



ICAO



AFCAC
African Civil Aviation
Commission

INTERNATIONAL CIVIL AVIATION ORGANIZATION

AFI AVIATION WEEK – EIGHTH EDITION

AFCAC PRESENTATION

Twenty Sixth Meeting of the Steering Committee of the AFI Pan

SESSION 2: Aviation Safety

**Status of Implementation of the Abuja
Safety Targets**



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- IMPLEMENTATION STATUS
- CHALLENGES IN THE IMPLEMENTATION OF ASTS
- PROPOSED INTERVENTIONS
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Abuja Safety Targets Questionnaire (2022)

5 PM, April 22, 2023

January - December 2022

Start now

INTRODUCTION

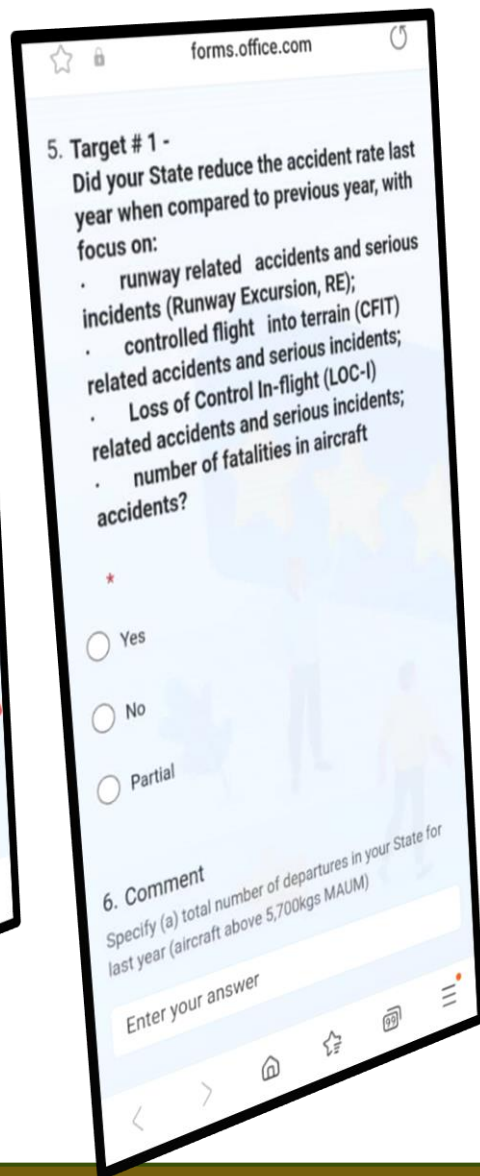
This PPT provides status of implementation of the Abuja Safety Targets (ASTs) up to June 2023. The paper highlights the need for increased allocation of financial and human resources towards implementation of ANS related targets.

The Meeting is invited to:-

- a) Urge member States to increase the rate of implementation of the Abuja Safety Targets;
- b) Request permission from member States to report status per each State;
- c) Urge ICAO and international partners to increase allocation of financial and human resources towards implementation of ANS related targets.
- d) Request the AFI Plan Steering Committee to consider the revised Abuja Safety Targets and endorse their approval by the Specialised Technical Committee on Transport, Transcontinental and Interregional Infrastructure, and Energy (STC-TTIE)



IMPLEMENTATION STATUS



Abuja Safety & Air Navigation Services Targets - Year 2022 Assessment



Status of Implementation of the Abuja Safety Targets for year 2022 – (based on old Abuja Safety and ANS Targets)

The Abuja Safety Targets status of implementation reports are compiled using on-line information provided by member States and supplementary data from IATA and ICAO iSTARS.

