INTERNATIONAL CIVIL AVIATION ORGANIZATION

TENTH MEETING OF THE DIRECTORS GENERAL OF CIVIL AVIATION OF THE AFRICA-INDIAN OCEAN REGION
(AFI-DGCA/10)

Libreville, Gabon, 15-16 July 2024

Agenda Item 04: Regional Aviation Performance

(Presented by the Secretariat)

SUMMARY
This working paper presents the Aviation Performance of the AFI Region for the period from 2019 to 2023. Action by the meeting is in paragraph 3.

REFERENCE(S)	GASP, GANP and GASeP; Regional Air Navigation Plan and Regional Aviation Safety Plan; APIRG and RASG-AFI Meetings Reports;
Strategic Objective(s)	A- Safety B- Air Navigation Capacity and Efficiency C- Security and Facilitation D- Economic Development of Air Transport E- Environment Protection

1. INTRODUCTION

1.1. The continued implementation of the ICAO Regional Offices work programmes as part of the ICAO Business plan, combined with efforts made by States and Partners in all the ICAO Strategic Objectives has contributed to the improvement of the States performance in all aviation related matters over the past years.

1.2. The following are key achievements toward the enhancement of the aviation performance of the AFI region during the last five years.
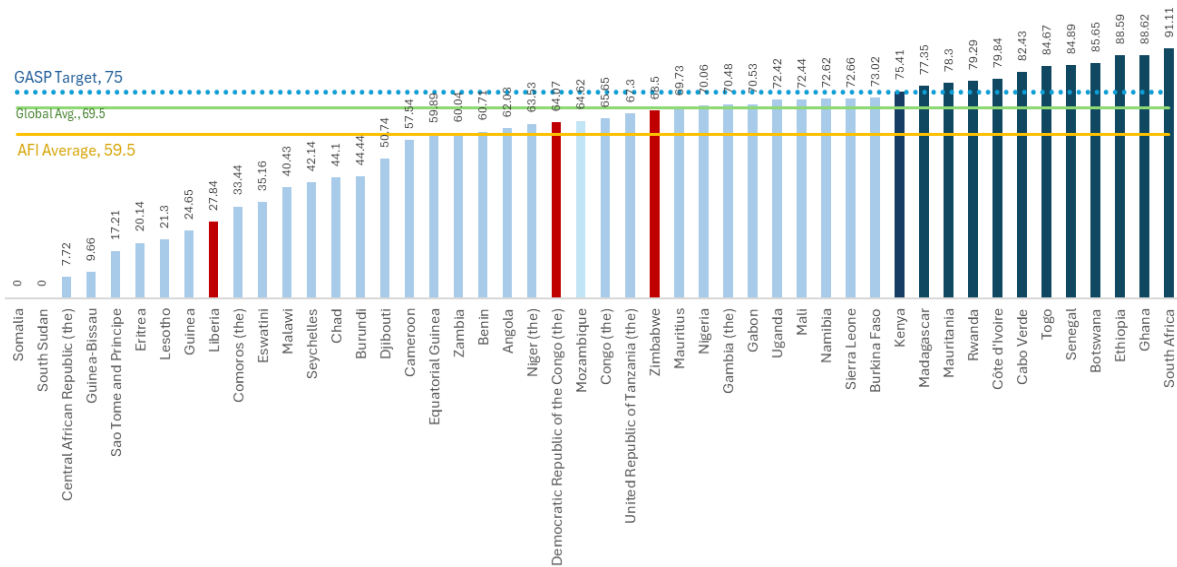
2. DISCUSSION

2.1. AVIATION SAFETY

2.1.1. States Safety Oversight System

2.1.1.1. The average of Effective Implementation of Safety oversight system in the AFI Region has increased from 54.91 per cent in 2019 to 59.5 per cent in 2023 which represents a positive progress of 4.6 per

cent, but it is still below the world average EI of 69.5 per cent. The graph below provides the progress of the EI in the region for the past five years

Level of Effective Implementation
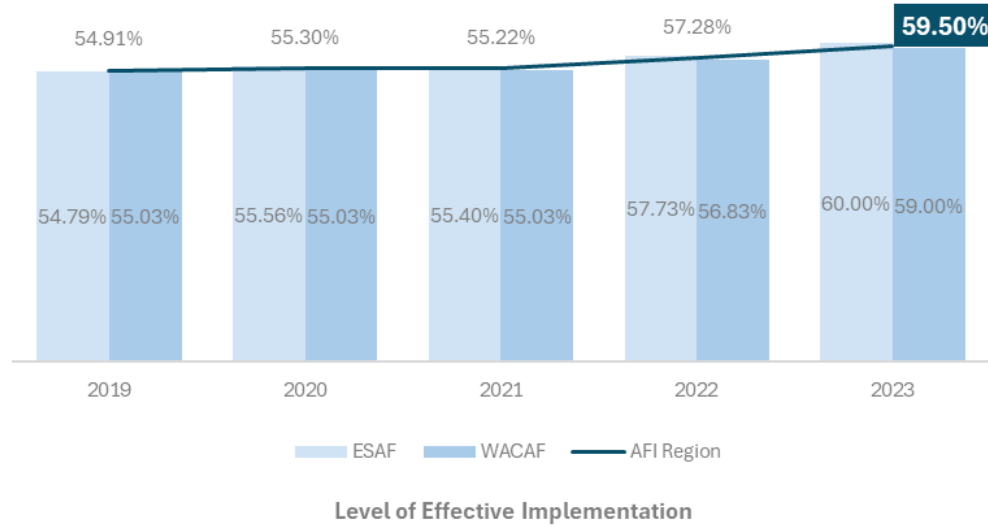
2.1.1.2. The table and the graph below present the distribution of Effective Implementation percentages (EI%) for the region based on the Global Aviation Safety Plan (GASP) targets. An average of 75 per cent (36) of AFI states have not reached the 75 per cent EI threshold, highlighting the need for ongoing, targeted efforts to enhance the level of safety oversight implementation. Additionally, only 12 States have met the target of 75 per cent and none have achieved 95 per cent EI. Therefore, it is crucial to continue supporting States in reaching higher levels of implementation to ensure overall regional safety improvements.


Source: USOPAP-CMA OLF

States %EI<75	75%	ESAF	Angola; Burundi; Comoros (the); Djibouti; Eritrea; Eswatini; Lesotho; Malawi; Mauritius; Mozambique; Namibia*; Seychelles; Somalia; South Sudan; Uganda; United Republic of Tanzania (the); Zambia and Zimbabwe.
		WACAF	Benin; Burkina Faso; Cameroon; Central African Republic (the); Chad; Congo (the); Democratic Republic of Congo (the); Equatorial Guinea; Gabon; Gambia (the); Guinea; Guinea-Bissau; Liberia; Mali; Niger (the); Nigeria; São Tomé and Príncipe, and Sierra Leone.
States 75>=%EI<85	17%	ESAF	Kenya; Madagascar and Rwanda
		WACAF	Cabo Verde; Côte d'Ivoire; Mauritania; Senegal* and Togo.
States %EI >=85	8%	ESAF	Botswana*; Ethiopia; South Africa
		WACAF	Ghana

*Information includes 2024 USOAP-CMA Activities results*

2.1.2. Significant Safety Concerns

2.1.2.1. At the end of 2023, three States (Democratic Republic of Congo (2), Liberia (2) and Zimbabwe (1)) had SSCs in Air Navigation Services (ANS) area. These SSCs are related to non-calibration of Navigational Aids and non-validation of Instrument Flight Procedures. The Regional Offices are assisting these States in their efforts to resolve the outstanding SSCs. The graph below illustrates the SSC trend in the RASG–AFI Region over five years from 2019 to 2023.

# of States with SSCs
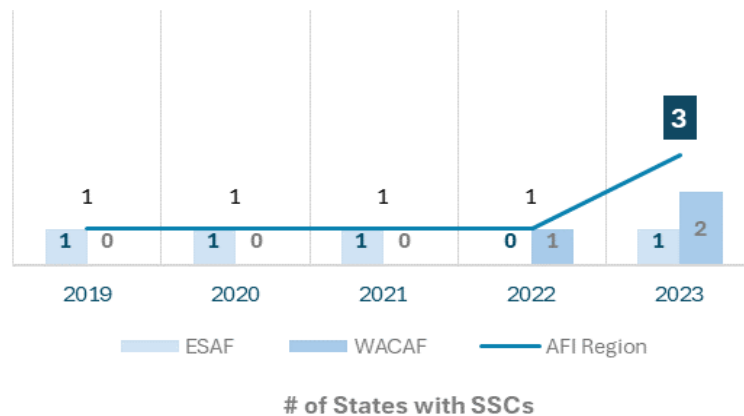
2.1.3. State Safety Program

2.1.3.1. Regarding the State Safety Program, both GASP and AFI RASP Goal 3, target 3.1 require all States to implement the foundation of an SSP by 2023 and 2024, respectively. By the end of 2023, the overall implementation of SSP foundation Protocol Questions (FPQs) in the RASG-AFI Region was 68.4 per cent. Notably, twelve States have achieved over 85 per cent completion of the SSP Foundation PQs, indicating considerable progress. However, no State in the Region has fully completed all SSP foundation PQs. This highlights the challenges and the varying paces of implementation across different States within the region.

