

Indonesian Aviation Numbers

Number of airlines <ul style="list-style-type: none">• AOC 121• AOC 135	26 operators 37 operators
Number of Aircraft	1,469
Number of Pilots	8,687
Number of Flight Operation Officer (FOO)	3,948
Number of Flight Attendants	12,648
Number of Aircraft Technicians (AMEL)	7,217



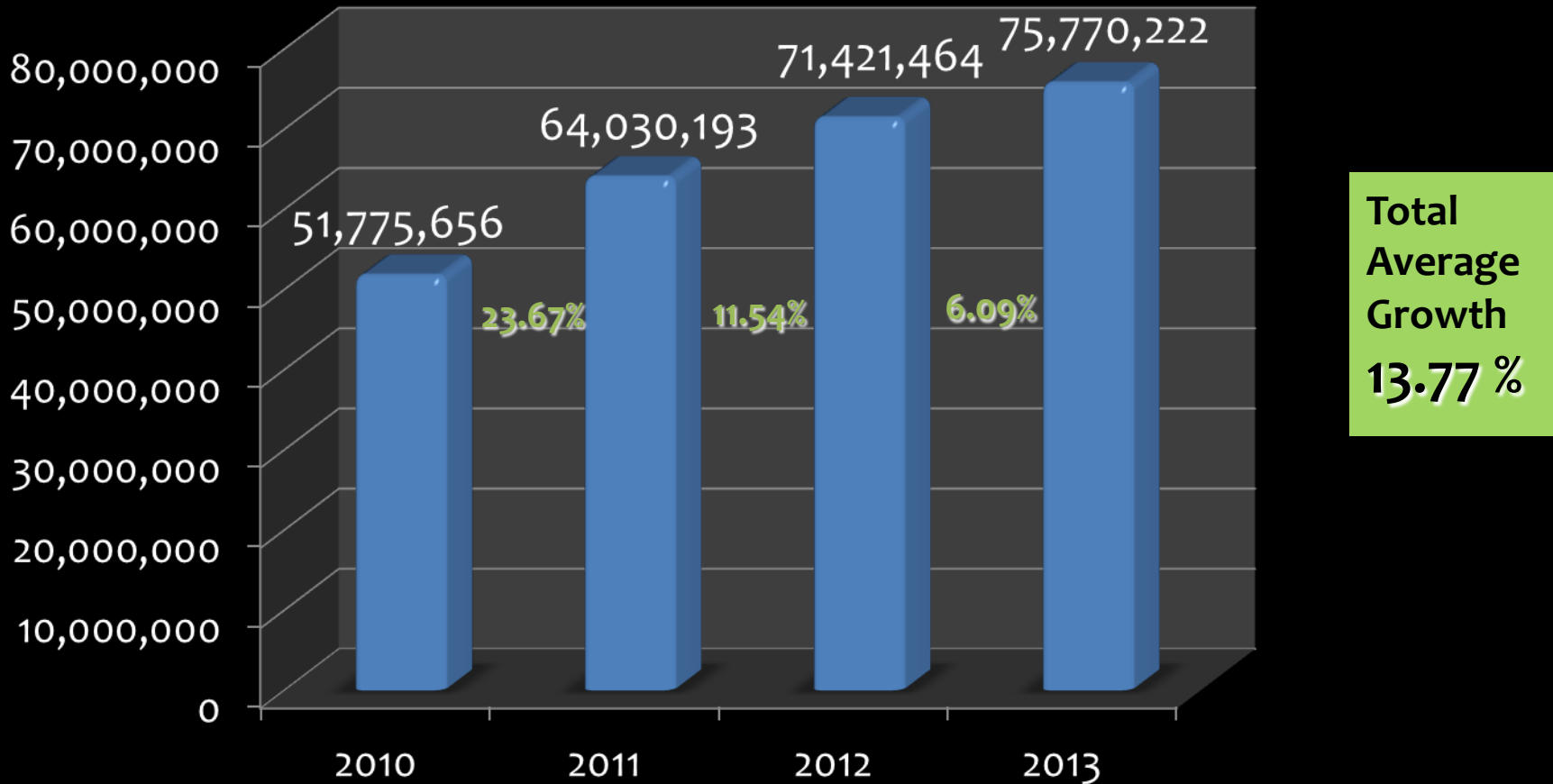
Aircraft Fleet

	2008	2009	2010	2011	2012	2013*
Registered Aircrafts	962	1.009	1.122	1.209	1.324	1.469
Operated Aircrafts	702	766	839	850	950	1.091
AOC 121 aircrafts	351	381	432	426	478	531
AOC 135 aircrafts	209	192	225	253	276	315
Fixed Wing Aircrafts	582	649	716	732	818	930
Rotary Wing Aircrafts	119	117	123	118	132	146
Number of aircraft registered per year	111	137	140	165	205	179
Number of aircraft de-registered per year	58	93	34	83	84	53

