



Assistance for Action

Aviation and Climate Change Seminar

23 - 24 October 2012

ICAO Headquarters, Montréal, Canada

ICAO Technical Cooperation Progress and Future Potential Program on Environmental Sustainable Air Transportation in Indonesia 2013-2020

By

DIRECTORATE GENERAL OF CIVIL AVIATION





Outline

- **INTRODUCTION**
- **ICAO PROJECTS (PAST & PRESENT) IN INDONESIA**
- **INTERNATIONAL COOPERATION PROJECTS**
- **INDONESIA AVIATION OUTLOOK**
- **CLIMATE CHANGE AND MITIGATION OF GHG EMISSIONS POLICY AND STRATEGY**
- **FUTURE COLLABORATION BETWEEN ICAO AND INDONESIA**
- **SUMMARY**



Introduction

- ❑ ICAO has provided technical assistance to DGCA Indonesia for almost 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 Development

▪ Airport and Aerodromes

▪ Safety and Security

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

▪ Inspection, Surveillance and Audit



Introduction (Con't)

ICAO Technical Assistance Project Objectives :

- To develop the DGCA organization, system, regulations and procedures, role, function and responsibility in line with the ICAO Annexes recognized by the international aviation community
- To develop sustainable human resources (Management, Inspectorate and Administrative Personnel) capability and capacity to ensure that the DGCA's role, functions and responsibilities related to airworthiness, safety, security and environment are fully in place.



ICAO Technical Cooperation Projects in Indonesia (Past Programs)

No	Subject/Project Name	Project	Year/Period	Remarks
1	Strengthening of Aviation Maintenance Safety Standards	UNDP/ICAO Project INS/96/003	1996	Airworthiness
2	Upgrading of Flight Operations Surveillance	UNDP/ICAO Project INS/95/016	1995	Airworthiness
3	Strengthening of Aviation Certification	UNDP/ICAO Project INS/95/027	1992	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
5	Enhancing Aviation Safety in Indonesia	MSA between ICAO and DGCA	2007	Aviation Safety and Security



ICAO Technical Cooperation Projects In Indonesia (Past Programs)

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	2010	Aviation Policy and Management Advisory
7	Enhancement of Safety Oversight Capability of DGCA	ICAO Project INS/07/802	2008	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	2010	Education and Training Agency of MOT
10	Institutional Strengthening of the Indonesian Civil Aviation Institute (ICAI)	ICAO Project INS/11/801	2012	Human Resources Development of MOT



MINISTRY OF TRANSPORTATION-INDONESIA
DIRECTORATE GENERAL OF CIVIL AVIATION



Present ICAO Technical Cooperation Projects

- INS/08/802 “Assistance to the Representation of Indonesia to the International Civil Aviation Organization”(2011- 2014)**
 - Objective: re-establishment and effective support in the management of the Representative Office of Indonesia at the Headquarters of ICAO, in support of DGCA's Civil Aviation Strategic Action Plan (CASAP) that provides a roadmap for enhancing Indonesia's capabilities in the field of aviation safety and security.**
 - Provide : Representation Office of Indonesia and advice in Civil Aviation Policy and Management.**



MINISTRY OF TRANSPORTATION-INDONESIA
DIRECTORATE GENERAL OF CIVIL AVIATION



Present ICAO Technical Cooperation Projects

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



Present ICAO Technical Cooperation Projects

□ INS/07/802 “Enhancement of Safety Oversight Capability of DGCA Indonesia” (2009 - 2014)

□ Objective: to improve aviation safety in Indonesia by enhancing the capability of DGCA Indonesia in safety oversight through :

- ❖ Better organization**
- ❖ Properly trained and well qualified oversight personnel, including inspectors**
- ❖ Updated legislation, regulations and procedures,**
- ❖ More effective approval and certification processes, safety oversight inspection and surveillance**
- ❖ Improved implementation and compliance with ICAO SARPs and Procedures, and GASP**