RASG-AFI SSP Foundation PQs
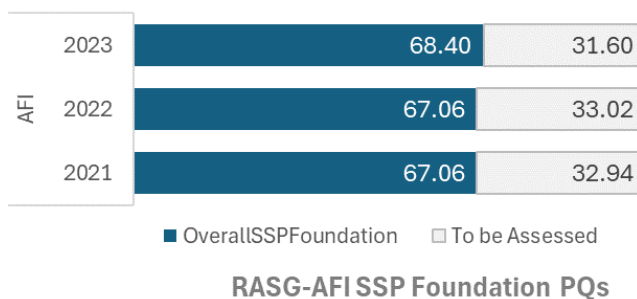
Source: iSTARs

2.1.3.2. Additionally, GASP target 3.2 calls for States to publish a National Aviation Safety Plan (NASP) by the end of this year. Despite this requirement, only 11 States in the region have published their NASP in the NASP community, leaving 79 per cent of the States yet to publish their plans. This underscores the need for increased efforts to meet this critical target. The table below shows the States that have published their NASP:

- **ESAF (6 States):** Botswana, Ethiopia; Namibia; Kenya, Rwanda and Uganda
- **WACAF (6 States):** Benin; Cabo Verde; Côte d'Ivoire; Ghana; Sierra Leone and Togo

2.1.3.3. In 2023, the information from iSTARS and Regional Offices showed an increase of 6 per cent in States reporting SSP progress in iSTARs. As per the iSTARS data reported by states, 81 per cent (39) of the States have achieved Level 1, 65 per cent (31) of the States have achieved Level 2, 42 per cent (20) of the States have achieved Level 3, and 2 per cent (1) of the States have achieved Level 4 of SSP implementation. While there has been slight progress, SSP implementation remains a challenge in the region.

SSP Implementation - Cummulative %
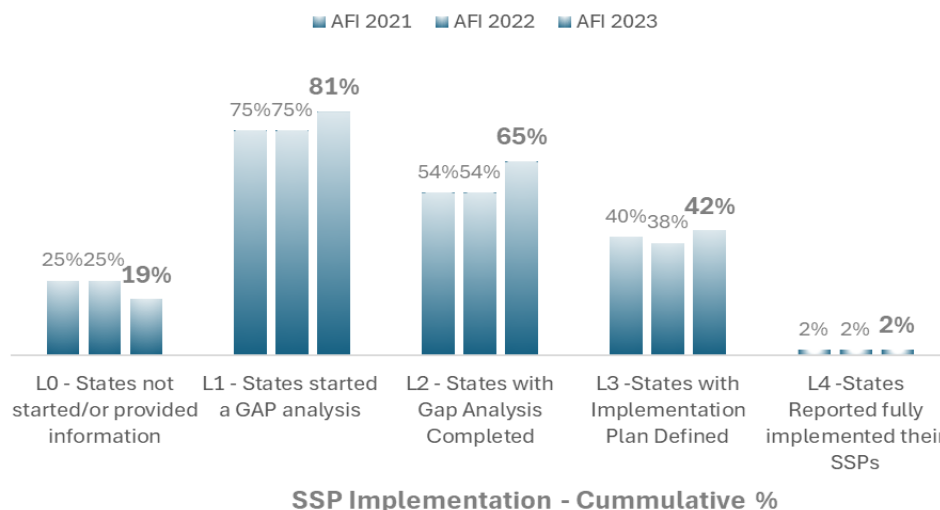
Source: iSTARs GAP Analysis and RO info – As reported by States

2.1.3.4. ICAO and States have carried out various activities to support the implementation of effective SSPs. However, despite these initiatives, progress towards Goal 3 is slow in the region. Addressing these challenges is crucial for meeting the GASP and AFI-RASP goals and SSP related targets. The table below provides the States' levels of SSP Implementation.

|			
L0 - States not started/or provided information;	**ESAF**	**3**	Eritrea ; Lesotho; South Sudan
	WACAF	**6**	Central African Republic ; Chad ; Guinea ; Guinea-Bissau ; Liberia ; São Tomé and Príncipe
L1 - States started a GAP analysis	**ESAF**	**3**	Angola ; Comoros ; Seychelles
	WACAF	**5**	Democratic Republic of the Congo; Equatorial Guinea; Niger; Senegal; Sierra Leone
L2 - States with Gap Analysis Completed	**ESAF**	**6**	Botswana ; Djibouti ; Ethiopia; Madagascar ; Zimbabwe; Somalia
	WACAF	**5**	Burkina Faso; Cameroon; Ghana; Mauritania; Nigeria
L3 -States with Implementation Plan Defined	**ESAF**	**11**	Burundi ; Eswatini ; Kenya ; Malawi ; Mauritius ; Mozambique ; Namibia ; South Africa ; Uganda ; United Republic of Tanzania ; Zambia
	WACAF	**8**	Benin; Cabo Verde; Congo; Cote d'Ivoire; Gabon; Gambia; Mali; Togo
L4 -States Reported fully implemented their SSPs;	**ESAF**	**1**	Rwanda
	WACAF	**0**	

2.1.4.   Aerodromes

Aerodrome certification

2.1.4.1.   Aerodrome certification is a requirement for airports used for international operations. In 2023, 48 international airports (39,6 per cent) were issued with aerodrome certificates by their respective States (an increase of 2.6 per cent from 2022).

Aerodrome Certification

2.1.4.2.   Support provided by ICAO to States in aerodrome certification enables collaboration and cooperation between States and sharing of lessons learned. Experts from States that have already certified airports assist counterparts under a peer review and support Programme in other countries until the aerodrome certification requirement is achieved. At the end of 2023, 30 States (60,4 per cent) of the AFI region had developed capacity for aerodrome certification (an increase of 6.3 per cent from 2022).

**States with at least one international Aerodrome Certified**
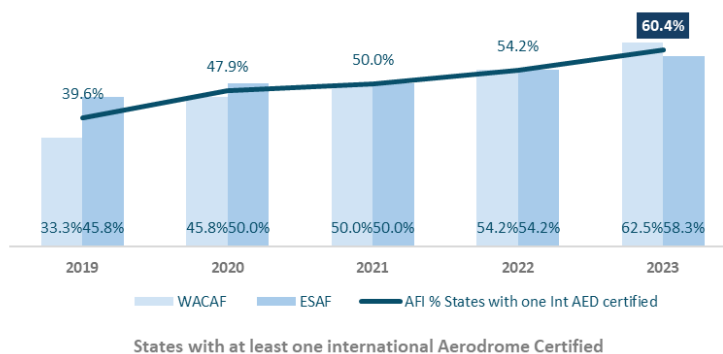
2.1.4.3.   The region's aerodrome certification rate is still low due to infrastructural challenges, the States capacity to certify aerodromes and budget constraints. In addition, some airports are declared international while not used for international operations.

States not started/or no Aerodrome Certified	ESAF	9	Burundi; Comoros; Djibouti; Eritrea; Lesotho; Malawi; Seychelles; Somalia; South Sudan
	WACAF	9	Central African Republic; Chad; Democratic Republic of Congo; Equitorial Guinea; Gambia; Guinea; Guinea-Bissau; Liberia; São Tomé and Príncipe;
States started but not all the Intl aerodromes certified	ESAF	10	Angola; Botswana; Ethiopia; Kenya; Madagascar; Mozambique; Namibia; Tanzania; Zambia; Zimbabwe
	WACAF	8	Burkina Faso; Cameroon; Congo; Gabon; Mali; Mauritania; Niger; Nigeria;
States with all Intl. Aerodrome certified	ESAF	5	Eswatini; Mauritius; Rwanda; South Africa; Uganda
	WACAF	7	Benin; Cabo Verde; Cote d'Ivoire; Ghana; Senegal; Sierra Leone; Togo.

Runway safety

2.1.4.4.   Runway safety embraces all matters concerned with the identification and prevention of hazards that might impede the safe take-off, taxiing and landing at an aerodrome. The establishment of Runway safety teams has been identified as an effective means to reduce runway related accidents and incidents.

2.1.4.5.   At the end of 2023, 37 international airports (32 per cent) in the AFI region have established effective RSTs. The rate of establishment of these RSTs is still slow and the operational safety performance needs to be improved.

