Follow-up Study for the Development and Implementation of a Strategic Plan for Supporting and Strengthening RSOOs in the AFI Region

(DRAFT FINAL REPORT)

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List of Abbreviations and Acronyms

AAMAC	Autorités Africaines et Malgache de l'Aviation Civile
ACAO	Arab Civil Aviation Organization
ACI	Airports Council International
ACSA	Agencia Centroamericana para la Seguridad Aeronautica
ACSAC	Agence Communautaire de Supervision de la Sécurité et de la Sureté de l'Aviation Civile
AFCAC	African Civil Aviation Commission
AfCFTA	African Continental Free Trade Area
AfDB	African Development Ban
AFI	Africa and the Indian Ocean (region)
AFRAA	African Airlines Association
AGA	Aerodromes and Ground Aids
AIB	Accident Investigation Bureau
AIG	Accident Investigation
AIR	Airworthiness of Aircraft
AMO	Approved Maintenance Organization
AMU	Arab Maghreb Union
ANS	Air Navigation Services
ANSP	Air Navigation Service Provider
ASIAP	Aviation Safety Implementation Assistance Partnership
ASECNA	Agence pour la Sécurité de la Navigation Aérienne en Afrique et à Madagascar
ASSA-AC	Agence de Supervision de la Sécurité Aérienne en Afrique Centrale
ATO	Approved Training Organization
AU	African Union
BAG	Banjul Accord Group
BAGAIA	Banjul Accord Group Accident Investigation Agency
BAGASOO	Banjul Accord Group Safety Oversight Organisation
CAA	Civil Aviation Authority
CAP	Corrective Action Plan
CAPSCA	Collaborative Arrangement for the Prevention and Management of Public Health Events in Civil Aviation
CART	Council Aviation Recovery Task Force
CASSOA	East African Community Civil Aviation Safety and Security Oversight Agency
CASSOS	Civil Aviation Safety and Security Oversight System
CE	Critical Element
CEMAC	Economic & Monetary Community of Central Africa (Communauté Economique et Monétaire de l'Afrique Centrale)
CEN-SAD	Community of Sahel –Saharan States
CIS	Cooperative Inspectorate Scheme
CMA	Continuous Monitoring Approach
COMESA	Common Market for Eastern & Southern Africa
COSCAP	Cooperative Development of Operational Safety and Continuing Airworthiness Program

EAC	East African Community
EASA	European Union Aviation Safety Agency
ECCAS	Economic Community of Central African States
ECOWAS	Economic Community of West African States
EI	Effective Implementation
ESAF	Eastern & Southern Africa
FRACS	France Aviation Civile Services
GANP	Global Air Navigation Plan
CGASP	Global Aviation Safety Plan
IATA	International Air Transport Association
ICAO	International Civil Aviation Organization
ICVM	ICAO Coordinated Validation Mission
LEG	Aviation Legislation
MENA	Middle East & North Africa
MSA	Management Services Agreement
PASO	Pacific Aviation Safety Office
PASTA-CO	Projet d'Appui au Secteur du Transport Aérien en Afrique Centrale et Occidentale
REC	Regional Economic Community
REIO	Regional Economic Integration Organisations
RRAP	RSOO/RAIO Assessment Programme
SAATM	Single African Air Transport Market
SADC	South African Development Community
SASO	Southern African Development Community Aviation Safety Organization
SSC	Significant Safety Concern
UEAC	Union Economique de l'Afrique Centrale
UEMOA	Union Economique et Monétaire Ouest Africaine
URSAC	Unité Régionale de Supervision de la Sécurité et de la Sureté de l'Aviation Civile
WACAF	Western and Central Africa
WAEMU	West African Economic & Monetary Union
WAMZ[1]	West African Monetary Zone

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[1] **Ref: Wikipedia: WEST African Monetary Zone (WAMZ)**: Formed in 2000, the West African Monetary Zone (WAMZ) is a group of six countries within ECOWAS that plan to introduce a common currency called the eco. The six member states of WAMZ are Gambia, Ghana, Guinea, Nigeria and Sierra Leone who founded the organization together in 2000 and Liberia who joined on 16 February 2010. Apart from Guinea, which is francophone, they are all English-speaking countries. Along with Mauritania, Guinea opted out of the CFA franc currency shared by all other former French colonies in West and Central Africa.
The WAMZ attempts to establish a strong stable currency to rival the CFA franc, whose exchange rate is tied to that of the euro and is guaranteed by the French Treasury. The eventual goal is for the CFA franc and eco to merge, giving all of West and Central Africa a single, stable currency. The launch of the new currency is being developed by the West African Monetary Institute based in Accra, Ghana.

Executive Summary

The objective of the EU-Africa Safety in Aviation (EU-ASA) Project is to improve aviation safety in Africa and more specifically to assist African member states to meet their obligations under the Chicago Convention in establishing an effective aviation safety oversight system. The project will particularly adopt a regional approach to reach this specific objective and will closely work with the Regional Safety Oversight Organizations (RSOOs) and Regional Accident and Incident Investigation Organization (RAIO) (AAMAC, ASSA-AC, BAGAIA, BAGASOO, CASSOA, ACSAC/URSAC, SASO) and the African Civil Aviation Commission (AFCAC).

The project aims to achieve the following four results:

- Regional Safety Oversight Organizations are reinforced
- The safety oversight regulatory environment is improved
- Enhanced safety oversight implementation is achieved
- The safety data collection and analysis are implemented

In the context and under the initial results, the EU-ASA project is supporting the follow-up of the RSOO study carried out by ICAO Regional Office in 2021.

In March 2017, EASA and ICAO organised the first RSOO Forum in Ezulwini, Eswatini. On the last day of this event, 13 African Ministers in charge of aviation made a Declaration on RSOOs. One of the points mentioned in this declaration was the development of a Strategic Plan and Roadmap for the strengthening of RSOOs. The initial study identified the necessary actions for ensuring the effectiveness, efficiency, and sustainability of the RSOOs and proposed a Strategic Plan and Roadmap for implementation.

The 2nd AFI RSOOs Global forum held in Nairobi 2023 during AFI Plan SC/26 expressed some concerns related to the funding and configuration of the AFI RSOOs as a risk that could impede the implementation of the AFI RSOO strategic plan.

It recommended to review and update the AFI RSOOs/RAIOs Strategic Plan and Roadmap in conducting an in-depth feasibility analysis, considering the pros and cons of the different options of the said strategic plan. The forum did conclude by encouraging EASA to launch such follow-up study prior to subsequent endorsement by the Ministers responsible for civil aviation in Africa and their recommendations towards the implementation of the strategic plan and its associated roadmap.

The present report submits an analysis and a strategic roadmap to render the RSOOs in the AFI Region more reliable and more efficient. Indeed, further to the analysis of the current situation, a roadmap is proposed for the purpose to enable RSOOs and RAIOs in the AFI region to ensure a more operational functioning, effective and efficient support to States, and to avoid as much as possible, redundancy and duplication of efforts.

By enabling more operational RSOOs, it seeks to define:

- Roles and responsibilities,
- Appropriate staff and resources,
- Legal basis,
- Optimised financial and budgetary mechanisms,
- Member States and membership,
- Sharing activities and prerogatives with States.

The proposed roadmap should allow for rapid progress in the development of the legal framework for RSOOs in the AFI region. It identifies different stages of evolution to serve the common goal of establishing an effective aviation safety oversight system in the AFI region. Indeed, avoiding redundancy and duplication and adding value to States' safety oversight capabilities, should guide the principles of the proposed AFI RSOO evolution roadmap.

From the overview of the RSOOs and RAIOs systems in the AFI region and in line with the previous study, some issues emerged from the various interviews and the analysis of the available data. Where issues and challenges were common, the way in which they are addressed and the level of maturity of the respective RSOOs is highly dependent on the commitment of the RSOO Member States, the availability of resources, personnel and funding and the way in which the Member States view the role of the RSOOs.

Indeed, several issues were observed such as:
- Redundancy and duplication of efforts between the RSOOs and member States,
- Mismatches between the services provided by the RSOOs and the terms of reference of the agreements concluded between the RSOOs and the member states, or
- The provision of services by the RSOOs, that were not included in the Member States' requests.

After shaping the landscape of RSOOs in the AFI region and as a conclusion of the study survey, it appeared clearly that in order to strengthen the RSOO system in the AFI region, it was necessary, not only to establish a clear and sound legal basis of the different RSOOs but also to clarify expectations of Member States towards their respective RSOOs.

Although economies of scale should be a target in the optimisation of the AFI RSOO system, it does not appear as the first and prior condition of gaining efficiency in that system for the purpose of improving aviation safety in the AFI region. Consolidating then maturing the structure of every existing RSOO and making sure a proper balance in sharing safety oversight activities is found in between State CAAs and RSOOs would certainly bring more benefit in the short- and medium-term than engaging in some long and cumbersome merger process. It is proposed to postpone any merger to the optimisation phase of the roadmap after having created a strong and result-oriented dynamic of the AFI RSOO system during the consolidation and maturation phases.

Rationalising the legal basis of existing RSOOs, avoiding duplication and consolidating financial and personnel resources of existing RSOOs will allow to create real additional safety oversight capacities in support of AFI states. Expert safety oversight resources are scarce in the AFI region and empowering RSOOs in supporting training at a regional and sub-regional level will certainly help in developing a sustainable and ICAO compliant overall safety oversight system in the AFI region. For the best use of these scarce resources, coordination of safety oversight support activities for AFI states should be put at the level of the RSOO to avoid any duplication of effort or lack of adequacy between the need of member states and proposed support.

AFCAC could play an active role in this AFI RSOO system, given that aviation safety is an asset for the development and liberalisation of air transport in Africa, by monitoring and reporting safety performance in the AFI region and incentivising safety improvement in the region by updating annually AFI aviation performance review and demonstrating the benefit of improved safety in support of the development of the SAATM.

Considering the financial resources of RSOOs, it is of utmost importance to create alternative resources in addition to institutional contributions since these institutional contributions are already difficult to be endorsed by States. The collection mechanism and redistribution of aviation charges should be robust, efficient, transparent and reliable. Such a mechanism for the collection of aviation

charges in the AFI region should be supported by a global organisation capable of counting passengers and movements and providing some assurance of transparency and fairness. IATA or ICAO would be good candidates.

In the AIG area, the creation of a cooperative network as proposed under AFICAIGN supported by a western RAIO and an eastern RAIO would certainly assist in structuring AFI region approach to AIG capacities.

By implementing the proposed roadmap, the objective of reinforcing the Regional Safety Organisations in the AFI region should be reached. Through that consolidation and reinforcement including a stabilized resource plan for RSOOs, these organisations will be able to contribute efficiently to the improvement of the safety oversight regulatory environment in the AFI region. Harmonisation of a regulatory framework remains indeed a primary condition for RSOOs operational efficiency. With the contribution of RSOOs and an efficient coordination of supporting activities to member states, this will significantly enable the achievement of an efficient safety oversight system implementation in the AFI region. In addition, the involvement of safety management experts in all AFI RSOOs, combined with an AFCAC global performance review scheme, safety data collection and analysis, if implemented at a regional level, it will contribute to a global improvement of aviation safety management in the AFI region.

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1. Introduction

1.1. Context

1.1.1. Objectives of the EU-ASA Project

The objective of the EU-Africa Safety in Aviation (EU-ASA) Project is to improve aviation safety in Africa and more specifically to assist African member states to meet their obligations under the Chicago Convention in establishing an effective aviation safety oversight system. The project has particularly adopted a regional approach to reach this specific objective and closely works with the Regional Safety Oversight Organisations (RSOOs) and Regional Accident and Incident Investigation Organisation (RAIO) (AAMAC, ASSA-AC, BAGAIA, BAGASOO, CASSOA, ACSAC/URSAC, SASO) and the African Civil Aviation Commission (AFCAC). Its activities are achieved in coordination with the ICAO ESAF and WACAF regional offices.

The project aims to achieve the following four results:

- Regional Safety Oversight Organisations are reinforced
- The safety oversight regulatory environment is improved
- Enhanced safety oversight implementation is achieved
- The safety data collection and analysis are implemented

1.1.2. Background / Initial RSOO study

In the context and under the initial results, the EU-ASA project is supporting the follow-up of the RSOO study carried out by ICAO Regional Office in 2021.

In March 2017, EASA and ICAO organised the first RSOO Forum in Ezulwini, Eswatini. On the last day of this event, 13 African Ministers in charge of aviation made a Declaration on RSOOs. One of the points mentioned in this declaration was the development of a Strategic Plan and Roadmap for the strengthening of RSOOs. The study, which was conducted, identified the necessary actions for ensuring the effectiveness, efficiency, and sustainability of the RSOOs and proposed a Strategic Plan and Roadmap for implementation.

The proposed Strategy Plan and Roadmap was presented to States and partners during a validation workshop in November 2021, whose outcomes and recommendations were submitted to the 25th meeting of the AFI Plan Steering Committee in May 2022.

Accordingly, the validated report of the ICAO AFI Plan study includes the outcomes of the survey conducted, the analysis of the status and challenges of African RSOOs, the strategy and roadmap to strengthen these organisations. This report was submitted to Ministers in charge of civil aviation for consideration and implementation.

The 2nd AFI RSOOs Global forum held in Nairobi 2023 during AFI Plan SC/26 expressed some concerns related to the funding and configuration of the AFI RSOOs as a risk that could impede the implementation of the AFI RSOO strategic plan.

It recommended to review and update the AFI RSOOs/RAIOs Strategic Plan and Roadmap in conducting an in-depth feasibility analysis, considering the pros and cons of the different options of the said strategic plan. The forum did conclude by encouraging EASA to launch such follow-up study prior to subsequent endorsement by the Ministers responsible for civil aviation in Africa and their recommendations towards the implementation of the strategic plan and its associated roadmap.

The present report proposes an analysis and a strategic roadmap to render the RSOOs in the AFI Region more reliable and more efficient.

1.2. Data sources / Previous studies

The study contained in this report has been developed, based on the review of the previous reports and events already conducted for the purpose of improving the AFI RSOOs, and on several interviews with interested parties, such as EASA, AFI States, RSOOs, RAIOs, AFCAC, AfDB, ICAO WACAF and ESAF officials, as well as key ICAO Headquarter personnel, well-known experts and donors in the AFI region. We also drew on some benchmarks and lessons learned from other RSOOs and Safety Oversight Authorities around the world.

As far as possible, we have based our reasoning on objective data especially for the purpose of establishing the budget and resource proposals for RSOOs in the AFI region.

Traffic and socio-economic data are taken from the FRACS Air Transport Databases.

1.3. Objective of the study

The general objective of the study is therefore, after analysing the current situation to propose a roadmap that will enable RSOOs and RAIOs in the AFI region to ensure a more operational functioning, effective and efficient support to States, and to avoid as much as possible, redundancy and duplication of efforts.

By enabling more operational RSOOs, it seeks to define:

- o Roles and responsibilities,
- o Appropriate staff and resources,
- o Legal basis,
- o Optimised financial and budgetary mechanisms,
- o Member States and membership,
- o Sharing activities and prerogatives with States.

The proposed roadmap should allow for rapid progress in the development of the legal framework for RSOOs in the AFI region and identify different stages of evolution to serve the common goal of establishing an effective aviation safety oversight system in the AFI region. Indeed, avoiding redundancy, duplication and adding value to States' safety oversight capabilities should guide the principles of the proposed AFI RSOO evolution roadmap.

2. Problem Statement

From the overview of the RSOO and RAIO systems in the AFI region and in line with the previous study, a number of issues emerged from the various interviews and the analysis of the available data. Where issues and challenges were common, the way in which they are addressed and the level of maturity of the respective RSOOs is highly dependent on the commitment of the RSOO member states, the availability of resources, personnel and funding and the way in which the member States view the role of the RSOOs.

Indeed, several issues were observed such as:

- o Redundancy and duplication of efforts between the RSOOs and member States,
- o Mismatches between the services provided by the RSOOs and the terms of reference of the agreements concluded between the RSOOs and the member states, or
- o Provision of services by the RSOOs that were not included in the Member States' requests.

2.1. AFI RSOOs and RAIOs – Issues and Challenges

The situation and average performance in the AFI region as monitored by ICAO is illustrated in the following tables. The overall performance of the AFI States has globally improved over the last decade as a result of some initiatives including the establishment of AFI RSOOs but also the AFI Plan and many activities and initiatives in the region, which have not necessarily been well coordinated. International donors and aviation sponsors have also been very proactive in funding some initiatives to improve aviation safety in the AFI region.

Tentative RSOO	LEG Legislation	ORG Organization	PEL Licensing	OPS Operations	AIR Airworthiness	AIG Accident Investigation	ANS Air Navigation Services	AGA Aerodromes
7-Partner	63.64	57.87	55.56	50.49	69.99	43.95	46.95	52.58
AAMAC	81.75	74.97	59.10	60.75	78.84	39.17	61.43	46.99
ACSAC	83.59	79.98	60.27	60.50	80.08	54.85	65.95	53.64
ASSA-AC	75.72	65.28	56.33	58.82	76.51	21.75	52.10	32.53
BAGASOO	77.10	63.45	58.89	54.41	73.03	50.00	48.23	53.60
CASSOA	81.43	80.18	79.19	66.64	87.11	36.41	74.01	64.41
MENA	74.14	69.08	68.26	69.71	82.75	58.56	62.36	61.02
SASO	76.36	62.26	62.34	62.42	78.48	44.32	50.57	46.33

Table 1: Level of ICAO Standards implementation by RSOO in the AFI Region

Tentative RSOO	CE 1 Primary aviation legislation	CE 2 Specific operating regulations	CE 3 State civil aviation system and safety oversight functions	CE 4 Technical personnel qualification and training	CE 5 Technical guidance, tools and provision of safety-critical information	CE 6 Licensing, certification, authorization and/or approval obligations	CE 7 Surveillance obligations	CE 8 Resolution of safety concerns
7-Partner	69.68	70.16	54.06	51.79	60.03	45.43	40.22	30.78
AAMAC	82.63	78.24	68.17	55.53	61.21	55.76	47.49	27.25
ACSAC	87.16	82.01	74.83	57.14	68.52	58.65	51.16	33.37
ASSA-AC	73.82	69.88	58.47	52.00	50.78	49.38	39.86	17.66
BAGASOO	79.66	73.16	63.44	59.82	61.26	50.63	42.14	36.88
CASSOA	69.38	80.38	77.66	71.49	67.40	69.89	51.74	36.85
MENA	67.83	75.15	69.74	48.40	75.24	71.39	59.03	47.51
SASO	73.58	68.10	60.92	54.61	63.92	60.68	41.41	34.89

Table 2: Level of USOAP-CMA performance by RSOO in the AFI Region

Nevertheless, the situation remains fragile and the RSOOs have a structural role to play in strengthening aviation safety in the AFI region. They need to find their place and play an active role in strengthening safety oversight capabilities in the region. Their situation poses a number of challenges and issues which are described below.

2.1.1. Role and responsibilities of the considered RSOOs: "Safety Oversight Cooperative Organisation" or "Service centre"

Looking at the various activities of the RSOOs, it appears from the interviews with States and RSOO officials that some Member States see their RSOO as a *service centre* rather than an organisation to support and deal with States in safety oversight activities.

Workshops and training sessions are generally welcomed. Some States even participate in workshops or training sessions organised by the RSOOs. The development of regulatory documents and coordination are also welcomed by the Member States, but not necessarily transposed in the national regulations. RSOO officers are sometimes invited to some safety oversight activities, and sometimes not. De facto, there are no effective strong principles underlying the cooperation between the RSOOs and their Member States.

2.1.2. Resources

- Technical personnel:

From the survey of the various RSOOs, it seems that there is a lack of resources in terms of qualified and available stable staff within the framework of the respective RSOOs. Due to an inadequate budget, and in most cases a lack of financial resources, the stated aim of staffing the various RSOOs has failed in many cases and the required officer's positions have not been filled as expected.

In some RSOOs, such as SASO, the operational staff is limited to a few disciplines, such as aircraft operations (OPS), aircraft airworthiness (AIR) and personnel licensing (PEL), with only one expert in most disciplines. Unfortunately, this situation does not allow for continuity in the technical activities of the RSOOs and could even weaken the ability of the RSOO to carry out its tasks if the staff leaves.

Indeed, some activities of the RSOOs are based on the assumption that they can be carried out with the support of States expertise. While cooperation and support from States for RSOOs activities is a good practice, a balance should be struck to ensure that the capacity of RSOO staff is not too dependent on the availability of States' resources, which could lead to possible conflicts of priorities in States and the feeling that the RSOO, rather than providing added-value to the States, are creating an additional burden on already scarce resources at national level.

A general observation of the organisational structure of the various RSOOs, taking into account the mandate of the RSOOs, also shows a low proportion of technical staff compared to staff in other areas.

- Budget:

In many cases, the budget allocated to the RSOO is not sufficient to cover the staff charges, expenses and miscellaneous costs. Moreover, once the budget has been allocated and the scheme of financial contributions to the RSOO has been decided, it may happen that the contributions from States or RECs are not forthcoming or are reduced. This situation creates instability in the resources and reduces the ability of the RSOO to perform the necessary activities. The other consequence could also be the impossibility for the management of the RSOO to invest in medium, or long-term initiatives. Most of the activities of the various RSOOs are delivered free of charge, without the capacity to develop a strategy on the various incomes for corresponding activity.

2.1.3. Source of budget

From the overview obtained during the study, it appears that the financial sources can vary considerably depending on the RSOO. However, the main financial source to feed the budget of the RSOO remains institutional, from the contributions of the Member States or from the contribution of the RECs which can supplement or replace the contributions of the Member States depending on the case.

- Institutional contributions

In this report, we consider institutional contributions as the sum of Member States' contributions and the REC contributions. Indeed, in some cases (e.g. URSAC), the contribution to the RSOO budget could come from only one source, provided by the REC (WAEMU). In other cases, the REC does not contribute at all (e.g. CASSOA, BAGASOO). In a third case, both Member States and the REC contribute to the budget of the RSOO (ASSA-AC).

The sharing of the institutional contribution to the RSOO budget does not really constitute a challenge if all the parties are committed to contribute to the RSOO budget in a timely manner. However, the survey carried out shows that in many cases, Member States do not fulfil their responsibilities in terms of financial contribution to the RSOO. It also happens that in some cases, they do not pay the agreed REC contribution as promised. This situation obviously creates serious problems for the decision makers and key management personnel of the RSOO, who are thus facing a lack of funds that prevents them from paying the personnel or planning assistance activities.

Depending on the organisation of the RSOO, the rules governing the distribution of financial contributions between Member States can vary significantly from one RSOO to another. Indeed, in some cases, it could be an equal distribution between the Members without considering the size or the aeronautical activity in the Member State, while in other cases, it is proportional to the size of the State's aviation system and activity.

- Donors

Based on the studies reviews, officials interviews and documents analysis of the RSOOs, our understanding is that donors rather mainly contribute to specific projects of the RSOOs such as the technical events, workshops, training activities, or support for the purchase of some tools, but not to the operating budget of the RSOO.

- Taxes

At time of writing of this report, none of the RSOOs currently receive funds from taxes collected. However, some of them, such as URSAC and ASSA-AC, are considering this process for the near future, following the recommendations of IATA study, and are establishing the legal basis for the collection of passenger safety taxes which will be directly used as a complementary source of funding for the RSOO budget.

- Services fees

As far as we know, most of the activities are carried out by the RSOOs without charging for the services. In most cases, the beneficiary States cover the travel and accommodation expenses of the RSOO officials and vice versa. In the case of a training session organised by the RSOO, no costs are charged to the participants.

2.1.4. Membership

The membership of States in the various RSOOs follows different rules and considerations. In fact, most of the AFI RSOOs have been created by States belonging to a REC, which have ratified the treaty establishing the RSOO.
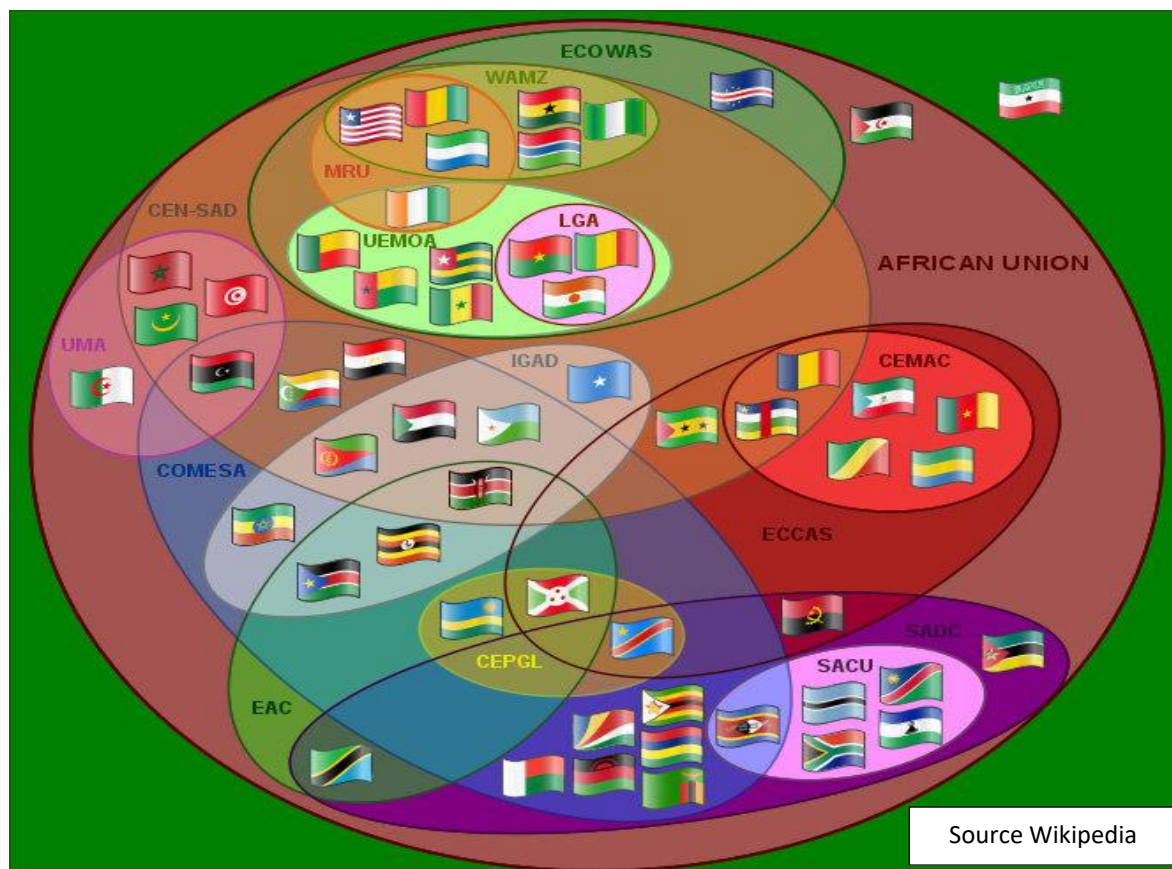
Note: This map is a Wikipedia Map to illustrate how REC do potentially mix membership in the AFI region. Rwanda is part of ECCAS, EAC has 8 Member States the original 5 plus DRC, Somalia and South Sudan

- REC and RSOO Membership

A challenge for the membership of RSOOs remains the fact that some States belong to different Regional Economic Communities. According to their REC affiliation, some States belong to different RSOO. This situation could obviously lead to issues and gaps in terms of efficiency of the technical staff activities, optimisation of efforts, and confusions when trying to implement the operational regulations, which are different from one RSOO to another.

The most critical issue lies in the interpretation and implementation of the regulatory framework and related means of compliance, developed under different RSOO contexts and requirements. In fact, to effectively share expertise, homogenise training, and carry out active safety oversight activities in each region, the Member States (RSOOs) need to work under a common regulatory basis and framework and build their oversight processes and inspection procedures in accordance with a single harmonised regulatory framework.

In the current global AFI region, we do not observe a common regulatory basis from one region to another, and even in the same region, under the same RSOO, some States do not use the generic or common regulatory framework developed by the RSOO for the purpose of harmonisation. Such practices create weaknesses and jeopardise any attempts to harmonise, optimise and share efforts between States.

Indeed, in cases, where the regulatory basis is not common from one region to another:

- the commonalities will be reduced to ICAO standards only,
- Training remains at a generic level and does not go into details,
- The sharing of expertise in regulatory and safety oversight activities is not effective, leading de facto the RSOO to play a role of a service centre, where States use available services on demand, rather than creating effective synergies, which are required for an efficient cooperation in the safety oversight activities.

However, in some cases, such as Tanzania, the dual membership to two different RSOOs is not creating specific issues since Tanzania CAA is fully committed to participate essentially in only one RSOO (CASSOA). In other cases, the membership to several RSOOs poses some challenges in terms of harmonisation of the safety oversight activities and hinders the full involvement of the Member State.

The second issue concerns the financial aspects, such as the financial contribution of Member States, when they are members of several RSOOs at the same time. Logically, a State that is a member of several RSOOs at the same time, should contribute to all of them, in accordance with all the rules laid down by all these RSOOs. However, according to our survey and analysis, the reality on the ground seems to be different. Nevertheless, it seems that some States effectively contribute to the different RSOOs systems, in which they are members, but these cases remain rare.