*Status December 2013 | Source : DAAO

Indonesian Aviation Growth

Domestic Passengers



Indonesian Aviation Growth

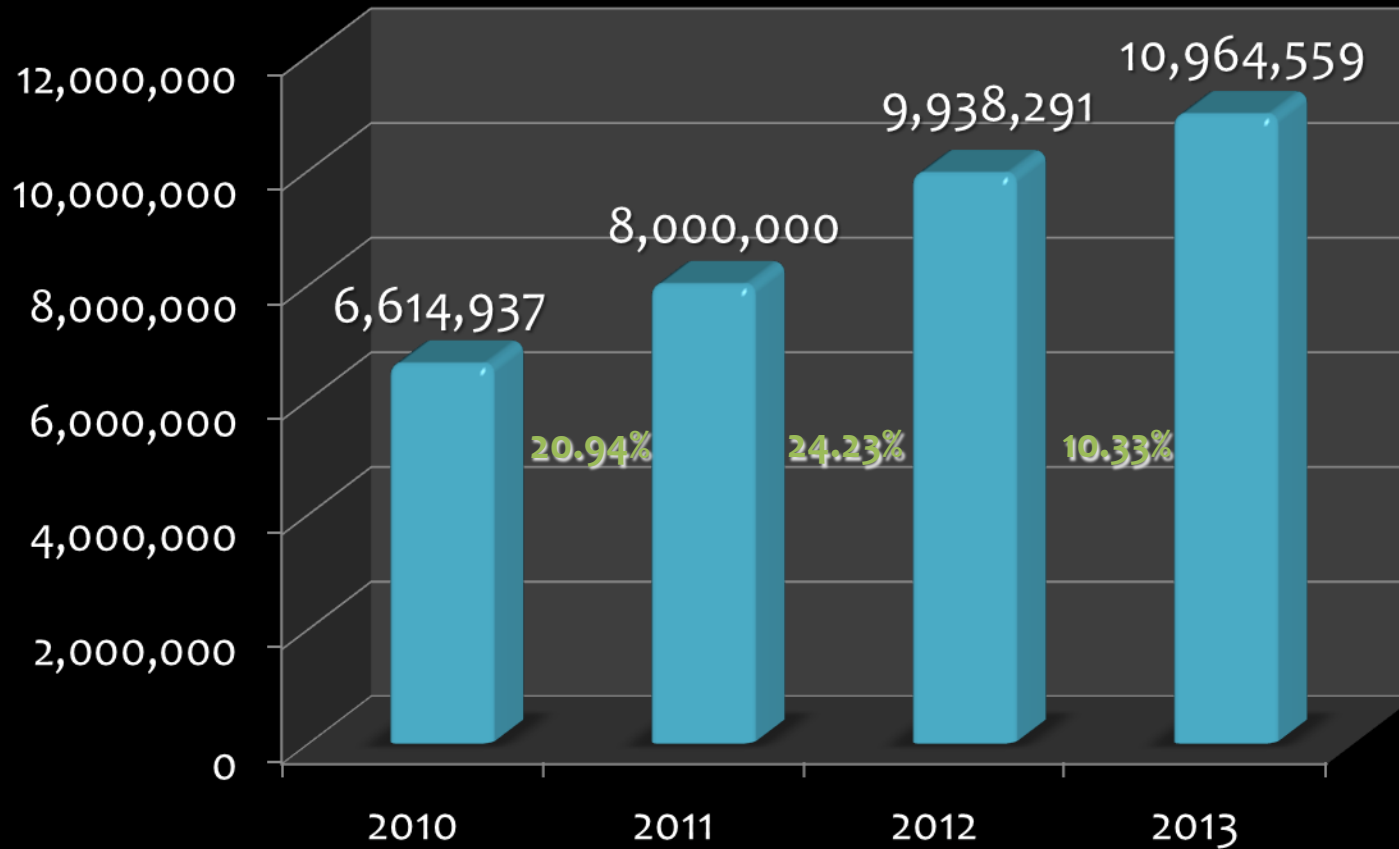
Domestic Cargo



Total
Average
Growth
9.47 %

Indonesian Aviation Growth

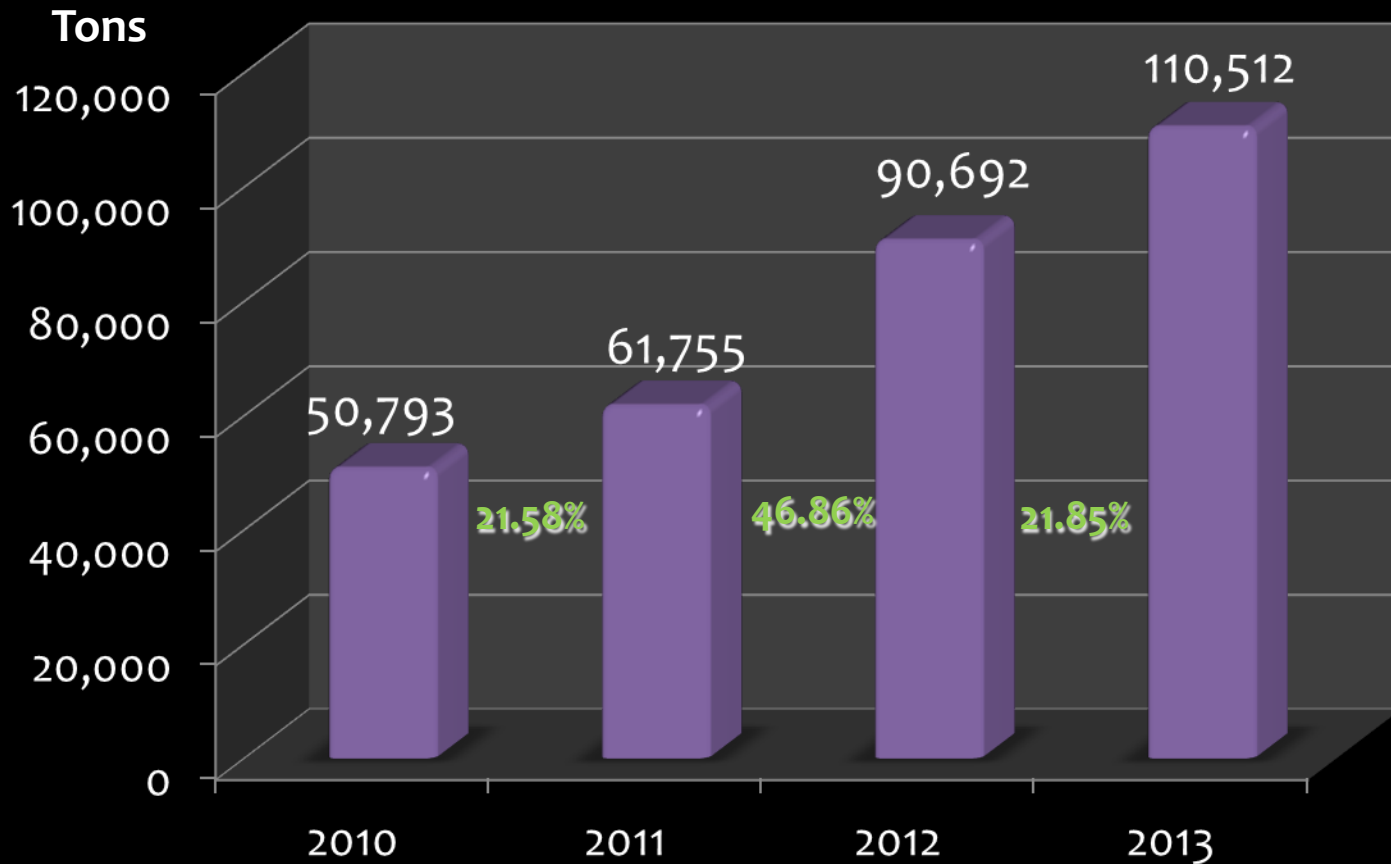
International Passengers



Total
Average
Growth
18.5 %

Indonesian Aviation Growth

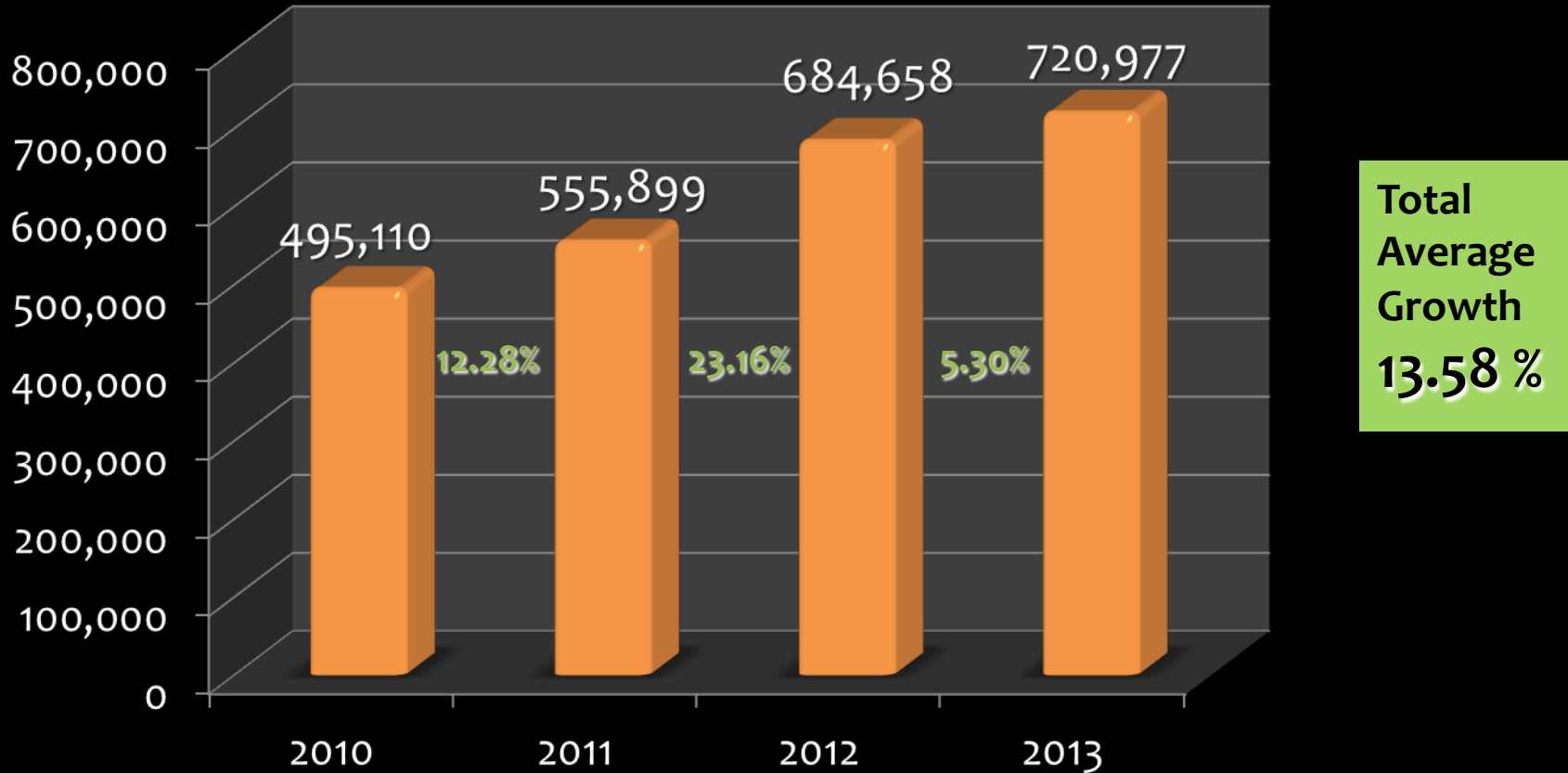
International Cargo



**Total
Average
Growth
30.1 %**

Indonesian Aviation Growth

International and Domestic Aircraft Movements



Indonesia's Environmental Policy and Strategy - Mitigation of GHG Emissions



Environment Policy - Basket of Measures

1. Measures regarding Policy, Rule Making & Capacity Building of Human Resources of Stake Holders
2. Airline Operator Carbon Emission Reduction Measures