IMPLEMENTATION STATUS



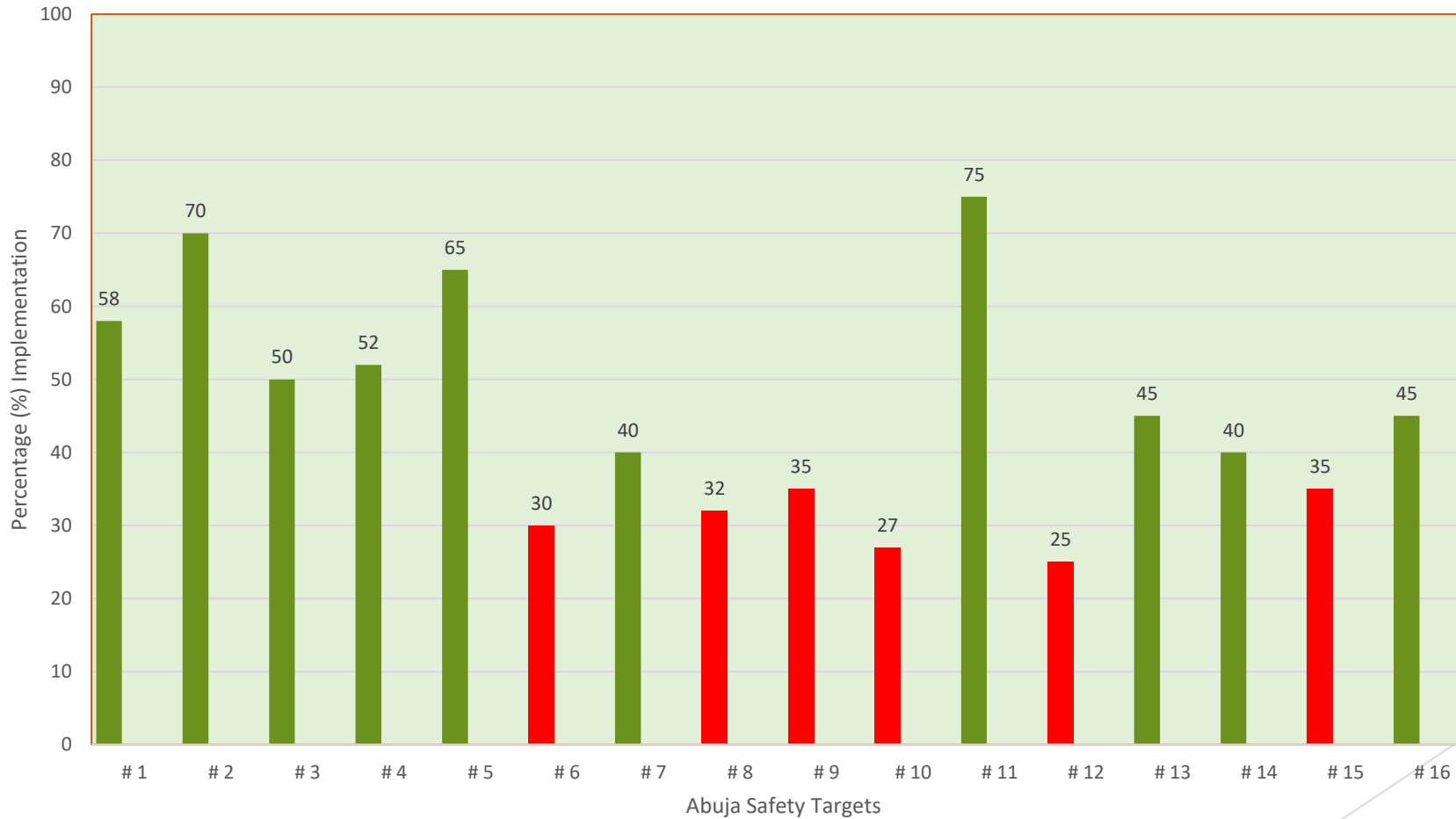
Through cooperation and collaboration with international organisations and partners, resources were allocated to assist member States to implement the Abuja Safety Targets.

These included capacity building initiatives through various workshops and training sessions and deployment of specialist services to member States to assist them implement specific programs. Funding from AFDB, EU-ASA and partnership with AFRAA, have contributed significantly towards member States compliance. We also count on the strategic and financial support of the AFI Plan through collaboration on the funding proposal for the planned assistance programs and capacity building.

The ASTs status of implementation report was compiled using information provided by member States and supplementary data from IATA and ICAO iSTARS resulting in the observations as shown in Attachment B of the Working Paper and the graph below;