% Aerodromes with Effective Runway Safety Teams
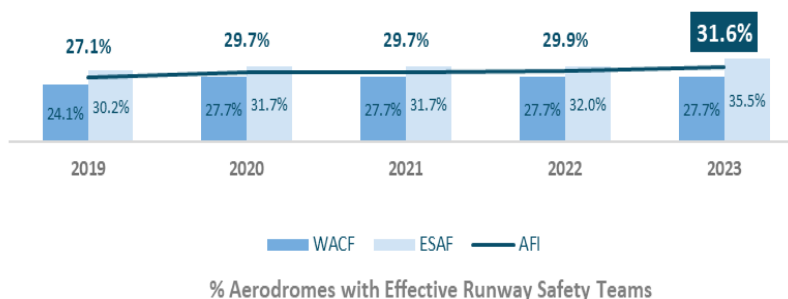
2.1.4.6.   A regional meeting was organized in November 2023 and agreed on key performance indicators for

monitoring the performance of RSTs in the AFI region.

Implementation of the Global Reporting Format (GRF) for reporting runway surface conditions

2.1.4.7.   The GRF aims to harmonize the assessment and reporting of runway surface conditions. Its applicability is effective since November 2021. At the end of 2023, 38 States have reported full implementation of the GRF requirements.

APEX reviews

2.1.4.8.   The APEX in Safety Programme is based on ICAO standards and Airport Council International (ACI) best practices, conducted by ACI in coordination with ICAO Regional Offices. The Programme assists airports in identifying safety gaps and vulnerabilities and setting roadmaps for aerodrome certification or safety enhancements.

2.1.4.9.   The first APEX review in the world was conducted in 2011 in Lome, Togo. At the end of 2023, 58 airports of the AFI region have been assessed through APEX reviews and been provided with a set of recommendations for aerodrome certification and operational safety improvement. The ICAO Regional Offices are supporting States in the implementation of plans of action to resolve identified deficiencies.
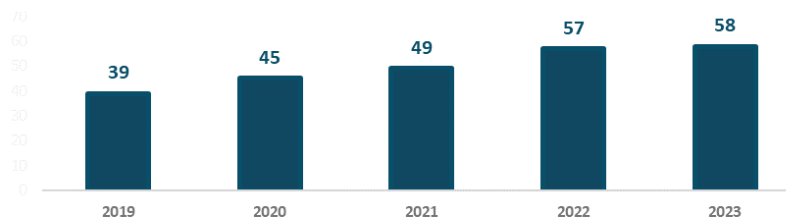
AFI Aerodromes received APEX review

2.1.5. AFI RVSM Airspace Safety

2.1.5.1.   The Implementation of Strategic Lateral Off-Set Procedure (SLOP) improved by 4.1 per cent. A significant reduction of Large Height Deviation (LHD) was recorded in 2022-2023; The number of reported LHD dropped by 50 per cent in the inter-face region between ESAF and MID (the Red Sea/Horn of Africa)
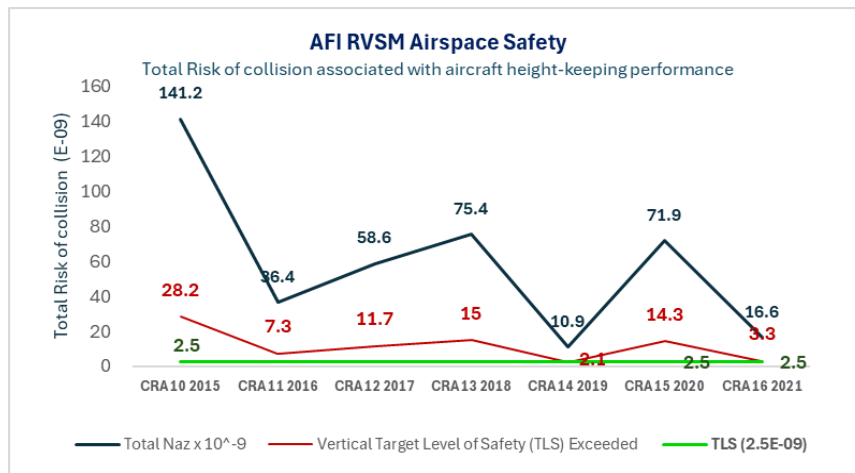
2.1.5.2.   It was however noted that in 2022 and 2023, there was an increase of coordination failure incidents reported in the south of the continent. The flight information regions (FIRs) in the south recorded a high of 30 coordination failures, 21 communication failure events and 7 LHDs events. Most of the reports were related to the communication system failure in the Johannesburg Oceanic airspace in a major part of 2022. However, coordination failures reported in the other FIRs were attributed to staffing issues and training.

2.1.6.   PBN implementation

2.1.6.1.   The number of States with national PBN Implementation Plan witness a marginal increase of 1.3 per cent as to reach 81.3 per cent in 2023. The number of airports with PBN SID/STAR grew respectively from 37.2 per cent to 38.8 per cent (PBN SID) and 50.7 per cent to 51.4 per cent.

2.1.6.2.   As far as PBN approach procedures is concerned the number of airports with PBN with APV (Baro VNAV) has increased by 4 per cent to reach 57.6 per cent while those with RNP APCH increased to 77.6 per cent.

2.1.6.3.   CCO/CDO remains the least implemented PBN application in the region with an implementation rate of around 12.2 per cent. This very low figure indicates that there is a need for States to improve flight trajectories in the terminal area of their major airports in order to increase the capacity of airspace, improve the efficiency of flight and better contribute to the reduction of aviation's impact on the environment.
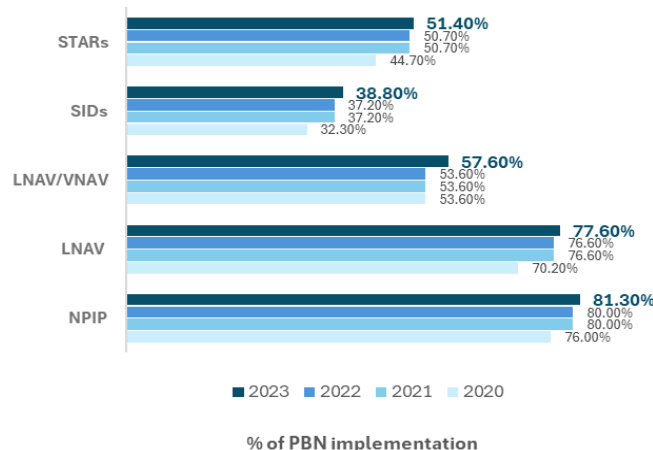
2.1.6.4. The region continues to see more involvement by the States in supporting the user preferred route (UPR) trials. In 2024, the States, with the support of AFRAA and ICAO, carried out trails on two sets of city pairs using two major regional airlines. The UPR trials for Addis Ababa- Abidjan- Addis Ababa and Nairobi – Abidjan- Nairobi were successfully carried out for 7 continuous days with trails between Addis Ababa- Cape Town- Addis Ababa and Nairobi – Cape Town – Nairobi scheduled for three conservative days in the first week of July 2024. The UPRs are expected to provide major gains for the airlines, promote saving in CO_2, and improve efficiency and capacity within the AFI region.

2023	ESAF	WACAF	AFI	Remaining States/comments
NPIP	70.8	91.7	81.3	Burundi, CAR, Djibouti, Eritrea, Guinea Bissau, Lesotho, South Sudan, Eswatini, Zambia
RNP APCH	74.6	81.6	77.6	Madagascar, Burundi, Comoros*, Eritrea, Eswatini, Botswana, Namibia, Somalia, Zambia, Zimbabwe, Cameroon, Cape Verde, CAR, DRC, Guinea, Mali, Mauritania, Sao Tome, Senegal
APV	53.5	63.1	57.6	Some have remote altimeters and Baro VNAV cannot be designed.
STARs	47.9	56.3	51.4	STARs sometimes cannot be designed due to small airspaces.
SIDs	45.8	29.1	38.8	SIDs cannot sometimes be designed due to small airspaces.
CCO/CDO	11.3	13.6	12.2	N/A

2.1.7. Aviation accident rate

2.1.7.1. The RASG-AFI accident rate (involving scheduled commercial flights on aeroplanes with maximum certificated take-off mass over 5,700 Kg) for 2023 was 6.71 per million departures compared to 6.17 for 2022) compared to the world rate of 2.21. No fatal accidents on scheduled commercial flights with aircraft over 5,700 Kg were recorded for the region in 2023.

