



Funding Options and Solutions for Aviation Safety and Security Infrastructure- Role of MDB's

ICAO Global Symposium on Air Transport Liberalization
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Agenda

OVERVIEW OF AFRICAN AIR TRANSPORT SECTOR

FINANCING REQUIREMENTS

MULTILATERAL DEVELOPMENT BANKS AND AIR TRANSPORT DEVELOPMENT

NEPAD INITIATIVE

COSCAP PROGRAM



African Airports

Airports in 2005: 117 international airports (2400 to 3500 m of tarred runways), 500 domestic airports (runways of 1000 to 2000 m, usually surfaced with laterite) and over 1000 national aerodromes (600 to 1000m, poorly maintained)

- ✓ **Mostly built in 1960:** unsuitable for wide-bodied craft (e.g. Boeing B747 or Airbus A380)
- ✓ **Low traffic:** It is estimated that more than 500,000 international passengers/year required to make an airport viable – very few airports in Africa have reached that level of traffic
- ✓ **Unsuitable or poorly maintained** airstrips and taxiways, worn out and/or narrow parking areas, narrow passenger terminals, inadequate freight hangars;
- ✓ **Unsafe:** non-existent airport fences or in disrepair, and bird hazard. Consequently, only three airports (Sal in Cape Verde, Banjul in the Gambia and Accra in Ghana) have obtained the FAA category A1 certification.
- ✓ Trend in **airport management** towards autonomy and privatisation of international airports



Air Navigation

- ✓ **+ 2 million aircraft movements** controlled by air navigation services
- ✓ **Delayed** implementation of satellite air navigation system CNS/ATM scheduled for 2010 by ICAO
- ✓ **Incomplete coverage:** Air control does not cover certain areas such as deserts, equatorial forest, etc
- ✓ Other **Security problems** include:
 - absence of texts regulating air traffic and air traffic controller licence
 - frequent power outages
 - acts of vandalism on radio-electric installations,
 - inappropriate control towers
 - few radar systems.



Aircrafts

- ✓ **1165 aircraft:** 605 jet planes, 400 turbopropellers
- ✓ **Mixed fleet** hampers standardization and economies of scale
- ✓ **Obsolete fleet:** 316 old aircraft, including 160 «orphans» from ex-USSR, with absent technical follow-up and poorly maintained
- ✓ Costly in fuel, maintenance and insurance as well as being the most unfriendly (noise and gas emissions for the greenhouse effect) for the environment and the safety of air transport (**high accident risk factors**)
- ✓ **Highest number of blacklisted airlines:** All but seven airlines on the 92 blacklisted airlines by the EU on are African