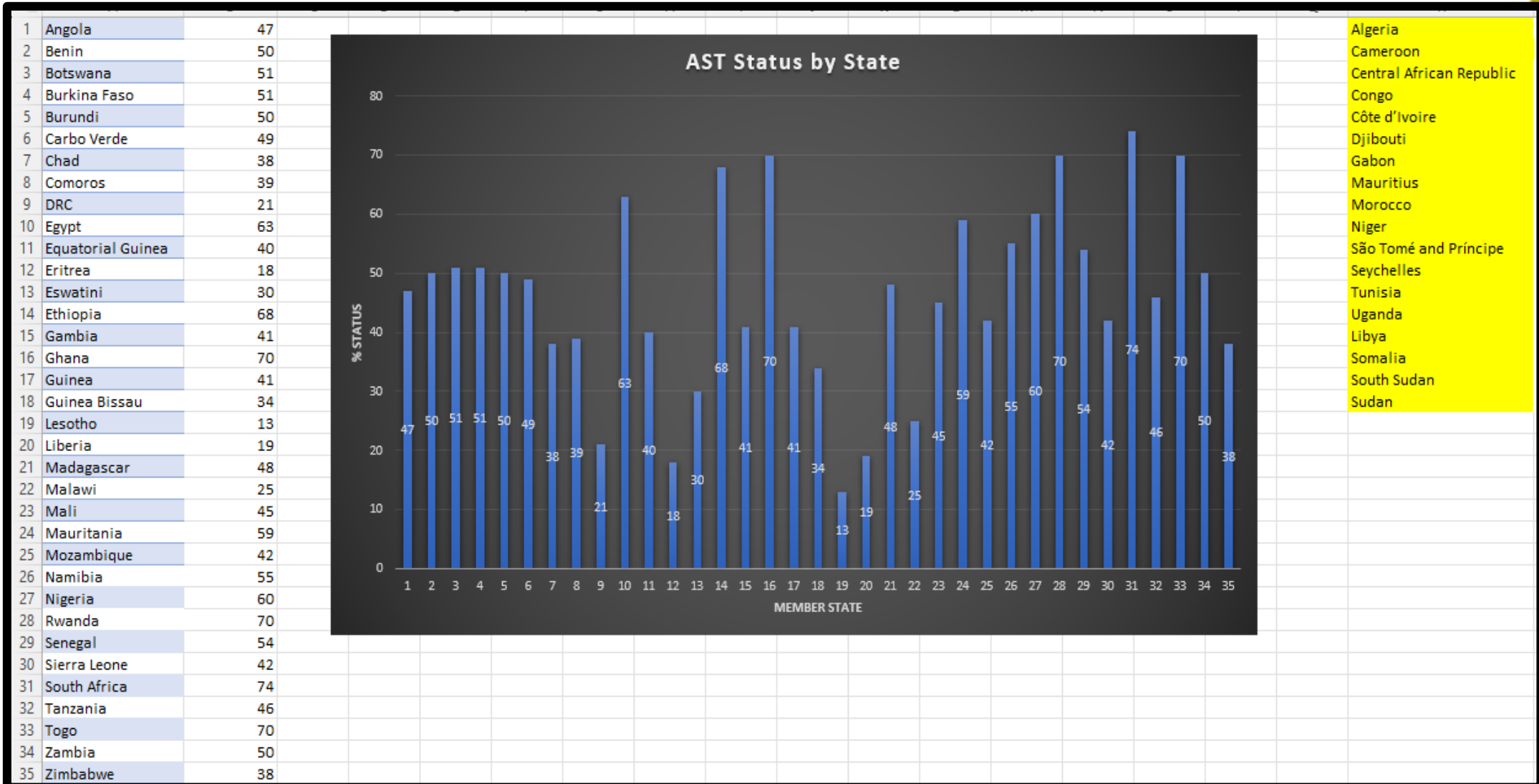


Status of Implementation by Target



IMPLEMENTATION STATUS

Further analysis of the 2021 - 2022 performance resulted in the following breakdown of State performance:-



Note: The States highlighted in yellow have not yet provided the information.

IMPLEMENTATION STATUS



Abuja Safety Target

1. **Progressively reduce the African accident rate from 8.6 to 2.5 per million departures by the end of 2022, with focus on:**
 - **runway related accidents and serious incidents (Runway Excursion, RE).**
 - **controlled flight into terrain (CFIT) related accidents and serious incidents.**
 - **Loss of Control In-flight (LOC-I) related accidents and serious incidents.**
 - **Achieve and maintain zero fatalities in aircraft accidents.**

Status of Implementation

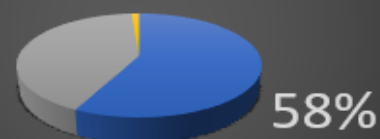
Target not met:

The accident rate decreased from 10.34 in 2019 to 7.05 in 2022.

- runway related accidents and serious incidents (Runway Excursion, RE) continue to record a higher rate than the other HRCs.
- CFIT related Accidents and serious Incidents rate remained at Zero from 2015 to 2022.
- LOC-I related accidents and serious incidents had Zero rate in 2022.
- Number of fatalities increased from zero in 2021 to 19 in 2022

(Source: - ICAO iSTARS 2022).

