



**COMPREHENSIVE REGIONAL IMPLEMENTATION PLAN FOR AVIATION
SAFETY IN AFRICA (AFI PLAN)**

AVIATION INFRASTRUCTURE FOR AFRICA GAP ANALYSIS WORKSHOP

Abuja, Nigeria, 19-21 March 2019

REPORT

24 April 2019

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NB: In addition to this report the concept note, the workshop programme and all presentations from the ICAO secretariat and Partners are available at the website: <https://www.icao.int/ESAF/Pages/AvInfra-Africa-GapAnalysis-2019.aspx>

1. Venue, date and attendance

1.1 The Aviation Infrastructure for Africa Gap Analysis workshop was held from 19 to 21 March 2019 in Abuja, Nigeria. The workshop, conducted as part of the 2019 AFI Plan work programme, was attended by 173 Participants including delegations from 22 ICAO member States, two Representatives from the ICAO Council and the Air Navigation Commission (ANC), and 13 officials of invited international and regional organizations, industry and other partners and stakeholders. The list of participants is provided as an Appendix to this report.

2. Opening ceremony

2.1 During the opening session Mr. Sabiu Zakari, Permanent Secretary, Federal Ministry of Aviation of Nigeria, welcomed the senior officials from the Federal Government of Nigeria, ICAO and other regional and international organizations as well as participants from various States. Following the welcoming remarks, statements were delivered by Mr. Papa Atoumane Fall, Representative of the Secretary General of AFCAC, Dr. Olumuyiwa Benard Aliu, President, ICAO Council and Senator Hadi Abubakar Srika, Honourable Minister of State (Aviation), The Federal Republic of Nigeria.

2.2 In his address to the workshop, the representative of the Secretary General of the African Civil Aviation Commission (AFCAC) underlined the need for significant effort in air navigation capacity expansion and infrastructure upgrading as well as gradual rehabilitation of existing facilities to support aircraft technological advancements in the region and accommodate growth in passenger and cargo activities.

2.3 In his remarks, the ICAO Council President, pointed out that the growth potential of the Aviation industry in Africa is being boosted through the African Union's Single African Air Transport Market (SAATM). He however emphasized that growth in traffic must be accompanied by commensurate investment and commitment to new and modernized airport and air navigation infrastructure. It is therefore urgent, the Council President stated, for Africa to address its aviation infrastructure gaps given current awareness of how air connectivity has become such a unique and indispensable catalyst for socio-economic growth on the continent.

2.4 Dr. Aliu further remarked that the launch of the SAATM demonstrated Africa's unity and recognition of the fact that aviation connectivity's socio-economic benefits are real, sustainable, and worthy of the attention and commitments of African Governments. He however also stressed that rapidly-expanding air traffic and enhanced air connectivity can only be sustained with continued investment and development for aviation infrastructure, capacity and technology, supported by a regulatory framework which is ICAO compliant and therefore harmonized with other States and Regions.

2.5 In his opening remarks, the Minister of State for Aviation, Senator Hadi Sirika, stated that, although aviation in Africa has created about seven million jobs and added about \$72 billion dollars to Africa's GDP, the African aviation industry is facing serious constraints in terms of infrastructure requirements to support future capacity.

2.6 The Minister therefore stressed that the aviation in Africa needs significant upgrade and expansion in infrastructure to meet the requirements of the projected growth and to do so, the sector has to overcome the problem of insufficient access to financial resources for aviation development and modernization.