Present 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**

□ **Indonesia was accepted by the Council as an
Observer of the Committee of Aviation
Environmental Protection (CAEP) since May
2012**



International Cooperation Projects

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

- **for technical assistance regarding aviation safety, security, navigation and airports:**
 - ❑ **Indonesia Transport Safety Assistance Package (ITSAP) with CASA Australia (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),**
 - ❑ **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)**

- **for technical assistance regarding the environment:**
 - ❑ **Swedish International Development Agency (SIDA): Eco airports and green flight**

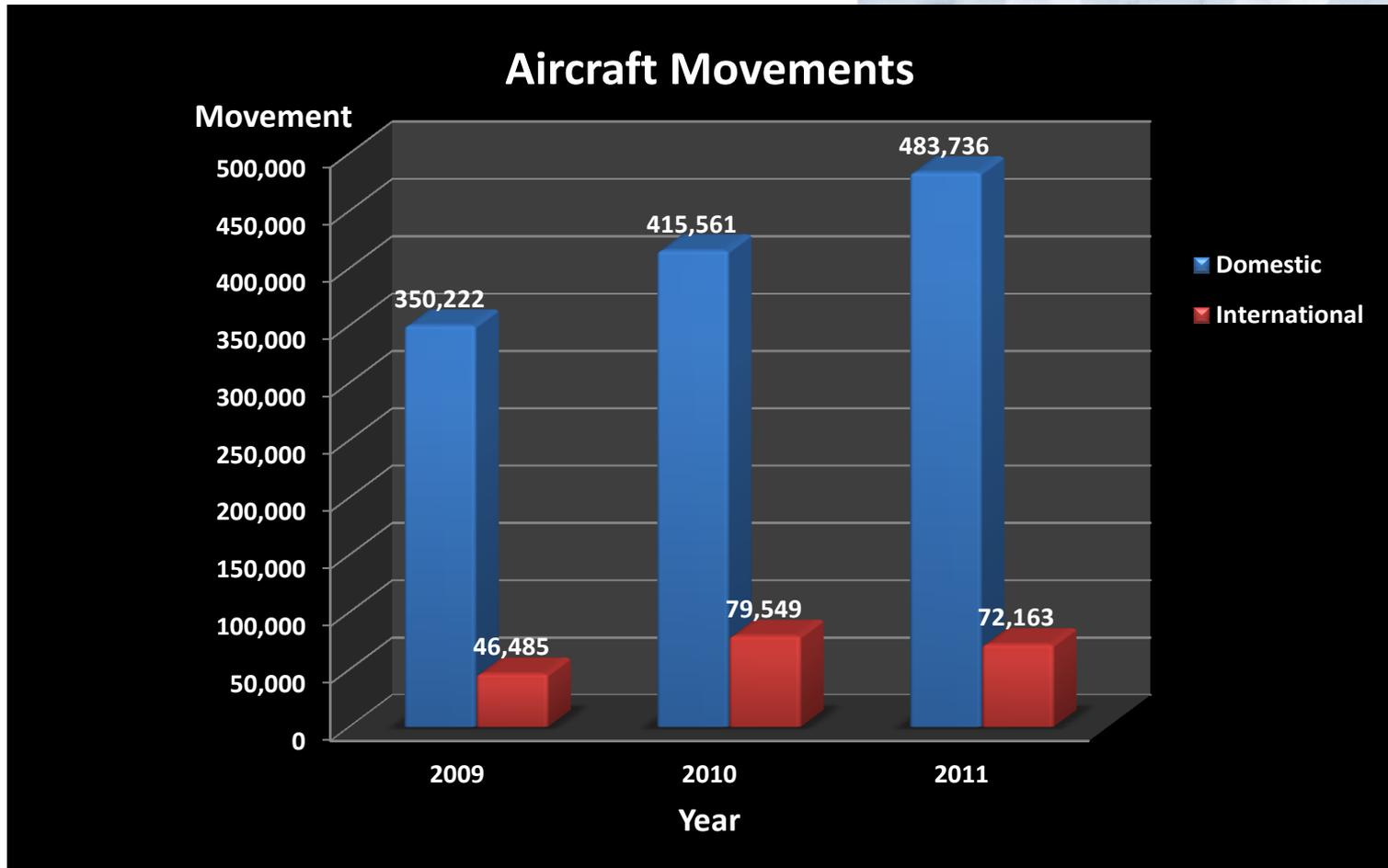


MINISTRY OF TRANSPORTATION-INDONESIA

DIRECTORATE GENERAL OF CIVIL AVIATION



Indonesian Aviation Outlook



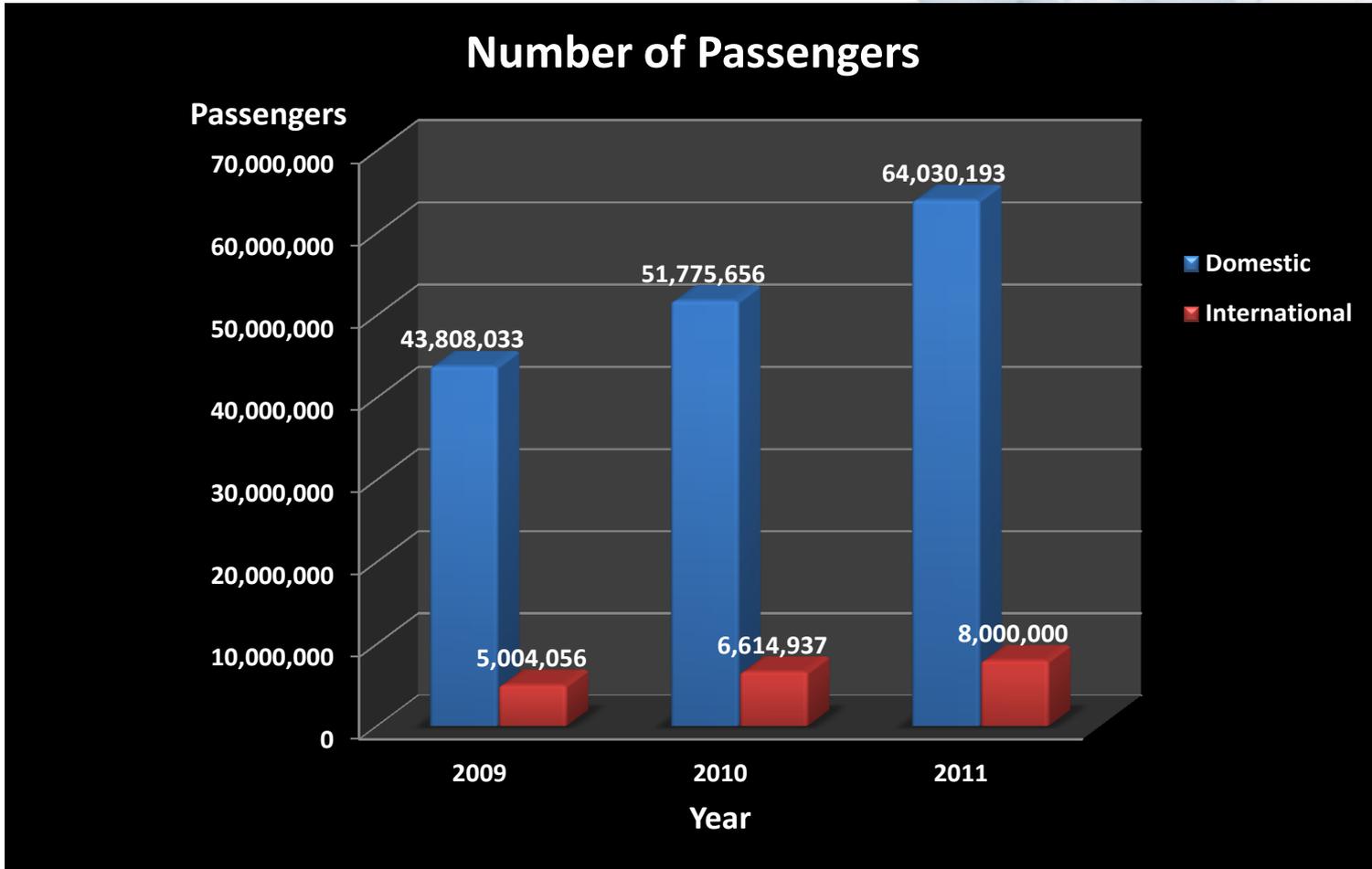


MINISTRY OF TRANSPORTATION-INDONESIA

DIRECTORATE GENERAL OF CIVIL AVIATION