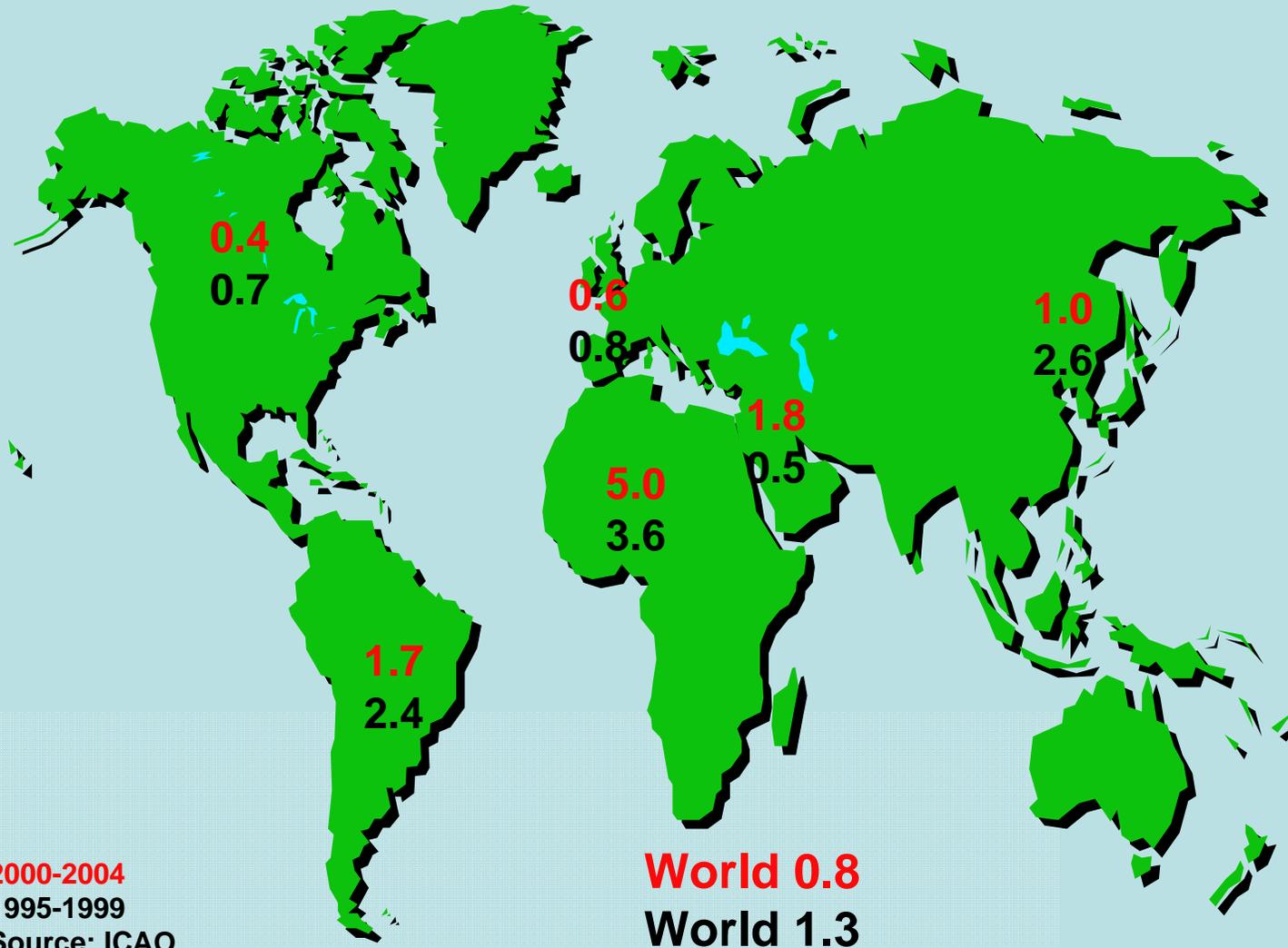
Air Traffic

- ✓ 108 million passengers, 1.334 million tons of cargo
- ✓ **Market weaknesses:** 4.5% and 1.6% of world passenger and cargo traffic
- ✓ **Market imbalance:** 30% operated by African carriers (36 millions passengers) ; 70% operated by non-Africans (72 millions passengers)
- ✓ **Insufficient links** 13 million passengers. for domestic network and 4.7 million passengers for inter-state
- ✓ **Market disparities:** 70% of traffic conducted from North and South Africa
- ✓ **Non-competitive:** high airfare tariffs compared to Asia and Latin America
- ✓ **Low Contribution to the economy:** Turnover of USD 11. 3 billion, equivalent to 1.7% Africa's GDP



POOR SAFETY RECORD

Scheduled Ops, Fatal accidents per 1 million Departures by Region of the Operator



2000-2004
1995-1999
Source: ICAO



Main Contributors to Poor Safety

- ✓ Inappropriate civil aviation laws and regulations
- ✓ Insufficient expertise or capability to regulate and oversee civil aviation activities
- ✓ Low compliance to safety requirements
- ✓ Deficient infrastructure (ageing aircraft, lack of maintenance)
- ✓ Technical faults
- ✓ Lack of training of staff involved in the industry
- ✓ Flight crews errors