Target # 1



Challenges Hindering Progress

- All 21 States below 50% AST implementation lack use of effective Runway Safety Teams and associated capacity building activities
- Limited training opportunities to prevent CFIT and LOC-I

IMPLEMENTATION STATUS



Abuja Safety Target

2. All States establish and strengthen autonomous Civil Aviation Authorities with independent regulatory oversight, sustainable sources of funding and resources to carry out effective safety oversight and regulation of the aviation industry by 2022.

- States that need support in areas with safety margins below zero, to use regional safety oversight organizations or another State's ICAO-recognized functions by 2020.
- States effectively exercise the safety oversight functions with a positive safety margin in all areas by 2022.

States to delegate certain safety oversight functions to RSOOs or other States, by the end of 2022 in areas with safety margins below zero, and as appropriate.

Status of Implementation

Target not met: -

At least 28 out of 46 States that have attained the 60% EI Target, which are amongst the audited AFI States, are effectively autonomous.

So far, no State (i.e., States below zero safety margin) has delegated safety oversight functions to any of the RSOOs in Africa.

(Source: ICAO ISTARs 2022)



Challenges Hindering Progress

- Lack of skills in establishment and operationalization of a CAA Organizational and Governance Structure.

IMPLEMENTATION STATUS



Abuja Safety Target

Status of Implementation

Challenges Hindering Progress

3. States resolve:
- Existing SSCs by June 2018;
 - Newly identified SSCs within 6 months from the date of its official publication by ICAO.

(Assessment from 2012 to 2022)

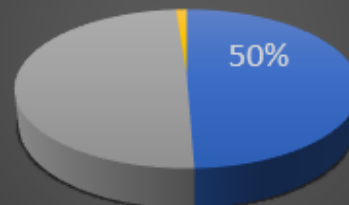
Target not met:

The existing SSC was not resolved within six months.

- 22 SSCs initially found in 15 States year 2012;
- All 22 resolved in 15 States by April 2022
- However, 1 new SSC exists in one State by Dec 2022)

- Lack of a coordinated approach to resolving SSCs within the 6-month window.

Target # 3



IMPLEMENTATIONS STATUS



Abuja Safety Target

4. States abide by the timelines and provide resources for implementation of ICAO/State Plans of Action

- All States to have accepted ICAO Plans of Action by 2019 and
- abide by the timelines and provide resources for their implementation.

Status of Implementation

Target not met

37 States accepted ICAO Plans of Action and are at different stages of implementation.

(Source: Member States; ICAO 2022)



Challenges Hindering Progress

- Lack of follow-up and support to member States to establish and implement ICAO/State Plans of Action.

IMPLEMENTATIONS STATUS



Abuja Safety Target

5. States progressively increase the Effective Implementation (EI) percentage under the ICAO USOAP such that States with:

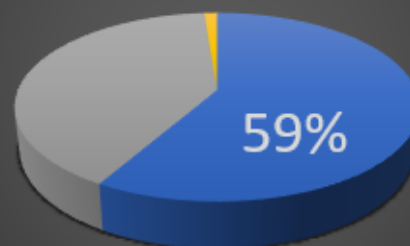
- EI < 60% attain 60% by 2020;
- 60% ≤ EI ≤ 70% attain 80% by 2022;
- 70% < EI attain 95% by 2028.

Status of Implementation

Target not met:

By December 2022, 33 out of 54 member States reached the target of 60% EI with an average EI of 57.82% (previous year 2021 the average EI for Africa was 57.18%). This reflects a marginal increase of 0.64% EI when compared to the same period for the year 2021.

Target #5



Challenges Hindering Progress

- Lack of financial resources to provide technical assistance on CE 1 to CE 8 to member States with EI below 75%
- Lack of capacity building programs and OJT targeted at member States training needs.
- Lack of standardized TGM for states with lower percentage of EI as targeted
- Limited number of USOAP activities conducted on the States to validate progress made.

IMPLEMENTATIONS STATUS



Abuja Safety Target

- 6. For the purposes of SSP/SMS Implementation, all States:**
- to have a **Foundation SSP established, addressing all pre-requisites;**
 - to have an **Effective SSP with appropriate maturity level established;**
 - to contribute information on safety risks, including SSP SPIs, to the RASG-AFI;
 - with a positive safety margin, and an Effective SSP, to actively engage in RASG-AFI safety risk management activities (analysis of safety risks, design and implementation of risk mitigation actions).