- Participation of Member States

The participation of States in the activities of RSOOs can vary greatly depending on the activity and on the State concerned. Nevertheless, it seems that workshops and training sessions organised by RSOOs are well attended. As usual in international fora, it seems that some States have a dynamic leadership while others remain just followers. This situation may not be an issue as long as the various members accept the results of the collaborative work and activities. However, it could be an issue if some of them continue to not fully commit to the agreed objectives and harmonised deliveries with the related RSOOs, they will face weak effective implementation of their respective safety oversight systems and will be unable to implement what has been jointly developed and agreed.

- Commitment of Member States

The low commitment of the Member States to transpose into their own regulatory and safety environment the rules and processes that have been jointly developed and agreed in the framework of the RSOO, could be a challenge for the creation of a safe and sustainable civil aviation system in their context.

In fact, some of the rules agreed upon at the level of the RSOOs are more or less automatically transposed into national regulations, depending on their status and the rules of the corresponding REC. In those cases, the challenge for the RSOOs remains to provide joint proposals to be adopted at the level of the REC, where the civil aviation system is not considered a high priority by various high-level bodies.

In some other cases, the critical path results from the national transposition process of the regionally harmonised material. This is generally a cumbersome process that requires going through all the steps of approval with a high risk of making changes to the original material. Finally, this situation could lead to the creation of a non-harmonised context in the region, while using an initially harmonized and co-developed material.

- Associated States

Some States may not be part of the regional group, that is the initial foundation of the RSOO but could develop a close and productive relationship with the RSOO. Since there would be no duplication nor redundancy in the activities of the RSOO Member States, it would be recommended that such a State be admitted to the RSOO and given the legal status to extend its participation to all the RSOO's activities.

- Role of leading States in the RSOO

In several RSOOs in the AFI region, it can be observed that the membership consists of one or more aviation industry leaders, while other members have a much smaller aviation industry. This is particularly the case for South Africa in SASO or Nigeria in BAGASOO. In these cases, it becomes a challenge to find the right balance in the activities of the RSOO, as the expectations of the different members may be very different. Small States need to be supported on key issues where large States have other ambitions. At the same time, a lack of involvement and support from large States may jeopardise the activities of the RSOO. This is therefore essential that large States effectively support the RSOO to which they belong and accept that the harmonised material or support activities address the needs of smaller States in the region. In terms of regulation, it is recommended that large States do not impose complex regulations that may be difficult for small States to administer.

RSOO	NUMBER OF LICENSES, CERTIFICATES, APPROVALS & AUTHORIZATIONS								SUB- TOTALS
	AOC	AIRWORTHINESS	AIRCRAFT REGISTRATION	PEL	AGA	AMO	ATO	ANS	
AAMAC	49	268	366	2 018	13	116	72	-	2 902
ASSA-AC	17	57	80	360	1	53	31	-	599
MENA	3	11	19	213	1	10	7	-	264
BAGASOO	35	466	556	2 150	7	156	33	-	3 403
BAGAIA	-	-	-	-	-	-	-	-	-
CASSOA	119	1 235	2 018	4 576	6	184	31	-	8 169
URSAC/ACSAC	19	109	140	1 278	7	38	28	-	1 619
iSASO (SADC)	291	8 086	16 703	34 946	28	492	303	-	60 849
7-Partner States	7	179	183	11 900	4	8	4	-	12 285
	540	10 411	20 065	57 441	67	1 057	509	-	90 090

Table3: Volume of safety oversight activities by RSOO in the AFI region

- Domains and Operating Areas

Among the RSOOOs in the AFI region, one of them is articulated around a single domain, i.e. the AAMAC and ANS domain. From our point of view, this example does not create any issues as long as it is noted and understood by the other RSOOs covering the same region, which are not supposed to cover the same discipline. Initially, the legal foundation of AAMAC may have created some ambiguity in the sharing of responsibilities with both ASSA-AC and URSAC/ACSAC. Subsequently, the tripartite agreement signed between AAMAC, ASSA-AC and URSAC/ACSAC clarified the situation, and allowed Member States to avoid possible confusion and redundancy. However, the possible extension of ASECNA and consequently AAMAC to other States belonging to other regional groups may raise issues that need to be addressed and clarified. However, a challenge remains regarding the regulatory system, which will then have to follow the same scheme in the different regions.

In other cases, such as the SASO, the RSOO does not or does not yet cover all areas of activities. Understandably, priority has been given to the OPS, AIR and PEL areas. However, the remaining areas or disciplines may need to be strengthened, which could be an issue in the long term.

Some RSOOs have included the Security area in their scope. Where it makes sense for the regional organisation, safety and security don't follow the same principles and this needs to be well managed.

2.1.5. Duplication of activities

Regarding the scope of activities of the different RSOOs, the situation seems difficult to summarise and to draw some conclusions. Some RSOOs are mainly dedicated to the development of a harmonised regulation in their region, with the above-mentioned challenges of transposing the regulation into national legislation. Most RSOOs organise regular workshops and training sessions and assist their member States in developing regional capacity in safety oversight.

In addition to these activities, the RSOOs regularly assist Member States in the preparation of ICAO audits or ICVMs and, when requested, reinforce the State audit team for the national safety oversight activities.

Nevertheless, there is some duplication and sometimes a lack of coordination between the different activities, but this is not necessarily due to the RSOO system itself. Member States may seek assistance from a number of different bodies: ICAO Regional Office, RSOOs, AFCAC, sponsors, safety partners… without sufficient prior or planned coordination. Indeed, depending on the case, the experts provided by the supporting partner may not be from the region or may not be aware of the latest updates of the regionally harmonised regulation. There may also be duplication of support. All this results in a sub-optimal use of scarce resources in the AFI region.

2.1.6. RAIO: a different challenge to that of RSOOs

The issues and challenges related to accident investigation and RAIO are different from those affecting the RSOOs in the AFI region. The only existing RAIO in the AFI region is BAGAIA. A few states have accident investigation laboratories. The others are not equipped with any specific investigation organisations. Accident investigation expertise remains difficult to acquire and the development of RAIOs throughout the AFI region may be a challenge. In addition, commercial aircraft manufacturers are only few in the world and whatever serious event would occur, a major accident investigation bureau (NTSB, BEA, …) would inevitably assist in the investigation.

The priority for the AFI region then becomes to be able to lead and organise an investigation in an independent and sovereign manner with the support of available regional expertise. The challenge is to develop this expertise, to ensure that States have some AIG experts able to lead some investigative activities and to share experience in the region on the occurrences that may arise. Some RSOOs have added a dedicated AIG expert to their organigram chart.

2.1.7. Overview of the present RSOOs legal foundations

A) AAMAC

The AAMAC Treaty was signed by Ministers of Member States in 2012. The RSOO comprises seventeen (17) initial States Parties, to which Rwanda has been added in 2024.

However, not all the States have ratified the Treaty. To surround this difficulty, some MoUs were concluded with some Member States to ensure the needed assistance.

In terms of membership:

-All AAMAC Member States belong to ASECNA;

-Fourteen (14) of the eighteen (18) Member States of the AAMAC are also members of either ACSAC or ASSA-AC, respectively established by WAEMU t and CEMAC;

-One Member State is also a member of SASO (Madagascar);

-Another SADC Member, but not a member of SASO (Comoros), is a signatory to the AAMAC Treaty.

As far as the working language is concerned, AAMAC Member States share a common official language which is French. Indeed, for almost all the Member States, this use of the French language facilitates the daily working exchanges. However, it raises certain difficulties to other States, such as Guinea Bissau or Equatorial Guinea, which are not French-speaking States.

AAMAC is mandated for all the safety oversight areas. its functions include regulatory and safety oversight related activities (assistance to States, technical tasks relating to the certification and surveillance of operators).

As above mentioned, fourteen (14) of the eighteen (18) Member States of AAMAC are also members of another RSOO established by WAEMU or CEMAC, namely ACSAC/URSAC or ASSA-AC. However, these two RSOOs provide safety oversight assistance activities in areas that also fall into the AAMAC's competence. This issue has been temporarily handled through the tripartite MoU (signed in 2014), limiting AAMAC to ANS activities whilst assigning ACSAC and ASSA-AC to all the other safety oversight areas. A new MoU, with the same purpose and deepening cooperation between the organisations, has been drafted but not yet signed by all parties.

Under this draft MoU, WAEMU and CEMAC continue to develop ANS regulations but considering the ANS regulations issued by AAMAC. However, it should be noted that the draft MoU also refers to a provision of the previous ASSA-AC regulation according to which "the essential requirements set by the regulation for the provision of air navigation services will be adapted to take into account the regulations issued by the AAMACs in the field of air navigation services". Unfortunately, this provision was removed from the new regulation adopted by the Council of Ministers of UEAC in 2024.

The draft MoU also provides for a regulatory cooperation mechanism between CEMAC/ASSA-AC and UEMOA/ACSAC in their common safety oversight areas.

In the ANS area, the AAMAC Treaty provides that the organisation shall carry out, on behalf of the Parties, the technical tasks of certification and surveillance of ASECNA and any other ANSP (...) and issue appropriate recommendations for the issuance and monitoring by the Parties of the corresponding certificates. By the Treaty, the States have therefore delegated the conduct of these certification and surveillance tasks to AAMAC.

However, in practice, a distribution of ANS oversight tasks has been organised which materialises by the conclusion of MoUs between the organisation and each State:

- On behalf of the National Civil Aviation Authorities (CAAs), AAMAC is ensuring the surveillance of ASECNA supplied services, which can be described as common, and ensuring the provision of services for more than one State;

- AAMAC ensures, at the express request of the CAAs, the surveillance of ASECNA services based on its territory, other than the common services;

- AAMAC ensures, at the express request of CAAs, the surveillance of any other ANSP based on its territory, other than those mentioned above.

Nevertheless, for the tasks carried out by AAMAC at the request of a State, the MoUs do not provide for the conclusion of any specific MoU defining the precise nature of services, expectations or service level.

Another issue relates to the transposition of regulations issued by AAMAC. According to the Treaty, the Parties undertake to "transpose into their domestic law and apply the regulations and procedures issued by the Council for the achievement of the objectives of this Treaty". Transposition implies that

each party (currently only States) adopts, according to its rules and procedures, all the measures necessary for the effective incorporation of the regulation into the national legal system.

Transposition therefore does not provide any legal guarantee that AAMAC's regulations will be incorporated into national law. In fact, it is noted that only the most advanced States Parties proceed with transposition. However, in practice, it seems that the Member States apply the regulations even without having transposed them. The conclusion is that AAMAC has to set up a system to support and monitor the transposition of the regulations.

According to Article 24 of the Treaty, the resources of AAMAC are coming from:

- contributions from the Parties;

- charges collected for performing certification and surveillance tasks;

- fees collected for publications, training and other services provided directly to the public and to the Parties.

In practice, it appears that the resources of AAMAC are mainly provided by ASECNA. The amount paid to AAMAC is taken care of by ASECNA from the contributions it is supposed to pay to its Member States for capacity building.

It is worth mentioning that in the long term, this funding approach would no longer be sustainable. Indeed, the financial sustainability of AAMAC could only be ensured by a gradual shift from a funding mechanism coming from the Member States (via ASECNA) to one coming from the charges and fees mentioned in the Treaty.

In addition to the tripartite MoU with WAEMU and CEMAC, the AAMAC has established working relationships with different organisations and States:

- An agreement was concluded with CASSOA, the purpose of which is the mutual support. Under this framework, AAMAC provides CASSOA with ANS inspectors;

- AAMAC provides support to Sao Tome & Principe, as well as to the DRC (this support is remunerated).

Through the various agreements concluded with other organisations and the support provided to non-Member States, the AAMAC increasingly appear as a reference RSOO in the domain of ANS.

B) ACSAC/URSAC

ACSAC has been established as a specialized and autonomous institution of WAEMU by the "Acte additionnel" n° 07/2013/CCEG/UEMOA which has the legal value of the treaty establishing WAEMU. The "Acte additionnel" was supplemented by a WAEMU Regulation on the status, organisation and functioning of ACSAC entered into force on June 29, 2018.

The Agency comprises eight member States. As State parties to ASECNA, all eight ACSAC Member States are also members of AAMAC.

ACSAC's mission is to provide safety and security oversight to its Member States (in the safety areas of AIR, AIG, ANS, PEL, OPS and AGA). Its functions include:

-development of technical regulations (for adoption by the WAEMU Council of Ministers) and guidance material. The fact that WAEMU regulations are mandatory and directly applicable in Member States facilitates harmonisation of regulations amongst Member States.

- "carrying out any certification and surveillance task at the request of a Member State" in the areas of PEL, OPS, AIR, AGA and ANS. However, this last provision is broad and applies indiscriminately to all Member States. States do not necessarily have the same needs in terms of safety oversight. Therefore, MoUs should be concluded individually with States, considering their needs and expectations, and where the nature of services and States expectations are specified.

Furthermore, to ensure sustainable financing of the Agency, the Additional Act provided for the establishment of its own resources in the form of a community civil aviation safety and security charge (Art. 10, 2, b). Decision No. 04/2018/CM/UEMOA set the rate and the terms of collection (two-hundred and sixty (260) CFA Francs (XOF) per international passenger). However, the implementing measures provided for in Article 9 of the Decision, namely the information of air carriers and air passengers and the adoption of the necessary provisions for the implementation of the system, have not yet been issued.

ACSAC is still not operational due to the delay in concluding hosting arrangements. Two successive plans to support the operationalisation were adopted. The first has not been implemented and the second is still pending (validated by URSAC in December 2021).

Whilst awaiting operationalisation of ACSAC, the WAEMU Commission created on 3 November 2020, "the Unité Régionale de Supervision de la Sécurité et de la Sûreté de l'Aviation Civile" (URSAC) (Decision N°6/2020/COM/UEMOA). The URSAC is in charge of providing safety and security oversight to its Member States. Its functions include developing regulations and guidance material, assisting States fulfil their obligations under the Chicago Convention, conduct certification and surveillance tasks, provide training in civil aviation safety and security, conduct compliance audits, etc.

Decision N° 06/2020 provides that "Through URSAC, the Commission (...) "carries out any certification and surveillance task at the request or by delegation of a Member State." However, it appears that the functions and tasks are carried out by URSAC at the simple request of the States, whereas a MoU with each State would be necessary. To address this issue, a draft framework MoU to be concluded between each Member State and WAEMU/ACSAC (when the Agency is operational) on the delegation of functions and tasks has been validated by the States' civil aviation experts (in July 2022) but has not yet been adopted by the WAEMU Commission.

URSAC's resources come mainly from the WAEMU budget.

More generally, although URSAC is carrying out its tasks satisfactorily, it is faced with an institutional issue. Indeed, URSAC is part of the WAEMU Commission and therefore is not an independent body as required for RSOOs.

Another issue for ACSAC/URSAC is the duplication of functions with AAMAC. This issue has been temporarily handled through a "tripartite MoU" (signed in 2014) with AAMAC and CEMAC/ASSA-AC, limiting AAMAC to ANS activities whilst assigning ACSAC and ASSA-AC all other safety oversight areas.

A new MoU, with the same purpose and deepening cooperation between the organisations, has been drafted. This MoU has not yet been signed by all parties. However, it represents a significant step forward in cooperation since it provides that WAEMU and CEMAC will take into account the ANS regulations issued by AAMAC to develop their own regulations. It also provides for a regulatory cooperation mechanism between CEMAC/ASSA-AC and UEMOA/ACSAC in their common safety oversight areas.

Finally, the coherence of the scope of membership of ACSAC/URSAC can be assessed through different criteria:

- the number of Member States (8) which enables the RSOO to reach a critical size guaranteeing its sustainability (subject to adequate funding),

- the Member States share the French language, which is also the working language of the RSOO,

- all Member States share a common regional Air Navigation Service Provider (ASECNA) with a corresponding RSOO (AAMAC).

C) ASSA-AC

ASSA-AC was created by Additional Act No.15/07-CEMAC-162-CCE of April 25th of 2007 and established as a Specialized Institution of the Economic Union of central Africa in July 2012 by the Conference of Heads of State of CEMAC.

Regulations adopted by the Council of Ministers specify the essential requirements applicable to air safety, the operating rules of the safety oversight system and the organisation and functioning of ASSA-AC. The Regulations in force *setting common rules on air safety in the field of civil aviation in the CEMAC zone* and *on the organization and functioning of the Central African Aviation Safety oversight Agency (ASSA-AC)* were adopted by the Council of Ministers of UEAC on May 24th of 2024 and June 18th of 2024.

The CEMAC Commission is empowered to adopt the implementing regulations of the regulation *Setting common rules on air safety*, which greatly facilitates the updating of the texts.

ASSA-AC includes the 6 member states of CEMAC. These States are also part of ECCAS, which has 11 members. For ECCAS States that are not members of CEMAC, the question of their attachment to ASSA-AC arises, especially since some of these States belong to other groups or are attached to different regional structures, some of which have an RSOO (Angola: SADC/SASO, Burundi: EAC/CASSOA, DRC: EAC/CASSOA and SADC/SASO, Rwanda: EAC/CASSOA). All ASSA-AC member states belong to AAMAC and ASECNA.

ASSA-AC is mandated for safety oversight in the areas of PEL, OPS, AIR, AIG, ANS and AGA. It has a large scope of functions comprising:

- assist the CEMAC Commission in the preparation of implementing regulations;

- carry out certification and surveillance activities, in relation to foreign aircraft maintenance, training and continuing airworthiness management organisations (CAMOs), at the request of Member States;

- carry out, at the request of Member States, certification and surveillance, in relation to operators and organisations located in Member States;

- develop training programs for the benefit of Member States and provide training to Agency staff and technical staff of Member States;

- provide advisory and assistance services to Member States, at their request, etc.

Many activities, including certification and surveillance, are carried out by ASSA-AC at the request of the Member States. However, no specific agreement between the Agency and any requesting State has been reached to specify the precise nature of services, expectations or service level. Concerning assistance to States, an internal document of ASSA-AC provides the modalities for this assistance.

The fact that CEMAC regulations are mandatory and directly applicable in Member States facilitates the harmonisation of regulations amongst ASSA-AC States.

According to the interviews with ASSA-AC, considering the regulatory material already developed (regulations, checklists, manuals, guides, inspector's manual, training manual) and the recruitment in progress (inspectors, technical director, administrative and financial staff), the Agency should be operational at the beginning of 2025.

Some time ago, ECCAS in collaboration with CEMAC launched an initiative to enlarge ASSA-AC to all 11 central African States of the ECCAS/CEEAC region by including the non-CEMAC States of Angola, Burundi, DRC, Sao Tome and Principe and Rwanda. This initiative also provides for vesting ASSA-AC with both safety and security responsibilities and then establishing the ECCAS Civil Aviation Agency into which ASSA-AC would be integrated and which would also be responsible for ensuring economic oversight. For now, the project seems to be at a standstill.

Currently, these non-CEMAC member states are in principle associated with various ASSA-AC activities (regulation, training). In practice, only Sao Tome and Principe is fully involved. Experts from other

States only participate in training courses organised by ASSA-AC. The interviews with ASSA-AC and States provided the following information:

- for Sao Tome & Principe, an MoU for association with ASSA-AC is under development.

- concerning the DRC, it was mentioned that for the technical work within CASSOA and SASO, the use of the English language is raising some difficulties. Nevertheless, and more generally, the DRC intends to participate, according to its interests, in the projects initiated by the different RECs to which it belongs. Attachment to a single RSOO is therefore not an objective for the DRC.

- Angola is interested in the economic oversight function that the future ECCAS Civil Aviation Agency could exercise, alongside its functions in terms of safety and security oversight.

ASSA-AC currently has two main sources of funding:

- a CEMAC subsidy taken from the community integration tax, but which is only 50% recovered (1.3 billion CFA francs); and

- an equal contribution from the States (100 K€/State) but which is only paid by two of them (Only 10% recovered; 360 million CFA francs).

In addition, a safety charge has been decided but is not yet in place. This charge is based on the number of passengers departing for international flights. Its collection should be done via IATA.

Another issue is the duplication of functions with AAMAC. This issue has been temporarily handled through the tripartite MoU (signed in 2014), limiting AAMAC to ANS activities whilst assigning ACSAC and ASSA-AC all other safety oversight areas. As mentioned above, a new MoU, with the same purpose and deepening cooperation between the organisations, was drafted but has not yet been signed by all parties. This draft MoU represents a significant step forward in cooperation since it provides that WAEMU and CEMAC will take into account the ANS regulations issued by AAMAC to develop their own regulations. And a regulatory cooperation mechanism on ANS is annexed to the draft MoU (as well as a regulatory cooperation mechanism between CEMAC/ASSA-AC and UEMOA/ACSAC in their common safety oversight areas).

It should be noted, however, that in the new regulation adopted by the Council of Ministers of UEAC in 2024, the previous provision according to which "the essential requirements set by the regulation for the provision of air navigation services will be adapted to take into account the regulations issued by the AAMACs in the field of air navigation services" has been deleted. This deletion, combined with the fact that the new tripartite MoU has not yet entered into force, raises two concerns:

- it could compromise the objective of regulatory harmonisation of ANS between organisations;

- States, which are members of both AAMAC and ASSA-AC (or URSAC/ACSAC), could be subject to dual regulations, possibly divergent, those issued by AAMAC and those issued by CEMAC (or WAEMU).

The only provision in force on regulatory cooperation comes from the 2017 tripartite MoU and provides that the parties undertake to cooperate and consult each other in the development and maintenance of common technical regulations and associated procedures in the areas of aircraft operation and airworthiness, personnel licensing, airports, accident investigation and air navigation. During interviews with ASSA-AC, it was indicated that work is underway with AAMAC to harmonise the structure of the regulation.

D) BAGASOO

BAGASOO was established pursuant to the BAGASOO Agreement signed on 30th June 2009 by the Ministers responsible for Civil Aviation of the seven (7) Banjul Accord Group (BAG) Member States. The Agreement, annexed to the BAG International legal instrument, is in force.

The BAGASOO is established as a self-accounting Institution of the Banjul Accord Group. It possesses legal personality status.

BAGASOO is not anchored to any REC.

The RSOO comprises 7 States with no overlapping membership.

The RSOO is governed by a board of directors consisting of the Directors General of the Civil Aviation Authorities (CAAs) of the Member States. The Board develops policies and gives general directions on the implementation and achievement of the objectives and functions of the BAGASOO. An Executive Director, appointed by the Board, manages the day-to-day technical tasks (assignment of inspectors appointed under the Co-operative Inspectorate Scheme, ensuring the provision and management of technical support to Member States, etc.).

Provisions in the Agreement aim at preserving the independence of the RSOO:

- "Inspectors appointed under the Co-operative Inspectorate Scheme (CIS) will be considered as officials of the BAGASOO during the period of performance of functions on behalf of the BAGASOO".

- "A person assigned to the BAGASOO or employed by the BAGASOO shall neither request nor accept instructions in relation to the performance of his or her duties from any other person or authority outside of the instructions of the BAGASOO".

BAGASSO is mandated for all safety oversight areas. Its functions include:

• Assist in the development of a harmonised regulatory regime in the sub-region;
• Serve as focal point in certification and surveillance;
• Develop and implement a training program for the civil aviation personnel in the Member States;
• Perform certification and surveillance tasks on behalf of Member State CAAs;
• Conduct audits in member States;
• Provide Technical assistance to non-Member State as approved by the Board.

As regards the assistance in the development of a harmonised regulatory regime, BAGASSO has developed a generic law from the ICAO/FAA Model, assists Member States to review their Laws and develop Generic Regulations from the ICAO Model Regulations as well as the necessary guidance including inspector manuals, checklists, templates etc. Nevertheless, this system does not provide certainty regarding regulatory harmonisation.

BAGASOO is providing assistance to States in the conduct of certification and surveillance tasks in the areas of AGA, AIR, ANS, OPS and PEL, both directly and through the use of the BAGASOO Cooperative Inspectorate Scheme (CIS) mechanism which became effective with the signing of an MoU by Member States to establish a pool of qualified inspectors.

Assistance services are rendered upon request by States, such as certification activities, conduct of audits, etc.

For the assistance/performance of certification and surveillance tasks, additional MoUs should be concluded individually with States and according to their needs to clarify the nature of services, expectations and quality control aspects. Although such MoUs have been concluded between BAGASOO and some States, this practice does not appear to be widespread.

According to the BAGASOO Agreement, the funds of the RSOO derive particularly from:

• Contributions by the Member States;
• Revenue generated by Member States through charges and levies;
• Revenue from the activities of the BAGASOO.

In practice, we see that BAGASOO depends on contributions from States, from one of these States, for its funding (40% on equal basis and 60% based on states activity level). In the longer term, this funding method is not sustainable. However, it is true that the fact that BAGASOO is not anchored to a REC, or a sub-regional economic and monetary organisation limits its capacity to set up its own funding as WAEMU was able to do with the community civil aviation safety and security charge.

Thus, the BAGASOO Agreement provides as a source of funding "Revenue generated by Member States through charges and levies for revenues". A Passenger Safety Charge Levy (per departing international passenger) was intended to have been implemented in 2012 to ensure the financial sustainability of the organisation. But the Member States, who were responsible for it, did not introduce this Charge.

It should be noted that BAGASOO has developed cooperation with ECOWAS. Thus, technical agreements were adopted between ECOWAS, ICAO and BAGASOO for the Implementation of the PASTA-CO Project. The PASTA-CO project comprises components such as the establishment of a regional pool of aviation security experts to support ECOWAS Member States, the creation of an aviation accident investigations body for West and Central Africa, a support to Member States to undergo the ACI World's Airport Excellence Program (APEX), training and capacity building of safety inspectors, etc.

E) CASSOA

The Agency derives its mandate from Article 92 of the EAC Treaty. CASSOA was established by the EAC Council of Ministers on 18th April 2007 following the signing of the Protocol on Establishment of the East African Civil Aviation Safety and Security by the three founder Partner States. The RSOO is also governed by an Act of the Community - the CASSOA Act of 2009. CASSOA started operations on 1st June of 2007 as an autonomous self-accounting institution of the EAC.

At the apex of the CASSOA structure is the EAC Council of Ministers, to whom the Board reports. The Board is the governing body of the Agency. It consists of the Heads of Civil Aviation Authorities of the Partner States, one aviation expert from each Partner State nominated by the Minister responsible for civil aviation, one representative from the East African Business Council and the Executive Director of CASSOA. The Executive Director (ED) is appointed by the Council of Ministers on recommendation by the Board for a one term of five years on a competitive basis. He is the chief executive officer of the Agency.

The Agency has two directorates: One for technical functions (aviation standards and regulation) and the second one for administration and financial functions.

At the issue of each administrative year, the accounts of the Agency are submitted to the Audit Commission.

Therefore, CASSOA seems to work under a solid institutional framework.

After the recent integration of the DRC, South Sudan and Somalia, CASSOA is including all the eight (8) EAC Member States.

Nevertheless, a duplication of membership is observed:

- Tanzania being a member of CASSOA and SASO in the same time, but from an operational point of view it seems more active under CASSOA (however, it should be noted the importance of Tanzania to remain connected to SADC and to play the role of economic mediator of the region, thanks in particular to the port strategic activity of Dar Es Salaam);
- DRC is also member of SASO.

In addition, Burundi, DRC and Rwanda are members of ECCAS which in collaboration with CEMAC launched an initiative to enlarge ASSA-AC to all 11 central African States of the ECCAS/CEEAC region by including the non-CEMAC States.

According to information gathered during interviews, the DRC intends to participate in the projects initiated by the different RECs to which it belongs. Attachment to a single RSOO is therefore not an objective of the DRC. Furthermore, it appears that Rwanda and Burundi are not fully involved in the activities organised by ASSA-AC within the framework of the enlargement.

CASSOA combines safety and security functions in its mandate. Its objectives are to develop policies on the development of safe, reliable, efficient and economically viable civil aviation, assist the Partner States in meeting their safety and security oversight obligations and provide the Partner States with a forum and structure to discuss, plan and implement common measures.

According to CASSOA Act, its functions include:

- Assist in the development of a harmonised regulatory regime for the Partner States;
- Co-ordinate civil aviation safety and security oversight activities amongst Partner States;
- Evaluate the status of aviation safety and security in the Partner States and recommend necessary interventions or corrective measures for the resolution of constraints or deficiencies;
- Assist the Partner States to meet or comply with ICAO SARPs;
- Plan and facilitate the sharing between Partner States, of technical expertise and facilities in civil aviation;
- Provide policy direction, advisory services and such other assistance as the Partner States may require; etc.

CASSOA assists in the development of a harmonised regulatory regime by developing, reviewing and amending models EAC Primary Civil Aviation Act (and Aircraft Accident and Incident Investigation Act), civil aviation regulations and technical guidance materials. However, States are responsible for the adoption and promulgation of these models. In practice, delays in the implementation of harmonised standards by Partner States are caused by diverse bureaucratic processes to promulgate or approve the developed documents.

In terms of operational activities, CASSOA performs technical missions (all audit areas), establishes working groups (experts from Partner States), provides training and certification support for operators.

CASSOA appears therefore to be mainly a Level 1 RSOO (Advisory and coordinating functions) aiming at harmonising operating regulations, providing guidance and assistance to Partner States and facilitating the share of personnel and resources.

However, the levels of delegation of functions do not appear clearly in the constitutive texts of CASSOA. In addition, the provisions of these texts are broad and applicable without distinction to all Member States.

Therefore, to meet the needs and expectations of States, MoUs are concluded individually with States.

Among the achievements to be credited to CASSOA, we note the establishment of a Common EAC examination system for aviation personnel, the deployment of common IT systems, etc.