Indonesian Aviation Outlook



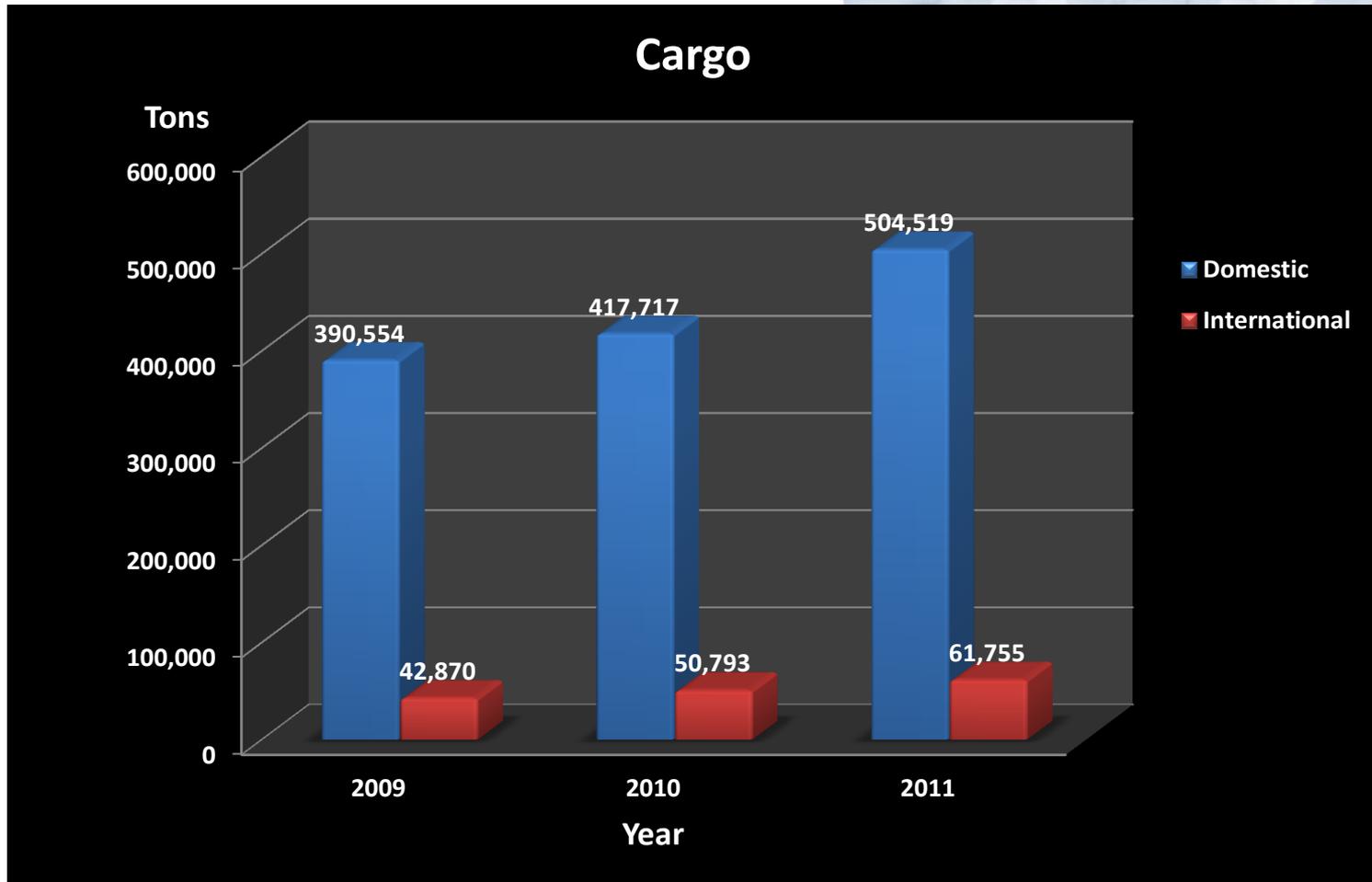


MINISTRY OF TRANSPORTATION-INDONESIA

DIRECTORATE GENERAL OF CIVIL AVIATION



Indonesian Aviation Outlook





MINISTRY OF TRANSPORTATION-INDONESIA

DIRECTORATE GENERAL OF CIVIL AVIATION



Indonesia Aviation Policy and Strategy on Mitigation Emissions of GHG



POLICY, STRATEGY, PROCEDURE AND CAPACITY BUILDING



MARKET BASED MEASURES



ENHANCED ECO AIRPORT IMPLEMENTATION

AIRCRAFT AND AIRPORT FACILITIES OPERATIONAL EFFICIENCY



ATM IMPROVEMENT AND PBN IMPLEMENTATION IN AIR NAVIGATION SERVICES

AIRCRAFT AND INFRASTRUCTURE MODERNIZATION





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 Need Assessment

General Considerations

- 1. During the G20 Summit, Pittsburg 2009, the President of the Republic of Indonesia declared Indonesia's commitment to reduce Carbon emissions by 26% based on the 2005 level. The Indonesian air transportation sector is called upon to contribute in accordance with Presidential Decrees No. 61 and N0. 71 of 2011: "National Action Plan of GHG" and "Inventory GHG and Monitoring"**