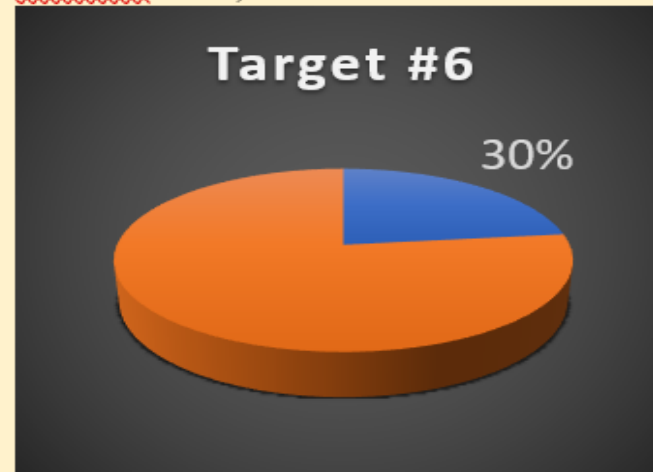
All Service Providers to use globally harmonized SPIs as part of their SMS

Status of Implementation

Target not met:

By December 2022, at least 24 RASG-AFI States initiated SSP implementation with One State (Rwanda) attaining Level 4. None of the States contributed information on safety risks to RASG-AFI.

(Source: Member States; ICAO iSTARS 2022)



Challenges Hindering Progress

- Lack of a regional approach to establishment and implementation of SSP/SMS and sharing of experiences

IMPLEMENTATION STATUS



Abuja Safety Target

7. All International Aerodromes to be certified by 2022,
- At least one international aerodrome in every State to be certified by end of 2020;
 - All airport operators to participate in the ICAO-recognized industry assessment programme for airports (APEX) by end of 2022;
 - At least one international aerodrome in every State to establish a Runway Safety Team (RST) by end of 2020.

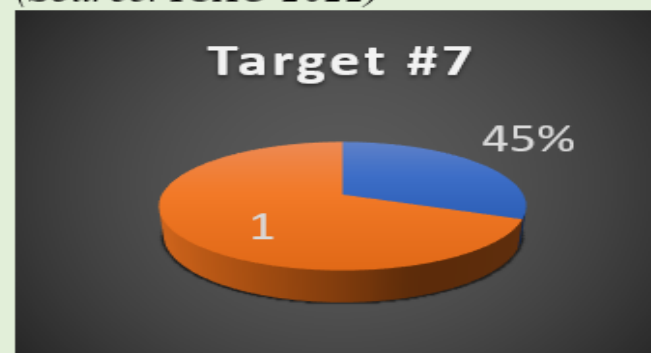
Status of Implementation

Target not met:-

As at 31 December 2022, 49 International Aerodromes were certified out of 126 within RASG-AFI States (i.e., 41.17%).

- 24 out of 48 RASG-AFI States certified at least one international aerodrome.
- 50 airports out of 126 received an APEX review
- 38 aerodromes out of 126 established operational RSTs.

(Source: ICAO 2022)



Challenges Hindering Progress

- Skills and experience level of aerodrome technical personnel not commensurate with size and complexity of aerodrome operations;
- Absence of standardized ICAO endorsed GSI-AGA course;
- Some States have incorrectly categorized aerodromes;
- Prevalence of aging infrastructure

IMPLEMENTATION STATUS



Abuja Safety Target

Status of Implementation

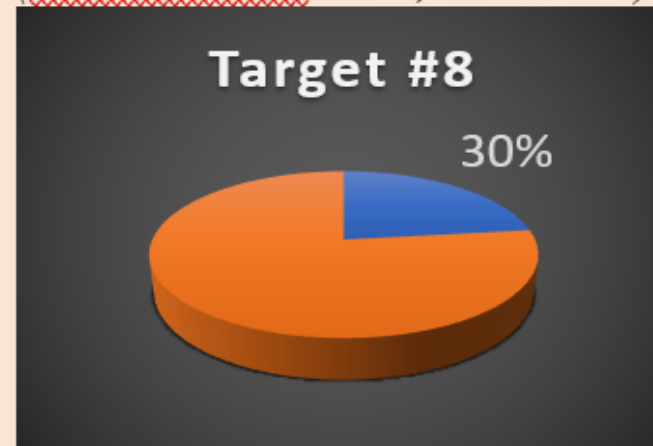
Challenges Hindering Progress

8. **Require all African airlines to obtain an IATA Operational Safety Audit (IOSA) certification:**
- **All States to establish an appropriate framework for recognition of IATA operational safety audit (IOSA) and IATA Standard Safety Assessment (ISSA) as effective safety mechanisms; All African airlines to obtain IOSA or ISSA certification, as appropriate, by the end of 2022.**

Target not met:-

There was an increase of Airlines participating in IOSA from a total of 20 airlines on the IOSA Registry in 2012 to the current 44 airlines on the Registry by end of December 2022.