According to the CASSOA Act, the sources of funds for the Agency are, among others:

- Contributions by the Partner States;
- Resources mobilised by the Community;
- Revenue from the activities of the Agency.

In practice, CASSOA is funded by contributions from States (and supplemented by development partners). The delayed remittance of funds to the Agency affects the implementation of the planned activities and reduces activities on oversight and safety.

The 23rd Ordinary Summit of the Heads of States, held on the 24th of November 2023 and subsequently the decision of CASSOA Board, proposed financing formulae that the Agency budget be

funded by equal contributions from Partner States at the tune of 65% and 35% of assessed contributions based on the nominal GDP per capita of each Partner State.

The establishment of a sustainable funding mechanism, not depending on States contributions, is therefore still a challenge.

CASSOA has developed cooperation with other RSOOs. Thus, CASSOA and SASO signed a MOC in May 2022 to promote closer co-operation through the harmonisation of their policies, laws, programs and activities in aviation safety and where appropriate activities in aviation security. This MoU is in line with the recommendations of the RSOO Member States strategy that calls for collaboration between themselves to utilise effectively the available scarce resources.

A cooperation agreement with BAGASOO is also under preparation.

CASSOA is currently in the process of the RRAP Assessment (October 2024).

F) SASO

SASO is a subsidiary organisation within the Southern African Development Community (SADC). It is established by SADC Member States through a Charter entered into force in 2023 (the two thirds threshold required to operationalise the SASO Charter was reached on the 28th of February 2023).

SASO is an international organisation established as an autonomous and self-accounting organisation of SADC and possesses legal personality.

The role of the SASO is to enhance the safety of civil aviation by complementing, to the extent required by Member States, the certification and oversight capabilities of SADC Member States.

The SADC Committee of Ministers responsible for civil aviation approves policies, strategies and programmes of SASO. The Civil Avian Committee is responsible for strategic planning, formulation and ensuring implementation of the SASO programs and projects, including recommend to the Ministers for approval, appointment of the Executive Director, review and recommend to Ministers for approval generic civil aviation regulations, manuals and procedures, review and recommend to Ministers for approval the annual work programs of the SASO, etc. Finally, a Secretariat, responsible for the day-to-day management and technical coordination of the activities of SASO, is headed by an Executive Director. The latter manages, among other things, the provision and management of technical support to Member States by the SASO as well as the organisation and conduct of audits at the request of Ministers or as scheduled in the work programme.

Furthermore, under the SASO Charter, the SADC Secretariat provides overall strategic policy guidance to SASO in order to ensure that the SASO objectives, functions and priorities are consistent with the SADC mandate on civil aviation safety and security matters. A MoU between SASO and the SADC Secretariat operationalises their mutual working relationship.

Among the 16 SADC member states, 12 are members of SASO although almost all States participate in RSOO activities.

There is a duplication of membership:

- Tanzania is a member of SASO and CASSOA but from an operational point of view is active in CASSOA (nevertheless, it should be noted the importance of Tanzania to remain connected to SADC, plays the role of economic mediator of the region, thanks, in particular, to the port of Dar Es Salaam);
- Democratic Republic of Congo (DRC) is member of SASO and CASSOA;
- DRC and Angola are members of ECCAS which in collaboration with CEMAC launched an initiative to enlarge ASSA-AC to all 11 central African States of the ECCAS/CEEAC region by including the non-CEMAC States.

According to information gathered during interviews, the DRC intends to participate in the projects initiated by the different RECs to which it belongs. Attachment to a single RSOO is therefore not an objective of the DRC.

SASO Charter provides that the RSOO performs advisory and coordinating functions but also operational assistance functions.

As part of its advisory and coordination functions, SASO:

- Provides for the expansion of the Government Safety Inspector (GSI) training program with aim of augmenting national inspectors' technical knowledge and qualification;
- Recommends necessary interventions or corrective measures for the resolution of constraints or deficiencies;
- Plan and facilitate the sharing between Member States of technical expertise and facilities in civil aviation, etc.

As part of its operational assistance functions, SASO participates in initial certification exercises for the purpose of monitoring and ensuring the uniform application of common standards within the SADC Region.

SASO also assists in the development of a harmonised regulatory regime for the Member States.

In the area of accident/incident investigations, SASO functions are to assist in ensuring that accident and incident investigations are conducted in compliance with ICAO Annex 13, establish and maintain an accident and incident database, establish a mandatory incident reporting system and a Confidential Voluntary Incident Reporting System on behalf of Member States.

In practice, SASO mainly performs Advisory and Coordinating Functions (Level 1 in terms of safety functions delegation level).

Since the provisions of the Charter are broad and applicable without distinction to all Member States, MoUs are concluded with States to meet their needs and expectations.

For the assistance in the development of a harmonised regulatory regime, SASO develops generic Regulations for adoption by States. However, Member States have no obligation to implement them. The consultants were unable to obtain information on the level of implementation of these generic regulations. In practice, we see that a State playing a major role in air transport of the region has not aligned its regulations with those developed by SASO.

In terms of operational activities, SASO assesses the level of safety in States, assists States with certification of operations and facilities, provides training services to States (train the trainer course, training needs assessment workshop), prepares States for ICAO audits, assist States in development of regulations...mainly in the areas of PEL, OPS and AIR. However, SASO intends to gradually extend its activities to all areas of safety oversight.

To support the inspection activities, SASO developed an agreement to endorse the establishment of a National Safety Inspectors program for the use of a pool of national inspectors from the SADC States for the purpose of complementing the efforts of inspectors with the individual States. In this framework, SASO concluded a MoU with the South Africa Civil Aviation Authority by which the latter agrees to make its qualified National Inspectors available for the inspectorate scheme.

One of the functions of SASO is to provide technical assistance to non-Member States. This function is not yet implemented.

According to the SASO Charter, the RSOO derives its income from:

- Membership contributions;
- Charging consulting and training fees;
- Grants and donations; and

- Any other source, which the Ministers may deem appropriate.

In practice, SASO is funded by contributions from States (40%), donors and others (60%). The Council of Ministers has rejected a proposal to introduce a passenger tax due to the high cost of air travel in the region. The establishment of a sustainable funding mechanism, not depending on States or partners contributions, is therefore still a challenge.

SASO also faces recruitment problems. Thus, the Civil Aviation Committee did not approve the recruitment of Legal Counsel and ICT Specialist (to operationalise the ECCAIRS system) due to financial sustainability challenges. Therefore, other methods in the form of use of CAA officials to assist in legal and ICT matters were implemented.

SASO has developed cooperation with other RSOOs and organisations. The RSOO concluded MoCs with BAGASOO (entered into force on the 17th of May 2022) and CASSOA (entered into force on the 16th of July 2021). These MoCs have the same purpose which is to promote closer co-operation through the harmonisation of their policies, laws, programs, strategic objectives and activities in aviation safety and where appropriate activities in aviation security.

Previously, SASO had concluded a MoU with AFCAC for the use of national inspectors under the AFI Cooperative Inspectorate Scheme (AFI-CIS). By this MoU, SASO agreed to make its qualified national inspectors available for the inspectorate scheme.

3. Strategic Objectives and Methodology

By the establishment of the present study, the main strategic objective of the project team is to consider:
- the previous studies results,
- the interviews outcomes, held with the ICAO Regional Offices, RSOOs and RAIO key personnel, AFCAC, and other involved key representatives in the AFI region,
- the project experts' knowledge of the AFI region aviation context, its aviation regulatory framework, and the States practices in terms of safety oversight activities,

to (i) consolidate the outcomes, (ii) to recommend RSOOs optimised organisation scenarios (based on the mitigation of the gaps identified and optimisation of RSOOs/States efforts and resources, and (iii) to establish a final comparison scheme summarising the recommended scenarios, to be debated by the AFI region actors (RSOOs, States, and the associated partners).

3.1. Scope of the study

In line with the project terms of reference requirements, the scope of the study is including all the AFI region members, actors and safety partners:
- The regions,
- The economic communities (REC),
- The existing RSOOs,
- The AFI region Member States, and the other
- Safety partners, involved in the RSOOs processes

For a better illustration of the various partnerships and RSOOs composition, refer to the interrelation Chart illustrated in Paragraph 2.1.4 here above and Figure 4 here attached.
As for the technical domains concerned, the study enclosed activities and scope of actions in the safety domains considered by ICAO SARPS, development and implementation of the legal and regulatory framework (LEG, REG), the States and RSOOs organisations (ORG) in order to measure their capabilities in terms of safety oversight, the aircraft airworthiness (AIR), the aircraft operations (OPS), the

personnel Licensing (PEL), the Air Navigation Services (ANS), the Aerodromes certification (AGA), the safety management (SSP) and the accidents and incidents investigations (AIG).

3.2. Methodology of the study (Analysis / Interviews)

The methodology adopted for the present project was to combine two main activities:

- A first activity consisting in the review, study and analysis of (i) reference documents on the existing RSOOs, RECs and States in the AFI region, (ii) previous studies and reports developed on the aviation context, development of partnership and cooperation between African and safety partners states; and
- A second activity, consisting in interviews with managers and key personnel operating in the existing RSOOs organisations and within the safety partners in the AFI region.

Indeed, the project team approached RSOOs and safety partners in the AFI region to provide information on their membership and legal status, establishment and adoption of arrangements, resources in terms of personnel and financial funding, level of involvement in States safety oversight activities as well as the, delegation of functions by member States, cooperation and collaboration with other AFI RSOOs, challenges and possible issues relating to the efficiency and sustainability of the aviation safety performance and oversight system.

As for the interviews, they were conducted with several decision makers and key personnel from RSOOs, RECs and with various safety partners and States officials: ESAF, WACAF, BAGASOO, CASSOA, AAMAC, URSAC, SASO, ASSA-AC, Airbus, EASA, AFCAC, BAGAIA, Tanzania, Senegal, Mauritania, Ethiopia, Cameroon, DRC, … as well as various subject matter experts.

AAMAC	ASSA-AC	MENA	BAGASOO	BAGAIA	CASSOA	URSAC/ACSAC	SASO	7-Parner States
Benin	Cameroon	Egypt	Cabo Verde	Cabo Verde	Burundi	Benin	Angola	Eritrea
Burkina Faso	Central African Rep.	Libya	Gambia	Gambia	DRC	Burkina Faso	Botswana	Ethiopia
Cameroon	Chad	Morocco	Ghana	Ghana	Kenya	Côte d'Ivoire	Comoros	Somalia
Central African Rep.	Congo, Republic of	Mauritania	Guinea	Guinea	Rwanda	Guinea-Bissau	DRC	Sudan
Chad	Equatorial Guinea	Somalia	Liberia	Liberia	Somalia	Mali	Eswatini	Djibouti
Comoros	Gabon	Sudan	Nigeria	Nigeria	South Sudan	Niger	Lesotho	Egypt
Congo, Republic of			Sierra Leone	Sierra Leone	Tanzania	Senegal	Madagascar	Libya
Côte d'Ivoire					Uganda	Togo	Malawi	
Equatorial Guinea							Mauritius	
Gabon							Mozambique	
Guinea-Bissau							Namibia	
Madagascar							Seychelles	
Mali							South Africa	
Mauritania							Tanzania	
Niger							Zambia	
Rwanda							Zimbabwe	
Senegal								
Togo								

Figure 4: AFI RSOO actual membership

3.3. Activities & tasks description

In addition to the survey, the study relied on several and various reference documents and materials. Among them, the Report on AFI Regional Safety Oversight Organisation (RSOO) study of Sept 2021, as well as the RSOO Global Strategy and Action Plan for the improvement of RSOOs and the establishment of a Global System for the Provision of Safety Oversight. The study also considered the analysis and conclusions of ICAO evaluation of RSOOs conducted in November 2017.

Finally, the study shows a consolidation of both the results of the documents and materials analysis, reports, interviews, as well as the project experts' knowledge of AFI RSOOs (and member States CAAs) approaches, practices and habits in discharging their responsibilities in terms of daily safety oversight activities.

At the final step of the study, a workshop is planned to be held in one of Africa States, to present the results of the study, exchange and discuss with the project partners, for final adjustments and finalisation of the project recommendations.

3.3.1. Activity 1: Review of the RSOO study, Strategy and Roadmap

This activity consisted in two (2) main tasks related to the study of the present AFI RSOOs context, and interviews, through several online meetings, conducted with regional offices and States representatives.

Task 1.1   Analysis of the AFI RSOOs context and identification of obstacles/barriers

The project team proceeded to review and analyse recent reports from ICAO, results of other similar studies, and outcomes from documents developed from the AFI region.

Task 1.2   Interviews with ICAO regional Offices representatives, African RSOOs, and AFCAC:

Several interviews were held during the period of May-July 2024, between the project team and the various actors of the AFI aviation community, such as ICAO regional offices, the African RSOOs, and AFCAC:

- Interview with URSAC key representative,
- Interview with AAMAC key representative,
- Interview with ASSA-AC key representative,
- Interview with BAGASOO key representative,
- Interview with CASSOA key representative,
- Interview with SASO key representative,
- Interview with BAGAIA key representative,
- Interview with AFCAC key representative, as well as

Interviews with WACAF and ESAF regional offices Directors and key representatives.

These interviews were also combined with consultations of AFI safety partners involved in the RSOOs processes and various AFI States officials.

3.3.2. Activity 2: Prioritisation of the different options

After reviewing the general structure and the groupings of the AFI region States through the various RSOOs *(refer to figure 04)*, analysing the strengths, weaknesses and challenges they are facing, the strategy adopted by the project team is to propose a new optimized organisation for the AFI region RSOOs (or maybe new groupings) without bringing radical changes, avoiding thus:

- to break the aviation safety regulations system that States have adopted and are implementing,
- To break the surveillance procedures that States are implementing to conduct the oversight of their respective industries, or
- to generate any confusions in adopting new or different legislations/regulations (by the modification of their groupings),

Another approach could generate additional charges in terms of finance, personnel resources, and possible technical difficulties to States in terms of legislation and regulations implementation.

Indeed, the project team approach was based rather on the recommendation of **scenarios** that could potentially show optimisation in the States groupings, and a better share of common regulations and practices, considering the present assets, such as:

- The RSOOs present organisational structure (including the various legislative, administrative arrangements and agreements),
- The links to the respective RECs,

- The States geographical locations,
- The languages (to the maximum extent) used in the development and interpretation of the States civil aviation regulations, ...
- ..

<u>Task 2.1 Identification / Listing of available Options, Pro. & Cons. Analysis, Development of a Prioritisation Mechanism</u>**:**

Further to previous RSOOs study, the thoughts considered the <u>4 main options proposed</u>:

- Option 1 (7 RSOOs): Six (6) existing RSOOs plus a new one for non-RSOO States.
  The six existing RSOOs considered are the following ones: URSAC/ACSAC, ASSA-AC, BAGASOO, CASSOA, SASO, AAMAC. The new one for non-RSOO States could correspond to the 7-partner attempt.
- Option 2 (6 RSOOs): Six (6) REC based RSOOs and non-RSOO States to join the existing ones,
- Option 3 (5 RSOOs): Reduction to four (4) African Union recognized RECs plus the AAMAC,
- Option 4 (4 RSOOs): Reduction of six (6) RSOOs to four (4) (i.e. one each for ECOWAS, ECCAS, SADC, and EAC),

As for the present study, in addition to the document review, analysis, and interviews conducted by the project team, it took into consideration the recommendations of the previous study.

The project team identified four (4) scenarios, to be analysed by the AFI region aviation safety communities for thoughts and discussions:

1. Scenario 1: Merge of URSAC/ACSAC and ASSA-AC:
   a. Without AAMAC
   b. Including AAMAC
2. Scenario 2: Merge of URSAC/ACSAC and BAGASOO under ECOWAS framework,
3. Scenario 3: Merge of CASSOA and SASO,
4. Scenario 4: Extension of AAMAC to non-ASECNA States.

3.3.3. Activity 3: Proposal of an RSOO suitable funding mechanism

After developing a budgetary approach of RSOO resources in order to ensure financial and staff sustainable resourcing, the different funding options were analysed by the subject matter expert from the project team and consisted in three main tasks as following:

<u>Task 3.1   Analysis of the Pros & Cons of the different funding Options</u>
This task was conducted through a strategic approach considering the needs for RSOO to develop a stable and expert workforce without increasing the contribution of State Members which already have some challenges in assuming their current contributions. Different sources of funding are considered and simulated in this objective.

<u>Task 3.2   Prioritisation of the different funding options</u>

The prioritisation and the legal basis of the different funding options have been analysed in order to establish a solid basis for the creation of possible new revenue to RSOO which should be independent from States and not overlap with them.

<u>Task 3.3   Analysis of the possibility of a joint charges' collection scheme</u>
Conditions for a sound, fair and transparent charges' collection scheme have been analysed for the designation of a collection entity and the establishment of a sustainable collecting mechanism. The

collection entity must be able to rely on legal provisions applicable in the event of recovery difficulties, where appropriate with the support of national authorities

3.3.4. Activity 4: Identification of the options to move towards the optimal number and size of RSOOs in the AFI region

The study was conducted in such a way that it enables a large and precise view on the difficulties faced presently, by either the RSOOs or the States in discharging their responsibilities in terms of aviation safety oversight.

Indeed, in their analysis and identification of the possible options and scenarios, the project team took into account the maximum number of cases of cooperation, interactions between States, the RSOOs, the Economic Unions, as well as any issues or concerns that could be generated by the technical language used, or the legal framework, any strategic objectives, or any political constraints that could jeopardize the grouping organisation review or possible merging decisions ...

By analysis the maximum of cases and possibilities of cooperation, the project team could optimize the conclusions in terms of States grouping, merging, share of resources and efforts, consolidation of the scope of services, activities and resources.

Task 4.1   Analysis of the Pros & Cons of the different Options (identification of any overlapping and duplication of membership)

In conducting this activity, the project team put the emphasis on the identification of any overlapping and duplication of membership of the States.

Indeed, several States were found participating to several RSOOS at the same time, having different legislative or regulatory framework, and sometimes different languages making the implementation of the surveillance procedures difficult.

Task 4.2   Prioritisation of the different Options

3.3.5. Activity 5: Step-by-Step Implementation Plan

The approach recommended under the present project study is to proceed under a phased approach for the implementation plan of the Scenarios *(among the four (4) ones proposed)* that will be agreed for the RFI region.

Indeed, three (3) phases are proposed for this phased approach:

1. Consolidation Phase,
2. Maturation Phase,
3. Optimisation Phase.

Task 5.1 _ Development of a Step-by-Step Implementation Plan (Political decisions, Agreements, Regulation, Plan for the reorganisation of the RSOOs grouping.)

3.3.6. Activity 6: Development of Templates of the MOU and/or Service Level Agreements

Task 6.1   Drafting of templates for MOUs and/or Service Level Agreements

3.3.7. Activity 7: Conduct of a Validation Workshop

A Consolidation and wrap up workshop is planned to be held in first quarter of 2025, in one of the AFI region States.

Task 7.1 _ Preparation and conduct of the Validation Workshop in cooperation with EASA

In coordination with EASA project team, the participant States and the Safety Partners, a workshop is planned to be held in one of the AFI region States, during the first quarter of 2025, and conducted by the project experts' team. Its objectives will be to:

- present the study results and outcomes,
- present the understanding and analysis of the present RSOOs contexts, issues, strengths, weaknesses, and the challenges faced,
- discuss the approach proposed,
- discuss the various Options and scenarios proposed for the optimisation of the AFI region resources and activities, when grouping the States, for a more effective and efficient discharge of their responsibilities in terms of safety oversight,
- discuss the participants comments and views for introduction to and adjustment of the study,
- agree and validate the final strategy proposed with the interested parties for a future adoption in the RFI region.

The validation workshop will constitute the final stage for the project Final Report completion.

4. How to achieve optimized AFI-RSOOs — Proposal for an AFI RSOO Roadmap.

The first condition for the strengthening of the RSOO mechanism in the AFI region is the confidence of States that their contribution to the RSOO will generate a positive energy that will support them in their efforts to comply with ICAO standards and alleviate their tasks. They should see the RSOOs as providing real added value to them, rather than taking resources away from States to energize the RSOOs. They should see the value of the RSOOs in the collective efforts of the AFI region to improve aviation safety.

In establishing the RSOOs, the member States should consider the advantages as an alleviation to their tasks rather than to create an additional layer of complexity in the difficult challenge of improving the safety oversight system and meeting ICAO expectations. The mechanism of RSOOs should be seen as contributing to the consolidation and stabilisation of collective efforts to improve safety performance, without creating any additional administrative burdens.

In order to achieve this objective, it is necessary to define a starting point where the RSOOs have
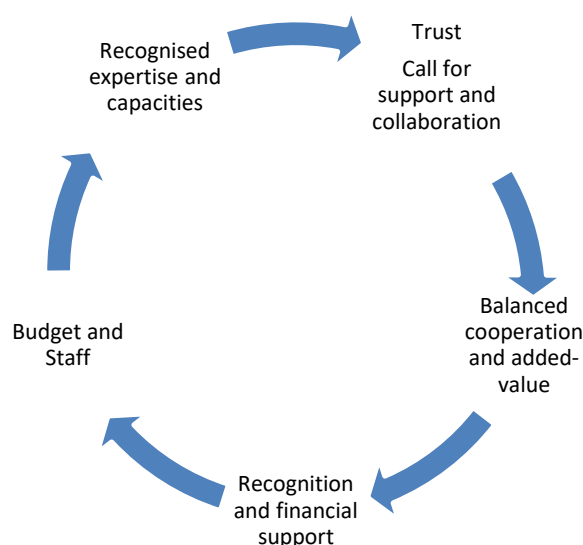
consolidated statutes that enable them to carry out their activities in an unhindered and efficient manner.

They should have sufficient and competent staff to provide effective support to Member States, when needed. Membership should be consolidated, and the commitment of member States clarified. The activities of the respective RSOOs' and those of the member States should complement each other and be perceived as beneficial to the States without any doubt about possible duplication or competition for resources.

In coherence with first study, various interviews and analysis of the situation led to the conclusion that it was necessary to develop a roadmap for the operationalisation the AFI RSOOs in three phases:

- A consolidation phase
- A maturation phase
- An optimisation phase

This phased roadmap is proposed to serve the purpose of a progressive operationalisation of RSOOs with a clear basis to enable activities and create added value for member states. Some RSOOs have already passed some steps of the proposed roadmap. The proposed approach privileges the ability of RSOOs to deliver services to satisfaction of States, to engage in concrete and practical safety oversight activities and to gain recognition.

The possible merging of RSOOs to reach a certain critical mass and economies of scale has been postponed to the optimisation phase by giving priority to the provision of real and concrete services. Negotiations can take a long time and delay possible practical advantages. Moreover, it does not appear that a regional grouping of a high number of States could be more efficient than a handful one. Looking at the various RSOOs in the AFI region, it seems more important to consolidate and rationalize the membership than to increase it.

4.1. Consolidation Phase

The objective of the consolidation phase is to create or consolidate the capacity of the respective existing RSOOs in the AFI region to provide effective and efficient services to the member states. Paving the way for an effective cooperation where the respective roles and prerogatives are well defined, will greatly contribute to an efficient and optimized use of existing resources and create the proper environment for a productive collaboration between both the RSOOs and the Member States' CAAs.

4.1.1. Membership

o Considerations for RSOO membership

The primary objective of the RSOOs, which are established technical bodies, is to provide effective support to States in improving the aviation safety oversight system, in a particular region of the world. Membership of an RSOO is initially the result of an agreement between States to work together towards this objective. Nevertheless, some criteria should be taken into account when considering membership of an RSOO.

o RSOO management

The institutional constitution of the RSOO should allow a simple and flexible way for the RSOO organisation to progress efficiently and to take productive initiatives in support to States. Therefore, a certain degree of autonomy should be possible and allowed by the institutional structure of the RSOO organisation.

An RSOO is, first and foremost, a technical body and should be managed in accordance with the requirements of such a body.

The RSOO should have sufficient resources to carry out its functions.

o Critical mass of the RSOO

In terms of size and membership, the RSOO should be neither too small nor too large. In the case of a very small number of members, the need to have a minimal structure and organisation would undermine the efficiency of the RSOO. From the observation of the actual membership of AFI RSOOs, a minimum number of 6 Member States seems to be appropriate.

Conversely, an overly large RSOO would first create the need to develop an RSOO with a very developed structure and organisation, resulting in some inertia and inefficiency. Responding to the demand will be a challenge if the staff is limited. If the staff is large, there will be a need for coordination and inefficiency may be the consequence. A maximum of between 12 and 15 members seems reasonable.

- o Language

Most of the current RSOOs in the AFI region are based on an existing regional community. However, the common language of the members in different RSOOs is not necessarily the same and this becomes a challenge when creating, developing or sharing common material, be it for regulatory, training or reporting purposes. English or French may be the language of the RSOO, but it is not necessarily easy to interact with states that speak a different language.

- o Legal system

As previously reported, harmonised regulation throughout the region covered by the RSOO is a key objective and challenge for each RSOO. Therefore, the legal approach and the regulatory structure of the different RSOO members should be sufficiently harmonised to enable an easy transposition of jointly developed material in the national legal system.

- o Combining strengths

The purpose of grouping States together to form an RSOO is to strengthen the capacity to manage aviation safety well. Therefore, the RSOO should not be the addition of all the weaknesses observed in the Member States but the creation of a common capacity to solve them by adding their respective strengths.

- o Commonalities

The establishment and development of an RSOO makes a lot of sense if the Member States have common problems and can find common solutions to these problems. Therefore, it is important that the membership of an RSOO is composed of States that have real commonalities, especially in the field of aviation, to work efficiently together. In the case of common aviation industry, cooperation in safety oversight at the regional level, through cooperation between RSOO States or through the RSOO itself, would make a lot of sense. In addition, the air transport system well irrigates the region of the RSOO, by contributing to aviation safety, the RSOO will make an important contribution to the economic and aviation development of the region.

- o Relations with the Regional Economic Communities (RECs)

Linking an RSOO to a Regional Economic Community seems logical and natural. It is, indeed, important that the RSOO inherits the administrative, legal, economic, etc. facilities that go with the REC.

However, the AFI RECs are not separate and have some overlaps. The RECs were not specifically created with the purpose of facilitating regional technical matters and in most cases, it is the result of a political and economic arrangement to facilitate the economic development of the global region. While the regional framework may provide some means to support the activities of the RSOO, it is also important to consider that the RSOO should have sufficient autonomy and flexibility to carry out its technical work with pragmatism and efficiency.

From the survey conducted, there is a strong affiliation between the RSOOs and AFI RECs except for AAMAC. Some States at the same time belong to different RECs and belong to different RSOOs (*see further considerations on duplication of membership*). However, URSAC/ACSAC and ASSA-AC are more closely related to a monetary community, WAEMU and CEMAC respectively, than to their respective

RECs, ECOWAS and ECCAS. BAGASOO is also part of ECOWAS, which de facto groups the complementary States of ECOWAS which are not part of WAEMU, the WAMZ countries. URSAC/ACSAC and WAEMU have a strong organic relationship, whereas this is not the case for ECOWAS, nor for BAGASOO.

   o   Non-duplication of membership

As already mentioned, the duplication of membership in different RSOOs is not adequate for various reasons. The more efficient the RSOO is, the more it will become involved in various subject matters. For a given State, equal participation in two RSOOs will be a challenge, implementation of regulation from different sources will be a burden and, at the end, this will lead to inefficiency. As long as the RSOOs activities are limited to workshops and high-level training sessions, belonging to several RSOOs would not be harmful but as soon as the developments become more serious, it will not work. Indeed, joint training and workshops may be covered by some cooperation agreements between RSOOs, but they don't have to constitute the basic aim of the RSOO.

Apart from the specific case of AAMAC, only few states are members of more than one RSOO at the same time:

- The Republic of Tanzania in CASSOA and SASO,
- Democratic Republic of Congo (DRC) in SASO, CASSOA and possibly ASSA-AC,
- Mauritania is associated with URSAC/ACSAC and may be part of MENA.

Institutionally, they are entitled to be members of different RSOOs, but this usually leads to double or triple financial contributions and is not suitable for the efficiency of RSOO's cooperative work. This situation should be avoided as much as possible, and a clear choice of membership should be made.

In some interviews, the idea of distinguishing between institutional and operational membership was put forward. Indeed, looking at the specific case of Tanzania, which is a member of both CASSOA and SASO, it appears that Tanzania is heavily involved in CASSOA activities, even with some chairmanship, and only participates institutionally in SASO. Tanzania contributes financially to both RSOOs. In the case of Tanzania, we could consider that Tanzania is institutionally a member of both CASSOA and SASO but operationally only a member of CASSOA.

If it is not politically, diplomatically or institutionally possible to renounce membership of some RSOOs, a differentiation in the typology of membership may clarify the situation. For the smooth running of the organisation, the type of membership should be clear and stable.

In distinguishing between "operational membership" and "institutional membership", a specific definition of "operational membership" needs to be developed. This definition should include all activities that cannot be duplicated in different environments. For example, neither the regulatory framework, nor delegated Safety Oversight activities can be duplicated.

In conclusion, Operational membership to RSOO should at least comprise:

- Harmonised regulation framework, and
- Delegation of Safety Oversight activities which should be supported by a formal delegation agreement.