3. Adoption of draft workshop Agenda and Work Programme

The draft Agenda and work programme was reviewed and adopted as follows:

Tuesday, 19 March 2019

Opening Ceremony

- Opening Statements
- Adoption of the Work Programme

Session 1: The Air Transport Context in Africa

- Success and challenges of liberalizing air transport Market in Africa
- Outcomes of the Third ICAO World Aviation Forum (IWAF/3)

Session 2: Global and Regional Requirements

- The Global Perspective on GASP and GANP
- AFI Air Navigation Plan (ANP)
- Revised Abuja Safety targets
- GASeP, Windhoek Declaration and Targets for security and facilitation

Session 3: Aviation Infrastructure Gap Analysis and Master Plan Development process- Exchange of experiences and lessons learned

- Aviation Infrastructure and Master planning ICAO Perspective
- Case studies by Regional Organizations State and Industry

Wednesday, 20 March 2019

Session 4: Aviation Infrastructure for Africa Gap Analysis – 2019

- Presentation of the results of the 2019 Aviation Infrastructure for Africa Gap Analysis conducted by ICAO

Session 5: Breakout Sessions of Working Groups to review various components of the 2019 Aviation Infrastructure Gap Analysis

Thursday, 21 March 2019

Session 6: Recommendations / Outcomes of the Workshop, and Next Steps

- Outcomes of Panel Discussions: Sessions 1, 2, 3 and 4 - ICAO
- Recommendations and Outcomes of the Working Groups

Closing

4. Session 1: The Air Transport Context in Africa

4.1 This session was moderated by Mr. Barry Kashambo, Regional Director, ICAO/ESAF Regional Office supported by Mr. Adiron Alberto, Regional Officer, AT/TC, ICAO/ESAF as Rapporteur. Two presentations were made by the African Civil Aviation Commission and the ICAO Secretariat.

4.2 During this session, information was provided on the current trends of the air transport market in Africa, and the various continental policy instruments such as the Yamoussoukro Decision (YD), the Single African Air Transport Market (SAATM) and African Civil Aviation Policy aimed at enhancing air connectivity, were highlighted. The participants were also provided with information on the background and genesis of the Declaration and Framework for a Plan of Action for Development of Aviation Infrastructure in Africa among other outcomes of the Third ICAO World Aviation Forum (IWAF/3) considered relevant to the workshop.

4.3 The presentations during this session drew the attention of participants to the following key items:

- a) The framework for Air transport liberalization in Africa being the Yamoussoukro Decision which evolved towards the establishment of a Single

African Air Transport Market (SAATM) under the leadership of the African Union and AFCAC as the designated Executing Agency;

- b) The revision of the prioritized action plan for the implementation of SAATM, together with the steps taken by AFCAC in developing measurable performance indicators to evaluate the implementation of SAATM;
- c) The need to strengthen the advocacy and promotion efforts to subscribe to and build the necessary capacity for the implementation of SAATM by Member States;
- d) The adoption at the 3rd ICAO World Aviation forum (IWAF/3) of a Communique and Declaration and Framework for a Plan of Action for Development of Aviation Infrastructure in Africa that will be implemented with the African Union Programme for Infrastructure Development in Africa (PIDA) and included in its priority projects 2020-2030, in cooperation with AfDB, AUC, African Union Development Agency (AUDA);
- e) The outcome of IWAF/3 that called for gap analysis to determine the aviation infrastructure needs in Africa, and implementation follow-up under the existing frameworks of AFI Plan, AFI SECFAL Plan and HRDF, bearing in mind the aspirational goal that “no constraints of infrastructure capacity, technology and financial resources for aviation development”;
- f) In supporting implementation of the PIDA in a coordinated way, the deepening and broadening of economic and financial cooperation among African States and with development partners in line with the SAATM and the African Union's Agenda 2063 and in support of the ICAO NCLB initiative;
- g) The need to direct all investments in aviation infrastructure development and modernization in Africa to well-managed projects featuring solid business cases and due levels of accountability, transparency and quality assurance; and
- h) Alignment and integration of Aviation infrastructure programmes with multi-modal and urban planning initiatives under a good governance environment.

5. Session 2: Global and Regional Requirements

5.1 This session was moderated by Mr. Mam Sait Jallow, Regional Director, ICAO/WACAF Regional Office supported by Mr. François Xavier Salambanga, Regional

Officer, Communications, Navigation and Surveillance (CNS), ICAO/WACAF Regional Office as Rapporteur. Four Presentations were made by ICAO Secretariat and AFCAC.