- 2. The passenger air transport market of Indonesia has had significant growth of 15% average in recent years. The objectives to enhance the safety, security and environment sustainability through a development program in line with the ICAO and UNFCCC principles and guidelines require the following elements :**



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

- 1. The provision of a legal framework, regulations, guidelines and procedures for environmental 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 (Proposed) Program Collaboration ICAO – DGCA Indonesia 2013-2020

- Technical Assistance Project on Environmentally Sustainable Air Transportation 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 (Proposed) Program Collaboration ICAO –DGCA Indonesia 2013-2020(Con't)

- Technical Assistance Project on Environmentally Sustainable Air Transportation in Indonesia, including the subjects of:**
 - financial access and assistance,**
 - research and development,**
 - technology transfer,**
 - capacity building and exchange program,**
 - legal and regulatory framework,**
 - seminar and conference support.**



Summary

- 1. DGCA Indonesia considers there is a need to continuously enhance the organization and system, to provide a clear role, function and responsibility, to enhance the legal provisions, regulations, guidelines and procedures, to improve capacity building of the human resources, to improve the financial access-support and mechanism, etc. in order to adequately perform the mandate and obligations for reducing GHG (Carbon) emissions according to the National Action Plan.**
- 2. DGCA Indonesia highlights its view that there is a need for Technical Cooperation support by ICAO during the preparation and implementation of the National Action Plan on Climate Change and GHG Emission Reduction.**



MINISTRY OF TRANSPORTATION-INDONESIA
DIRECTORATE GENERAL OF CIVIL AVIATION



Thank You

**Green Solutions for
a Brighter Future**