In the specific case of AAMAC, where some States belong to different RSOOs and are also members of AAMAC since they adhere to the ASECNA Convention for joint provision of air navigation services, the scope should be clear to avoid any duplication of activities and responsibilities between the different RSOOs. The tripartite agreement between URSAC/ACSAC, ASSA-AC and AAMAC has created a positive context to resolve potential duplication in the ANS area. However, Rwanda has just joined ASECNA and consequently AAMAC and some other States in the AFI region may do so. Therefore, clarification of the scope of responsibilities between AAMAC and the other RSOOs involved will be necessary to be determined in the case where States from these RSOOs decide to join AAMAC.

o   Associated Members

Some States regularly participate in the activities of the RSOO without being members. This is the case of Sao Tome and Principe with ASSA-AC and Mauritania with URSAC/ACSAC. As long as there is no duplication with other RSOOs, this should improve the situation and create a positive dynamic. An association agreement should be signed based on the same duties and responsibilities as with other members of the RSOO and the associated State should contribute financially to the RSOO, taking over the potential contribution of the REC to the RSOO (*see section on budget*).

o   Cooperation with isolated States

Some States in the AFI region do not belong to an RSOO. This is not an obligation and if the State is able to fulfil its obligations, and manage its aviation safety properly, there is no need to belong to an RSOO. A good example is Ethiopia. Ethiopia is one of the large African aviation countries with a significant aviation industry. Ethiopia may consider joining CASSOA at some point, as it looks like the 7-partner initiative has collapsed. Ethiopia is strong enough to manage its situation independently. However, its neighbours, Djibouti and Eritrea, are not. Somalia seems to be on the verge of joining CASSOA.

For these reasons, the States of the Horn of Africa may wish to cooperate with CASSOA without being members. In this case, a cooperation agreement should be drawn up and signed, defining the scope and responsibilities of this cooperation and the corresponding modalities of contribution. This may lead to a possible future membership under the RSOO or simply be self-sufficient to normalise the cooperation scheme between the State and the RSOO.

4.1.2.   Statutes consolidation

- **Legal status of RSOOs**

All RSOOs were established on the basis of an international Agreement and all agreements are in force (the two thirds threshold required to operationalise the SASO Charter was reached on the 28th of February 2023). However, in some cases requiring ratification, not all States have ratified the Agreement, which may hamper the development of the RSOO. Furthermore, it appears that States that have signed the Agreement but not ratified it nevertheless fully participate in the operation of the RSOO, which may create some legal uncertainties.

The legal status of RSOOs is specified in the various agreements:
- ACSAC has been established as a specialized and autonomous institution of WAEMU;
- ASSA-AC was established as a specialized institution of the economic union of central Africa (CEMAC);
- SASO is an international organisation established as an autonomous and self-accounting organisation of SADC;
- CASSOA is an autonomous self-accounting institution of the EAC;
- BAGASOO is established as a self-accounting institution of the Banjul Accord Group;
- AAMAC is a public institution with international legal personality and management autonomy, particularly in financial matters.

For ASSA-AC and ACSAC, the constitutive Agreement has been supplemented by a Community regulation further detailing the organisation and functioning of the RSOO.

All RSOOs have legal personality, which implies that they can act as a joint agency in performing safety oversight functions and tasks on behalf of all their Member States, can accept and receive, in their own name, delegation of safety-related functions from Member States and that they are allowed to provide for their own funding.

However, in practice, legal personality does not guarantee the autonomy of RSOOs.

It should be noted that ACSAC is not yet operational due to the delay in concluding hosting arrangements and that URSAC is part of the WAEMU Commission and is therefore not an autonomous

body. It is particularly urgent that States reach an agreement on the host State of the Agency, especially since, after this agreement, it will probably take several years for the ACSAC to become effectively operational.

- **Organisational structure**

In the framework of regional economic integration organisations (REIO), the decision-making bodies of the RSOO reflect the institutional structure of the organisation to which it is anchored.

This can sometimes result in giving the RSOO multiple decision-making bodies, as in the case of ASSA-AC:
- the Conference of Heads of State;
- the Council of Ministers of the Economic Union of Central Africa (UEAC);
- the Committee of Ministers responsible for Civil Aviation;
- the Steering Committee.

In these regional economic integration organisations, the Committee of Ministers responsible for civil aviation is responsible for approving/adopting the policies and strategies to be implemented by the RSOO and, in general, for considering/adopting the programs and annual budget of the RSOO and for appointing its Executive Director (except for ASSA-AC where the Director General is appointed by the Conference of Heads of State). However, ACSAC has greater autonomy since the annual program of activities and budget are adopted by the Board of Directors of the Agency and the Executive Director is appointed by the same Board. Only two RSOO constituent instruments fully specify the responsibilities of the Committee of Ministers.

Regarding the Banjul Accord Group, the Council of Ministers responsible for Civil Aviation is its Supreme Organ and Decision-making body and approves the recommendations of the Plenary as well as takes policy decisions and issue directives for the implementation of the BAG Agreement. The Council of Ministers does not, therefore, exercise in respect of BAGASOO the responsibilities that the REIO Councils of Ministers have in respect of ASSA-AC, CASSOA and SASO.

All RSOOs have a governance body and an executive body headed by an Executive Director/Secretary.

Finally, it should be remembered that URSAC is not an autonomous body. The Regional Unit is attached to the Transport Department of the WAEMU Commission and is placed under the direct hierarchical authority of the Commissioner responsible for this Department. URSAC is headed by a General Coordinator appointed by the President of the Commission on the proposal of the Commissioner.

o   Governing body

The governing body of RSOOs is composed of representatives of Member States who are generally, under the terms of the constitutive instrument, their Director General of Civil Aviation (DGCA). However, it happens that this instrument does not expressly designate the DGCA as representatives of the States. Thus, "the AAMAC Council is composed of a representative designated by each State Party on the basis of its competence in the field of aviation safety".

For RSOOs anchored to WAEMU and CEMAC, the governance body comprises a representative of the WAEMU/CEMAC Commission.

Sometimes, the constitutive instrument also provides that the governing body includes one aviation expert from each Member/Partner State (nominated by the Minister responsible for civil aviation in each Member/Partner State). However, it is not always clearly specified that the aviation expert must not be a person regulated by a Civil Aviation Authority or who has an interest in an entity regulated by a Civil Aviation Authority.

As a rule, the executive Director/Secretary of the RSOO participates in the work of the governance body. His presence, to provide the link between governance and daily management, is essential.

Finally, in certain cases, the constitutive instrument does not provide for membership in the governance body to be extended to other parties. However, other States may have an interest in the RSOO and may be legitimately invited to participate in the deliberations without voting rights. Similarly, industry stakeholders or other international organisations could participate in the governance body as observers.

The case of SASO must be mentioned. The SASO charter does not indicate the composition of its governing body (Civil Aviation Committee). The Charter mentions that "Civil Aviation Committee" means a sub-sectoral committee established in terms of the SADC Protocol on Transport, Communications and Meteorology. And the SADC Protocol on Transport specifies that sub-sectoral committees shall comprise senior official and technical experts responsible for policy development and technical co-ordination in the sub-sector concerned; and consultative members representing public and private sector interest's representative of service providers, users, regulators, labour and other stakeholders. This ambitious composition could perhaps have been usefully reflected in the Charter. Furthermore, the procedures of the Civil Aviation Committee are not specified either in the Charter or in the Protocol.

In terms of functions, when the RSOO is anchored to a regional economic integration organisation, the governing body implements the policies, strategies and programs of the RSOO approved/adopted by the Committee of Ministers responsible for civil aviation. Furthermore, it proposes to the Committee of Ministers to approve or adopt certain elements of the functioning of the RSOO such as the budget or the appointment of the executive director. However, as mentioned above, ACSAC has greater autonomy since the annual program of activities and budget are adopted by the Board of Directors of the Agency and the Executive Director is appointed by the same Board.

Sometimes the distribution of responsibilities between the bodies of the RSOO and the regional economic organisation is not so clear. Thus, the SASO Charter provides that the Committee of Ministers is responsible for approving SASO policies, strategies and programs and that the Civil Aviation Committee (the governing body) develops policies on the implementation and achievement of SASO's objectives and functions. But it is not specified whether these policies are prepared by the governing body and submitted to the Committee of Ministers for approval or whether there are several levels of RSOO policy definition. Furthermore, the Charter also provides that "the SADC Secretariat shall provide overall strategic policy guidance to SASO in order to ensure that the SASO objectives, functions and priorities are consistent with the SADC mandate on civil aviation safety and security matters".

For BAGASOO and AAMAC, the governing body defines the general policy and long-term strategy of the RSOO (AAMAC), develops policies and gives general directions on the implementation and achievement of the objectives and functions of the RSOO (BAGASOO), adopts/approves its work program and budget and appoints the Executive Director/ Secretary.

o   Executive body and authority

All RSOOs have an executive body headed by an Executive Director/Secretary. The autonomy of the RSOO and the effectiveness of the oversight tasks entrusted to it imply, among other things, that safety related decisions are taken by its Executive Director/Secretary, and that the latter enjoys considerable latitude in obtaining advice and in organising the internal functioning of the RSOO.

With regard to safety related decisions, the constitutive instruments of RSOOs or their subsidiary legal instruments provide that these decisions are the responsibility of the Executive Director/Secretary. However, these instruments reflect the level of commitment of States to the RSOO and do not define with the same precision the decisions which fall within the responsibility of the Executive Director/Secretary.

Thus, the ASSA-AC regulation precisely defines safety-related decisions taken by the Director General such as conducting standardisation inspections in order to monitor the proper application of

regulations, conducting audits necessary for the issuance of certificate, organising and conducting audits at the request of Member States for the purpose of assessing compliance with ICAO standards and recommended practices.

Under the authority of the Executive Secretary of the AAMAC, the Executive Secretariat is responsible for performing technical certification and surveillance tasks on behalf of the Parties or at their request and for conducting audits of the competent authorities of the Parties, as well as of the bodies working on their behalf. The Executive Secretary is specifically responsible for proposing to the Council the measures it considers appropriate to follow up on the audits and, in the framework of technical certification and surveillance tasks on behalf of the Parties, to formulate recommendations to the competent authorities of the Parties for the issue, renewal, maintenance, suspension or withdrawal of certificates, licenses or approval.

The constituent instruments of the other RSOOs define the safety related decisions/functions of the executive authority in a general manner: ensures the provision and management of technical support to Member/Partner States (BAGASOO, CASSOA, SASO), coordinates technical assistance to Member States (ACSAC), organizes and conducts audits (SASO, BAGASOO, ACSAC) and monitoring activities for the implementation of corrective action plans(ACSAC), assigns inspectors for the purpose of conducting inspections (BAGASOO, CASSOA), coordinates with the Member States the provision of staff to ACSAC for certification, surveillance and assistance tasks to States.

Concerning CASSOA, it should be clarified that the Protocol specifies the functions of the Secretariat but not those of the Executive Director. As the Secretariat is headed by the Director, the functions are implemented under his responsibility. However, it would have been useful to highlight and clarify the specific functions of the Executive Director, which, moreover, are not limited to those of the Secretariat.

In view of these provisions, some of the constituent instruments could have been more explicit. Thus, the RSOO should be capable of recommending necessary or mitigating measures to overcome the deficiencies identified by safety oversight-related audits.

Concerning the specific case of URSAC, as mentioned above, the Regional Unit is headed by a General Coordinator. URSAC's missions include issuing opinions and establishing technical control and verification reports concerning applications for approvals and certificates, performing any certification and surveillance task at the request or by delegation of a Member State or conducting compliance audits. Although the General Coordinator heads the Regional Unit, his responsibilities/decisions in these safety-related missions are not clearly specified. Moreover, as URSAC is placed under the direct hierarchical authority of the Commissioner responsible for the Transport Department of the WAEMU Commission, what degree of autonomy does the Coordinator have in his responsibilities/decisions?

Regarding the internal functioning of the RSOO, the AAMAC Treaty grants the executive authority a wide latitude in organising this functioning. Thus, the Executive Secretary is responsible for determining the detailed structure of the Executive Secretariat, including the number and functions of the staff, within the budget, taking all decisions necessary to ensure the functioning of the Executive Secretariat and recruiting and managing the staff of the Executive Secretariat.

For other RSOOs, the constitutive instrument does not specify the responsibilities of the executive authority in organising the internal functioning of the RSOO and/or does not grant it the power to appoint senior executives.

Thus, the Executive Director of ACSAC appoints senior executives after consultation with the Board of Directors but its responsibilities in organising the internal functioning of the RSOO are not specified.

The Director General of ASSA-AC recruits the staff of the Agency, after authorisation from the appropriate statutory body, where applicable, appoints the staff of the Agency, other than the Directors and similar, and takes all decisions relating to the establishment of the internal structures of

the Agency except at the level of the Directors, these decisions must be approved by the governing body.

In other RSOOs, sometimes upon the recommendation of the Executive Director, the governing body appoints senior staff of the Agency while the Executive Director appoints all other staff (BAGASOO, SASO, CASSOA). Here again, the responsibilities of the Director in organising the internal functioning of the RSOO are not specified.

- **Functions and tasks performed on behalf of member States or at the request of member States**

A clear distinction should be made between these two ways of exercising responsibilities by RSOOs:

o   Where a constituent instrument provides that an RSOO is to perform functions and tasks on behalf of the Member States, those functions and tasks are to be considered as having been assigned to it (in practice, this does not only concern level 3 functions). In other words, the RSOO is responsible for these tasks. In principle, the responsibilities of the RSOO (domains, functions and tasks of certification and surveillance to be performed) should be precisely defined in the constitutive instrument or in its subsidiary legal instruments. Failing this, a MoU concluded between the RSOO and the Member States should define the content of these functions and tasks to be performed on behalf of the Member States (for level 3 functions, a more formal agreement is required).

Only one RSOO is clearly assigned by its constitutive agreement the performance of certification and surveillance tasks on behalf of member States/Parties. The AAMACs are responsible for carrying out, on behalf of the Parties, the technical tasks of certification and surveillance of ASECNA and any other organisation providing air navigation services (and for issuing the appropriate recommendations for the issuance and monitoring by the Parties of the corresponding certificates). A MoU between the AAMAC and the States sets out the conditions for carrying out the technical tasks of certification and surveillance.
The BAGASOO Agreement provides that one of its functions is to perform certification and surveillance tasks on behalf of Member State CAAs as required. This provision seems to suggest the performance of tasks at the request of the States.
The fact that a constitutive Agreement assigns functions and tasks to the RSOO on behalf of the States constitutes a strong commitment by States towards their RSOO.

o   When an RSOO performs functions and tasks at the request of a Member State, it only becomes responsible for them after the State has made its request and the RSOO has accepted it. However, to the extent that the RSOO constitutive act does not specify which functions and tasks are concerned, and in order to take into account the needs of each State, a MoU should be concluded between the RSOO and each requesting State.

According to their constitutive instruments, RSOOs almost exclusively perform functions and tasks at the request of States (advisory services and assistance, certification and surveillance tasks). This requires a certain responsiveness on the part of RSOOs and the ability to adapt their resources as their activities are deployed.

However, the possibility for an RSOO to accept the performance of certification and surveillance tasks at the request of a State is not unlimited and must be framed. Therefore, the RSOO must first establish guidelines/principles for such acceptance (see "Delegation of functions and tasks").

It should be noted that the CEMAC Regulation *On the organization and functioning of the Central African Aviation Safety oversight Agency* assigns ASSA-AC areas of competence that are precisely defined. In these areas, the Agency performs tasks related to certification and surveillance, including level 3, at the request of the Member States. Thus, the Agency only performs tasks related to

certification and surveillance at the request of the States, both in its areas of competence and in those for which the States are responsible.

- **Delegation of functions and tasks**

Except for ASSA-AC whose areas of competence and functions are precisely defined by the ASSA-AC regulation, the functions of the other RSOOs are formulated in a general manner. This is because almost all these other RSOOs are only governed by an international agreement, which is necessarily less precise than an implementing regulation. The functions of ACSAC are also defined in a general manner while the Agency is subject to a WAEMU regulation.

Furthermore, while the CEMAC regulation on aviation safety explicitly provides for arrangements between the ASSA-AC and the requesting State to specify the modalities guaranteeing the effective execution of the tasks concerned, this is not the case for the constitutive agreements or their subsidiary legal instruments of other RSOOs which simply stipulate that the RSOO shall perform "certification and surveillance tasks at the request of a Member State".

It should be remembered that when an RSOO performs functions and tasks at the request of a Member State, it only becomes responsible for them after the State has made its request and the RSOO has accepted it. Therefore, the RSOO should firstly establish guidelines/principles for the acceptance of the performance of certification and surveillance tasks at the request of the States/Parties. The AAMAC Treaty is the only constitutive agreement to provide for the establishment of these guidelines.

These guidelines/principles should at least provide that:

o   Delegation only concerns functions and not responsibilities. In other words, the State remains responsible for safety oversight. This implies that it must retain the necessary capacity to discharge its responsibilities.

o   The RSOO will only accept the request if it considers that it has the necessary resources and can effectively exercise responsibility for the tasks concerned.

o   Given the close link between certification, oversight and enforcement, the delegation should cover all these responsibilities in respect of the natural or legal person, aircraft, equipment, aerodrome… to which the delegation relates.

o   The delegation should be capable of being cancelled.

o   The delegation must be concretised through a legal instrument. For delegation levels 1 and 2, this instrument may be a MOU. However, since States do not necessarily have the same needs in terms of safety oversight, this MoU should be concluded individually with each requesting State, taking into account its needs and expectations, and specifying the nature and modalities of the services provided by the RSOO.

To ensure consistency between these bilateral MoUs, each RSOO should establish a framework MoU on the delegation of functions and tasks which would serve as a basis for the development of MoUs with each State.

This framework MoU should address the following issues:

o   Its scope of application which comply with that set by the constitutive act of the RSOO. It is therefore broad enough to cover the different needs of the States and allow them to choose the areas and sub-areas of certification and surveillance that they wish to delegate to the RSOO.

o   Potential areas of delegation defined precisely such as:

- aircraft, maintenance of aircraft, personnel engaged in the operation of aircraft, operation of aircraft;
- aerodromes, including their equipment, located in the territory of the delegating State, etc.

o   In each of the areas covered, the functions and tasks of certification and surveillance which can be delegated to the RSOO and related to:

- Certification and surveillance of pilots, flight training simulators, persons and organisations involved in the training of these pilots and in examinations,
- Certification and surveillance of aircraft operations: certification and surveillance of operators, cabin crew members and the training organisations and examination centres for these members;
- Certification and surveillance of aerodromes; etc.

o   In each of these areas, what can be requested from the RSOO:

- In terms of certification for individuals, bodies, parts and equipment;
- Surveillance of certificate holders and, where applicable, equipment
- The possibility of proposing to the CAA to modify, limit, suspend or withdraw the certificate; etc.

o   Applicable regulatory requirements for certification and surveillance;

o   The objectives assigned to the RSOO in terms of performance;

o   The framework and modalities for intervention of regional/national civil aviation inspectors;

o   The framework for continuous surveillance (establishment and application by the RSOO of a surveillance program by domain and a regular surveillance plan for each person or organisation);

o   The functions and tasks incumbent on the State;

o   The transfer of technical files, program and continuous surveillance plans to the RSOO;

o   A monitoring and evaluation mechanism;

o   A dispute settlement mechanism;

o   A mechanism for the entry into force of the delegation of functions and tasks.

A framework MoU template is proposed in Annex 4.

- **Duplication of functions**

The AAMAC member states also belong to other RSOOs, mainly ASSA-AC and ACSAC/URSAC. However, these three RSOOs share common areas of safety oversight. This issue has been temporarily handled through a "tripartite Memorandum of Understanding (MoU)" (signed in 2014), limiting AAMAC to ANS activities whilst assigning to ACSAC and ASSA-AC all other safety oversight areas.

First of all, it should be noted that in the ANS area, there is no duplication of function. Indeed, legally, the AAMAC treaty settles the issue. It provides for two types of intervention in matters of certification and surveillance:
o   carry out on behalf of the Parties the technical tasks of certification and surveillance of ASECNA and any other organisation providing air navigation services, including the systems,

components and equipment they use, and issue the appropriate recommendations for the issuance and surveillance by the Parties of the corresponding certificates;
- o carry out any technical task of certification and surveillance, at the request of one or more Parties, under the conditions set by the Council.

Thus, by the treaty, the States formally delegated to AAMAC the conduct of certification and surveillance tasks in the ANS area. However, it should be noted that the delegation of functions and tasks divests the delegating authority. Consequently, AAMAC Member States cannot grant a delegation of function in the area of ANS to another RSOO to which they belong.

There could be a real duplication of functions if ASSA-AC or ACSAC/URSAC carried out the technical tasks of certification and surveillance on behalf of the Parties. But this is not the case. The intervention of these two RSOOs is based on simple requests issued by a State.

Therefore, in the ANS domain, the real duplication issue concerns regulation.

A new tripartite MoU, with the same purpose as that of 2017 and deepening cooperation between the organisations, has been drafted. This MoU has not yet been signed by all parties. However, it represents a significant step forward in cooperation since it provides that WAEMU and CEMAC will take into account the ANS regulations issued by AAMAC to develop their own regulations. It also provides for a regulatory cooperation mechanism between CEMAC/ASSA-AC and UEMOA/ACSAC in their common safety oversight areas.

Another solution, which would provide more legal guarantees, would consist of WAEMU and CEMAC considering in their community law the commitments made by their Member States under the AAMAC treaty. It is indeed quite common for an international organisation, when its members or some of its members are parties to the treaty of another international organisation acting in similar areas of competence or pursuing the same objectives, to adopt measures aimed at implementing the obligations of the Member States resulting from the said treaty. This solution would consist of including in the ASSA-AC and ACSAC regulations the development of common technical regulations by "taking into account" the ANS regulations issued by AAMAC. Unfortunately, the alignment with the ANS regulations adopted by AAMAC which had been included in the basic ASSA-AC regulation has been removed from the new regulation adopted on May 24, 2024.

More generally, the 2017 ICAO report on the RSOO evaluation highlighted that since all areas of aviation safety remain enshrined in the AAMAC treaty, a more sustainable solution would involve amending the treaty itself. In our opinion this solution involves risks and is not legally sound.

Other solutions may be considered.

First, if the ASSA-AC and URSAC/ACSAC Member States conclude a formal delegation of functions and tasks with their RSOO in areas other than ANS, these States will no longer have the capacity to delegate this function to AAMAC.

A more sustainable solution would consist in the adoption of an interpretative declaration. The expression "interpretative declaration" means a unilateral statement made by a State, by which that State seeks to specify or clarify the meaning or scope that it attributes to a treaty or to certain of its provisions. In the silence of the AAMAC Treaty, an interpretative declaration may be formulated at any time. In other words, both the States that are signatories to the treaty but have not yet ratified it and the States parties (those that have ratified it) may formulate such a declaration. An interpretative declaration does not modify the obligations resulting from the treaty. It can only specify or clarify the meaning or scope that its author attributes to a treaty or to certain of its provisions and constitute, where appropriate, an element to be considered in the interpretation of the treaty. The declaration would specify that the provisions of the treaty relating to oversight in areas other than air navigation are implemented by AAMAC only to the extent that oversight of these areas is not effectively carried out by an economic and monetary regional organisation or a REC (and its RSOO) of which one or more Member States are also parties to the AAMAC Treaty.

Finally, cooperation between the different organisations could be strengthened by the accession of regional integration organisations to AAMAC. This accession is expressly provided for in the Treaty. This formula is the most likely to guarantee harmonious functioning between the two types of organisation and would make the 2014 and 2024 MoUs superfluous. Accession would naturally be subject to a reservation preserving the competence of the RSOO for matters other than air navigation. The Member States of the RSOO concerned would then have to agree to this reservation.

- **Regulatory issues**

  o   Adoption/transposition of regulations at state level

With the exception of UEMOA/URSAC and CEMAC/ASSA-AC, which issue mandatory and directly applicable regulations in the Member States, the other RSOOs assist in the development of a harmonised regulatory regime for the Member States by developing generic or model regulations to be adopted and promulgated by the States (SASO, BAGASSO and CASSOA) or issue regulations that the Parties undertake to "transpose into their domestic law and apply" (AAMAC).

WAEMU and CEMAC can develop regulations of this nature because they are regional integration organisations with a complete legal system including a judicial authority to which disputes can be submitted.

For other RSOOs, although States are responsible for adopting and promulgating national legal acts based on generic/model regulations or regulations, in accordance with the RSOO's constitutive act, there are delays in implementing harmonised or uniform standards or States do not align their regulations with those developed by the RSOO.

The lack or delay in regulatory harmonisation or in the standardisation of regulations (AAMAC) is an obstacle to the RSOO exercising its oversight functions.

Considering that States have committed to regulatory harmonisation or to transposition, RSOOs should set up a system for monitoring the transposition/adoption of national legal acts.

To take the case of AAMAC, the treaty provides that the Parties agree to act collectively to develop, adopt and uniformly apply all necessary acts, in particular by means of regulations. In addition, it is mentioned that the Parties undertake to "transpose into their internal law and apply the regulations and procedures issued by the Council for the achievement of the objectives of this Treaty." Transposition implies that each party adopts, according to its rules and procedures, all the measures necessary for the effective incorporation of the regulation into the national legal system.

Thus, for AAMAC, the system for monitoring the transposition of regulations could be based on the following rules:

- A reminder of the mandatory nature of the content of the regulations to be transposed;
- Setting a deadline in each regulation for the completion of transposition. This deadline could be set, for example, according to the complexity of the regulation to be transposed and the nature and number of transposition acts required;
- An obligation for States to transmit, a few months before the end of the transposition deadline and at the end of the transposition deadline, the draft national transposition acts;
- Monitoring of these acts by the executive body of the RSOO in order to verify the degree of progress or completion of transposition and compliance with the transposed regulation;

- Means available to the executive Secretariat to "support" reluctant States or those experiencing difficulties in transposition:
  - notification of delay and/or non-compliance,
  - assistance with transposition,
  - formal notice,
  - referral to the AAMAC Council,
  - suspension of voting rights by the Council (this provision is provided for in the treaty for any Party which does not fulfil its obligations, in particular regarding the transposition of regulations).

The legal basis for setting up this transposition monitoring mechanism could be Article 6(h) of the Treaty (Missions), which provides that AAMAC is responsible for "carrying out any other task of general interest as decided by the Council". It is legitimate to think that monitoring the transposition of regulations to ensure their effectiveness, and thereby that of safety supervision, is a task of general interest.

For RSOOs assisting in the development of a harmonised regulatory regime, States have committed to this regulatory harmonisation. To the extent that regulatory harmonisation aims to approximate national provisions and not necessarily to standardise them, States retain a certain flexibility when adopting national legal acts. However, they must take into account, as a minimum, the objectives, principles and essential rules defined by the RSOO regulations. Furthermore, they should adopt and promulgate national legal acts within time limits consistent with the achievement of the objectives and functions of the RSOO.

Finally, it should be recalled that Member/Partner States, in some RSOOs, approve the regulations developed by the organisation (the SASO Civil Aviation Committee reviews and recommends generic civil aviation regulations to Ministers for approval; the CASSOA Council formulates civil aviation safety and security regulations for approval by Partner States) before adopting national legal acts.

Based on these findings, these RSOOs should be able to establish a mechanism for monitoring the adoption and promulgation of national legal acts to ensure that the objectives, principles and essential requirements defined by the RSOO regulations are taken into account and that adoption and promulgation take place within a timeframe that allows the RSOO to exercise the functions and tasks that the States have delegated to it.

o   What type of regulatory system?

Following the Yamoussoukro decision, the African Union decided to establish a single African air transport market based on a regional approach (REC). To be effective, this single market should have uniform (rather than harmonised) rules on the operation of air services, competition and also safety.

Consequently, both to strengthen the effectiveness of safety oversight and to enable the implementation of the single market, RSOOs, particularly those anchored to a REC, should engage in discussions with their parent Community on the nature of the regulations to be adopted to achieve the objectives described above.

4.1.3. Capacity consolidation

Trust, cooperation and delegation of activities between States and RSOOs go hand in hand with a clear recognition of the capacity of RSOOs to deliver services. This requires the stabilisation of professional staff. This includes the financial capacity to employ them and the recognition of the competencies of

the RSOO. If RSOOs don't have a minimum critical size for their activities and always look for potential reinforcement from States when initiating some activities, States will inevitably look for reinforcement of themselves to avoid any conflict of priorities, and potential regional synergies will be lost as well as the positive effect of having an RSOO.

The study therefore considered what it would mean to have a budget that would at least allow the hiring of two experts in each discipline of the RSOO (*see Annex 2 for the budget simulation*). The budget simulation was carried out with the sole objective of finding some ratios and demonstrating the ability to secure the budget of each RSOO. The ratios and units can be modified, and a more in-depth specific exercise should be carried out. (*see detailed explanation in Annex 2*)
The result of the simulation clearly shows that it is affordable as long as the various potential sources of funding are secured.

The budget will not solve the question of the competences of the RSOO experts, but if it is secured, a consolidated human resources strategy can be defined and the development of the RSOO will progress.

4.1.4. Resources-Finances

From our survey of RSOOs, it is clear that some States have difficulties in making their contribution to the RSOO to which they belong to. This may be due to various reasons: lack of understanding of the role and function of the RSOO, by the State services, possible competition for the State budget with other activities, negligence, difficult economic situation, …. Therefore, the solution to ensure the budget of RSOO is not to increase the State contribution, but, on the contrary, to find alternative sources of financing and to develop appropriate mechanisms.
However, it wouldn't be healthy if States don't contribute to the financing of the services from which they benefit. The task then becomes one of finding alternative sources of funding that can complement the state contributions.