5.2 During this session information was provided on global and regional aviation safety, air navigation and security plans including their corresponding targets. Accordingly, the following key issues were presented and discussed during the workshop:

- a) The structure and components, as well as the importance and relevance of the ICAO Global Air Navigation Plan (GANP), Global Aviation Safety Plan (GASP), and Global Aviation Security Plan (GASeP) were explained;
- b) Information on the framework for regional and national planning and implementation was shared;
- c) The necessity of alignment of Regional Plans, especially the AFI Regional Air Navigation Plan (AFI ANP) with the global frameworks (GANP, GASP, GASeP) in terms of Goals, Objectives, Targets & indicators was emphasized;
- d) The AFI regional targets, mainly the revised Abuja safety targets and air navigation targets and indicators as well as the Windhoek Declaration and targets for Security and Facilitation were presented; and
- e) The roles of Planning, Implementation and Monitoring mechanisms through Regional Groups: AFI Planning and Implementation Regional Group (APIRG), AFI Regional Aviation Safety Group (RASG-AFI), and AFI Comprehensive Regional Implementation Plans for aviation Safety in Africa (AFI Plan) and for AFI Comprehensive Regional Implementation Plans for Security in Africa (AFI SECFAL Plan), explained.

6. Session 3: Aviation Infrastructure Gap Analysis and Master Plan Development Process-Exchange of experiences and lessons learned

6.1 This session was moderated by Mr. Toru Hasegawa, Deputy Director, Economic Development, Air Transport Bureau (ATB), ICAO supported by Mr. Albert Aidoo Taylor, Regional Officer, ATM/SAR, ICAO/WACAF Regional Office as Rapporteur. Seven presentations were made during this Session by ICAO Secretariat, Industry representatives (ACI and IATA), the Commission of the Economic Community of West African States (ECOWAS) and two States (Nigeria and Kenya).

6.1 This session provided an opportunity for sharing experiences and learning lessons from various similar Aviation Gap Analysis exercises conducted in different regions by various stakeholders including States. It was noted that the scope, method and information utilized by the various stakeholders in analyzing the aviation infrastructure gaps varies. The following key issues emerged from presentations and discussions:

- a) Development of national and regional Civil Aviation Master Plans (CAMPs) is key to addressing gaps in infrastructure and as such, it was recommended that States should promote the importance of aviation development, noting that aviation contributes significantly to national, regional and global economy;
- b) The scope of aviation infrastructure projects is very large and thus, a long timeframe from planning to completion should be observed, usually with multiple adjustments to the original plan along the way;
- c) Civil Aviation Master Plans should be clearly linked to ICAO's Global and Regional plans, as well as the national development framework;
- d) Identified infrastructure gaps, as well as their causes, should be quantified and included in the Civil Aviation Master Plan; and
- e) Given the limited availability of resources and funds, investments to close the identified infrastructure gaps should be made in order of priority and urgency, also taking into account value for money (VFM).

7. Session 4: Aviation Infrastructure for Africa Gap Analysis – 2019

7.1 This session was moderated by Mr. Mam Sait Jallow, Regional Director, ICAO/WACAF Regional Office supported by Mr. Eyob Estifanos, Associate Regional Programme Officer – ICAO/AFI Plan. Three Presentations were made by ICAO Secretariat.

7.1 During this session, the results of Aviation Infrastructure for Africa Gap analysis conducted by ICAO in February – March 2019 were presented in three main areas: Airports, Air Navigation Services (ANS) and Airlines (Aircraft and Equipage). Information was provided on the scope and methodology of the data collection survey, development of matrices for prioritizing evaluation items, as well as interpretation of the summary results.

The Gap Analysis was conducted based on responses to the survey questionnaire obtained from 26 States. These responses were of varying degrees of detail. To the extent possible, additional data and information from the ICAO database and other available sources was utilized in the case of non-respondent African States to fill-in other missing details.