Percentage of States with IOSA certified airlines increased to 41.87% (Source: Member States; IATA 2022)



- Lack of appreciation of the extra layer of safety offered by such programs i.e. IOSA and ISSA;
- Limited resources to support member States and airlines for IOSA and ISSA certification

Implementation Status



Abuja Safety Target

9. All States to establish an effective and operational SAR organization:

- Development of a National SAR Plan by end of 2018;
- Conclusion of SAR Agreements/ MoUs with all neighboring States by end of 2018;
- Organisation of multi-agency, multi-State and combined Regional SAR exercises to test SAR systems in place involving as many SAR units as practicable by end of 2019.

Status of Implementation

Target not met:

- Based on data collected as part of AFI Plan project, 25 SAR agreements have been signed between States and 35 new Draft agreements have been developed to either supersede old agreements or formalised cooperation where this has been lacking.
- Eight (8) States have developed National SAR Plans and two (2) States have draft National SAR Plans in place.

(Source: Member States; ICAO 2022)



Challenges Hindering Progress

- Lack of follow-up on States on implementation of Plans with all concerned parties and States
- Lack of skills in the development of SAR Plans.

IMPLEMENTATION STATUS



Abuja Safety Target

10. All States to implement the transition from AIS to AIM:

- **Development of a National Action Plan By end of 2018;**
- **Implementation of the National Action Plan in accordance with the ASBU Block 0 D-ATM by end of 2020.**

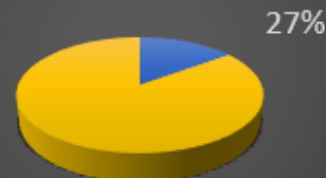
Status of Implementation

Target not met:

- 36 per cent of States have fully completed Phase 1 Consolidation;
- 44 per cent have partially accomplished Phase 2 Going Digital.
- Training of Personnel for States that submitted feedback is 2%

(Source: Member States; ICAO 2022)

Target # 10



Challenges Hindering Progress

- Lack of training of personnel with responsibility to transition from AIS to AIM;
- Lack of implementation of National Action Plans

IMPLEMENTATION STATUS



Abuja Safety Target

11. All States implement PBN procedures for all instrument runways.

- 75% of Instrument Runways to have PBN procedures by end of 2020;
- 100% of Instrument Runways to have PBN Procedures by the end of 2025.

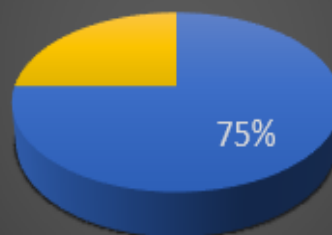
Status of Implementation

Target not met:

Available information indicated that 33 out of 48 RASG-AFI States attained target of 100 per cent PBN implementation, representing 68.75 per cent.

(Source: Member States; ICAO iSTARS 2022)

Target # 11



Challenges Hindering Progress

- Lack of expertise on ASBU establishment and implementation frameworks;
- Lack of published PBN Plans or Regulations that efficiently guide the industry;
- Insufficient staffing levels within some CAAs for PANS-OPS inspectors, Airspace Designers
- Lack of established PBN units within some CAAs.

IMPLEMENTATIONS STATUS

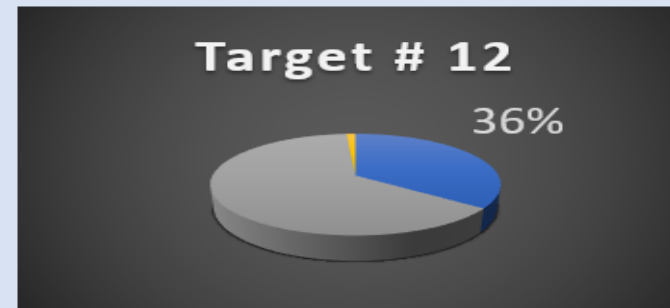


Abuja Safety Target

- 12. All States to progressively reduce the rate of aircraft proximity (AIRPROX) occurrences in their managed airspaces by at least 50% annually from Dec. 2017 baseline, in order to attain and maintain a level of zero (0) Airprox by correspondingly reducing errors in the following contributive factors:**
- **Co-ordination between ATS Units (50%);**
 - **Airspace Organization and ATC Procedures (50%);**
 - **Mobile Communications (50%)**
 - **Poor Crew Discipline on board aircraft (50%)**

Status of Implementation

Feedback from 35 member States showed that the status of implementation is 36%.