- Basic budget and evolutionary budget
  The basic budget of the RSOO should correspond to the budget at which the RSOO is essentially staffed with redundant expertise in the disciplines of the RSOO, a sufficient administrative structure and the operational budget to carry out its missions (see Annex *2*).

Yearly basic RSOO budget (3 940 K$)

- Human Resources
- Staff Training
- Safety Tools
- Surveillance activities (add to HR)
- Safety promotion (add to HR)
- International coordination (extra RSOO)
- Support to ICAO duties (add to HR)
- Real Estate
- Analytic and prospective studies
- Miscellaneous (10%)
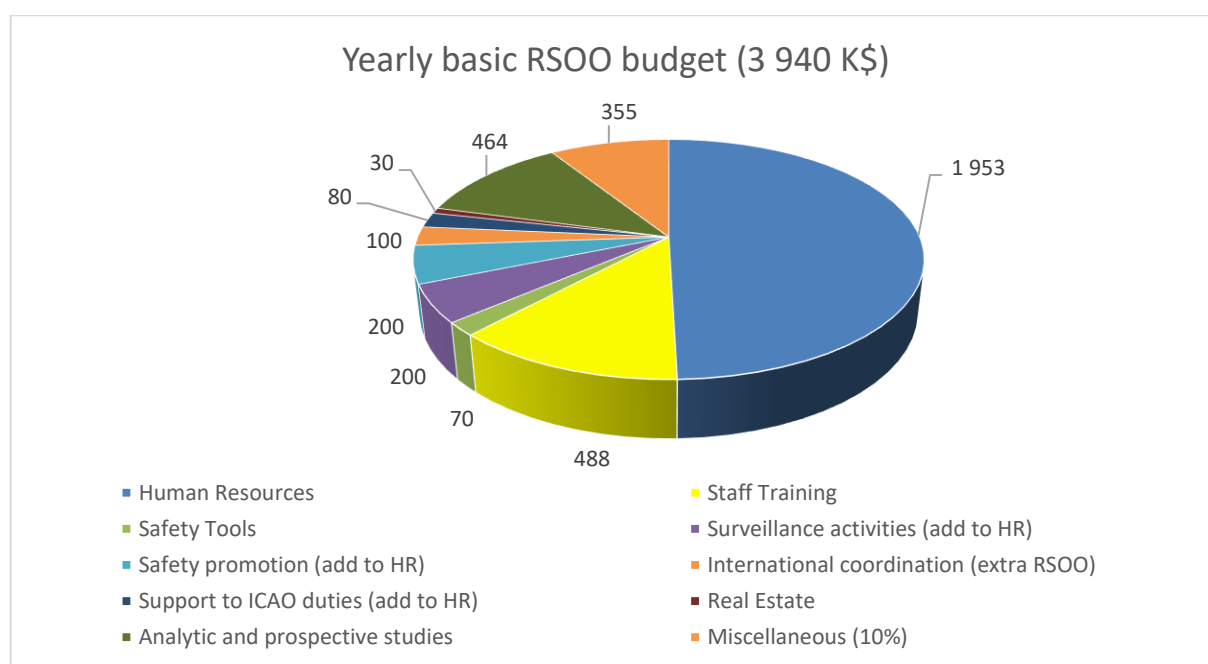
Basic Budget Description

The evolutionary budget of the RSOO should correspond to the budget in relation to air transport activities related to the number of passengers, the movements and aviation industry needs. The staff should be able to evolve with the aviation activity in the region.

- States and Community Contribution
  We call here the "State and Community" contribution the combination of the State contribution and the REC contribution to the RSOO. It can also be referred to as the "institutional" contribution. Depending on the RSOO considered, the REC may or may not contribute directly. Therefore, in this study, the States and Community contributions are considered as a whole. Even in the case of REC contribution, it would be healthy if Member States contributed on their own, as they are the main beneficiaries of RSOO services. They should commit themselves to the activities of the RSOO and consider investing for a common return. A proposal could be that the State share of the "States and Community" contribution should not be less than one third of the institutional contribution to the budget of the RSOO.

  The minimum level of institutional contribution could be set at 30% of the basic budget of the RSOO. Likewise, the institutional contribution would be well known with a financial floor that would not exceed the actual institutional contributions.

  During the RSOO survey, a regular question was asked about the way in which institutional contributions are determined in the different RSOOs. The answers vary from a contribution proportional to the size (GDP) of the State to an equal distribution among Member States. The second option is detrimental to small States and leads large States with a high level of aviation activity to pay the same contribution as small States with low financial capacity and low aviation activity. A proposal could therefore be that the institutional contribution for a given State should be proportional to an indicator that is relevant to the demand for air transport. We propose an indexation to GDP per capita which is a well-known indicator for calibrating air transport demand. This indicator is easy to calculate and would then lead to a fair and proportionate institutional financial contribution to the RSOO budget. The simulation in Annex *2* is based on a ratio of $100 per unit of GDP per capita.

- Alternative sources of funding
  Alternative sources of funding should contribute directly to the budget of the RSOO without going through the Member States. This would avoid any administrative burden, make the system efficient and ensure the cash flow of the RSOO.

  Alternative sources of funding should be proportionate to aviation activity and to the "operational pressure" on aviation safety in the region. The survey showed that two RSOOs, URSAC/ACSAC and ASSA-AC, are already considering this possibility on the basis of IATA studies. URSAC/ACSAC is considering a uniform rate of 260 CFA ($0.42) per passenger, while ASSA-AC differentiates between intra and extra Community passengers at a higher rate. The advantage of such an alternative source of financing is also that it evolves with the development of aviation.

  Our proposal is to create an aviation safety charge based on the number of passengers and an airport and ATC charge based on the number of movements. The first one would easily be proportionate to aviation activity in general, the second one would essentially be proportionate to the provision of air navigation services.

  o Collection Mechanism

Whatever decision is made on the rate, the collection mechanism for alternative funding sources should be robust and reliable, independent of States (Member States are in any case part of the board of the RSOO and retain control) and transparent.

Such a mechanism for the collection of aviation charges in the AFI region should be supported by a global organisation capable of counting passengers and movements and providing some assurance of transparency and fairness. As far as possible, this mechanism should be implemented based on common principles between the respective RSOOs, so as not to create any distortion of concurrence in the AFI region. The amounts collected and the use of the budget should be transparent to aircraft users and a regular (at least annual) balance sheet should be prepared. If all these criteria are met, it would appear that IATA or ICAO would be good candidates to develop such a collection mechanism.

Minimum RSOO budget proportions

- 10%
- 30%
- 20%
- 40%

■ Institutional resources ■ Air Safety Charges ■ Airport and ATC Charges ■ RSOO Service fees

[OBJ]
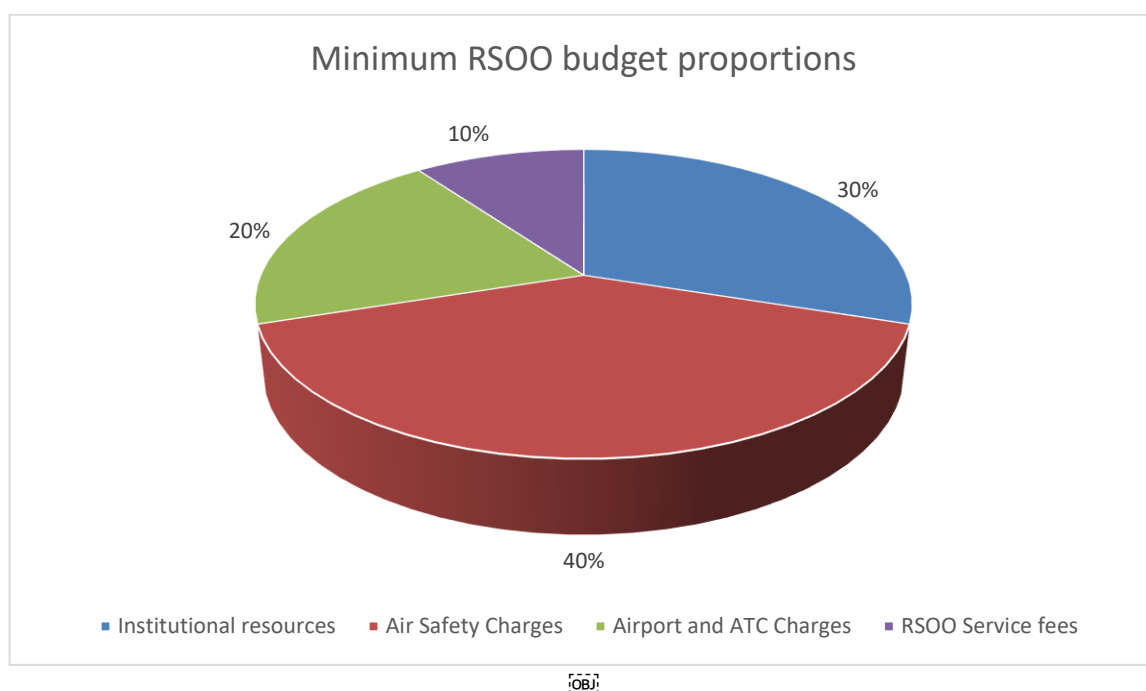
> o Air Safety Charges

Air safety charges indexed to the number of passengers would illustrate activities related to aircraft operations, airworthiness, licensing, airports and, to a lesser extent, air navigation services.

Due to the specificity of AAMAC, it would not benefit from such revenue.

The air safety charges could be based on all passenger traffic, on international passenger traffic only or as chosen by ASSA-AC, differentiated between Community passengers and others. The simulation in Annex 2 shows results based on international passengers only, excluding domestic travellers, and is based on a uniform rate of $0.42 per passenger (260 CFA).

> o Airport and ATC Charges

The indexation of some aircraft movements charges is particularly important to reflect the importance of ATC services. Such an index should cover both departures and overflights. Indeed, some countries have a relatively low number of airport movements while they have a high number of overflights.

This alternative source of funding would only benefit RSOOs that have ANS in their area of responsibility. Therefore, AAMAC would benefit greatly from such revenue, whereas ASSA-AC and URSAC/ACSAC would not. The simulation in Annex 2 presents results based on international

movements and ASECNA 2019 controlled movements only, without considering domestic movements, and is based on a rate of $5 per movement.

> o Service charges

The use of service charges for RSOO revenues would require the definition of a catalogue of services with corresponding fares. This is not yet the norm for RSOOs. This is the case for EASA for certification services and could contribute to support the income of RSOOs with a significant aviation industry in their remit.

Using the table from the previous study on State safety oversight activities, some fares found for some States and assuming that 10% of safety oversight activities are assumed by RSOOs, the simulation in Annex 2 shows the impact of such a measure. It is of course very significant for RSOOs that have a large aviation industry in the region, such as SASO.

> o Security tax

Depending on the role and responsibilities of RSOOs in security. Some contribution to the RSOO budget through a security tax could also be an option for an alternative source of funding.

Despite the low level of accuracy of the RSOO budget simulation in Annex 2, it seems clear that there is room for securing the budget of RSOOs without increasing the institutional contribution and at a non-disruptive level of charges. This work could be deepened with more accurate traffic sources and a more comprehensive analysis.

	Budget resources Simulation Results							REC Contribution	State Contribution	
	Institutional Contribution	Air Safety Charges	Airport and ATC Charges	RSOO Service fees						
Rate	$ 100.00	$ 0.42	$ 5.00	10%				20%	10%	
Unit	GDP/Capita	Pax	Mvts	SO activities	Total	Actual		of Institutional Contribution		Comment
URSAC/ACSAC	$ 935 521	$ 3 145 291	$ -	$ 155 981	$ 4 236 793	$ 1 304 000		$ 623 680.52	$ 311 840.26	
ASSA-AC	$ 2 135 919	$ 849 862	$ -	$ 80 074	$ 3 065 855			$ 1 423 945.94	$ 711 972.97	No actual budget
BAGASOO	$ 1 167 427	$ 3 419 114	$ 417 620	$ 446 334	$ 5 450 495	$ 1 200 000		$ 778 284.82	$ 389 142.41	
CASSOA	$ 655 272	$ 3 955 851	$ 22 200	$ 1 571 980	$ 6 205 303	$ 2 479 593		$ 436 848.09	$ 218 424.05	Lack of Mvt data
SASO	$ 5 488 426.51	$ 7 012 769.82	$ 165 550.00	$ 7 812 442.20	$ 20 479 188.53	$ 3 789 000		$ 3 658 951.00	$ 1 829 475.50	
AAMAC	0	0	$ 3 070 920.00	0	$ 3 070 920.00	$ 2 892 600				

Table 5: RSOO budget resources simulation

4.1.5. Legal considerations to funding options and mechanism

Following above reasoning on a budget and finance balancing approach, it is necessary to analyse the legal and financial basis of different funding options in order to support the financial plan of the RSOOs.

All AFI RSOOs have legal personality, which implies that they are allowed to provide for their own funding through the collection of fees and charges and to directly negotiate with funding agencies, lending institutions and donor parties for loans and grants.

These RSOOs are currently mainly funded through contributions from their Member/Partner States often supplemented by grants and loans from donors. ASSA-AC also receives funding from CEMAC. URSAC, which is part of the WAEMU Commission, is funded from the WAEMU budget.

However, Member/Partner States either do not pay their contributions in full or sometimes payments are delayed hence compromising/affecting the implementation of the planned activities and reducing activities on oversight and safety. As for grants and loans, these sources of funding are not considered sustainable.

The financial sustainability of RSOOs could only be ensured by a gradual shift from a funding mechanism coming from the member/Partner States (and donors) to a funding one based on the combination of several sources determined, according to the level of safety oversight activities of the RSOO and aviation activities in member States.

These additional sources of funding include fees and charges for services provided by an RSOO, airport and air navigation services charges and an air safety charge levied on passengers. RSOOs anchored to a REC could also benefit from a community contribution, which strengthens their autonomy, when fees and charges have not been established or when these are not sufficient to cover the RSOO financial plan.

a) **Current situation**

Some RSOOs have attempted to establish sustainable funding mechanisms but these efforts have not been successful. However, ACSAC and ASSA-AC are considering this process for the near future and are establishing the legal basis for the collection of an air safety charge which will be directly used as a complementary source of funding for the RSOO budget.

Current sources of funding

RSOO	Sources of funding	Findings
URSAC	Mainly from the WAEMU budget	URSAC is part of the WAEMU Commission and is therefore financed by the community budget
AAMACs	Member States (through ASECNA)	The amount paid to AAMAC are taken by ASECNA from the contributions it is supposed to pay to its member States for capacity building
BAGASOO	Depends on State contributions	A Passenger Safety Charge Levy (per departing international passenger) was intended to be implemented in 2012 to ensure the financial sustainability of the organisation. But the Member States, who were responsible for it, did not introduce this Charge.
CASSOA	Depends on State contributions	
SASO	Funded by contributions from States (40%), donors and others (60%).	The Council of Ministers has rejected a proposal to introduce a passenger tax due to the high cost of air travel in the region.
ASSA-AC	Both Member States and the REC contribute to the budget of the RSOO	ASSA-AC is establishing the legal basis for the collection of an air safety charge

b) Characteristics of the different funding Options

Before examining the pros and cons of each funding option, it is worth defining the characteristics of these options.

Potential funding sources and their characteristics

Funding sources	Activities/Services/Costs of the RSOO	Methodology
State contributions	Should fund common services benefiting all Member States: development and implementation of aviation safety legislation and regulations, staff, facilities, equipment, etc.	· Independent of the RSOO level of activity · State contributions can be determined using different methods: equal contributions, contributions based on level of their aviation activities, combination of both
Community contribution		· Supplements State contributions ·Supplements RSOO service fees and charges if applied when the level of activity is low or more generally to strengthen the financial autonomy of the RSOO
User fees and charges	Activities and services provided by the RSOO that directly benefit specific users: - licensing and certification, oversight functions and resolutions of safety concerns; - publications, training, technical assistance, consultancy and other services provided directly to the public and to the States/Parties.	·Full cost-recovery activities · Recovered from the users through cost-related fees and charges following a transparent user pay principle and established based on the ICAO's charging principles of non-discrimination, cost-relatedness, transparency and consultation with users.
Airport and air navigation services charges	Safety oversight function for airport services and for air navigation services	·Costs directly related to the safety oversight function may be included into the airport's or the air navigation services provider's cost basis ·Charges are payable by each air carrier having benefited from the services
Air safety charge	Costs not covered by other funding sources	·Once all revenue from Member States and other contributors, as well as revenues from fees and charges, have been accounted for and it appears that a gap remains in the RSOO financing plan ·In line with ICAO policies / principles on charges
Revenue from technical support services	Fees for provision of technical support services to other regions and non-member States (e.g. trainings, preparation of Regulations, Centre of Aviation Medicine to support PEL, etc.)	Full cost-recovery
Grants and loans from donor States and regional financial institutions		·Grants may supplement other sources of funding · Should be considered for specific/limited duration use

Funding sources: Pros and Cons/limits

Funding sources	Pros	Cons/limits
State contributions	·States have the ultimate responsibility to ensure the safety of air transport operations ·Allows States to be involved and made responsible as the main beneficiaries of RSOO services ·Avoid additional charges on aviation ·Facilitates donor support	·Member States either do not pay their contributions in full or sometimes payments are delayed hence compromising/affecting RSOOs operations ·Limits the autonomy of the RSOO ·Competing national priorities
Community contribution	·Strengthens the autonomy of the RSOO ·Economies of scale	·Should not replace the contribution of States ·Should not be the only other autonomous source of funding (along with State contributions which is not an autonomous source) in a context of increasing safety oversight activities or aviation activities ·Cross sector subsidization
User Fees and Charges	·Reduce the financial burden on Member States ·Strengthen the financial autonomy of the RSOO ·Potentially sustainable ·Direct payments to RSOO	·Increase the burden on users ·Limited income in case of insufficient activities ·Subject to delegation of functions and tasks by States ·Subject to capacity of RSOOs to provide full scope of services
Airport and air navigation services charges	·Reduce the financial burden on Member States ·Strengthen the financial autonomy of the RSOO ·Sustainable funding ·More direct routing of payments to RSOOs	·Increase the burden on users and travel cost ·Limited to Safety oversight function for airport services and for air navigation services
Air safety charge	·Reduces the financial burden on Member States ·Strengthens the financial autonomy of the RSOO ·Sustainable funding ·More direct routing of payments to RSOOs	·Increases travel cost ·Potential duplication of activities between the RSOO and a State and therefore double invoicing ·Passenger-based air safety charges could result in a cross-subsidization between commercial users and other users of the system (non-passenger flights or general/business aviation)
Revenue from technical support services	·Reduce the financial burden on Member States	·Shall not artificially increase the technical services offered by the RSOO ·Should not interfere with services provided to States Parties/Member States
Grants and loans from donor States and regional financial institutions	·Start-up funds ·In case of specific needs (e.g. investments/renewal)	·Not considered to be sustainable ·Specific/limited time use

c) Establishing the funding mechanism for the RSOOs

Establishing the different funding options can be supported by the following findings:

- The contribution of the States should be maintained but it presents uncertainties for the RSOO;

- For RSOOs anchored to a REC, a community contribution can strengthen the autonomy of the RSOO;

- Fees and charges for provided services strengthen the autonomy of the RSOO and can constitute sustainable sources of funding. However, as long as the level of activity remains limited, this funding must be combined with other sources;

- When the different sources of funding do not allow the RSOO to recover all of its costs, an air safety charge can be considered;

- Other sources of financing such as loans, donations or external contributions are not considered sustainable and are used on an ad hoc and time-limited basis.

To effectively use the different sources of financing, RSOOs must define and implement a funding policy based on evaluation, planning and compliance with certain principles.

i) Defining a policy for funding the RSOO and establishing the financial plan of an RSOO

Defining a policy for funding the RSOO is a multi-step process that involves:

1. Determining the activities and services provided by the RSOO, including safety goals, nature and level of services, the forecasted demand for services and the requirements of Member States. Forecast elements (air traffic, demand for RSOO's services, staff numbers and changing qualifications, etc.) should be considered in the short, medium and long terms and updated according to the evolution of these forecasts.

2. Establishing forecasts on the cost elements (personnel, materials, equipment, etc.) of each activity and service. For that purpose, the full cost should be considered, including facilities, maintenance, inspections and other operations, management and administration, and capital costs.

3. Identifying the sources of funding for each type of activity and service provided and their associated costs (common services, certification and surveillance tasks, training, etc.) as well as the method for recovering these costs.

4. To the extent that funding by the States and, where appropriate, by a community contribution, is not sufficient to cover all the current or future costs of the RSOO, the latter could consider additional and potentially sustainable sources of funding through fees and charges (a "charge is a levy that is designed and applied specifically to recover the costs of providing facilities and services for civil aviation"; Foreword to ICAO's Doc 9082).

This can be done through two mechanisms:

- Airport and air navigation services charges. Costs directly related to the safety oversight function for airport services and for air navigation services may be included into the airport or the air navigation services provider's cost basis and charged to passengers.

The RSOO recovers the costs that corresponds to its oversight function, which is in line with the principle of using aviation revenue for the sector.

This mechanism assumes that costs directly related to the safety oversight function are imposed on service providers.

In the case of AAMAC, the States, through the Treaty, have collectively delegated to the RSOO the certification and surveillance technical tasks of ASECNA. Thus, AAMAC and the Parties could create

an air navigation services charge to recover the costs related to these tasks (in practice, for common services).

• Fees and charges for services provided by the RSOO that directly benefit specific users. The costs of these services may be recovered from the users through cost-related fees and charges following a transparent User Pay Principle and established on the basis of the ICAO's charging principles of non-discrimination, cost-relatedness, transparency and consultation with users.

These fees and charges should be cost-related with the objective to recover the full cost of each individual service provided, including appropriate amounts for cost of capital and depreciation, as well as the costs of operation, management and administration.

5. Once all revenue from Member States and other contributors, as well as revenues from fees and charges have been accounted for and it is determined that a gap remains in the RSOO financing plan, implementing an air safety charge would then be justified to close such gap.

An air safety charge should be established and applied on a regional basis. In other words, the different costs, even if they concern a service provided to/in different States, must be considered globally and recovered on the basis of criteria applicable at the regional level. The air safety charge can be charged directly to passengers.

Implementing an air safety charge must guarantee a fair, equitable and transparent allocation of this charge.

• Any air safety charge should be levied in such a way that no service is charged for twice with respect to the same utilisation by the RSOO and a Member State.

• In other words, the services and their associated costs recovered through an air safety charge cannot be recovered by States through their own charges. This implies that the services provided by the RSOO and their associated costs must be precisely defined for charging purposes in order to guarantee avoidance of over-collection and cross-subsidisation of other activities. To that effect, the RSOO should apply the basic charging principles of non-discrimination, cost-relatedness, transparency and consultation with users.

• In situations where there is a potential risk of duplication of functions and activities between the RSOO and the State (e.g. apron inspections, investigations, surveillance), their respective activities should be closely coordinated.

• Directly allocable costs should be recovered directly from the users who benefit from those services and not through an air safety charge.

6. In determining the costs to be recovered from charges and fees, an RSOO may choose to recover less than its full costs. Full cost recovery should be a phased approach, at the discretion of the RSOO and its Member States/Parties, from State contributions to the application of charges and fees.

To support the establishment and implementation of fees, charges, an air safety charge, member States/Parties of an RSOO should put in place strong safeguards in the constitutive agreements, regulations or policies comprising:

• Decisions/regulations of the governing body as well as MoUs between the RSOO and each of its member State for the delegation of functions and tasks precisely defining the functions, tasks and services performed/provided by the RSOO and those which remain the responsibility of the State;

• Detailed cost data to facilitate transparency and consultation;

• Effective and transparent oversight of the charges imposed and related performance management systems (including RSOO's operations efficiency and cost-effectiveness);

• A consultation mechanism with the Industry;

• Comprehensive and transparent accounting (accounting by category of expense and accounting by activities) ;

• Guarantee that revenues from charges are affected to the RSOO's safety oversight functions.

ii) Prioritisation of the different options for each RSOO

The prioritisation of options should be understood as the combination of different funding sources. This combination, which considers the areas of aviation safety covered by each RSOO, should evolve with the development of the RSOO's oversight activities and aviation activity.

It is not necessary for States and the RSOO to implement all the funding options presented in the tables below. The choice of options should focus on those that will ensure the financial autonomy and sustainability of the RSOO.

AAMAC

Sources of funding (AAMAC Treaty)	Prioritisation	Mechanism
- contributions from the Parties; - charges collected for performing certification and surveillance tasks of ASECNA and other ANS providers ; - fees collected for publications, training and other services provided directly to the public and to the Parties; - any grant or voluntary financial contribution; - donations and legacies.	Air navigation services Charges	·Applicable to ANS common services on a regional basis ·Applicable to other ANS ·Indexed on aircraft movements
	Fees for publications, training and other services provided directly to the public and to the Parties	Directly allocable costs should be recovered directly from the users who benefit from those services
	Contributions from the Parties	Full cost recovery for services provided should be progressively shifted from contributions by States Parties (and other donors) to the application of charges and fees
	Other funding sources	For occasional/specific use, limited in time

The AAMAC Treaty provides for the method of establishing the main sources of funding:

• "The Parties pay a minimum annual contribution representing the administrative costs of their participation."

• "Charges are calculated to cover overall costs related to the certification and surveillance activities entrusted to the AAMACs."

• "Fees are calculated to cover the costs of the service provided to its beneficiary."

ASSA-AC

Sources of funding (Regulation)	Prioritisation	Mechanism
- equal contribution of CEMAC member States; - share of Community Integration Tax (TCI);	Fees and charges	·Applicable to areas of aviation safety covered by the RSOO, except for the ANS ·Directly allocable costs should be recovered directly from the users who benefit from those services

		Full cost recovery for services provided should be progressively shifted from contributions by member States (and other donors) to the application of charges and fees
- fees and charges; - donations, legacies and subsidies; - debits and fines; - proceeds from the cessation of reformed movable property and fixed assets; - loans; - interest on term deposits; - financial assistance from any member state, any third state and any national or international organisation; - miscellaneous income.	Contributions from member States	
	TCI	Together with fees and charges, could gradually ensure (with the development of safety oversight activities of the RSOO and aviation activities) the financial autonomy of ASSA-AC
	Air safety charge	If other sources of funding are not sufficient to ensure the RSOO financing plan
	Other funding sources	For occasional/specific use, limited in time

The ASSA-AC Regulation defines the purpose of fees and charges:

• the activities of aviation safety oversight in the Community entrusted to the Agency, in particular the development and monitoring of Community regulations, including guidance material and the training of technical staff of the Member States;

• publications, opinions and advice; training and the provision of any other service by the Agency.

They reflect the real cost of each service;

• the processing of appeals.

(2) The amount of the fees and charges shall be set at a level ensuring sufficient revenue to cover the full costs of the activities related to the services provided.

ACSAC

Sources of funding (Additional Act)	Prioritisation	Mechanism
- establishment fund consisting of the initial contributions of the WAEMU Commission; - annual contribution of the WAEMU Commission; - Community civil aviation safety and security charge; - other revenues from the Agency's activities;	Establishment fund	Should be maintained (if necessary, on a decreasing basis) until the charge scheme reaches maturity
	Other revenues from the Agency's activities: fees and charges	·Applicable to areas of aviation safety covered by the RSOO, except for the ANS ·Directly allocable costs should be recovered directly from the users who benefit from those services

- subsidies from technical and financial partners; - all other sources of financing approved by the Board of Directors.	Community civil aviation safety and security charge	·As for safety the charge is applicable to areas covered by the RSOO, except for the ANS ·Based on the number of passengers departing from airports in the Union and Associated States, excluding those on domestic flights within each Member State or Associated State. ·Collected for the exclusive benefit of ACSAC from air carriers by the National Civil Aviation Authorities or any other competent entity
	Annual contribution of the WAEMU Commission	Together with fees and charges, could gradually ensure (with the development of safety oversight activities of the RSOO and aviation activities) the financial autonomy of ACSAC
	Other funding sources	For occasional/specific use, limited in time

Decision No. 04/2018/CM/UEMOA sets the rate and terms of collection of the Community civil aviation safety and security charge

Intended for three years, the establishment fund should therefore operate in addition to the community safety charge for a certain period and in all cases be maintained (if necessary, on a decreasing basis) until the charge system reaches maturity.

BAGASOO

Sources of funding (Agreement)	Prioritisation	Mechanism
- contributions by the Member States through their respective Civil Aviation Authorities; - revenue generated by Member States through charges and levies; - revenue from the activities of the BAGASOO; - grants, loans and donations from regional and international bodies; funding agencies and donor States;	Revenue from the activities of the BAGASOO	·Fees and charges for services provided by the RSOO ·Directly allocable costs should be recovered directly from the users who benefit from those services
	Revenue from the activities of the BAGASOO	Airport and ANS charges
	Contributions by the Member States	Full cost recovery for services provided should be progressively shifted from contributions by the Member States (and other donors) to the application of charges and fees

- any other sources as may be approved by the Board.	Air safety charge	If other sources of funding are not sufficient to ensure the RSOO financing plan
	Revenue generated by Member States through charges and levies	This mechanism is more difficult to implement
	Other funding sources	For occasional/specific use, limited in time

Pursuant to BAGASOO Agreement, where estimates of expenditure are required to be funded in whole or in part by contributions from Member States the Board shall determine the formula for contributions to be made by Member States to the approved Budget.