7.2 Key High Level Priority Infrastructure Items

Due to the large volume of data and detailed information covered by the survey, it was considered necessary, in analyzing the gaps, to identify and focus on the following key high level infrastructure related items and determine the appropriate parameters to define the gaps:

INTERNATIONAL AIRPORTS:

- Certification (certified VS not certified) – *Yes or No*
- RWY /TWY Capacity
 - ✓ RWY /TWY Dimensions - (length/width VS annual number of movements of each type of aircrafts using the runway) – *Adequate or Non adequate*
 - ✓ Pavement Strength - (PCN VS annual number of movements of each type of aircrafts using the runway) - *Adequate or Non adequate*
 - ✓ RWY/TWY numbers - (Aerodrome traffic density VS Actual runways/taxiways layout) - *Adequate or Non adequate*
- Apron Capacity - (Aerodrome traffic density VS Actual number of parking positions) - *Adequate or Non adequate*
- Pax Terminal Capacity - (Annual passengers traffic (taking into account peak hours) VS Terminal design capacity) – *Passengers Terminal occupancy rate*
- CRG Terminal Capacity - (Annual cargo traffic (taking into account peak hours) VS Terminal design capacity) – *Cargo Terminal occupancy rate*
- Aerodrome RFFS - (Actual AD RFFS category VS annual number of movements of each type of aircrafts using the aerodrome) - *Adequate or Non adequate*
- MRTD - (Annual passengers traffic for pax (taking into account peak hours), VS number of available equipment) - *Percentage of lacking equipment*
- Pax/Personnel/Bag Screening Equipment - (Annual passengers traffic for pax (taking into account peak hours), number of access gates for workers, VS number of available equipment) – *Percentage of lacking equipment*

- Cargo Screening Equipment - ((Annual cargo traffic (taking into account peak hours) VS number of available equipment) – *Percentage of lacking equipment*
- Perimeter fences & EOC and Mobile command post - (existent or not) - *Yes or No*
- Electrical power supply systems - (Approach category of the runway VS existing electrical power system) - *Adequate or Non adequate*
- Airfield Lighting / Visual Aids for navigation - (Approach category of the runway VS existing runway lighting system) - *Adequate or Non adequate*

AIR NAVIGATION SERVICES:

1. ATM Gap Metrics

- ATS Units Capacity: # of aircraft per hour per Declared Capacity
- ATM Master Plan: % of qualified number of required ATCOs; % of Class A-D Airspace implemented
- PBN Plan (SIDS/STARS, CCO/CDO): % of Robust National PBN Plan; % of PBN Airspace; # PBN Routes implemented; % of instrument runways with PBN SIDS/STARS; % of instrument runways with PBN CCO/CDO

2. CNS Gap Metrics

- AFTN, AMHS, ATS/DS, AIDC, VoIP, OPMETs: # % Required and regionally planned Circuits (with regard to the AFI Regional Air Navigation Plan -AFI RNP) but not yet implemented
- VHF & HF, CPDLC, VDL & HF DL: # % Required and regionally planned route coverage (with regard to the AFI Regional Air Navigation Plan -AFI RNP) but not yet implemented
- Navigation and Surveillance: # % Required and regionally planned Stations (with regard to the AFI Regional Air Navigation Plan -AFI RNP) but not yet implemented

3. AIM Gap Metrics

- AIXM Based e-AIP, AIS/AIM Transition, e-TOD: # % Required and regionally planned Actions plans (with regard to the AFI Regional Air Navigation Plan -AFI RNP) but not yet implemented developed / implemented.