2.1.7.2. CFIT and LOC-I related Accidents and serious Incidents remained at a rate of zero (0) accidents per million sectors from 2020 to 2023.
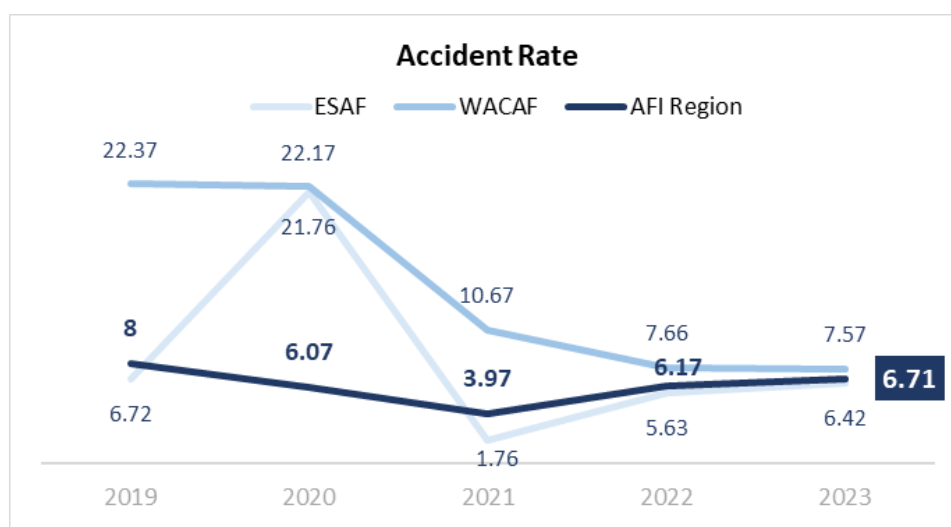
RASG-AFI Fatal Accident Rate

2.1.7.3.   The vision of the GASP is to achieve and maintain the aspirational safety goal of zero fatalities in commercial operations by 2030 and beyond, consistent with the United Nations' 2030 Agenda for Sustainable Development.

2.1.7.4.   The plan's mission is to continually enhance global aviation safety performance (and, consequently, regional aviation safety performance) and resilience by providing a collaborative framework for States and industry.

2.1.7.5.   RASG-AFI had Zero fatal accident on scheduled commercial flights with aircraft over 5,700 Kg in 2023 (compared to 3 fatal accidents in 2022).
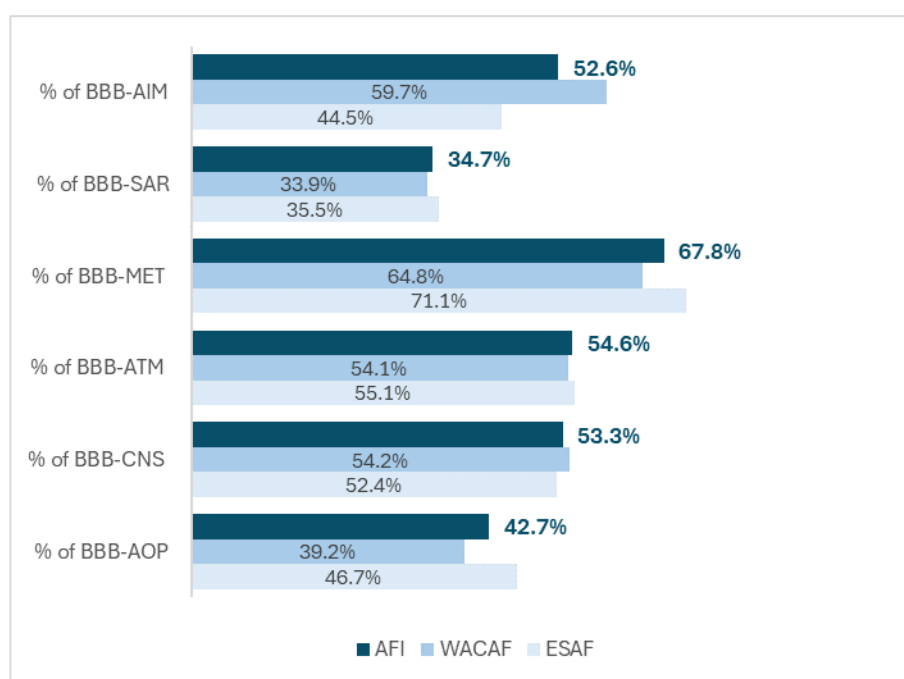
High Risk Categories of occurrences

2.1.7.6.   The Regional Aviation Safety Plan for Africa-Indian Ocean (AFI-RASP) which the Ninth Meeting of the RASG-AFI approved in November 2023, has identified the following nine occurrences, in no particular order of priority, as the RASG-AFI high-risk categories of occurrences (R-HRCs) under the context of the number of fatalities and risk of fatalities associated with such events.

2.1.7.7.   They were identified based on analyses from mandatory and voluntary reporting systems, accident and incident investigation reports, safety oversight activities conducted on States in the region over the past eleven years (from 2013 to 2023) and their respective State safety programs, as well on regional analyses undertaken by the RASG-AFI and APIRG and operational safety risks described in the GASP.

- Controlled Flight into Terrain (CFIT);
- Loss of Control In-Flight (LOC-I);
- Mid-Air Collision (MAC);
- Runway Excursion (RE);
- Runway Incursion (RI);
- System Component Failure/Malfunction – Non-Powerplant (SCF-NP);
- Bird Strikes and Wildlife Hazard;
- Dust Haze;
- Large Height Deviation (LHD).

2.2. AIR NAVIGATION CAPACITY AND EFFICIENCY

2.2.1.   Status of implementation of the Basic Building Blocks (BBBs)

2.2.1.1. The status of the Basic Building Blocks (BBBs) describing the foundations of the States' air navigation system is shown in the graphic below. It provides an idea of the baseline status of essential facilities and services implemented by States in the region in accordance with ICAO standards in the areas of aerodromes, air traffic management, search and rescue, meteorology and information management.

2.2.1.2. The BBB framework identifies the end users of these services as well as the communications, navigation, and surveillance (CNS) infrastructure that are necessary to provide them. The graph below shows somehow a struggle from AFI States in implementing the essential services and facilities.

% of BBB-AIM	52.6% / 59.7% / 44.5%
% of BBB-SAR	34.7% / 33.9% / 35.5%
% of BBB-MET	67.8% / 64.8% / 71.1%
% of BBB-ATM	54.6% / 54.1% / 55.1%
% of BBB-CNS	53.3% / 54.2% / 52.4%
% of BBB-AOP	42.7% / 39.2% / 46.7%

■ AFI   ■ WACAF   ▪ ESAF

Area	Region		States
AIM **(52.6%)**	**ESAF** **(44.5%)**	<75%	Somalia; South Sudan; Burundi; Eswatini; Eritrea; Lesotho; Djibouti; Angola; Comoros (the); Namibia; Zambia; Seychelles; Malawi; Mozambique; Botswana; Uganda; Rwanda; Mauritius; United Republic of Tanzania (the);
		>=75%	Kenya; Ethiopia; South Africa; Zimbabwe; Madagascar;
	WACAF **(59.7%)**	<75%	Guinea; Liberia; Guinea-Bissau; Democratic Republic of the Congo (the); Chad; Sao Tome and Principe; Nigeria; Central African Republic (the); Gambia (the); Cabo Verde; Ghana; Mauritania; Equatorial Guinea;
		>75%	Sierra Leone; Mali; Niger (the); Congo (the); Burkina Faso; Cameroon; Togo; Benin; Côte d'Ivoire; Gabon; Senegal;
AOP **(42.7%)**	**WACAF** **(39.2%)**	<75%	Liberia; Guinea; Sao Tome and Principe; Guinea-Bissau; Congo (the); Central African Republic (the); Democratic Republic of the Congo (the); Senegal; Cameroon; Chad; Mali; Gabon; Equatorial Guinea; Nigeria; Benin; Niger (the); Mauritania; Burkina Faso; Gambia (the);
		>=75%	Côte d'Ivoire; Ghana; Togo; Sierra Leone; Cabo Verde;
	ESAF **(46.7%)**	<75%	Somalia; South Sudan; Burundi; Lesotho; Comoros (the); Seychelles; Eswatini; Mozambique; Djibouti; Malawi; Eritrea; Botswana; United Republic of Tanzania (the); Madagascar; Angola; Zambia; Zimbabwe;
		>=75%	Namibia; Rwanda; Uganda; Ethiopia; Kenya; South Africa; Mauritius;
ATM **(54.6%)**	**WACAF** **(54.1%)**	<75%	Liberia; Central African Republic (the); Guinea-Bissau; Guinea; Sao Tome and Principe; Democratic Republic of the Congo (the); Nigeria; Chad; Senegal; Congo (the);; Equatorial Guinea; Cameroon; Benin; Cabo Verde; Sierra Leone;
		>=75%	Côte d'Ivoire; Mali; Gambia the; Burkina Faso; Ghana; Niger (the);; Mauritania; Togo; Gabon;
	ESAF **(55.1%)**	<75%	Somalia; South Sudan; Burundi; Eswatini; Eritrea; Seychelles; Namibia; Angola; Lesotho; Comoros (the); Zimbabwe; Djibouti; Zambia; Uganda; Malawi; Mozambique; Mauritius; United Republic of Tanzania (the);
		>=75%	Rwanda; Botswana; Kenya; Ethiopia; South Africa; Madagascar;
CNS **(53.3%)**	**ESAF** **(52.4%)**	<75%	Somalia; South Sudan; Burundi; Eswatini; Lesotho; Eritrea; Angola; Namibia; Mozambique; Malawi; Mauritius; Zimbabwe; Ethiopia; Djibouti; Uganda; Comoros (the);; United Republic of Tanzania (the);
		>=75%	Rwanda; South Africa; Kenya; Seychelles; Madagascar; Zambia; Botswana;
	WACAF **(54.2%)**	<75%	Democratic Republic of the Congo the; Guinea; Cameroon; Guinea-Bissau; Sao Tome and Principe; Liberia; Central African Republic the; Nigeria; Equatorial Guinea; Chad; Sierra Leone; Burkina Faso; Niger (the); Senegal;
		>=75%	Gambia the; Benin; Congo the; Ghana; Mauritania; Côte d'Ivoire; Mali; Cabo Verde; Gabon; Togo;
MET **(67.8%)**	**WACAF** **(64.8%)**	<75%	Guinea-Bissau; Liberia; Sao Tome and Principe; Guinea; Central African Republic (the); Chad; Benin; Democratic Republic of the Congo (the); Cabo Verde; Sierra Nigeria;