A Passenger Safety Charge Levy (per departing international passenger) was intended to be implemented in 2012 to ensure the financial sustainability of the organization. But the Member States, who were responsible for it, did not introduce this Charge.

CASSOA

Sources of funding (Protocol)	Prioritisation	Mechanism
- contributions by the Partner States through their respective Civil Aviation Authorities; - resources mobilised by the Community; - grants and loans from regional and international bodies, - revenue from the activities of the Agency; and - any other sources as may be approved by the Council.	Revenue from the activities of the Agency	·Fees and charges for services provided by the RSOO ·Directly allocable costs should be recovered directly from the users who benefit from those services
	Contributions by the Partner States	Full cost recovery for services provided should be progressively shifted from contributions by the Partner States (and other donors) to the application of charges and fees
	Resources mobilised by the Community	Together with fees and charges, could gradually ensure (with the development of safety oversight activities of the RSOO and aviation activities) the financial autonomy of CASSOA
	Air safety charge	If other sources of funding are not sufficient to ensure the RSOO financing plan
	Other funding sources	For occasional/specific use, limited in time

SASO

Sources of funding (Charter)	Prioritisation	Mechanism

- membership contributions; - charging consulting and training fees; - grants and donations; - any other source, which the Ministers may deem appropriate.	·Charging consulting and training fees ·Fees and charges for any services not comprised in consulting and training	Directly allocable costs should be recovered directly from the users who benefit from those services
	Membership contributions	Full cost recovery for services provided should be progressively shifted from membership contributions (and other donors) to the application of charges and fees
	Air safety charge	If other sources of funding are not sufficient to ensure the RSOO financing plan
	Other funding sources	For occasional/specific use, limited in time

iii) Analysis of the possibility of a joint charges' collection scheme

Among the alternative/complementary funding resources to the contribution of the States and, where applicable, of the Community, fees and charges for services provided which directly benefit specific users are to be paid directly to the RSOO. On the other hand, for charges which correspond to broader services benefiting various users (notably the air safety charge), the collection of these charges requires the establishment of an ad hoc scheme. In that case, an RSOO could consider outsourcing their collection to an entity, whether government controlled/operated or not.

For various reasons, including efficiency and economies of scale, it is preferable for this scheme to be implemented on a regional basis by a single collection entity.

The RSOO and its Member States/Parties shall determine the scope of services to be provided by the collection entity. Various options may be considered, including:

• Based on the information required to calculate the charge (aircraft movements, number of departures, number of passengers, etc.) and provided to the collection entity, the latter calculates the applicable charges and bills the aircraft operators involved, collects the payments and then transfers the amounts received, less an administrative fee, to the RSOO.

• In another collection scheme, the RSOO or the State calculates the charge to be levied and forwards the information to the collection entity which bills, collects the payments and then transfers the amounts received to the RSOO.

When considering the establishment of a joint charges' collection scheme, RSOOs may plan to involve various collection entities. Thus, Decision N°. 04/2018/CM/UEMOA, which sets the rate and terms of collection of the Community charge, provides that the charge is collected for the exclusive benefit of ACSAC from air carriers by the National Civil Aviation Authorities or any other competent entity. It should be recalled that such a scheme should preferably be independent of States. As members of the board of the RSOO, Member states retain control on the collection scheme.

More broadly, the establishment and implementation of a joint charges' collection scheme could follow certain principles/rules:

• The charge is included in the price of the air transport ticket and therefore collected from air carriers;

- The charge is collected for the exclusive benefit of the RSOO and the funds collected are transferred immediately to an account of the RSOO;

- Billing charges on a regional basis allows to denominate and pay charges in a single convertible currency (some RECs have a common currency);

- Be supported by a global entity:

  - capable of counting passengers and aircraft movements;

  - providing assurance of transparency (particularly for the costs of collecting charges);

  - running an effective and centralized system which ensures that the charges are recovered;

- The administrative fee for the collection could be included in the charges. This implies that they are billed to users and not to the RSOO;

- Be simple: for example, a single bill per month, in a single currency, prepared for airspace users for their flights/passengers according to established criteria;

- The amounts collected and the use of the budget should be transparent to airlines. A regular balance sheet should be prepared;

- The right of air carriers and air passengers to be informed of the charge, its rate, the collection scheme and any changes to this system.

In addition, as far as possible, the implementation of the joint charges' collection scheme should be coordinated between the respective RSOOs, so as not to create any distortion of concurrence in the AFI region.

Organisations such as IATA or ICAO have the capacity to develop such a collection scheme.

The creation of a joint charges' collection scheme requires a decision by the States. For RSOOs anchored to a REC, this decision should be taken by the Council of Ministers responsible for Civil Aviation.

Further decisions/arrangements and implementing measures should be taken at the level of the RSOO, States and possibly, for RSOOs anchored to a REC, in coordination with the executive body of the REC:

- To detail the joint collection scheme;

- To introduce the charge at State level ;

- To guarantee access by the collection entity to the data used to establish the charge (number of passengers, aircraft movements);

- For the choice of the entity that will implement the joint charges' collection scheme and the agreement/contract to be concluded with this entity. The RSOO should first carefully study the terms proposed by the entity for the provision of the collection service and obtain from it a precise identification of the costs of the services which would be charged to it. The RSOO should not hesitate to request and compare several proposals from different entities;

- For the information of air carriers and air passengers on the implementation of the charge, its rate and the collection scheme.

Moreover, the collection entity must be able to rely on legal provisions applicable in the event of recovery difficulties, where appropriate with the support of national authorities.

4.1.6. Resources-Personnel

As mentioned above, it is essential that each RSOO be adequately staffed in order to create a positive dynamic. A standard organic structure has been considered by the study with the main objective of meeting the corresponding budget requirements. Thus, a consolidated expert staff of the RSOO is

essential, first to provide the expected services to the States, and then to create the conditions for mutual trust and cooperation between the Member State CAA team and the RSOO team. A stable expert staff of the RSOO is a necessary condition, but the recognition of the expert competences of the RSOO is also a condition.

BASIC RSOO ORGANISATION CHART
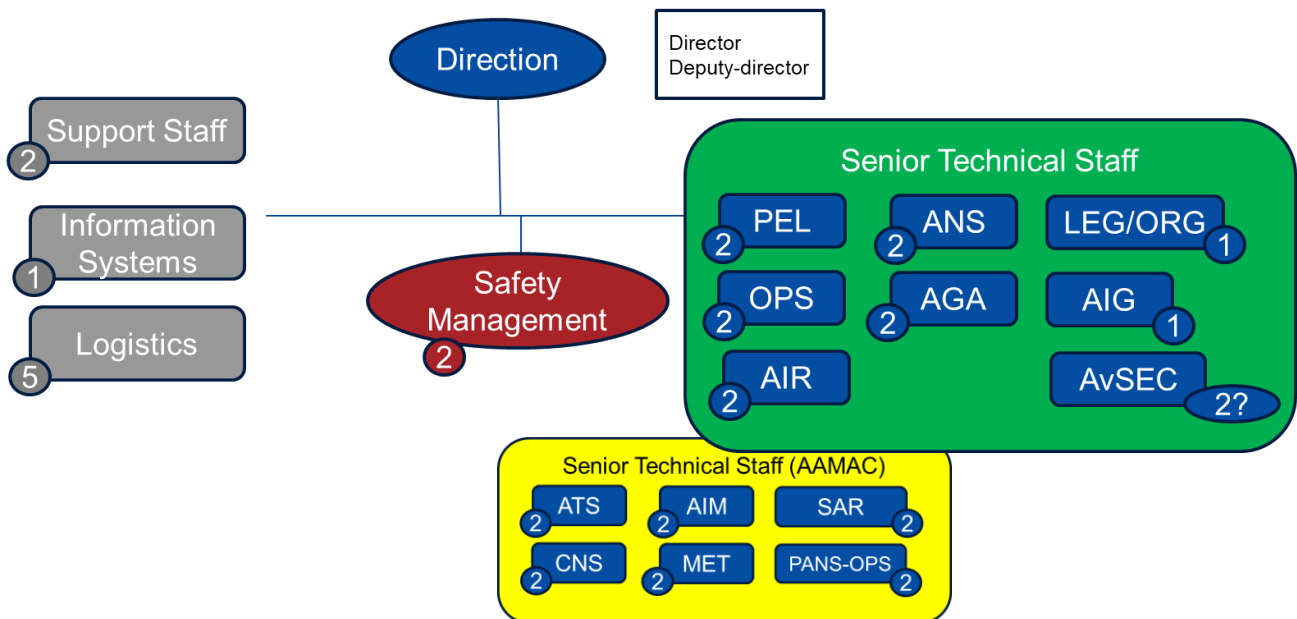
Considering the different disciplines within the scope of the RSOO, it is necessary to address these disciplines with sufficient staff and expertise. For most disciplines, a minimum staff of two experts should be considered with sufficient experience and seniority to be recognised and to ensure continuity in the various activities undertaken by the RSOO. Regarding regionally harmonised regulatory developments, which is obviously one of the first priorities to be considered by the RSOO, RSOO experts should be able to liaise with ICAO experts and facilitate consensus among State experts. Sharing experience, organising workshops, assisting States and liaising with ICAO also require a degree of professional experience. It is therefore essential that RSOO staff have sufficient experience and dynamism.

The staffing level should then be adjusted to reflect the scale and scope of activities. For example, in the case of AAMAC, dedicated to the ANS discipline for 18 AFI ASECNA Member States and some ASECNA representations and facilities, the staff to be considered should be divided among the different sub-disciplines of ANS. Therefore, when considering AAMAC, the expertise for each sub-discipline, ATS, SAR, CNS, MET, AIM, PANS-OPS, should guide the staffing considerations. In other RSOOs, the ANS discipline presents similar challenges, not necessarily with the same critical mass. A cross-cutting ANS sub-discipline combined with a good cooperation scheme would then certainly address the ANS challenges in the region.

	URSAC/ACSAC	ASSA-AC	BAGASOO	CASSOA	SASO	AAMAC
Direction	2	2	2	2	2	2
Support Staff	2	2	2	2	2	2
Information Systems	1	1	1	1	1	1
Logistics	5	5	5	5	5	5
Senior experts						
Safety Management	2	2	2	2	2	
PEL	2	2	2	2	2	
OPS	2	2	2	2	2	
AIR	2	2	2	2	2	
ANS			2	2	2	12
AGA	2	2	2	2	2	
LEG/ORG	1	1	1	1	1	1
AIG	1	1	1	1	1	1
AvSEC	2			2		
Technical experts	14	12	14	16	14	14
Total	24	22	24	26	24	24

Table 6 : Indicative staff per RSOO

➢ **Legitimacy-Credibility**

As already mentioned, the legitimacy and credibility of the RSOO staff is essential to create the necessary trust of Member States for a healthy development of the RSOO and, more importantly, for a dynamic, cooperative, and sustainable strengthening of aviation safety in the respective region.

Recognised competence of the RSOO staff, including managers, is of course an essential condition to legitimise the RSOO, to recognise the RSOO management leadership and to facilitate the relations between the RSOO management and the Member States CAA's management.

Another condition for legitimacy and credibility, as well as for proactive and balanced cooperation between the RSOO team and the CAA teams is the need for a good level of transparency in the management of RSOO activities. The performance of the RSOO should be readable for the Member States, the efficient management of human and financial resources should be reported to the RSOO Board, of course, but also transparently shared with all RSOO stakeholders.

Finally, as early as possible in the development process of the RSOO, recognition by an external body and at least an assessment of the RSOO by ICAO should promote the legitimacy and credibility of the RSOO, support the potential sharing of responsibilities with States and thus create the expected dynamic in the region in terms of aviation safety, ICAO compliance and effective implementation of standards. Therefore, the participation of each RSOO and RAIO in the ICAO RSOO and RAIO Assessment Programme (RRAP) is highly appropriate.

4.1.7. Activities

From the various interviews and the survey conducted during the study with AFI CAAs and RSOOs, it is clear that the challenge of scoping the activities and responsibilities of the RSOO during the consolidation phase is to add value to the CAAs and assist them with some challenges without duplication and with an efficient use of existing resources.

The division of responsibilities with the Member States CAAs should be clear and explicit. This should also be the case with other RSOOs and with the AFCAC.

The inputs of the RSOOs should strengthen the collective capacity in the region to address aviation safety challenges and respond appropriately to ICAO requirements.

➢ Scope of responsibilities

      o   <u>Shared responsibilities with CAAs</u>

The establishment of an effective cooperative scheme with CAAs is essential to the success of the RSOO development process. RSOOs have been established to assist and support States in achieving the required aviation safety objectives. However, the initiation of RSOO activities, even if some of them are the continuation of previously existing COSCAPs, inevitably draws on some resources of the Member States. The pooling of these resources should create a productive energy for solving common problems and address common challenges.

While the RSOO are consolidating, the CAAs are also working to strengthen their own capabilities to fulfil their tasks. Therefore, it is of utmost importance that the sharing of responsibilities among Member States' CAAs and RSOOs be clear and efficient and create that effective added value by working together on some issues. The following proposals for initial added-value services are inspired by this philosophy.

      o   <u>With other RSOOs</u>

In principle, if there is no overlap in membership between RSOOs, the scope of each RSOOs responsibilities should not be a challenge. However, there may be cooperative activities between RSOOs, and in the case of AAMAC, the overlap of different RSOOs dealing with different disciplines may pose some challenges.

AAMAC, ASSA-AC and URSAC-ACSAC have signed a tripartite Memorandum of Understanding to coordinate their activities and avoid duplication. However, the recent accession of Rwanda (member of CASSOA) to ASECNA as well as some possible new members to ASECNA in the future may increase the challenge of overlap between AAMAC and other RSOOs.

In case of joint sponsorship or funding on some projects between RSOOs, a well-coordinated program between RSOOs should be developed.

Sharing methods, tools and reports on the aviation industry may also be natural topics for inter-RSOO cooperation.

      o   <u>With AFCAC</u>

The main role of AFCAC is to implement the Yamoussoukro Decision and to support and develop the Single African Air Transport Market (SAATM). While enhanced aviation safety in the AFI region is certainly an asset to the development and liberalisation of air transport in Africa, it is important that the role of all actors be clear and legible.

Intervening in safety oversight activities requires a good knowledge of the terrain, of the applicable regulations and the regional and national challenges. Therefore, it is of utmost importance that AFCAC initiatives in terms of safety be well coordinated and planned with concerned RSOOs to avoid any overlap with RSOO or national activities.

The AFCAC AFI-CIS program has the advantage of proposing a database of AFI-CIS inspectors issued from several African members states. This database is in principle a good asset to support the improvement of aviation safety in the AFI region. However, the competencies of these inspectors should be up to date. For some safety oversight activities, the regulatory framework to which reference is made should be known and mastered and therefore, the mobilisation of some inspectors from the region is preferable to other potential sources. Considering the need for regular training and management of inspectors' competencies in the area of responsibility of RSOOs and CAAs, it seems appropriate to give RSOOs the responsibility to update and maintain the directory of inspectors in their respective region with a well detailed information on their updated competencies. In the case of inter-

RSOO cooperation, the addition of the respective directories will provide efficient and easily accessible information.

At the level of AFCAC, given that aviation safety is an asset for the development and liberalisation of air transport in Africa, AFCAC could take the responsibility for monitoring and reporting the global performance of the AFI region in aviation safety. Based on the reporting by States and RSOOs, AFCAC could map and track the situation in the Region and animate an annually updated aviation performance review, including safety and other parameters. The AFCAC review could also benefit from industry input. By promoting the overall performance of the AFI aviation safety system and leveraging its political relationship with the African Union, AFCAC would then be a truly effective conduit to high level African institutions and States to promote and support aviation safety across the continent, to understand the challenges involved and to endorse the AFI global approach to aviation safety and the investment required to achieve it.

4.1.8. Initial Value-Added Services for RSOOs

The following proposals are based on a clear strategy to propose added value activities for RSOOs to support their Member States without duplicating competition for resources. Indeed, as a first attempt to consolidate the scope of the RSOOs, to build trust and to establish efficient cooperation schemes with the Member States' CAAs, it is essential that the added value of the RSOOs is recognised by the Member States, not only at the management and institutional level, but also at the very executive level. Cooperation with Member States already exists in many cases but defining a clear scope of activities where RSOOs can play a key role will be beneficial in strengthening the safety oversight capacity in the AFI region.

- Common regulatory framework

A harmonised and common regulatory framework is an obvious prerequisite for an effective cooperation scheme in a given region. This is a condition to go beyond the general ICAO framework and to address practically the challenges of the Member States. This is a condition for the development of an adequate training program in the region. This is a condition for effective cooperation and assistance in practical safety oversight activities, inspections, audits, …. This is a prerequisite for assisting States in fulfilling their ICAO obligations. In conclusion, this is a condition for the effective capacity of an RSOO to play its role.

For some States, the management of the rule making process by the RSOO is the first benefit they expect from membership of an RSOO. The RSOOs develop the regulatory framework, and the Member States implement it. Effective and smooth implementation of regionally harmonised regulatory material also requires some institutional arrangements to facilitate such implementation in a timely manner. It also presupposes that the regulatory approach is shared at the level of the RSOO.

By regulatory material, it is understood that this includes not only the transposition of ICAO annexes into appropriate regional material, but also the development of guidance material for proper and harmonised implementation. It also includes, where necessary, some assistance in the articulation of aviation regulation with the national legal framework of Member States. Coordination and management of regulatory material at the level of the RSOO would facilitate coordination with ICAO, save some resources of the ICAO Regional Offices and provide appropriate visibility at the level of the Regional Economic Community in achieving some common objectives (e.g. harmonised licensing scheme facilitates free movement of professionals in the region).

- Training and competence management of inspectors

Joint training is already a well-developed activity among RSOOs. However, it seems to be more beneficial to share different training programs than to manage an extended regional training plan for the benefit of RSOO staff and Member States CAA staff. The establishment and management of a regional training plan for the enforcement of safety oversight competencies should become a natural activity of the RSOOs, contributing in a meaningful way to the strengthening and stabilisation of the safety oversight workforce in the region. By sharing competence management and training at the RSOO level, the critical sizing of training sessions will be achieved. One of the side-effects will also be the effective creation of a safety oversight community in the region, promoting exchange of experience, harmonised approach and cooperation.

The training plan will be even more effective if the regulatory framework is common or at least harmonised. A common training plan and system at regional level will then support a sustainable human resources strategy in the region to support aviation safety. A common recruitment strategy or the development of regional recruitment sources could also help the RSOO and Member States to maintain a dimensioned and sufficient workforce to support aviation safety oversight.

Some meetings with the industry can also help to understand the challenges faced by regional aviation industry and provide a forum to support the development of safe air transport in the region.

The responsibility for developing a regional training plan requires a good understanding of the challenges and principles of safety oversight. This argues in favour of having experienced staff at the RSOO level.

Several States around the world and particularly in Africa have weaknesses in critical element (CE) 4, technical personnel qualification and training of the State safety oversight system. The establishment of minimum requirements for the knowledge and experience of the technical personnel performing safety oversight functions and the provision of appropriate training to maintain and enhance their competence at the desired level, is fundamental to a well-functioning safety oversight system. Real and effective support from the RSOO will certainly be considered by Member States as an essential benefit to be derived from their RSOO.

- Support for ICAO tasks

While a harmonised and common regulatory framework and a capacity building or training plan appear to be the first priorities to be considered for an RSOO, making life easier for Member States to fulfil their ICAO obligations also appear to be very advantageous benefit of an RSOO. Several States find it difficult to fulfil their ICAO obligations and to contribute effectively to ICAO consultations or activities. They therefore have challenges to follow the work of ICAO, to express their views and challenges and they naturally find it difficult to implement or transform ICAO regional plans or to comply with ICAO standards.

  o Audit Preparation

One of the usual reasons for Member States to request assistance from their respective RSOO is regarding preparing ICAO USOAP/CMA audits or for an upcoming ICVM. It is already a common practice in the AFI region to call for support for preparing for ICAO audits. In case of a harmonised regulatory framework, with which the RSOO experts, who have been familiar, and with the experience of being these regional experts who may have been involved in such audits' preparations with other Member States in the region, the benefit of the RSOO is evident and assistance will be immediate. The RSOO experts, in cooperation with the State's experts, will quickly identify the potential weaknesses or clarify issues that need to be addressed prior to the ICAO audit team's visit.

After the audit, a debriefing in the framework of the RSOO, in cooperation with the audited State, will help other Member States to learn from the audit. With the same regulatory framework, they will be able to work in cooperation with the RSOO and the audited State on the development of the corrective

action plan, and, if necessary, initiate for themselves some corrective actions without any further support.

> o Response to ICAO State Letters

Responding to ICAO State Letters is essential for States to express their point of view, influence the policy and standards and thus facilitate further implementation of these standards. For each standard under development, ICAO issues a State Letter to consult States between the initial review by the ICAO Air Navigation Commission and the final review before adoption by the ICAO Council. AFI States don't respond much to these State Letters. As a result, the views of AFI States may not be known and therefore not considered.

Consultative State Letters are the first step in the implementation process of an ICAO Standard. Responding to them is also the first moment when a State may reflect on the challenges of implementing the ICAO standard.

Given the number of new ICAO standards per year (about 20 per year), it may be worthwhile to have a common response coordinated by the RSOO to express a regional point of view. The immediate benefit is to save some energy and workload, and the secondary benefit is to sensitise the regional community to the next adoption of the standard.

In addition, the monitoring of the ICAO Air Navigation Work Program and the adaptation of the ICAO impact assessment to the regional context could also assist States in their implementation efforts.

> o Participation in ICAO Working Groups

As with ICAO activities such as the State Letters, participation in ICAO working groups, at a regional or global level, is very demanding in terms of resources and time. Some meetings require the attendance of many States, but most working groups or panels benefit from the contribution of a limited number of experts who can express their views on behalf of the community and help to build a balanced consensus on some issues.

If the momentum of the RSOO and the relevant regional community is good, the participation of an expert from the regional community, issued either from the RSOO staff or from a Member State, will ensure an effective contribution from the region to ICAO groups without requiring many additional resources.

> o Assistance for in OLF, SAAQ completion and EFOD completion

To measure the progress of States, report on their improvement and monitor the global evolution of the situation, ICAO has developed several tools and platforms to support regular and continuous reporting by States. It is essential that States regularly update these applications, questionnaires or platforms to ensure the required reporting, which contributes to ICAO's continuous monitoring approach.

With the benefit of a common regulatory framework, a common training and capacity building strategy and a good understanding of the level of implementation of RSOO Member States, the RSOO expert team should be able to provide strong support to Member States' National Continuous Monitoring Coordinators (NCMCs). They could suggest preliminary answers to the various questionnaires, including the protocol questions, under the control of NCMCs who should keep control of their national monitoring status.

NCMCs, should provide on behalf of their State and after coordination, at least the following information:

    a. Protocol Question (PQ) compliance status through PQ self-assessment,
    b. Corrective Action Plans (CAPs),

c. Actions taken by the State in response to Significant Safety Concerns (SSCs),
d. State Aviation Activity Questionnaire (SAAQ),
e. Compliance Checklist (CCs)/Electronic Filing of Differences (EFOD),
f. Response to Mandatory Information Requests (MIRs), and
g. Other relevant safety information, as required by ICAO.

It is clear that if the activities are well harmonised, most of the RSOO Member States will have similar responses to these questionnaires. A common and coordinated approach to these self-assessment obligations through the RSOO process will save resources, help to identify weaknesses and take corrective action, provide an efficient way to share the required information and potentially complete evidence material for the benefit of the regional community. By undertaking this exercise together, RSOO members will create a de facto monitoring of the situation in the region.

o Global and Regional plans support

For some years now, ICAO has engaged in a medium- and long-term visioning process through the continuous development and updating of strategic global plans: GANP (Global Air Navigation Plan), GASP (Global Aviation Safety Plan) and GASeP (Global Aviation Security Plan). These plans should be adopted at regional level becoming respectively RANP, RASP in the field of Air Navigation and Safety and then at National level.

For some countries, usually small ones, with scarce resources, this exercise is difficult although it would clearly help them to plan efforts and priorities for the efficient development of their aviation system. The RSOO working platform can be of real value in adapting the RANP and RASP to the level of the RSOO community and in assisting States in the national adoption of these plans.

• Safety studies

As with any major change in aviation, changes should be assessed in terms of risk and safety. The methodology is sometimes perceived as difficult to implement and, in any case, requires a good deal of familiarisation either on the part of operators or on the part of the authority. The analysis and assessment of safety studies provided by industry can be challenging without regular experience of such exercises. It would therefore be useful to concentrate this type of competence and activity at the level of RSOO, harmonising methodologies and limiting the burden on regional industry which would not have to submit the same dossier several times in each RSOO State.

• Regional coordination

As a result of all the activities already mentioned, regional coordination seems like a natural service to be provided by an RSOO. Whatever challenges or problems may arise in the field of aviation, the existing body of aviation experts can address the community interests.

4.1.9. Cooperation with CAAs in practical safety oversight activities

Further to the survey and interviews conducted, it is clear that RSOOs are already cooperating with CAA teams in the framework of audit activities. In most cases, RSOO experts reinforce the national audit team. Depending on the RSOO and the disciplinary area, synergies and practical cooperation in audit or inspection activities function well or may be completely absent, despite existing RSOO expertise. In no case, audit is delegated to the RSOO. Such a delegation would in any case require the appropriate legal and institutional basis to allow the RSOO to be delegated by a Member State for a practical safety oversight activity.

- Joint audits and joint inspection missions

Indeed, delegation of inspections or audits is not necessarily appropriate at the stage of the consolidation phase. Trust and cooperation should be developed and, as a first step, joint audits and joint missions should be the rule. The audits and missions should be conducted under the authority and leadership of the State CAA and result in CAA findings and reports with the active support of RSOO experts. Joint participation in practical safety oversight activities will gradually build trust and team spirit and lead to harmonised working methods, common interpretation of the regulation and exchange of experience.

- Tools and methods

Through the cooperation between national experts and RSOO experts on practical safety oversight activities, sharing a similar training program and regulatory framework, working methods will gradually be adapted and commonly agreed working methods will be developed. It is important that this common experience is integrated into the regionally agreed training process and that common procedures are developed and integrated into the various manuals and guides of the RSOO and the Member States.

The exchange of experience and feedback will serve to improve the training process. The sharing of some common tools should therefore well support the harmonisation of working methods throughout the regional community. Possible joint procurement will also allow some savings and support common working methods.

- Aviation Industry

As they share a common economic region, most of the RSOO Member States have similar challenges and, of course, some aviation operators in common. It is important that the reports are shared with the Member States through the RSOO mechanism, in order to limit the recurring burden on operators, to ensure transparency of the findings and to have a coordinated approach with the operators providing services to the different RSOO Member States.

This was typically the reason for the creation of AAMAC, which has the capacity to audit common air navigation services provided by ASECNA in the different Member States.

This may also be the case for some aircraft operators with several bases in different countries. In this case, an agreement and coordinated management of safety oversight activities may be worthwhile to limit the burden on operations, but also to ensure harmonised requirements and transparent reporting throughout the RSOO membership.

Licensing, certification, authorisation and approval activities should also benefit from the existing synergies across RSOO member states through automatic or smooth validation of the work done by another RSOO member.

4.2.   Maturation Phase

The first precondition for moving from the consolidation phase to maturation phase is, of course, the stabilisation of organisation and legal basis of the RSOO. The legal basis of the RSOO, including the possibility for Member States to delegate activities to the RSOO should be fully established. The human and financial resources of the RSOO should be stabilised as far as possible.

4.2.1.   Delegated regional activities

The purpose of the following development is to identify activities that would greatly benefit from the existence of an RSOO. In most cases, these correspond to some of the more challenging issues where States are finding it difficult to develop capacity and where either some duplication between Member States exist, or Member States don't have the critical mass to invest in these functions.

- Activity and task delegation protocol
  In order to identify activities in which the RSOO could play a key role, the legal basis of the RSOO must include a protocol on the delegation of activities and tasks, co-signed by the Member States and the RSOO, the, to provide a legal basis for the delegation of responsibilities in some activities.
  A draft proposal for such a protocol is in Annex 4 attached

- Audits of shared services
  As mentioned above, shared services are naturally candidates for a regional approach to the audit process. It is suggested that in the consolidation phase, this could be achieved through agreed, coordinated and harmonised management of safety oversight activities. The next step in the evolution, in the maturity phase, should be the delegation of audits and surveillance of shared services or operators at RSOO level. This would save resources for Member States, service providers and operators, avoid duplication and ensure consistency across the RSOO membership.
  The mapping of the different common service providers and operators in the RSOO region will certainly help the RSOO and its Member States to identify the possible benefits of delegating safety oversight activities on common service providers and operators.

- Aviation medicine
  Aviation medicine requires specific equipment and skills that are not necessarily available naturally in the national health system of any country. It may take some time to train some doctors to acquire the skills to assess the fitness of pilots and air traffic controllers. Having the necessary equipment to carry out hearing and vision tests for aviation professionals can also prove difficult. In addition, being able to address medical challenges including human factors in aviation, is worth supporting the development of air transport.
  CASSOA has launched the regional centre for Aviation Medicine project to meet the need of the civil aviation authorities of the EAC Partner States to have access to an aviation medical facility that complies with the International Civil Aviation Organisation (ICAO) Medical Standards and Recommended Practices (SARPs). The core function of the Centre is to provide aviation medical safety oversight.