AIRLINES:

1. Market share of the State/African Airlines

- Available Seat Kilometers (ASK) by the State Airline as a percentage of the total capacity available to the State market
- Share of passengers carried by the State airlines as a percentage of the total
- Share of passengers carried by the African airlines as a percentage of the total

2. Connectivity

- No. of Int'l Destinations /States Served by Airlines certificated by the State
- No. of African Destinations/States Served by the Airlines certificated by the State
- Total No. of weekly international schedule Services by local and foreign airlines Summer/Winter
- Total No. of weekly international schedule Services by local airlines
- Total No. of weekly international schedule Services by African airlines
- Total No. of weekly international schedule Services by other airlines

3. Capacity Utilization of Airlines

- Load factor of an Airline (ASK/RPK)

4. Aircraft ownership

- Percentage of leased aircraft from the total fleet

7.3 key Gap Analysis Results

The key results of the Gap Analysis are summarized as follows:-

7.3.1 International Airports

- a) 70% of international Airports are not certified;
- b) 35% have insufficient pavement strength with regard to intended use;
- c) 42% have insufficient emergency plans and perimeter fencing;
- d) 20% have insufficient aerodrome rescue and firefighting services capacity;
- e) 18% have insufficient passenger and cargo terminal capacities;
- f) 18% have insufficient apron capacities;

- g) 17% have electrical power systems deficiencies;
- h) 15% have insufficient airfield lighting systems;
- i) 9% are facing runways and taxiways dimensions' problems; and
- j) 8% have insufficient screening and MRTD equipment.

7.3.2 Air Navigation Services

a) *Air Traffic Management – Performance Based Navigation (PBN).*

- About 35% of international aerodromes have no PBN approaches while additional 11% have only visual approach procedures; and
- Implementation of continuous climb operations (CCO) and continuous descent operations (CDO) procedures has not started to take full advantage of PBN approach procedures;
- About 95% of States have not established ATM Master Plans with airspace, Concept of Operations (CANOPS), and ATS Units Capacity.

b) *Communications:*

- High rate (more than 95%) of implementation of aeronautical fixed telecommunication network (AFTN) requirements;
- Low level (less than 15%) implementation of Air Traffic Services Message Handling Systems (AMHS) and related interconnections;
- Very low level (less than 5%) ATS Inter-Facility Data Communications (AIDC) procedures,
- No implementation of Voice over Internet Protocol (VoIP);
- Very High Frequency (VHF) and High Frequency (HF) radio coverage with a combined implementation level above 94% and increasing Controller-Pilot Data Communications (CPDLC) coverage about 50% ; and
- No implementation of VHF and HF data link (VDL and HF DL).

c) *Navigation systems:*

- Conventional radio navigation aids (VHF omnidirectional range (VOR), distance measuring equipment (DME), instrument landing system (ILS)) and global navigation satellite system (GNSS) core constellations have a good stage of implementation above 97% in the region; and

- Less than 3% of low level implementation of augmented GNSS (satellite-based augmentation system (SBAS), ground-based augmentation system (GBAS)) is identified. GNSS services are currently provided through aircraft-based augmented systems (ABAS).
- d) ***Surveillance :***
- progress noted in the implementation of Secondary Surveillance Radar (SSR) Mode S and Automatic Dependent Surveillance Contract (ADS-C) with implementation rates of 64% and 57% respectively; and
 - Slow pace of implementation of Automatic Dependent Surveillance Broadcast (ADS-B) with 16 % and Multilateration (MLAT) 3% implementation across the AFI Flight Information Regions.
- e) ***Frequency spectrum management:***
- Spectrum monitoring and reporting systems are not implemented by States although increasing number of harmful interferences to aviation are experienced in the Region.
- f) ***Aeronautical Information Management:***
- Progress was registered in aeronautical information exchange model (AIXM) - based electronic Aeronautical Information Publications (e-AIP) 78% of States; and electronic terrain and obstacle data (e-TOD) implementation 70% of States.
 - 80% of States also developed Aeronautical information service (AIS)/Aeronautical information management (AIM) Transition Plans;
- g) ***Aeronautical Meteorology :***
- The availability rate of OPMETs increased to 97% over time, while
 - Implementation of Volcanic Ash contingency procedures is at a very low stage of about 36%.
- h) ***Search and Rescue:***
- Effective implementation of Rescue Coordination Centre (RCCs) or Rescue Secondary Centers (RSCs) and signature of effective search and rescue (SAR) agreements have a low level of implementation which is below 10% of States in the region.