		>=75%	Mauritania; Ghana; Burkina Faso; Equatorial Guinea; Gambia the; Cameroon; Mali; Niger (the); Congo the; Senegal; Côte d'Ivoire; Gabon; Togo; Leone;
	ESAF (71.1%)	<75%	Somalia; South Sudan; Burundi; Djibouti; Lesotho; Zimbabwe; Eritrea; Zambia; Ethiopia; Eswatini; Mauritius; Namibia; Angola;
		>=75%	Comoros (the); Uganda; Malawi; Rwanda; Seychelles; Kenya; United Republic of Tanzania (the); South Africa; Madagascar; Botswana; Mozambique;
SAR (34.7%)	**WACAF (33.9%)**	<75%	Equatorial Guinea; Central African Republic the; Guinea-Bissau; Guinea; Congo the; Chad; Democratic Republic of the Congo (the); Liberia; Benin; Niger (the); Cameroon; Sao Tome and Principe; Senegal; Sierra Leone; Gambia (the); Nigeria; Gabon; Burkina Faso; Côte d'Ivoire; Mali; Togo; Cabo Verde;
		>=75%	Ghana; Mauritania;
	ESAF (35.5%)	<75%	Somalia; South Sudan; Burundi; Eritrea; Zambia; Comoros the; Djibouti; Mozambique; Angola; Eswatini; Malawi; Zimbabwe; Seychelles; United Republic of Tanzania (the); Namibia; Lesotho; Botswana; Uganda; Madagascar; Rwanda; Mauritius; Kenya;
		>=75%	Ethiopia; South Africa;

Source: OLF USOAP-CMA data

2.2.1.3. The main challenges that might hamper the effective implementation of BBBs in the region are among others the lack of funding, inappropriate prioritization of projects at national level, low level of training high turnover in State's technical expertise, low regional collaboration in the planning and conduct of ANS related projects.

2.2.1.4. There is a need for States to enhance their strategies in the planning and implementation of air navigation services and infrastructure by engaging in a collaborative project management approach through the sharing of information and experience at sub-regional or regional level to ensure harmonization of services provided and interoperability of systems, including the aviation infrastructure and services improvement in the State's infrastructure development programme, enhancing the skills of project management staff through effective and regular training, and reducing the turnover at key positions in the States organization and function.

2.2.1.5. States are therefore encouraging to effectively participate to the APIRG and its contributory bodies meetings and activities, as well as ICAO Regional Offices capacity building activities such as workshops, seminars.

2.2.2. ASBU Implementation

2.2.2.1. The overall status of implementation in the region in 2023 is provided in the graphic below. The average implementation rate is around 17 per cent for ESAF and 23 per cent for WACAF. In general, le level of implementation of the ASBU elements in all areas is below the satisfactory level. As highlighted by APIRG/26 Meeting, the low level of implementation of ASBU elements in the region is mainly due to the lack of reporting on the implementation from States.

2.2.2.2. To assist States in monitoring of the implementation of ASBU elements in the region, and in response to the APIRG/25 Conclusion 25/11 related to the collection of data and reporting on ASBU implementation, an online ASBU data collection tool is under development by the Secretariat as an add on to the current platform of the Air navigation deficiencies database (AANDD). The APIRG/26 meeting, through its Conclusion 26/12 urged States to provide the Secretariat with baseline data on the planning and implementation of ASBU elements, through their feedback on the draft Volume III of the eANP by 31 January 2024, for the finalization and operationalization of the online ASBU data collecting and monitoring tool.
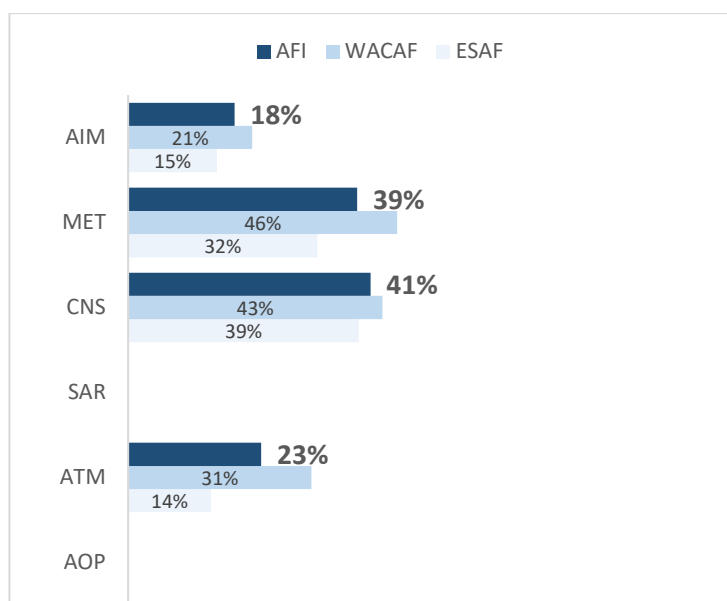
Source: AFI ANP Volume III

2.2.3. **Aerodrome operations (AOP)**

2.2.3.1. The implementation of ACDM is in its inception stage in several States. A Project Team has been set up under APIRG to develop and implement comprehensive assistance activities to improve ACDM implementation in the region.

2.2.4. **Air Traffic Management (ATM)**

Airspace organization and management projects

2.2.4.1. 71 per cent of AFI States implemented the Direct Route Operation which represents the first phase of free route airspace. This improvement contributes to the increase of airspace capacity and the improvement of efficiency in the AFI airspace.

2.2.4.2. Improving civil/military cooperation in ATM in the region has gained some momentum with the relaunching of the Civil/Military project management team tasked with promoting implementation of the civil/military cooperation with the aim of improved implementation of flexible use of airspace (FUA) in the region. It is expected that FUA will enhance efficiency and capacity for direct trajectories for use in UPRs. However, there is a need for national legislation to be developed to allow for a comprehensive inclusion of this type of cooperation between the Ministry in charge of aviation and the Ministry of Defense.

ATM system capacity

2.2.4.3. 67% of AFI States have implemented ATM systems with advanced capabilities including ATC conflict detection and advisory tools, safety nets, route adherence and conformance monitoring, and minimum

safe altitude application. This advanced system has contributed to enhancement of safety while improving ATC service provision.

### 2.2.5. Aeronautical Information Management (AIM)

Implementation of ASBU elements in AIM

2.2.5.1. In the area of AIM, the AFI region is currently focused on the ASBU module DAIM-B1, including the elements B1/1 to B1/7.

Transition from AIS to AIM

2.2.5.2. The transition from AIS to AIM introduces significant changes in the way aeronautical data and aeronautical information are processed and managed. This transition introduces not only automation into the old paper-based environment, but also the required business transformation to make the change to a data-centric environment. The goal is to create and distribute quality assured aeronautical data and aeronautical information in digital form to satisfy the needs of users.