  Functions of the CASSOA CAM (Centre of Aviation Medicine):
    - Evaluate and ensure conformity or compliance with ICAO Standard and Recommended Practices (SARPs) and the EAC Regulatory Provision of the Partner States in the field of aviation medicine.
    - Conduct a skills audit and develop a database of Designated Medical Examiners in the region and aviation medicine by organising basic, advanced and refresher training courses.
    - Establish a process for continuous review and updating of the medical aspects of the CAA (Personnel Licensing) Regulations to keep abreast of changes to ICAO SARPs.
    - Develop an appeals system for dissatisfied license holders.
  This initiative of the EAC Partner States seems perfect in the spirit of bringing under the RSOO remit some synergetic function that would benefit all RSOO Member States.

- License management
  Managing, approving, certifying or validating properly aviation professional licenses is one of the primary conditions of aviation safety. It is not a coincidence if ICAO Annex on Personnel Licensing is the first one to have been developed in ICAO history. In addition, shortage of aviation professionals is a sensitive question that comes back cyclically as a priority challenge of aviation worldwide. Therefore, benefitting from a smooth and rigorous system allowing aviation professionals to exercise easily at a regional scale will facilitate the development of air transport in the region and ensure optimal use of existing aviation professionals resources in the region. In addition, this will limit the administrative burden on aviation service providers and operators. Where having a harmonised license system and a

smooth capacity of reciprocal validation across RSOO Member States would already bring some benefit, placing the management of aviation professional licenses at the RSOO level would bring additional benefit and save resources among States.

Such arrangement would also contribute to some political goals of the REC by contributing to free circulation of aviation workers throughout the regional economic community.

- Regional exams

  Organising exams for aviation professionals requires specific know-how and experience. Depending on the size of the aviation industry in a given country, the number of open posts and of candidates may not justify organising national exams on a regular basis. Being for a small number of candidates or a big one, aviation exams require the same rigor, paperwork and a structured process.

  Organising exams at a regional level would certainly benefit the global aviation industry of the region. The process could be supervised by the RSOO. This would in addition widen the number of possible candidates, open the benefit of having more frequent sessions and more easily responding to the needs of the regional aviation industry. A good level of delegation to RSOO on supervision of regional exams for aviation professionals would therefore be beneficial to the whole regional aviation system. In addition to a regional license management scheme, this would also contribute to the development and renewal of the professional aviation pool in the REC.

- Common validations

  The aviation organisations have to be audited by the aviation authorities to maintain their approvals and certifications. This is the case of MROs (Maintenance, Repair and Overhaul) organisations, CAMOs (Continuing Airworthiness Management Organisation), ATOs (Approved Training Organisation), … This is also the case for the approval of simulators (FSTD) and other facilities.

  Due to the reality of aviation industry in the AFI region, a number of these organisations to be approved are not located in the AFI region. Approval process and inspections are generating several travels from the various CAAs for the yearly renewal of the approval process. These organisations are often the same ones for different RSOO Member States.

  Many costs and workload could be saved if a coordinated process for such approval be placed under RSOO management. This does not necessarily mean that only RSOO experts would oversee this process but a rotating process among RSOO and Member State experts managed by the RSOO would achieve the same objective as many visits from national inspectors, optimise the process and limit the burden on the approved organisations.

- Flight Control

  Flight Control and flight inspections require some pilot skills which are difficult to hire for aviation authorities. Even if some national authority succeeds to hire and keep qualified pilots in its staff, it is very challenging to have in the CAA team all the skills corresponding to various type of aircraft in operation in the State since all operations inspectors must have pilot experience and required certificates and ratings, such as airline transport and commercial pilot certificates.

  Therefore, cooperation appears to be the best way to address the challenge of flight control. Having a flight control organisation at the level of the RSOO. By combining skills available in the different Member States and joining forces and solutions, a regional flight control organisation under the management of the RSOO would offer increased capacity to achieve efficient inspections on flight operations.

  All these so called "delegated regional safety oversight activities" appear to bring real benefit to member States and aviation industry. Organising and delegating these activities at a regional level is only possible if the RSOO exists, is stable enough with the proper delegation protocols. The responsibility of the RSOO increases a lot and it is of utmost importance that its organisation and resources be stabilised and consolidated.

4.2.2. Inter-RSOO Cooperation

During the maturation phase, and as a natural progression from some coordination attempts during consolidation phase, it appears suitable to encourage inter-RSOO cooperation. Exchange of experience, common participation to ICAO groups and activities are obvious but a more in-depth cooperation, prefiguring some possible future mergers, can be envisaged. Merging will in any case be a long, institutional and cumbersome process, when an efficient inter-RSOO cooperation may bring quick and efficient benefits, harmonisation, increased common experience and as a result some improvement in safety and standard compliance.

A few items of possible inter-RSOO cooperation are listed below but nothing prevents RSOOs from jointly tackling some challenge in the region. Subjects like SAR (Search and Rescue), GADSS (Global Aeronautical Distress and Safety System), SBAS (Satellite Based Augmentation System), which are obviously of cross-regional nature may benefit from such cooperative approach.

- Harmonisation
Harmonisation between RSOOs in the way they address any item is naturally subject to inter-RSOO cooperation. ICAO work is already achieving a first level of harmonisation across the continent. Inter-RSOO cooperation may allow to go deeper in some harmonised way to implement ICAO requirements.

Several items have been highlighted below. They essentially result from the exchange of ideas and suggestions from States and RSOO management. This list cannot pretend to be exhaustive.

  - Regulation structure
The question of harmonised or common regulation structure in-between different RSOOs is already existing in the AFI region. ASSA-AC, URSAC/ACSAC have common State membership with AAMAC, and every State has a unique regulation structure. There is therefore a need to share the same regulation structure and approach. This has been identified and verbalised during the study interviews, but it is not clear if concrete actions have been initiated to deal with this matter. In addition, transposition in national legal regulation of ASSA-AC, URSAC/ACSAC or AAMAC regulatory proposals is not following the same process and dynamic.
In other cases, working in common on regulation structure and framework could provide some benchmark to improve processes of the different RSOOs.

  - Practices, tools and methods
RSOOs in the AFI region face similar challenges. Some have among their members some big States with preexisting practices, tools and methods. The question becomes then to know if these methods and processes may be adapted to all RSOO members. For other RSOOs, they step-by-step build a working environment composed of shared practices, tools and methods developed and implemented in common with their membership.
When sharing common tools, it is obvious that inter-RSOO cooperation may be worth, developing practices and methods to address common challenges also.

  - Sharing of experience
Sharing of experience is a constant need from consolidation phase to optimisation phase. RSOO address the same challenges, they may have some different strengths or weaknesses. Therefore, sharing their respective experiences is of utmost importance.
In the case of delegating some regional safety oversight activities, one RSOO will always be ahead of the others. Taking experience of this first player can only be beneficial to others. It will also be the case for technical or operational implementation challenges.
AFI RSOOs will naturally share experience when participating in ICAO events like RASG-AFI, APIRG or other regional groups. However, none of them address RSOO specific challenges. Thus, it could be advised to create an inter-AFI-RSOO forum where exchange between RSOO management could lead to improved sharing of experience. An annual workshop could also help to share challenges, solutions

and initiatives. It is nevertheless important that such workshops don't duplicate with other AFI regional forums.

- Resource sharing
Resource sharing among RSOOs could be useful. RSOOs are supposed to reinforce the regional safety oversight capacity. However, it could happen that some weaknesses temporarily exist in some disciplines and that sharing of resources becomes necessary.

    o Modalities
    From our experience, the actual practice of sharing resources and expertise is for the beneficiary to pay travel expenses when time and salary of the expert remain charged to the employer. Such a system works as long as it is balanced, and the mobilisation of an expert does not undermine his capacity to fulfil his duties to his employing organisation. In any case, clear and transparent modalities should be established when sharing resources among RSOOs. It is important that this will be transparent to the board of the respective concerned RSOOs in order to consolidate budget management.

- Common activities
As working together on some issues, RSOOs could cope in organising common activities. Obvious subjects of cooperation are safety promotion initiatives and training. Having some initiatives in common will help in saving costs, have a well-sized and adapted audience and favour cooperative culture among RSOOs.

All the previously mentioned items should be dealt with in case of a potential future merger of different RSOOs. Having installed in anticipation inter-RSOO cooperation should smoothen some potential merging projects without jeopardising the benefits of the creation and development of RSOOs. Therefore, it is highly recommendable that some inter-RSOO cooperation be encouraged.

4.3. Optimisation Phase

The optimisation phase corresponds to the final phase of the proposed RSOO operationalisation roadmap. At this stage, existing RSOOs should have been consolidated, the membership rationalized in avoiding duplication and several value-added services have demonstrated the benefits and positive impact on aviation safety in the AFI region. Trust and cooperation are installed between States and RSOOs and between RSOOs.
Where, during consolidation and maturation phase, RSOOs were supporting national safety oversight processes, the conditions are now met to envisage possible delegation of some safety oversight activity from Member State to RSOO.
Since, during the previous phases, priority has been given to consolidation and delivering value-added services, it can be envisaged to merge some RSOOs together.

4.3.1. Delegating member State local activities

The delegation by States of some safety oversight activities may be worth if the State doesn't have the critical mass of operational activity in the discipline or if the State fails to maintain sufficient qualified expertise in the domain. If the RSOO is strong enough, then the delegation to the RSOO of these local safety oversight activities may be a solution. A clear and adapted framework should be established, it should be transparent to the operators and service providers and be kept under control of the national authority which remains accountable of the delegated safety oversight activities.

4.3.2. Potential merging of RSOOs

From an initial point of view, merging RSOOs appears to be an attractive idea. Indeed, based on an essential argument, relating to critical mass of aviation activity and economies of scale, it tends to support the idea of larger and fewer entities in the AFI region for greater efficiency and sustainability. However, effectiveness and practical impact on safety oversight advocate for well-sized organisations which can address dynamically the various issues without the inertia of embarking too much institutional and diplomatic considerations.

Big multi-State organisations have to consider multicultural aspects, potential political disputes between States depending on the geopolitical situation.

RSOO should be durably considered as technical bodies and be able to work without having too many institutional or diplomatic constraints. As soon as the legal basis is established, they should be able to act.

Potential merging of RSOO could be a long process. During such a process, efficiency and benefits of previous phases should not be lost.

Indeed, different scenarios of potential RSOOs merging may be considered. The previous study on RSOO/RAIO configuration identified the following options:
- Option 1 (7 RSOOs): Six (6) existing RSOOs plus a new one for non-RSOO States,
- Option 2 (6 RSOOs): Six (6) REC based RSOOs and non-RSOO States to join existing ones,
- Option 3 (5 RSOOs): Reduction to four (4) AU recognized RECs plus AAMAC,
- Option 4 (4 RSOOs): Reduction of six (6) RSOOs to four (4) (i.e. one each for ECOWAS, ECCAS, SADC, and EAC).
  (Options that will be discussed in the next chapter*).*

In the same way, and seeking for the most effective and efficient scheme for the AFI region RSOOs, the present project study identified four (4) scenarios of potential merging, as possible alternatives, to be taken with care and further analysis:

1. Scenario 1: Merge of URSAC/ACSAC and ASSA-AC;
   a. Without AAMAC
   b. Including AAMAC.
2. Scenario 2: Merge of URSAC/ACSAC and BAGASOO under ECOWAS umbrella,
3. Scenario 3: Merge of CASSOA and SASO,
4. Scenario 4: Extension of AAMAC to non-ASECNA States.

From the conducted survey outcomes, it can easily be observed that the 7-partner-States initiative has collapsed. Ethiopia, Eritrea, Djibouti, Somalia are not member of any AFI RSOO.

Ethiopia looks self-sufficient in terms of safety oversight. The interview of Ethiopian representative to ICAO let think that Ethiopia could possibly consider joining CASSOA. Somalia is also joining CASSOA. As for the intentions of Eritrea and Djibouti, they were not discussed yet.

At this stage, a possible scenario with the creation of an RSOO covering the eastern horn of Africa does not appear realistic. Therefore, these States could either join CASSOA or remain on their own.

From another side, Sao Tome & Principe is about to sign an association agreement with ASSA-AC, and Mauritania remains an associated member of WAEMU.

With these caveats, it can be considered that existing RSOOs are covering geographically all the sub-Saharan AFI region.
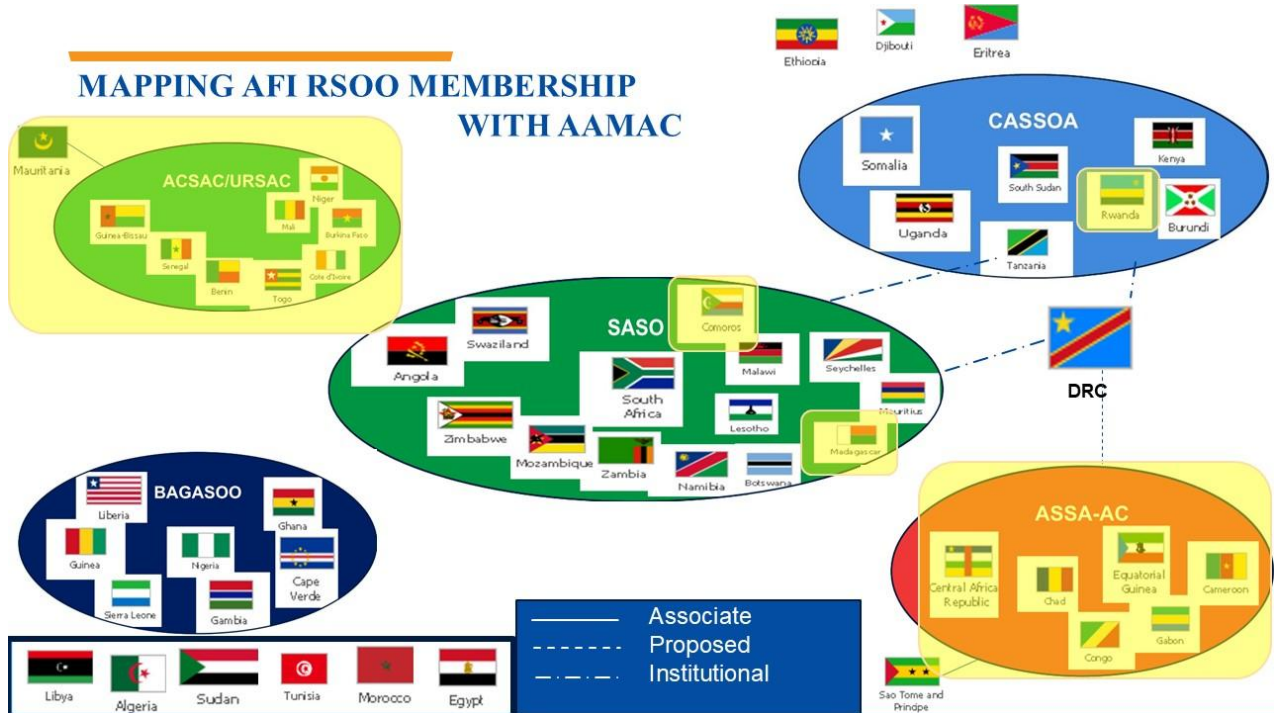
Actual situation of AFI RSOOs

> **Scenario 1a: Merge of URSAC/ACSAC and ASSA-AC without AAMAC**

The potential merger between URSAC/ACSAC and ASSA-AC appears to be a realistic option since these States have a lot in common. They are French speaking States and share the same basic legal framework. They are neither part of the same Regional Economic Community nor of the same monetary union but have a lot in common in terms of socio-economic considerations.
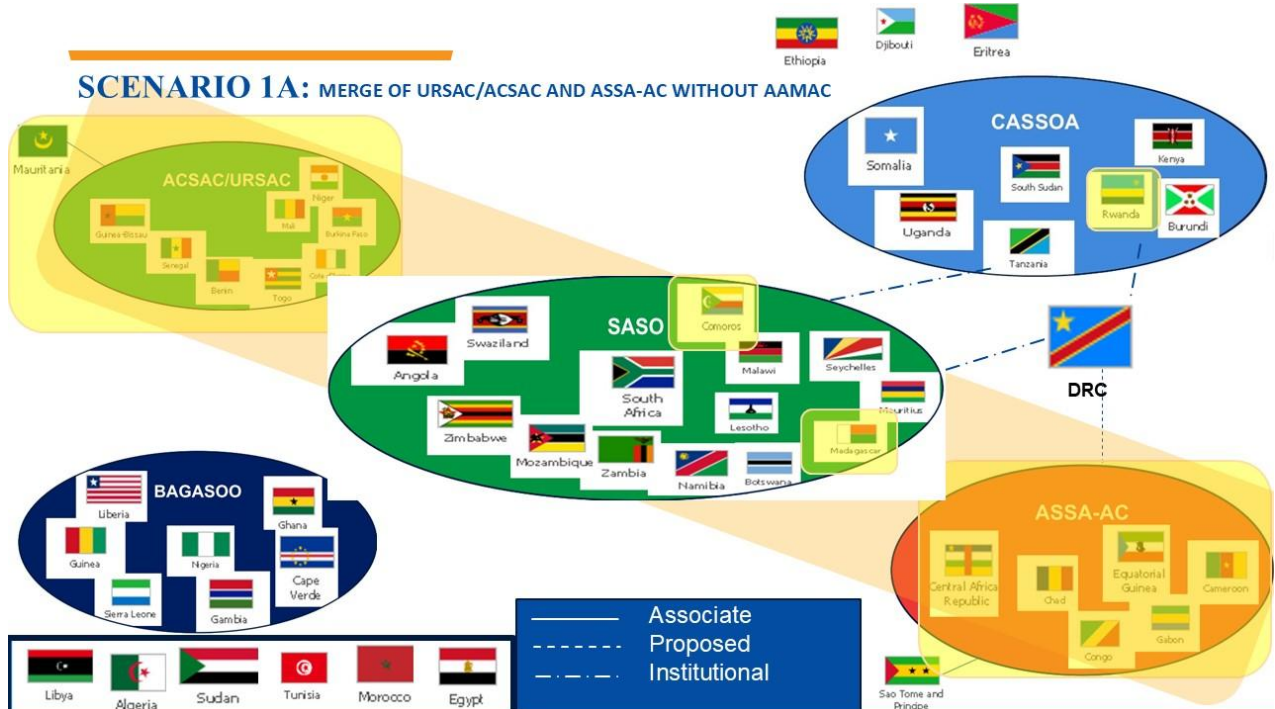
In terms of aviation industry and air transport as well as technological development, URSAC/ACSAC and ASSA-AC Member States present a lot of similarities and have a number of challenges in common.

In terms of USOAP indicators, the profile of both RSOO member States average is similar with some advantage to URSAC/ACSAC. Areas of improvement are homogeneous.
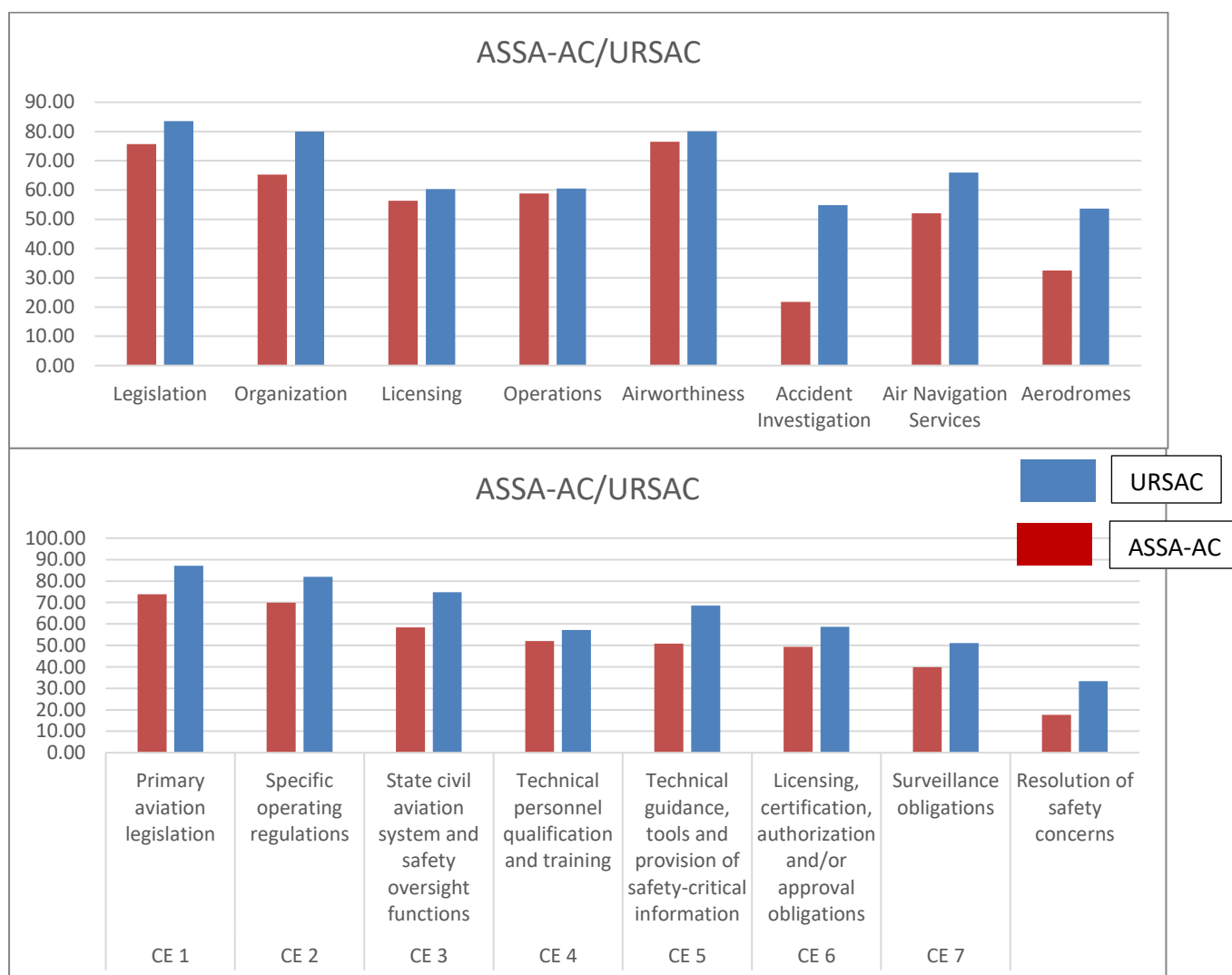
Legal foundation of both RSOOs differ but it looks possible to develop a common legal basis. Due to different institutional frameworks and the Regional Economic Community, the potential merging of URSAC/ACSAC and ASSA-AC, if most of the member States agree on such a merger, will be a long and difficult process. URSAC/ACSAC still need to define its host State and finalize its operationalisation process; ASSA-AC just finalized its legal texts and foundation.

Considering the current situation of both ASSA-AC and URSAC/ACSAC member States, it looks challenging to initiate such a merging process. Inter-RSOO cooperation may progress without merging, and it looks more beneficial to the global AFI community to put energy into the improvement and consolidation of both RSOOs than to initiate a merger. Whatever happens, consolidation of personnel

and finance resources will need to be achieved. A project of merger between URSAC/ACSAC and ASSA-AC would certainly impede such consolidation and therefore delay practical benefits for RSOO member States and AFI aviation community.

> ### Scenario 1b: Merge of URSAC/ACSAC and ASSA-AC with AAMAC

Scenario 1b is the declination of scenario 1a with the addition of AAMAC. It naturally leads to the same considerations as described above. However, this would offer a complete scope for all ASECNA Member States and would make sense. The shape and foundation of such a merger would not be easy to define since the AAMAC construct is very much like the ASECNA membership.

In any case, the requirement exists today of articulating ASSA-AC, URSAC/ACSAC and AAMAC regulatory framework along the same philosophy.

One obstacle may come from the extension of ASECNA membership to other States than ASSA-AC or URSAC/ACSAC States. Rwanda is the first case, but others may join in the future. Therefore, the limitation to ASSA-AC and URSAC/ACSAC members would not anymore be sufficient to cover scope and responsibilities of AAMAC and a new challenge would arise in relation to ASECNA membership.

4.3.3. Scenario 2: Merge of URSAC/ACSAC and BAGASOO under ECOWAS umbrella
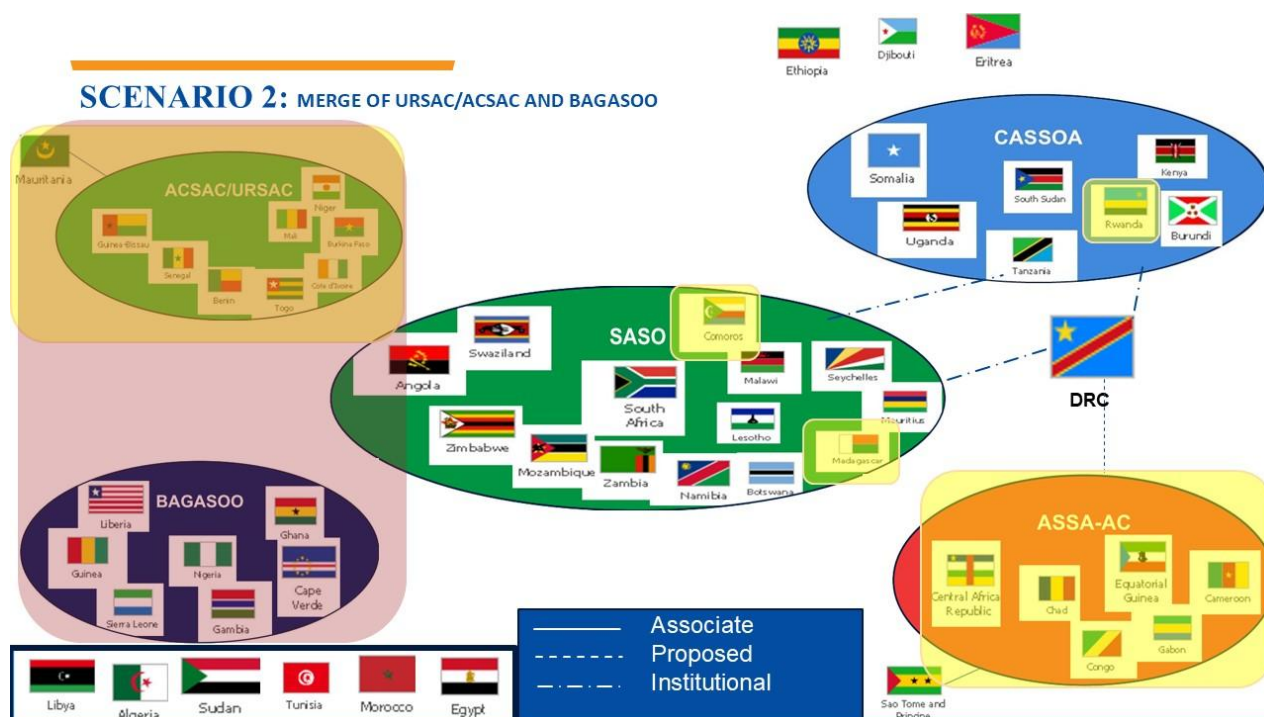
When considering the relation between Regional Economic Communities and RSOOs and the corresponding mapping, it looks clearly that a possible scenario of RSOOs merging would be to merge URSAC/ACSAC and BAGASOO, leading thus to a new membership scope similar to the ECOWAS one. ECOWAS is currently not involved in supporting safety oversight activities. Indeed, where URSAC/ACSAC is actively supported by WAEMU, BAGASOO does not receive any financial support from ECOWAS.

One of the important challenges for merging URSAC/ACSAC and BAGASOO is the language used and the cultural environment. Working language in BAGASOO is English when working language in URSAC/ACSAC is French. Working in English for URSAC/ACSAC may be a challenge but could be

possible, English being the language internationally recognised in aviation. However, regulatory framework for French-speaking countries should be in French and identically, it should be in English for English-speaking countries. This would lead to a dual language regulatory development process, leading to some additional costs and energy.

In addition to the working language challenge, the legal culture might be another challenge. The law of the French-speaking countries is inspired by the French civil code while the law of English-speaking countries is inspired by the British common or case law.

In terms of USOAP indicators, BAGASOO and URSAC/ACSAC look similar and present the same profile.