3. Air Navigation Services and Air Traffic Management Measures
4. Airport Operator (Eco-airport) Carbon Emission Reduction Measures
5. Fossil Energy Conservation Measures through Alternative Energy (Aviation Biofuels, Biodiesel, Solar/Wind/Hybrid/ Water-based Energy)
6. Market-based Measures



Gap Analysis and Technical Assistance Needs Assessment

General Considerations

- 1.Indonesia's commitment to reduce carbon emissions by 26%, based on the 2005 level.
- 2.Development program in line with the ICAO and UNFCCC principles and guidelines



Gap Analysis and Technical Assistance Needs Assessment (Con' t)

1. The provision of a legal framework, regulations, guidelines and procedures for environmentally sustainable development of air transportation
2. The provision of organization and system, role, functions and responsibilities reflecting the obligations and mandate of DGCA Indonesia for GHG emission reduction
3. Adequate capacity and capability of human resources
4. Financial access and financing mechanism
5. Appropriate technology, experience, legal and patent rights, warranty and liability arrangements
6. Risk management

Future Cooperation on Environment

ICAO – DGCA Indonesia 2014-2017

- ❑ **ICAO Technical Cooperation Project on Environmental Measures for Civil Aviation in Indonesia, focussing on :**
 - **Aviation Biofuel and Renewable Energy of Airports during Planning and Implementation**
 - **Operational Efficiency of Airlines, Airports, Air Navigation Service Provider, Airport Ground Handling Services**
 - **Enhancing the ATM and PBN Implementation**
 - **Enhancing the Eco-airport Implementation**
 - **Developing an Inventory System and Data Base on GHG in Air Transportation**
 - **Developing the Market-based Measures System**

Future Cooperation on Environment ICAO – DGCA Indonesia 2014-2017 (Con' t)

□ Technical Cooperation Project on Environmental Measures for Civil Aviation in Indonesia:

- financial access and assistance,
- research and development,
- technology transfer,
- capacity building and exchange program,
- legal and regulatory framework,
- seminar and conference support.

Summary

- 1. Need to continuously enhance DGCA's organization and system, to provide a clear role, function and responsibility.**
- 2. Further Technical Cooperation support by ICAO will provide highly valuable assistance to achieve these goals.**



Terima kasih



Thank You