2.2.5.3. AFI States are making efforts towards this transition. in this regard, the level of implementation of the Quality management system applied to AIM is currently 56%. The digitization is also ongoing, with a performance of 42% implementation of AIXM database in the Region.
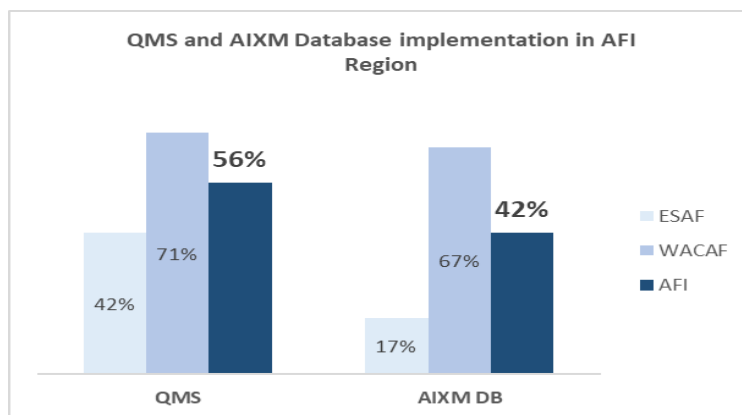
AIM Result-based implementation support (RBIS) project

2.2.5.4. Result Based Implementation Support (AIM RBIS) project was established in the framework of the AFI Plan to assist States in implementing Quality Management System (QMS), Aeronautical Information Exchange Model (AIXM) and digital Terrain and Obstacle Data (TOD). This project covers the ASBU elements DAIM-B1/1, DAIM-B1/2, DAIM-B1/3 and DAIM-B1/4. So far, the following States received assistance from the RBIS project:

- Guinea, Liberia, Sierra Leone and the Democratic Republic of the Congo for the implementation of QMS;
- Guinea, Liberia, Sierra Leone and the Democratic Republic of the Congo for the implementation of AIXM and eAIP;
- Guinea, Liberia, Sierra Leone, the Democratic Republic of the Congo and Mauritania for the implementation of TOD.

2.2.6. Communications, Navigation, And Surveillance (CNS)

The implementation of CNS related modules is ongoing. As examples:

Communication

2.2.6.1. The implementation of COMI-BO/7 through Air Traffic Message Handling Systems (AMHS) and FICE B0/1 (ATS Inter Facility Data Communication AIDC) is ongoing, although the pace has been slowed down in the COVID-19 environment. A lot of Air Traffic Service Units with AMHS capability continue to use AFTN gateways for interconnection with neighboring centers.

2.2.6.2. Increasing pace of implementation of COMS-BO/1 (Controller Pilot Data Link Communication -CPDLC – FANS 1/A) and COMS-B0/2 Automatic Dependent Surveillance – Contract (ADSC/FANS 1/A) N.

Navigation

2.2.6.3. Initiatives have been increased by ANSP through regional project to escalate the implementation of NAVS B0/2 (Satellite-Based Augmentation-System-SBAS).

Surveillance

2.2.6.4. Priority is given to the implementation of ASUR B0/1 (Automatic Dependent Surveillance – Broadcast-ADSB) satellite-based ADS-B to complement the ground-based system.

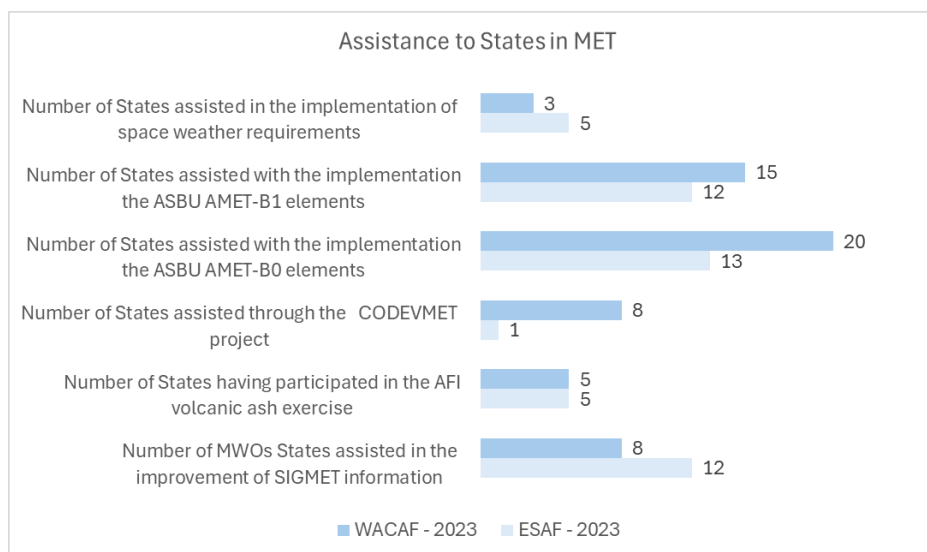### 2.2.7. Meteorological Services (MET)

Key achievements in MET

2.2.7.1. The Second volcanic ash exercise was successfully conducted under the leadership of the Democratic Republic of Congo and Kenya. Representatives from five (5) AFI Volcano Observatory States Cameroon, Cabo Verde, Democratic Republic of the Congo, France Réunion) and Kenya), four (4) MET Watch Offices, four (4) Notam Offices, four (4) CAAs, ASECNA and IATA participated in the exercise.

2.2.7.2. In June 2023, States were assisted in the implementation of space weather requirements through a regional workshop conducted by APIRG MET Project 3 in Hermanus, South Africa. The South African National Space Agency SANSA), contributed to this workshop.

2.2.7.3. States were sensitized on the implementation of competency requirements for aeronautical meteorological personnel through the APIRG MET Project 4 on established to assist States to comply with MET competency standards.

2.2.7.4. States were assisted in the improvement of the availability of OPMET data through a workshop conducted in November 2023. Ten (10) and nineteen (19) Meteorological Watch Offices of ESAF and WACAF were also assisted to improve the quality of SIGMET information provided to users. States are strongly encouraged to actively participate in these annual tests.

2.2.7.5. The MET key achievements aiming at assisting States to improve their capacity in the MET are summarized in the graphic below.

Implementation of the CODEVMET-AFI Project

2.2.7.6. The Project for the Cooperative Development of the Aeronautical Meteorological Services in the AFI Region CODEVMET-AFI) was designed to focus on: i) Assistance to States to enhance the capability of their regulatory authority in carrying out safety oversight of Aeronautical Meteorological (AeroMET) services; ii) Assistance to participating States in the development of Quality Management Systems QMS) in support of Safety Management Systems (SMS) for the provision of AeroMET services, in accordance with ICAO policies and requirements; and iii) support to participating States in implementing the ASBU AMET-B1 elements, including AMET-B1/1, AMET-B1/2 and AMET-B1/3.

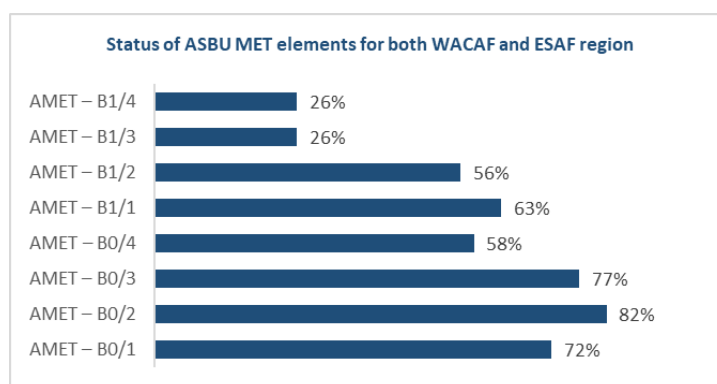2.2.7.7. So far, the following States received assistance from the Project:

- Eight (8) States Botswana, Cameron, Cabo Verde, Côte d'Ivoire, Gambia, Nigeria, and Togo) for the development and implementation of CAPs relating to ANS safety oversight activities in MET.
- Three States (Cameroon, Cabo Verde, Senegal, Togo) for the implementation of the QMS.
- One (1) ANSP ASECNA) for the development of MET related contingency measures and the implementation of space weather requirements.
- Two (2) States Gabon and Sierra Leone) are planned to receive the Project assistance by the end of the year.

2.2.7.8. Nine (9) States Botswana, Burkina Faso, Cameroon, Gabon, Kenya, Nigeria, Nigeria, Rwanda, South Africa, and Togo) and ASECNA have provided experts to support States under this Project.

2.2.7.9. Cameroon and Sierra Leone successfully hosted the Third and the Fourth meetings of the CODEVMET Project Steering Committee in 2022 and 2023, respectively.

Implementation of the ASBU MET elements

2.2.7.10. Two webinars English and French sessions) were successful conducted to assist States in the implementation the ASBU MET elements. thirty-three (33) States were assisted with the implementation of ASBU AMET-B0 elements through the APIRG IIM related MET Project 1 and twenty-seven States (27) assisted in the implementation of the AMET-B1 elements under APIRG MET Project 2. The overall status of implementation of ASBU MET elements in both ESAF and WACAF is as follows:

Status of ASBU MET elements for both WACAF and ESAF region

AMET – B1/4	26%
AMET – B1/3	26%
AMET – B1/2	56%
AMET – B1/1	63%
AMET – B0/4	58%
AMET – B0/3	77%
AMET – B0/2	82%
AMET – B0/1	72%

2.2.7.11. The lack of feedback on the implementation of ASBU AMET applicable elements, including inconsistencies in the data provided by States are matter of concerns.