7.3.3 Airlines

- a) Low connectivity which accounts only 27% of services among African States. Though some guarantee a potential for evaluation of direct routes, Passengers took connecting flights;
- b) Direct traffic from single African Air Transport Market (SAATM) States is mainly to Europe and intra-Africa, while traffic from SAATM to other regions is carried mainly through connecting flights;
- c) In terms of international frequencies the 76% of the intra-Africa market served by African carriers;
- d) In terms of origin-destination passengers, for 14 African States, over 50% of international passengers are carried by African carriers; and
- e) Airlines of all African States have an average load factor of 70.8% in 2017 (lower than the world average of 82%).
- f) 27 African States are party to Cape Town Convention

8. Session 5: Breakout Sessions of Working Groups to review various components of the 2019 Aviation Infrastructure Gap Analysis

8.1 Three working groups focusing on Airports, Air Navigation Services (ANS) and Airlines (aircraft and equipage) were constituted from participants with the support of the ICAO Secretariat. The group discussions were facilitated by Mr. Rishi Thakurdin, Director Safety and Technical, Airports Council International –Africa (ACI-Africa); Ms. Mbayang Gueye, Head of the Strategy and Planning Department of the *Agence pour la securite de la navigation aerienne en Afrique et a Madagascar* (ASECNA), and Mr. Abderahmane Berthe, Secretary General of the African Airlines Association (AFRAA), respectively.

8.2 The Working Groups were tasked to review the preliminary survey results covering the three areas and determine the existing aviation infrastructure gaps as well as make recommendations and define requirements on the next steps towards the development of regional and national aviation infrastructure programmes and master plans based on determined strategic infrastructure requirements and in line with the level of forecast traffic growth and ICAO Global and Regional plans.

8.3 In reviewing the survey results, Working Groups were guided by the listed priority evaluation parameters and metrics in the relevant area. To this effect, guidelines were provided to the Working Groups and their facilitators.

8.4 Each Working Group evaluated the survey questionnaire, scope, methodology utilized in the Gap Analysis and recommended a set of action to improve the results of the analysis including to broaden the scope beyond the gap analysis to cover various elements that are instrumental for aviation infrastructure development and master plan study.

8.5 The results and recommendations of set of actions by each Working Group were presented under Session 6 of the workshop as reported below.

9. Session 6: Recommendations / Outcomes of Working Groups and Next Steps

9.1 This session was moderated by Mr. Mam Sait Jallow, Regional Director, ICAO/WACAF Regional Office supported by Mr. Nika Meheza Manzi, Regional Officer, Aerodromes and Ground Aids (AGA), ICAO/WACAF Regional Office as Rapporteur. The Working Groups established under Session 5 to evaluate the Gap Analysis presented the outcome of their discussions, and recommendations to improve the aviation infrastructure gap analysis exercise.

9.2 The key recommendations by each Working Group to improve the Infrastructure Gap analysis and the way forward are presented as follows:

9.2.1 The Airport Working Group

- a) The airport Working Group suggested that the information gathered through the survey questionnaire can be improved to add some critical elements such as the land side facilities, Environmental issues (emissions reduction, sustainable source of energy etc), Detailed facilities on Aviation Security and personnel and training.
- b) The group also suggested that the prioritized key items can be categorized in two major areas:
 - **Priority 1**

- Lightings and visual aids
 - Electrical power supply
 - Perimeter fence
 - Passenger/Bag screening
 - Aerodrome Rescue and Fire Fighting Service (ARFFS)
 - Apron capacity
 - Pavement strength
 - Runway/Taxiway (RWY/TWY) dimensions
 - Aerodrome Certification
- **Priority 2**
 - Cargo screening
 - Machine Readable Travel Documents (MRTDs)
 - Cargo terminal design capacity
 - Passenger terminal design capacity

9.2.2 The Air Navigation Services Working Group

The Air navigation services Working Group recommended that:

- a) the survey questionnaire should evolve to include ANS human resources and training and to address emerging critical issues such as cyber resilience of CNS/ATM systems/infrastructure, increasing operations of UAS/RPAS, space travel, high flying balloons, supersonic flights, urban taxis etc.
- b) the links between the ANS gaps and the already existing APIRG regional infrastructure projects be clearly identified in order to address those critical gaps in the air navigation area; and
- c) a system of regular monitoring of ANS gaps by States with a six-month reporting cycle to ICAO be introduced.