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Infrastructure, Equipment Needs

✓ Airport Services

- Maintenance rehabilitation, extension of runways, taxiways and aprons or construction of new airports
- Rehabilitation, extension of airports, parking areas, fencing, purchase of airport security equipment

✓ Air Navigation Services

- Air navigation aids
- Challenge of satellite navigation (GNSS, CNS/ATM)
- Estimated costs: 17 ASECNA countries - USD 334.08 million investment; ANTS Co. of South Africa – USD 226.2 million
- ICAO estimates USD 300 billion for 189 states up to 2010.



Capacity Building Needs

- ✓ **Civil Aviation Authorities**
 - **Qualified Staff, suitable locations, equipment, training and retraining, documentation**
 - **National Civil Aviation Administrations: state oversight of air security and safety aspects**
- ✓ REC transport units
- ✓ AFCAC financial autonomy
- ✓ Setting up Executing Agency within African Union Commission



Airlines Needs

✓ **Capital Requirements**

- Capital replenishment, debt, cash flow difficulties
- Control of high costs: 25% A1 Jet fuel (150% increase from 30 to 75 USD per barrel from 2002 to 2006) maintenance, charges, insurance,

✓ **Operating Equipment and materials**

- Aircraft: Airbus estimates Africa's 2004- 2023 fleet renewal requirements at 641 new craft
- Cost of an aircraft: 40 to 150 million USD, depending on module, equivalent to approximately 65 billion USD
- Spare parts, maintenance and training centers
- Acquisition of new technologies: SIR, E-ticketing, E-cargo



Sector Service Providers Needs

- ✓ **Air cargo:** Cargo planes, refrigerated cargo facilities, handling for flower, fruit, vegetable, meat and fish exports
- ✓ **Ground services:** data banks, carriages, loaders, conveyor belts
- ✓ **Catering:** food preservation areas, kitchen equipment and material
- ✓ **Qualified Human Resources:**
 - Pilots, hostesses, stewards, engineers, runway technicians, mechanics, air controllers, fire safety staff, commercial and financial staff
 - Support to specialized training schools in Africa



Agenda

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DEVELOPMENT

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Development Challenges

- ▲ Using air transport to reduce poverty through job creation and quicker access to markets
- ▲ Need to lower cost of air travel and air freight
- ▲ Need to improve aviation safety and airport security to ICAO standards
- ▲ Need to improve cost-recovery and efficiency of State-owned air transport enterprises



Selected Air Transport Strategy Options

- ▲ Accelerate liberalization of air transport services
- ▲ Focus on development of major airports as hubs
- ▲ Promote Public-Private Partnership (PPP) arrangements to reduce reliance on State-owned enterprises for operation and maintenance of airports
- ▲ Encourage the development of emerging alliances among national airlines
- ▲ Upgrade navigational aids and strengthen safety oversight mechanisms at the sub-regional level in collaboration with agencies such as ICAO and ASECNA



Involvement of Regional Development Banks

- ▲ The presence of regional development banks in financing schemes of airport projects gives comfort to investors and offers possibility of financing on soft terms
- ▲ Typical interventions by regional development banks includes:
 - ▲ Institutional development and capacity building and project cycle studies
 - ▲ Expansion or construction of new airport terminals
 - ▲ Expansion/strengthening of runways, taxiways and airport access roads
 - ▲ Procurement of navigational aids and safety equipment



Involvement of Regional Development Banks (cont.)

- ▲ Financial Instruments
 - ▲ Project Loans
 - ▲ Sector Adjustment Loans
 - ▲ Technical Assistance grants for project cycle activities and institutional development and capacity building activities
 - ▲ Financing of Build Operate and Transfer (BOT) and Build Own Operate and Transfer (BOOT) contracts
 - ▲ Guarantee schemes for private investments
 - ▲ Technical assistance for privatisation



Involvement of Regional Development Banks (cont.)