2.2.8. Management of Air Navigation Deficiencies

2.2.8.1. With regard to the resolution of air navigation deficiencies, the APIRG/26 meeting recognized the work done to operationalize the tool and noted the persistent low pace of identification, notification, management and reporting on Air Navigation Deficiencies by Administrations/Organizations through this new AANDD management platform.

2.2.8.2. The meeting may also recall that the APIRG/24 meeting, through its Conclusion 24/22 called States to nominate Experts for the coordination of APIRG and its subsidiary bodies activities as States National Coordinators for Planning and Implementation (NCPIs) and Technical Focal Points (FPs). The APIRG/25 meeting noted that several States have not yet nominated the experts as NCPIs and FPs in Air navigation related areas.

2.2.8.3. In the view of the above, the meeting requested States/Organizations that have not yet done so, to nominate their Focal points and Subject Matters Experts for the AANDD as per APIRG/25 Conclusion 25/30.

2.2.8.4. So far, twenty-eight States (Angola, Benin, Botswana, Burkina Faso, Cabo Verde, Cameroon, Eritrea, Eswatini, Ethiopia, Gabon, Ghana, Kenya, Islamic Republic of Mauritania, Madagascar, Mauritius, Mozambique, Nigeria, Republic of Guinea, Senegal, Seychelles, Sierra Leone, Somalia, South Africa, Tanzania, Togo, Uganda, Zambia, Zimbabwe) and ASECNA nominated their NCPIs and FPs.

2.2.8.5.   States/Organizations were also requested to organize on site sensitization seminars on the use of the AANDD for their Focal Points and APIRG Subject Matters Experts.

2.2.8.6.   Users and States are encouraged to continuously report on deficiencies as they may occur, using the AANDD management Tool.
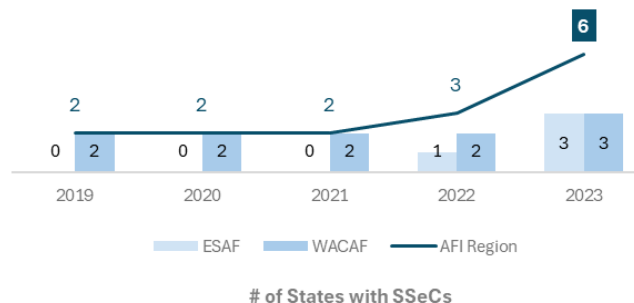
2.3. SECURITY AND FACILITATION

2.3.1.   The average Effective Implementation rate of the AFI States Security Oversight System increased from 60.5 per cent in 2019 to 65 per cent in 2023. At December 2023, 52 per cent (25 States) of AFI States have EI over 65 per cent and only 19 percent (9 States) met the GASeP aspirational targets of 80 per cent of EI.

AVSEC Average % EI
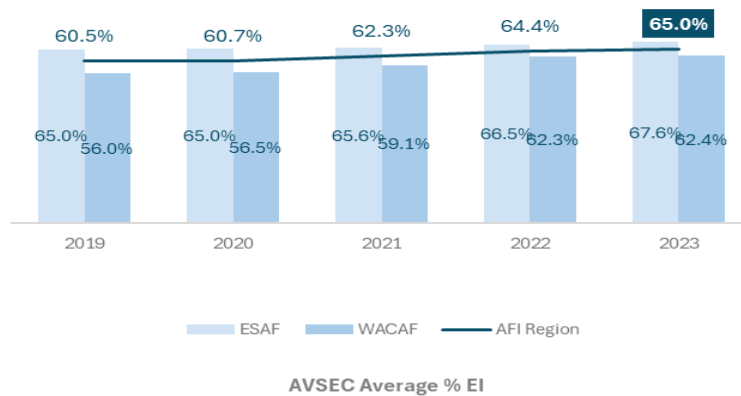
2.3.2.   Despite this milestones, AFI region continues to face numerous aviation security and facilitation challenges due to several reasons including underdeveloped aviation infrastructure, limited resources and less priority to aviation security, limited awareness, political will, less-developed State identity management systems, and legislative challenges in some States. This led to persistent low average rate of EI against the global average EI rate.

2.3.3.   The number of States in the AFI Region with Significant Security Concerns (SSeCs) increased from 2 States in the year 2019 to 6 States in the year 2023.

# of States with SSeCs

2.3.4. Sustainable aviation security and facilitation training capability and adequate human resources policies within the States are being promoted through Security Culture workshops, AFI ASTCs network mechanism, and State specific projects.

2.3.5. Equally, programmes have been put in place to support States efforts in the implementation of the provisions of Annex 9-Facilitation, including API/PNR, and membership to the ICAO PKD. A continental wide training on Annex 9 -FAL targeting 500 experts was conducted and two ICAO TRIP Strategy courses were conducted in March 2023, with 75 participants from 11 States. 67 per cent of AFI States established the National Air Transport Facilitation Programme (NATFP) while 50 per cent of States have operationalized their National Air Transport Facilitation Committee (NATFC).
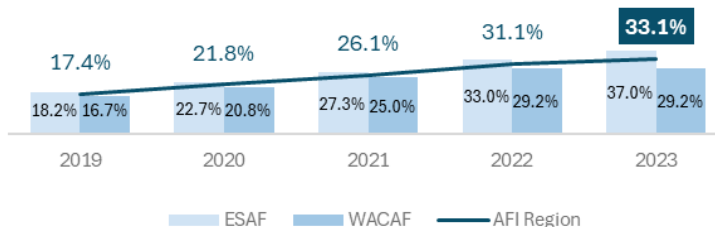
Operacionalization of NATFC

	63% 15	38% 9	50% 24
	ESAF	WACAF	AFI Region
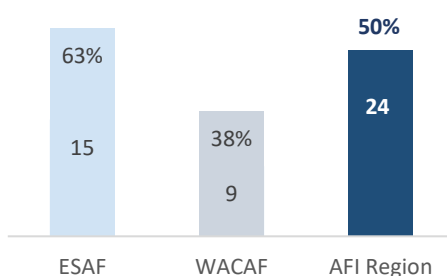
ESAF:15 States	Namibia, Botswana, Eswatini, South Africa, Kenya, Uganda, Tanzania, Rwanda, Ethiopia, Mauritius, Djibouti, Angola, Somalia, Zimbabwe, Zambia
WACAF:9 States	Cabo Verde, Cote D'Ivoire, Gambia, Ghana, Nigeria, Sao Tome, Senegal, Sierra Leone and Togo

2.3.6. The number of States implementing PKD increased from 4 in 2017 to 19 in 2023.

	2019	2020	2021	2022	2023
AFI Region	17.4%	21.8%	26.1%	31.1%	33.1%
ESAF	18.2%	22.7%	27.3%	33.0%	37.0%
WACAF	16.7%	20.8%	25.0%	29.2%	29.2%

**AVSEC % of States that joined the ICAO PKD**

| ESAF: 9 States	Botswana, Kenya, Lesotho, Namibia, Rwanda, Seychelles, Zimbabwe, Tanzania, Uganda
WACAF: 7 States	Benin, Cameroun, Cote d'Ivoire, Ghana, Mali, Nigeria and Togo

2.4. ECONOMIC DEVELOPMENT OF AIR TRANSPORT

2.4.1. Despite the recovery after the COVID-19 pandemic, air transport in Africa continues to face challenges such as proliferation of taxes and charges, and insufficient funding and financing for aviation infrastructure modernization and expansion.

2.4.2. The implementation of the Single African Air Transport Market (SAATM) is progressing at different rates in the Eastern and Southern African (ESAF) and the Western and Central African (WACAF) sub-regions. Two ESAF States joined SAATM since 2019 for a total of 12 out of 24 States, i.e. 50 per cent. In the WACAF region, 23 out of 24 States have joined SAATM, i.e., 96 per cent. Overall, 35 out 48 AFI States have currently joined SAATM.

% States Joined SAATM
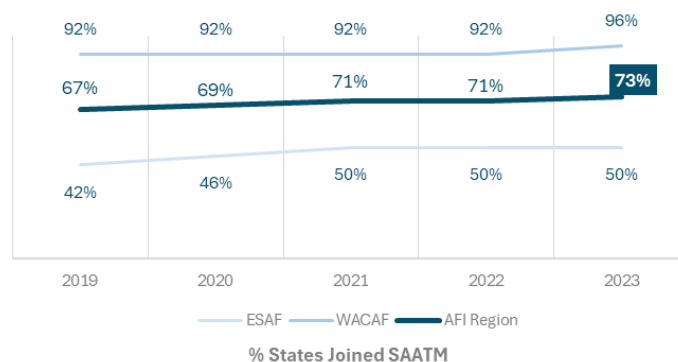
2.4.3. Between 2019 and 2021, the number of States providing required air transport data has been increasing to reach close to 90 per cent. In 2022 and 2023, however, the figures show a sharp decline in the number of reporting States, despite follow-up activities by ICAO and AFCAC. Possible reasons for this decline include:

    a) Some States did not nominate an official focal point for the collection of statistical data;

    b) insufficient awareness of the importance of ICAO's Statistics Programme and the Member States obligation to fulfil their related commitments; and

    c) inadequate knowledge regarding the completion of air transport reporting forms ATRs.