9.2.3 The Airline Working Group

- a) The Airline Working Group suggested that the information gathered through the survey questionnaire be improved to add some critical elements such as maximum connecting time, cargo data, and Average fleet utilization etc.
- b) The group recommended that the following set of actions be considered to improve the Gap analysis and next Steps:
 - To include the strengthening and expansion of existing MRO in the gap analysis;
 - To consider human development, training and retention of aviation professionals;
 - Funding of Airlines by African financial institutions; and
 - Evaluation of national Aviation Policies and Regulations

9.2.4 General Recommendations and Next Steps

The following general recommendations which cut across and are not specific to the 3 areas of the survey were formulated by the Workshop plenary:

- a) ICAO to improve and re-circulate the questionnaire to States for completion of data collection;
- b) That States coordinate appropriately with their aviation industry to ensure proper collection of data;
- c) That ICAO puts in place an effective advocacy and top-down approach through CEOs/DGs of CAAs, for accurate and robust data gathering from States;
- d) That the results of the finalized GAP analysis be presented to the AFI Plan Steering Committee, the ICAO Council, AU, AFCAC, RECs, Development Partners, etc. for consideration;
- e) Preparation of a longer term aviation infrastructure gap analysis exercise based on 25-year projections of traffic growth, operational and capacity / regulatory requirements, and demand for aviation professionals;
- f) Determine the funding required to bridge the long term infrastructure gaps and identify appropriate financing mechanisms at State and / or regional level;
- g) States and RECs utilize available guidance material from ICAO and the results of the gap analysis to prepare national and regional Aviation Master Plans; and

- h) Regional programme with specific plans, projects and effective implementation monitoring mechanism be developed to ensure that the identified gaps are properly addressed.

10 Closing Remarks

10.1 The AFI Plan Steering Committee Chairperson, Mr. Halidou Moussa expressed his appreciation to the representatives from States, Industry and development partners for their active participation and engagement during the course of the workshop. He also expressed appreciation for the excellent organization and support provided by the host, the Ministry of State for Aviation of the Federal Republic of Nigeria.

10.2 The Chairperson recalled that the implementation of the AFI Plan work programme over the years has had a positive impact on aviation safety in Africa. He attributed these achievements to the continuous and strong support of the ICAO President who consistently promoted and guided the various initiatives that are instrumental in enhancing the level of aviation standards in Africa.

10.3 In closing the meeting, the ICAO Council President, Dr. Olumuyiwa Benard Aliu expressed his appreciation to the host State, the Federal Republic of Nigeria, for the usual excellent organization and continuous support of ICAO. He also thanked the staff of the ICAO Secretariat from Headquarters and the Regional Offices led by three Regional Directors from Dakar, Nairobi and Cairo.

10.4 He also expressed his gratitude and satisfaction for the active participation and representation of the States, Regional Organizations, and Industry and Development Partners in the workshop. Finally, Dr. Aliu stressed the need to work fast and finalize the report of the workshop, and complete the Gap Analysis report, taking in to account all the feedback from the workshop, for presentation at the 22nd meeting of the AFI Plan Steering Committee scheduled for 15 May 2019 in Kampala, Uganda.

10.5 Finally, on behalf of the Permanent Secretary, Federal Ministry of Transportation, Nigeria, the Director-General of Nigerian Civil Aviation Authority (NCAA), Capt. Muhtar

Usman, thanked all of those who contributed to the success of the workshop before officially declaring it closed.

- END -

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