▲ Financing Options

- ▲ Sovereign-guaranteed loans to public sector borrowers
- ▲ Non-sovereign guaranteed loans to viable public sector enterprises
- ▲ Non-sovereign guaranteed loans to private sector borrowers
- ▲ Guarantees for loans from third party lenders
- ▲ Equity investment through specialized equity funds
- ▲ Combinations of the above, where appropriate



Development Banks and Funds

- **ASECNA-Services: Loan of +CFAF 2 billion** to invest in capital of ADM, ADC, ADL, AERIA
- **BOAD, BIDC, ECOBANK:** SPCAR capital subscription
- **ADB:** 1970-2000: loans and grants, USD 477.344 million in air sector (studies, airports, maintenance centers, aircraft); ADF UA 4.6 M for COSCAP Programme-ECOWAS/CEMA/WAEMU; private sector window; various loans and forms of technical and financial assistance
- **NEPAD:** Implementation of YD made one of the 10 priority projects of the STAP: 244 millions USD for air transport projects (security, CNS/ATM)
- **UNECA:** financed air transport studies in Africa in 1964; sponsors of events such as “Transport and Communication Decades in Africa (1978-1998) “which contributed to the adoption of the Yamoussoukro Declaration in 1988 and the Yamoussoukro Decision in 1999
- **European Union: EDF:** 1 M Euros institutional support and 1 M Euros for COSCAP-ECOWAS/WAEMU: 14 M Euros ASECNA; **EIB:** approximately CFAF 100 billion,CNS/ATM –ASECNA
- **ICAO and UNDP:** technical and financial support COSCAP and CASP
- **IFFAS :** loans and grants (300 000 USD COSCAP ECOWAS/WAEMU/CEMAC)
- **WORLD BANK:** Grant of USD 750 000 to MOU and USD 31.8 million to 4 countries for air security projects (credits of \$6.46 million for Burkina Faso and \$5.51 million for Mali, and grants of \$14.5 million to Cameroon and \$7.1 million to Guinea).



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The Bank is the Lead Agency for NEPAD infrastructure

3 PILLARS

M / LT Strategic Framework

Infrastructure Project Preparation Facility

Short Term Action Plan

Technical Assistance

2015

A Short Term Action Plan (STAP) to kick start the process

A Medium – Long Term Strategic Framework (MLTSF) to define a solid framework for the future

An Infrastructure Project Preparation Facility (NEPAD-IPPF) to bring projects to bankable levels



Yamoussoukro Decision

- ✓ Main African Air Transport Policy
- ✓ Adopted in Yamoussoukro on 14 November 1999 by African Ministers in charge of civil aviation.
- ✓ Ratified by the OAU Conference of Heads of State and Governments held in Lome in July 2000
- ✓ Became fully effective from 12 August 2002 in all African States that signed and ratified the Abuja Treaty.
- ✓ The objective of the Decision is the liberalization of air transport services in the whole continent and involves inter alia:
 - The granting of traffic rights (1st - 5th freedom) on scheduled and non scheduled flights
 - The elimination of restrictions on frequencies and capacities.
 - Liberalization of tariffs
 - Conformity to conventions on air safety in line with ICAO provisions.
- ✓ Implementation retained as priority actions for NEPAD



NEPAD Response

***Institutional Support for
the Yamoussoukro
Decision***

***Cooperative Development
of Operational Safety and
Continuing Airworthiness
Programme (COSCAP)***

***Development of a
Global Navigation
Satellite system (GNSS)***

***Creation of Upper
Airspace Control
Centres (UACC)***

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FOUR
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NEPAD STAP for Air Transport