% of States providing required Air Transport Data
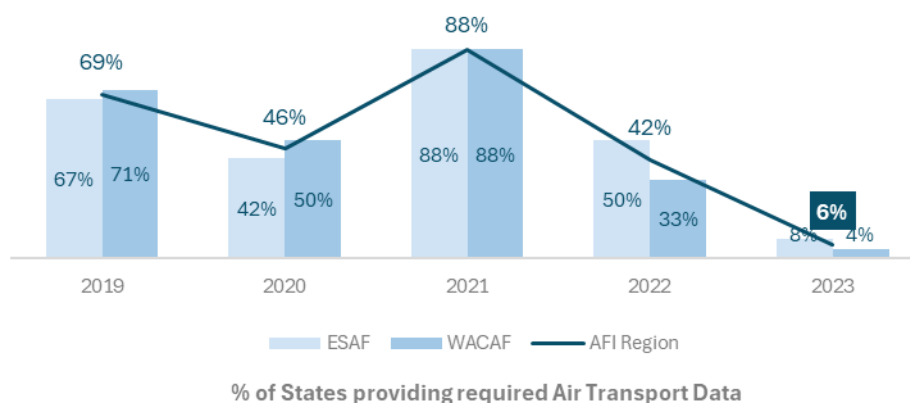
2.4.4. States are encouraged to provide statistical information and are reminded of the importance of ICAO's Statistics Programme. Incomplete or inaccurate data may lead to:

a) overestimation or underestimation of air traffic, which may result in a biased financial assessment paid to ICAO's Regular Programme and SADIS;
b) distortion of regional averages due to traffic estimation;
c) lack of transparency and difficulties to measure the development and evolution of air transport, identify opportunity areas and address challenges; and
d) skewed analysis of economic and operational effects of events, such as the COVID-19 pandemic, or other phenomena, such as natural disasters, increases of taxes and fees or the implementation of new public policies.

|	States providing required Air Transport Data	States NOT providing required Air Transport Data
ESAF	Angola; Botswana	Burundi; Comoros; Djibouti; Eritrea; Eswatini; Ethiopia; Kenya; Lesotho; Madagascar; Malawi; Mauritius; Mozambique; Namibia; Rwanda; Seychelles; Somalia; South Africa; South Sudan; Uganda; United Republic of Tanzania; Zambia; Zimbabwe
WACAF	Cameroon;	Benin; Burkina Faso; Cabo Verde; Central African Republic; Chad; Congo; Côte d'Ivoire; Democratic Republic of the Congo; Equatorial Guinea; Gabon; Gambia; Ghana; Guinea; Guinea-Bissau; Liberia; Mali; Mauritania; Niger; Nigeria; São Tomé and Príncipe; Senegal; Sierra Leone; Togo

2.5. ENVIRONMENTAL PROTECTION

2.5.1. The ICAO Regional Offices have developed a strong capacity building strategy with activities undertaken by ICAO and its partners to support the States with implementation of environmental requirements in the Region.

2.5.2. States in the AFI Region have made tremendous progress on environmental protection these last years. Most of States have developed an initial State Action Plan on CO_2 emissions reduction and submitted it to ICAO; joined voluntarily to participate in the CORSIA; and have joined ACT SAF to become Partners. This progress shows the strong support from our Member States and their commitment to ICAO' environmental activities.

% of States with Action Plan-CO2 Emissions reduction

% of States that volunteer to join CORSIA
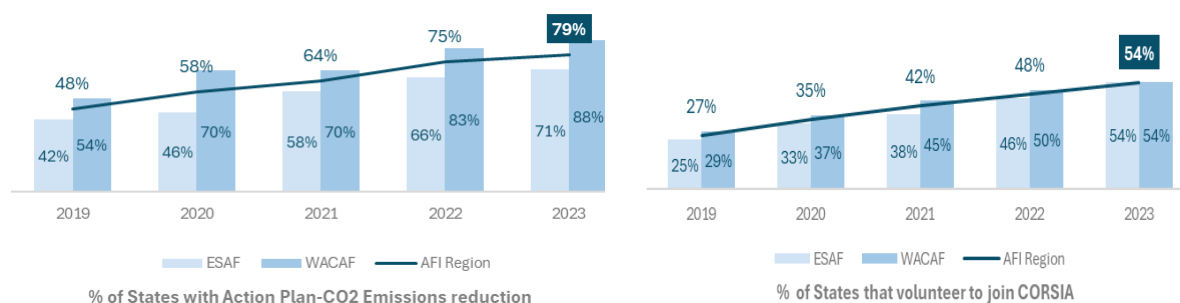
% of States that are ACT-SAF Partners
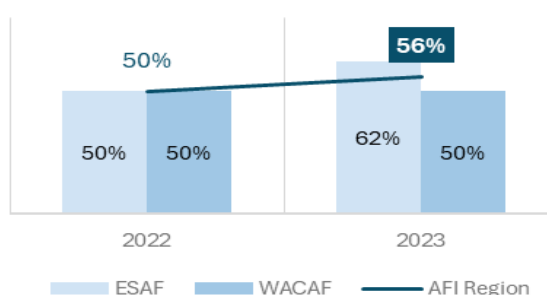
2.5.3. The results of the performance achieved is shown in the Table and graph below:

Areas on Environment	Performance achieved
Participation in the CORSIA pilot phase and first phase	**54% (26 States) have volunteered to participate in the CORSIA.** **13 States in WACAF** Benin, Burkina Faso, Cameroon, Côte d'Ivoire, Democratic Republic of the Congo, Equatorial Guinea, Gabon, Gambia, Ghana, Mali, Mauritania, Nigeria, Sierra Leone). **13 States in ESAF** Botswana, Kenya, Madagascar, Malawi, Mauritius, Namibia, Rwanda, Seychelles South Sudan, Uganda, United Republic of Tanzania, Zambia, Zimbabwe)
State Action Plan on CO2 emission reduction from International Aviation	**79% (38 States) of ESAF and WACAF States have developed their SAPs and submitted it to ICAO** **21 States in WACAF** Benin, Burkina Faso, Cameroon, Cabo Verde, Central African Republic, Chad, Congo, Côte d'Ivoire, Democratic Republic of Congo, Equatorial Guinea, Gabon, Gambia, Ghana, Mali, Mauritania, Niger, Nigeria, São Tomé and Príncipe, Senegal, Sierra Leone, Togo). **17 States in ESAF** Angola, Botswana, Burundi, Ethiopia, Kenya, Madagascar, Malawi, Mauritius, Mozambique, Namibia, Rwanda, Seychelles, Uganda, Tanzania, South Africa, Zambia, Zimbabwe).
ACT-SAF programme to promote the establishment of national policies for the development and deployment of Sustainable Aviation Fuels SAFs).	**56% (27 States) of AFI States have signed the ACT SAF Terms and Conditions.** **12 States in the WACAF Region** Burkina Faso, Cameroon, Cabo Verde, Côte d'Ivoire, Democratic Republic of the Congo, Equatorial Guinea, Gabon, Ghana, Mali, Nigeria, Senegal, Togo). **15 States in the ESAF Region** Botswana, Ethiopia, Kenya, Madagascar, Malawi, Mauritius, Mozambique, Namibia, Rwanda, Seychelles, South Africa, South Sudan, United Republic of Tanzania, Zambia, Zimbabwe).

2.5.4. The Regional Offices remain committed to continuing their support to the States in the region, to avoid duplication and enhance synergies with partner organizations to provide additional support to the States in the region, considering the priorities. States are invited to share their progress toward the ICAO environmental goals, inform the Regional Offices of any support needed and partner organizations are invited to inform the Regional Offices to enhance synergies and avoid duplication of efforts.

3. ACTION BY THE MEETING

The meeting is invited to:

a) Encourage States to enhance capacity-building and strength their oversight activities, ensuring robust systems for compliance with SARPs and avoidance of significant safety and security concerns.

b) States to commit and take ownership of the resolution of significant safety and security concerns within a reasonably period.

c) Encourage States to enhance their participation in APIRG and RASG-AFI and their contributory bodies related activities as well as regional Projects and other initiatives.

d) Encourage States to establish a comprehensive aviation data collection and processing system to support data-driven decision-making; enhance safety, security and facilitation; and optimize air navigation systems.

e) Encourage States' participation to CORSIA and ACT SAF; and

f) Encourage States to nominate focal points for the provision of statistical data and Air Transport related information to ICAO.