Challenges Hindering Progress

- Member States are at different levels of ICAO SARPs implementation and infrastructure development.
- Some State's ATS units are not well equipped consistent with the SARP requirements.
- Some States do not have sufficiently skilled human resources in domains like PANS OPS, Airspace Designers, other Inspectors.
- Lack of National Air Navigation Plans (NANPs), National PBN Implementation Plans.
- Lack of inclusion of NANPs in the National Development Plans for resource mobilisation, prioritization and planning.
- Lack of implementation of SSP/SMS in some States.

IMPLEMENTATIONS STATUS



Abuja Safety Target

Status of Implementation

Challenges Hindering Progress

13. Establishment of seamless Air Navigation Services in the AFI Region:

a) All States to ensure provision of harmonized Air Navigation Services in terms of flight separation, interoperability of CNS/ATM systems to reduce airspace complexity and achieve seamless operations along major air traffic flows.

b) Various initiatives formulated by the Regional Economic Communities (RECs) and ANSPs within the AFI Region to be harmonized.

Target not met:

Activities towards integration of the AFI Region towards seamless ANSPs is through AUC, AFCAC and RECs. 2023 Infrastructure Gap Analysis was initiated and results will be used as inputs to develop continental seamless airspace.

ASECNA is playing a central role for its 18 member States to have seamless air navigation services.

COMESA recruited experts to spearhead harmonization of Air Navigation Services within its member States.

- o Lack of financial resources and technical skills required to establish regional plans and national plans for seamless air navigation services in Africa.

Target #13



IMPLEMENTATION STATUS



Abuja Safety Target

- 14. All States to implement ASBU B0 Modules:**
- **All States to develop National ASBU Plan by end of 2018.**

Status of Implementation

- Target not met:**
IATA ASBU Tracker indicates that:
- Total percentage of RNAV GNSS APRCH was 63 per cent for ESAF and 79 per cent for WACAF;
 - Total percentage of RNAV SID was 40 per cent for ESAF and 20 per cent for WACAF;
 - The total percentage of RNAV STAR was 40 per cent ESAF and WACAF 46 per cent.
 - Training of member States personnel was 20 percent.

(Source:- Member States/ ICAO/ IATA)

Target #14



Challenges Hindering Progress

- The ASBUSs, especially PBN requires adequate equipment and facilities to support its implementation. The lack of such facilities is an obstacle to ASBUs and PBN implementation in most States.
- Lack of specialised training of personnel on key elements of ASBU implementation.

IMPLEMENTATION STATUS



Abuja Safety Target

- 15. All States to develop and implement a National Plan for the reduction of CO₂ emissions due to international civil aviation:**
- develop a National Plan for CO₂ reduction by end of 2020;
 - full implementation of the National Plan by 2022.

Status of Implementation

Target not met:
39 African States have developed and submitted to ICAO, State's Action Plans for the reduction of CO₂ emissions.
10 States are receiving assistance under Phase II of the ICAO assistance project, funded by the European Union (EU), on Capacity Building for the Mitigation of CO₂ Emissions from International Aviation.

20 SAATM States are scheduled to receive technical assistance to develop or review their State's Action Plans for CO₂ reduction activities.

For the remaining States AFCAC has embarked on a programme to follow up and support Member States.

(Source – Member States ICAO 2022)

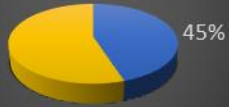
Target #15



Challenges Hindering Progress

- Lack of skills to develop and implement State Action Plans for reduction of CO₂ emissions.
- Lack of commitment to implement the plans to reduce CO₂ emissions
- High financial or capital required to implement some of the proposed actions

Target #16



IMPLEMENTATION STATUS



Abuja Safety Target

- 16. All States ensure that their ANSPs effectively participate in the African ANSP Peer Review Programme by 2022:**
- Joining the programme and having in place an annual Peer Review plan of activities.**
 - Developing and implementing appropriate corrective action plans to satisfactorily address Peer Review recommendations.**

Status of Implementation

Target not met:

Though not meeting the 2022 deadline, membership has continued to grow with current participation including: CANSO members, all 17 ASECNA member States, South Africa, 3 Robert FIR States, Uganda, Mozambique, Zambia, Algeria.