ACTIVITY	LOCATION	COST IN US\$ (MILLION)	ORGANIZATION
Institutional and physical interventions			
<i>Support implementation of the YD and restructuring of aviation:</i> -Regional coordination and sharing of information and data on best practices -Strengthening of regulation capacity -Improvement of airport security -Improvement of airport infrastructure and related facilities to category 1 level	All five sub-regions (North, West, Central, East & Southern) All countries, notably the LDCs Two major airports other than the 1 st category per sub-region (total 10)	8 45 50	ECOWAS, SADC, COMESA, ECA, ECCAS, IGAD, UMA and countries concerned (as above)
<i>Establishment of upper area control centers</i>	SADC & EAC	70	SADC, EAC
<i>GNSS Project</i> - Setting up of test stands - Installation of ground infrastructure	Africa and Indian Ocean Region	5 11	All RECs (managed by ASECNA)
Setting up of common security and control units (COSCAP)	West, Southern & East, North-East and North sub-regions	25 25	ECOWAS, ASECNA, COMESA, SADC, AEC, ECCAS, COMESA, IGAD, UMA
Studies			
<i>Establishment of upper area control centers (UACC)</i>	Study will cover other sub-regions (West, Central, North-East, North)	3	ASECNA, ECOWAS, COMESA, IGAD, UMA
<i>Appraisal study of aviation infrastructure needs</i>	Angola and D.R. Congo	2	SADC, Angola, R.D. Congo 25
TOTAL		244	



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COSCAP PROGRAMME

Origins and History:

- ▲ Stems from the implementation of the YD
- ▲ One of the thrusts for reaching the “open and safe skies” goal of the NEPAD’s STAP
- ▲ ICAO and FAA audits revealed several deficiencies in West, Central Africa’s (WCA) air safety:
 - inappropriate technical security regulations;
 - lethargy of the Civil Aviation Authorities (CAAs);
 - limited expertise of the technical staff especially security inspectors;
 - profusion of airlines with poorly maintained aircraft;
 - sector financing difficulties.
- ▲ Designed technically by ICAO which put it to the test successfully in South East Asia, Latin America and the Pacific.



COSCAP PROGRAMME

- ▲ COSCAP programme aims at: (i) building the capacity of the DCAs in WCA to supervise air safety; (ii) establishing uniform economic rules and technical air security regulations consistent with ICAO standards and recommended practices so as to improve security and efficiency of air transport; and (iii) reducing the general costs of air transport.
- COSCAP adopted by the 23 member states of WCA
- Setup of 3 COSCAPs groups by the Council of Ministers Responsible for Civil Aviation: (WAEMU/Mauritania, CEMAC/Sao Tome & Principe and the Banjul Accord Group)
- WAEMU, ECOWAS and CEMAC requested financial assistance from the African Development Fund (ADF) for the COSCAP Programmes
- **ADF GRANT OF UA 4.60 MILLION** (US\$ 6.74 million; 34.8% of the Programme's total cost)



COSCAP PROGRAMME

- ▲ COSCAP Expected Outputs:
 - Uniform technical civil aviation regulations prepared and adopted;
 - Three autonomous and operational regional aviation safety agencies (RASA) established, and capacity to supervise air safety built;
 - Capacity to coordinate and monitor implementation of the Yamoussoukro Decision strengthened; and
 - Capacity to monitor and manage REC projects built.

- ▲ The ADF grant is financing:
 - studies to harmonize technical regulations for civil aviation safety, the establishment of regional aviation security agencies, feasibility studies for the creation of regional maintenance centres and to set up a regional data base on air transport;
 - fees and per diem for the international experts trainers;
 - support for the Yamoussoukro Decision Implementation Coordination and Monitoring Committee;
 - Programme management and monitoring.



CONCLUSION

Air transport has a big growth potential in Africa but there are enormous challenges which can be overcome by building synergy between all stakeholders

The Bank is a partner that can play an important catalytic role in mobilising financial and human resources for the development of the air transport sub-sector in general and aviation safety /security infrastructure in particular

The Bank will continue to give the air transport sub-sector priority within the overall context of achieving poverty reduction in the member countries and strengthening regional integration and trade



***THANK YOU FOR YOUR KIND
ATTENTION***