(Source –Member States; ICAO 2022)

Challenges Hindering Progress

- Program implementation is low due to lack of robust implementation frameworks;
- Lack of awareness and lack of capacity building opportunities through training.

Target #16



MAIN CHALLENGES HINDERING PROGRESS



Main Challenges hindering progress

Lack of Technical Capacity: Training and capacity-building incorporating OJT are essential for personnel to effectively operate and maintain new systems and technologies. A shortage of skilled personnel associated with costly training for personnel have been cited as one of the reasons for the delay in the implementation of the ASTs.

Regulatory Hurdles: A few States have not updated their legislation to comply with the ICAO SARPs, making it difficult to implement practices that support safety and air navigation services.

Infrastructure Deficiencies: Inadequate airport infrastructure, outdated communication and navigation systems, and insufficient maintenance can hamper the adoption of modern safety and air navigation technologies.

PROPOSED INTERVENTIONS

Recommended Interventions

Investment in Infrastructure: Allocate funds for the upgrade and expansion of airports, communication systems, navigation aids, and air traffic management technologies.

Funding Allocation: Develop a sustainable funding model that ensures a consistent budget allocation for aviation safety and navigation improvements.

Regulatory Reform: Revise and update aviation regulations to align with international standards and accommodate new technologies. The development of Model Regulations with a possibility of harmonization especially with the support of RSOOs can assist States in enhancing their legislative framework.

Training and Capacity Building: AFCAC in collaboration with key stakeholders like ICAO and AATO to focus on needs-based capacity building by organizing training workshops, seminars, and courses to enhance the technical and operational skills of aviation personnel in Member States.

PROPOSED INTERVENTIONS



Public-Private Partnerships (PPPs): Engage the private sector through PPPs to leverage their expertise, resources, and innovation for aviation modernization.

Awareness and Advocacy: Launch awareness campaigns to highlight the importance of aviation safety and air navigation improvements, garnering public and political support.

International Support: Collaborate with international aviation organizations and partners to access expertise, funding, and best practices.

Incentives for Airlines: Provide incentives or rewards for airlines that adopt advanced safety and air navigation technologies and practices.

Collaborative Research and Development: Support research and development projects aimed at improving safety and air navigation technologies, procedures, and practices. Working closely with academia so that research can be undertaken in critical areas with possible solutions is paramount.

Proposed Interventions

PROPOSED INTERVENTIONS



Specific activities were identified by AFCAC to assist member States to improve their level of implementation of the Abuja Safety Targets. The activities are in three categories:-

❑ Technical Assistance;

❑ Capacity Building;

❑ Support through Expert Working Groups.

PROPOSED INTERVENTIONS



#	Name of Activity	Summary of Activity	Estimate (USD)	Cost
1.	Technical Assistance	<ul style="list-style-type: none"> ○ High Level Missions to member States below 75% EI ; ○ AFI CIS Technical Assistance Missions to States member States below 75% EI ; 		249,000
2.	Capacity Building	<ul style="list-style-type: none"> ○ Provision for capacity building consistent with training needs assessments conducted by AFCAC, skills gaps identified through monitoring Abuja Safety Targets and requirements for implementation of HRDF . 		872,000
3	Member State support through Expert Working Groups.	<ul style="list-style-type: none"> ○ Host expert working groups meetings as to establish member State support in AGA, AIR, OPS, PEL, AIG and SSP/SMS ; ○ Establish and operationalise Peer Review and State Support Program to member States with low score for AST #2, #6, #7 and #9. ○ Establish an SSC Committee or Buddy program tasked with advising member States on required action(s) to resolve an SSC(s) within 6 months. 		432,000
Total				USD1,553,000

CONCLUSION

- ❑ There is need for increased allocation of human and financial resources towards implementation of ANS related targets. On-line feedback from member States and Expert Working Group members highlighted the need for more technical assistance missions, enhanced implementation of Peer Review Programs and training in key weakness areas identified during surveys by AFCAC.
- ❑ AFCAC and other regional entities need to facilitate appropriate continental and regional master plans required to ensure comprehensive implementation of the ANS Targets.
- ❑ There is need for increased use of online tools and databases for effective monitoring and reporting of progress which can be used to provide country specific performance. Such State specific performance reporting is subject to approval by Directors General of CAAs.



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