URSAC/BAGASOO
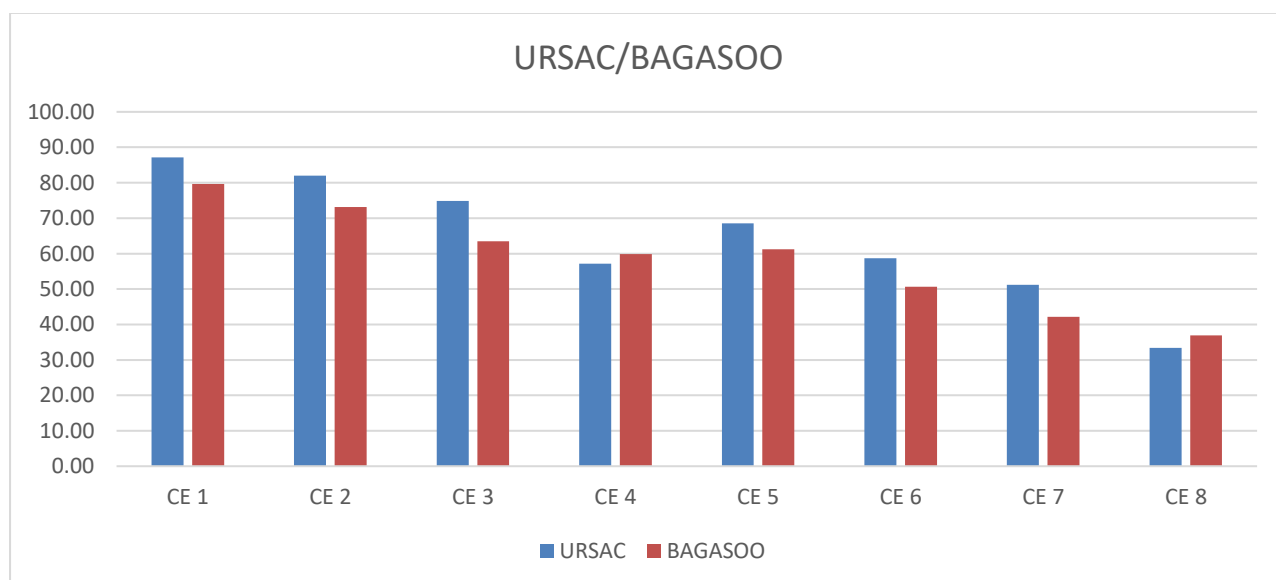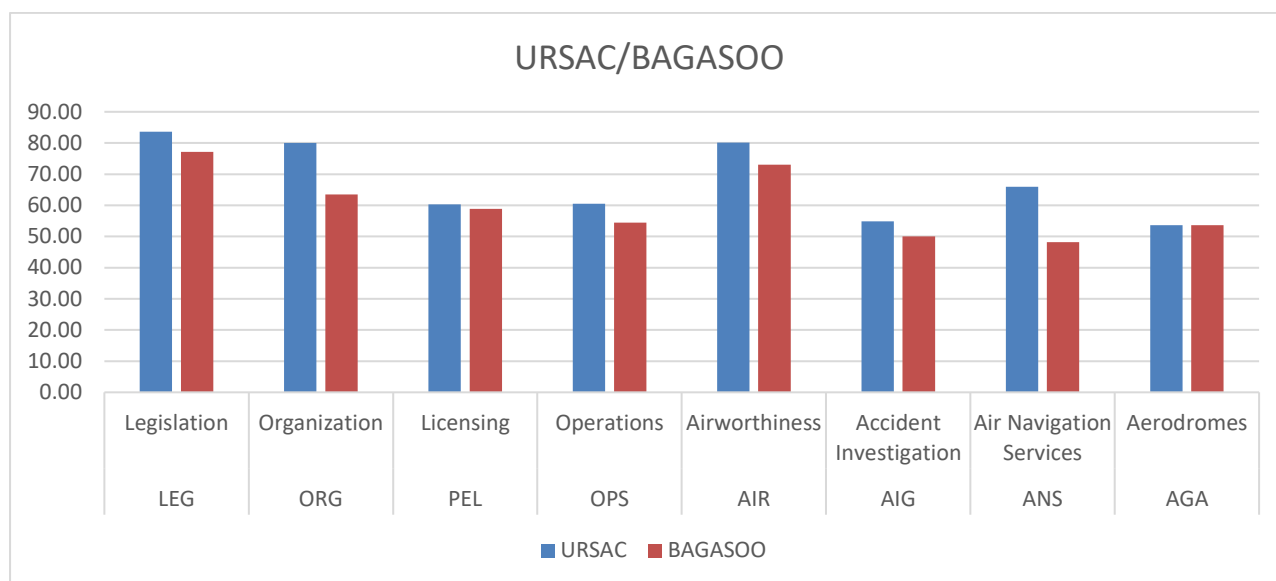
URSAC/BAGASOO

However, in terms of aviation industry, the weight and importance of aviation actors is more balanced in between URSAC/ACSAC Member States than between BAGASOO Member States where Nigeria plays a key role.

Considering the current situation of both BAGASOO and URSAC/ACSAC Member States, it looks hazardous to initiate such a merging process. Each RSOO is having a dynamic development process and working effectively to address safety and regulatory challenges in their respective regions. Merging

both RSOO could appear politically as a nice idea as it corresponds to ECOWAS geopolitical perimeter, but a number of practical aspects would have then to be tackled, questioning and putting at risk current development of both, URSAC/ACSAC and BAGASOO. Cultural differences should not be neglected, and this is perhaps the principal challenge to overcome.
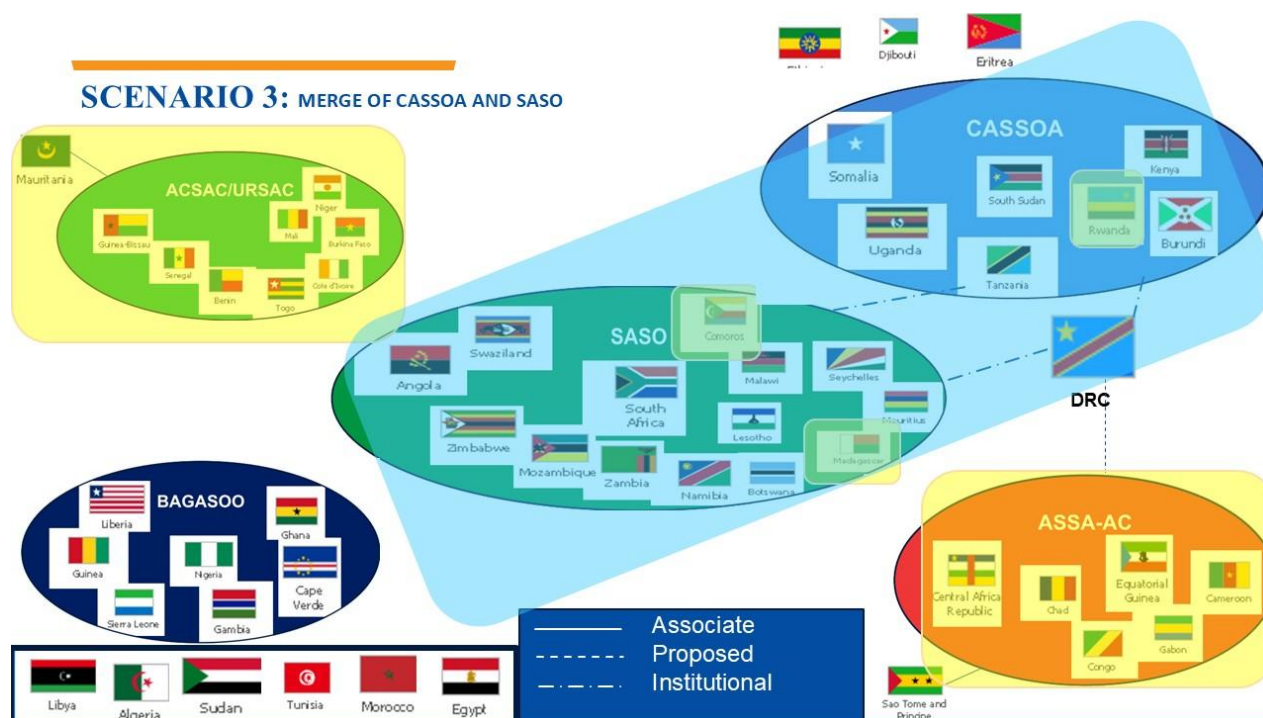
> **Scenario 3: Merge of CASSOA and SASO**

Merging CASSOA and SASO is also a theoretical option which was not considered by the previous study. This would solve some duplication of membership for States like Tanzania and DRC. This would constitute a big ensemble combining SADC countries and EAC countries with more than 20 members. At the present stage of maturity of CASSOA and SASO, it is difficult to envisage such organisation, and the structure would need to be efficient and create real benefits in comparison to differentiating CASSOA and SASO.

From our survey, CASSOA appears relatively advanced. It is well matching to some political ambition in the EAC countries, favouring free circulation of professionals and connectivity. SASO appears less mature and is still stabilising its membership. SASO is in addition composed of one big aviation State, South Africa, and many smaller States.

Technically, despite the good level of South Africa, CASSOA appears well advanced, compared to the average situation of SASO countries.

CASSOA/SASO

CASSOA/SASO
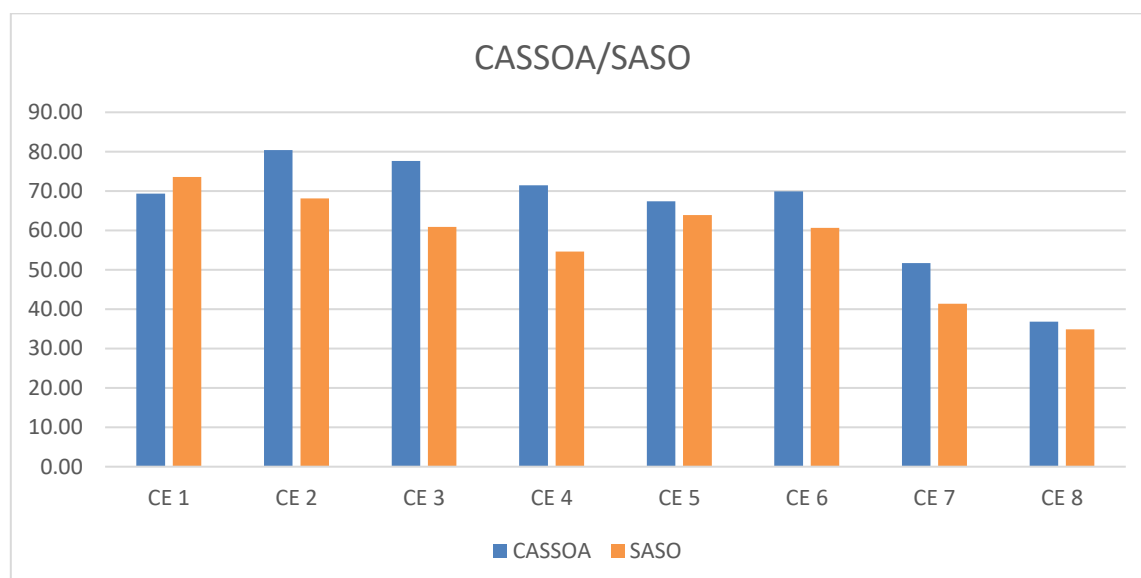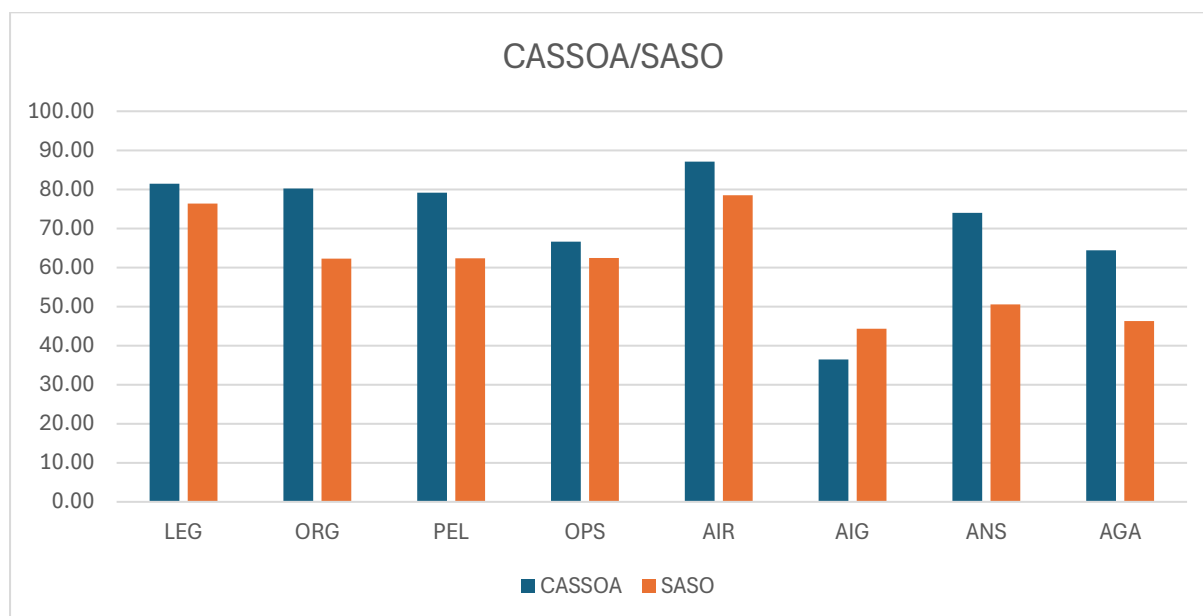
Considering the current situation of both CASSOA and SASO, it looks hazardous to initiate such a merging process. Inter-RSOO cooperation may progress without merging, and it looks more beneficial to the global AFI community to put energy into the improvement and consolidation of both RSOOs than to initiate a merger. Some initiatives could be shared by both RSOOs. Initiating a merger between CASSOA and SASO would be a very ambitious project that would need strong ambition for the long-term and extensive political will. In terms of organisation, it would be difficult to manage, and it is not sure that the economies of scale that are the essential argument for such merge would not be counterbalanced by some inertial aspects that would inevitably result from such big organisation.

➢ **Scenario 4: Extension of AAMAC to non-ASECNA States**
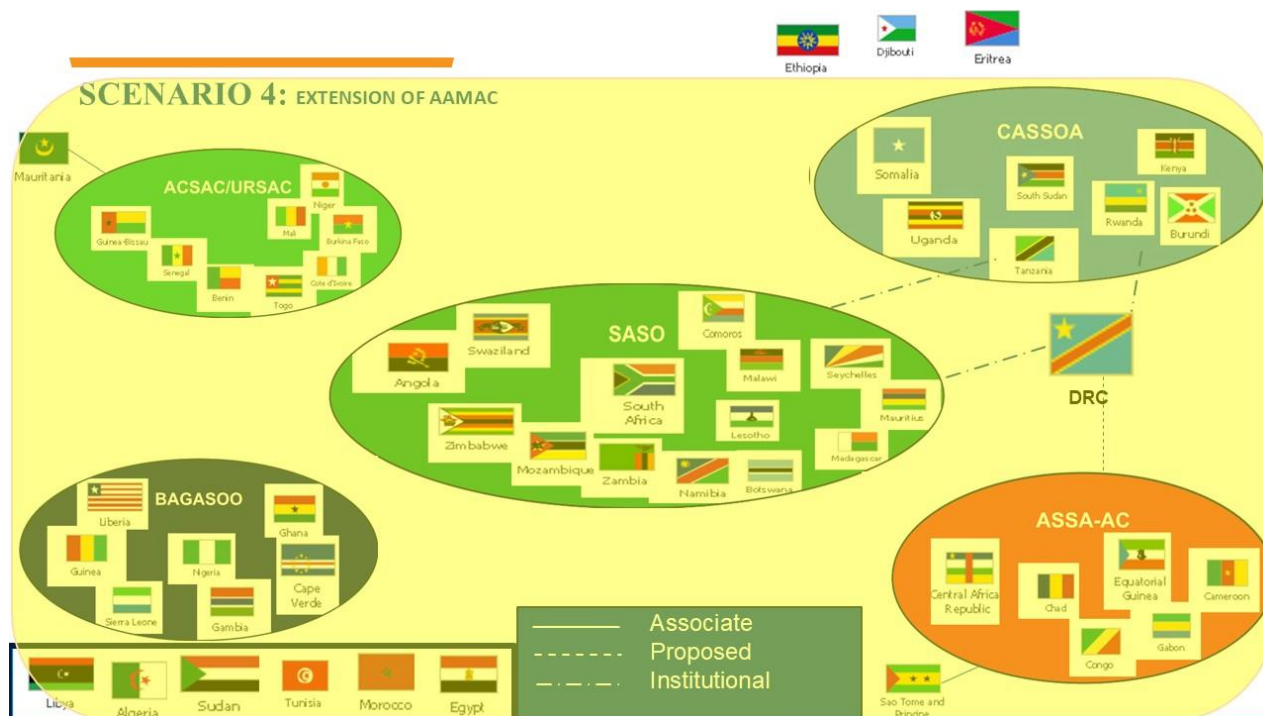
Another option which was not analysed by the previous study is the extension of AAMAC taking over ANS discipline in an extensive way in the AFI region. This would have the advantage of having a safety oversight organisation dealing with different Air Navigation Service providers, increasing the independence of AAMAC from ASECNA. Indeed, the general case is that a national ANSP has the monopoly of ANS provision in its State challenging the independent relation between the safety oversight authority and the ANSP. This is also the case between AAMAC and ASECNA.

At the same time, African airspace is developing with the generalisation of PBN procedures, a possible extension of SBAS through the continent, ADS-B by satellite and other common facilities. Datalink and some new functions will progressively appear with the progressive implementation of the ICAO GANP in the AFI region.

An extension of AAMAC role to non-ASECNA States would thus offer a solution for surveillance of regional services. It would naturally adapt to any change in the ASECNA membership and create the necessity for AAMAC to establish a framework independent from ASECNA. Whatever the single African sky would become in the future, AAMAC would be adaptative to its evolution. This would also create synergies in the oversight of ANS across the AFI region.

Such an option appears relatively innovative. All the possible consequences of scenario 4 could not be analysed in detail. A progressive and cooperative approach could be to give to AAMAC the responsibility of overseeing all AFI regional common services for ANS: satellite services, SBAS, RVSM monitoring, SAR, …. and let ATS services and associated components under States or other RSOOs with possible on-demand support of AAMAC.

➢ **Combination of different scenarios**

The hereabove presented scenarios may be combined potentially and don't necessarily exclude themselves:
- Scenario 1 and scenario 3 could be combined,
- Scenario 2 and scenario 3 could be combined,
- Scenario 4 could be combined with any other scenario.
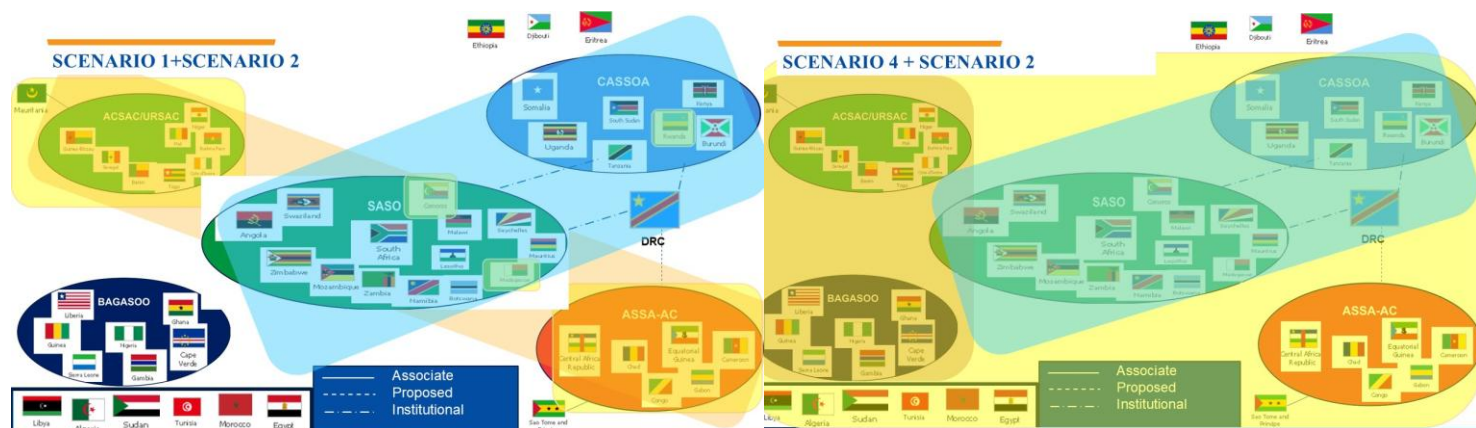
| | Combination of scenario 1 and scenario 2 | Combination of scenarios 2,3 and 4 |

> **Scenario Synthesis**

	Difficulties	Advantages	Comments
Scenario 1a URSAC-ACSAC/ ASSA-AC	- No common REC., - No common Monetary Union. - Challenging process for the merge. - Big RSOO (16 States).	URSAC-ACSAC / ASSA-AC: - Same Legal framework. - Same French language,. - Similarities and common challenges. - USOAP areas of improvement are homogeneous. - Harmonized approach towards AAMAC.	Inter-RSOO cooperation would create as much benefit as the merge without having a long and cumbersome institutional merging process.
Scenario 1b URSAC-ACSAC/ ASSA-AC/AAMAC	- No common REC, - No common Monetary Union, - Challenging process for the merge - Big RSOO (16 States) - No solution for extra ASECNA States.	URSAC-ACSAC / ASSA-AC: - Same Legal framework, - Same French language, - Similarities and common challenges, - USOAP areas of improvement are homogeneous, Could offer a complete scope for all ASECNA member States with a really harmonized regulation framework.	Inter-RSOO cooperation would create as much benefit as the merge without having a long and cumbersome institutional merging process.
Scenario 2 BAGASOO/ URSAC-ACSAC	- Different working languages is a challenge (French / English), - Legal culture as a challenge. - Differences in the financial scheme, - Differences in the RSOOs scope of work, - No common Monetary Union, - Challenging process for the merge - Big RSOO (16 States)	Common REC, complete mapping to ECOWAS membership.	It looks hazardous to initiate such merging process Cultural differences should not be neglected Inter-RSOO cooperation remains possible.

	- Different articulation to ASECNA States		
Scenario 3	- Economies of scale that are the essential argument for a merge would not be counterbalanced by some inertial aspects - Attempting to merge the 2 RSOOS will require a significant political willing, - Huge RSOO (21 States).	- Could resolve some duplication of memberships to States like Tanzania, - Economies of scale.	It would be better to consolidate the improvement of CASSOA and SASO separately than to attempt to merge them. Inter-RSOO cooperation remains possible.
Scenario 4	- A big Monodisciplinary RSOO, - Regulatory articulation with all regulatory structures will be challenging.	- Extension of RSOO domains of services, - Increasing the independence of AAMAC from ASECNA, - Offers a solution for surveillance of regional services, - Could naturally be adapted to any change in the ASECNA membership, - Creations of synergies in the oversight of ANS across the AFI region, - Can be achieved progressively	To be further studied for its feasibility.

Table 7: Discussion of the different merger Scenarios

Consolidation of the RSOOs should be the top priority before launching difficult, lengthy and potentially disruptive merger processes between RSOOs. If some economies of scale have to be analysed, **Scenario 1a** and **Scenario 4** could illustrate the cases to be explored. It is worth to mention that Inter-RSOOs cooperation could achieve efficiently the expected benefits.

4.4. Comparison of the Options identified in the previous RSOO Study

The different options proposed by the previous RSOO study were the following:

- Option 1 (7 RSOOs): Six (6) existing RSOOs plus new one for non-RSOO States.

  The six existing RSOOs considered are the following ones: URSAC/ACSAC, ASSA-AC, BAGASOO, CASSOA, SASO, AAMAC. The new one for non-RSOO States could correspond to the 7-partner-States attempt.

- Option 2 (6 RSOOs): Six (6) REC based RSOOs and non-RSOO States to join existing ones.
- Option 3 (5 RSOOs): Reduction to four (4) AU recognized RECs plus AAMAC.
- Option 4 (4 RSOOs): Reduction of six (6) to four (4) RSOOs (i.e. each one for respectively ECOWAS, ECCAS, SADC, and EAC).

From the discussion in chapter 4.3.2 on the different scenarios for potential RSOO mergers, it appears very challenging to develop a model based on REC associated RSOOs.

Indeed, the merging of BAGASOO and URSAC/ACSAC does not appear realistic. The previous study has indeed identified the risk of ECOWAS not supporting BAGASOO. This could of course be an obstacle, but if the new RSOO structure is sufficiently autonomous, institutional contributions could be of

different origin depending on the Member States and the challenge of no ECOWAS contribution could be overcome. Main challenge nevertheless appears to be the cultural difference between BAG countries and WAEMU countries which have different legal basis, languages and culture.

Similarly, ECCAS based RSOO would also create some challenge since ECCAS has some intersection both with SADC and EAC. This creates the necessity to make strong decisions on RSOO memberships of the States which are in common of the different RECs.

For these reasons, <u>option 3 and 4</u> of previous RSOO study appear challenging to implement. Option 4 is understood as the same as option 3 without AAMAC. This would then result in recreating the challenge of ASECNA safety oversight. This should not be envisaged in our opinion, knowing that the sense of history is that new States join ASECNA and that the single African sky should expand slowly, at least via some common regional facilities and services.

    <u>Option 1</u>, which would recreate the 7-partner initiative for the non-RSOO states does not appear realistic.

    <u>Option 2</u>: Appears to be the most realistic one. Among the States which are not yet RSOO related, Ethiopia is a State with a big aviation industry and does not really need external support but could benefit from synergies with CASSOA. The 7-partner initiative looks in any case unsuccessful. Other States of the horn of Africa would really take advantage from some RSOOs existing structure. The only realistic one is CASSOA, and we understand that Somalia and South Sudan are joining CASSOA. The last non-RSOO States, except Ethiopia are then Eritrea and Djibouti. They would also clearly take advantage from joining CASSOA if the political and institutional climate permits.

		Difficulties	Advantage	Comments
Option 1	-	Equivalent to recreate the 7-partner-States initiative (under one RSOO) which collapsed	Offer a solution for States of the east horn of Africa	Not realistic
Option 2			- The strength of CASSOA, - The States in the horn of Africa could take advantage of the existing RSOOs structure.	More realistic Equivalent to status quo
Option 3	- - - -	Difficulties of merging processes, Some RECs could not support RSOOs, Some States could belong to different RECs, which could be challenging, Differences in cultural aspects (legal basis, different languages...,)	- Economies of scale, - Institutional attachment to RECs with some caveats.	Difficult to be realised. Equivalent to scenario 2.
Option 4	- - - -	Difficulties in merging processes, Some States could belong to different RECs, which could be challenging, Differences in cultural aspects (legal basis, different languages...,) No solution for ASECNA common services	- Economies of scale - Institutional attachment to RECs with some caveats	Difficult to be realised.

Table 8: Discussion of the different merger Options (from previous study)

In conclusion, Option 2 appears as the only one that could be workable currently. Indeed, it can enable the AFI RSOO system to be developed along the roadmap presented here-above, leaving open the possibility for non-RSOOs states to join an existing consolidated one (i.e. CASSOA) at some stage of this development.

If some economies of scale shall be looked for, scenarios 1a and 4 presented in chapter 4.3.2 should be worth to be explored.

5. Developing an AFI-RAIO-AIG cooperative network

In accordance with Annex 13 SARPs, States are required to conduct an impartial and independent investigation into an accident or serious incident involving a civil aircraft with a view to determining its cause and ensuring that safety measures have been taken to prevent its recurrence. However, only a small number of AFI States have sufficient internal resources, or competencies, to investigate a major, or complex, accident or serious incident on their own. In these cases, the State of occurrence could either delegate a part or all of the investigation to another State. It could also retain responsibility and seek assistance from another Accident Investigation Authority (AIA).

The first challenge for the AFI region in terms of accident investigation is that there is not yet sufficient expertise in the AFI States to assume the responsibilities of the State of Occurrence in the event of an accident or serious incident involving a civil aircraft. The only one RAIO in the AFI region is BAGAIA. Despite its good will, BAGAIA cannot accept full responsibility for the entire AFI region and at this stage, not even for the western part of the AFI region. Indeed, among functions described in the BAGAIA agreement, BAGAIA should "conduct, either in whole or any part of, an investigation into an aircraft accident or serious incident upon delegation of State of Occurrence in the BAG Sub-Region, by mutual arrangement and consent between the State of Occurrence and the BAGAIA". Resources of BAGAIA are also limited and mainly dedicated to strengthening cooperation and collaboration, developing a common set of regulations, developing common guidance and capacity building on AIG in its member States.

Therefore, after analysing the current situation in the AFI region in terms of AIG competencies, resources and responsibilities, it seems more realistic to develop a mutual support and cooperative AFI network in AIG which could be articulated around one or two RAIOs, than to develop a multiregional approach as for RSOO. We propose to call this network "AFI Cooperative AIG Network" (AFICAIGN). Such a proposal is very much inspired by the ENCASIA model existing in Europe.

5.1. Basic principles for the AFI Cooperative AIG Network (AFICAIGN)

In accordance with ICAO Annex 13, the purpose of the AFI Cooperative AIG Network will be to identify resources, competencies and technical means and to develop procedures for States to request and provide assistance among AFICAIGN Member States and RAIOs to ensuring that each Accident Investigation Authority is able to fully conduct an investigation, with the assistance of other Member States as appropriate.

As mentioned above, the network would be organised around one or two RAIOs.

Basic principles would drive the AFICAIGN:
- A State may delegate or request the assistance of another State or RAIO to conduct the investigation. Accident investigations in the AFI region should be conducted in a similar manner.

- The accident investigation authorities play a central role in the accident investigation process. Their work is of paramount importance in determining the causes of an accident or incident. It is therefore essential that they should be fully independent in conducting the investigation and possess the financial and human resources required to investigate in an effective and efficient manner.
- The capacity of the Member States' accident investigation authorities should be strengthened and cooperation between them is necessary to improve the efficiency of the investigation and prevention of civil aviation accidents and incidents in the AFI region.
- Cooperation between accident investigation authorities:
  - An accident investigation authority from one Member State may request the assistance from accident investigation authorities from other Member States. If upon request, an accident investigation authority agrees to provide assistance. Such assistance shall, as far as possible, be provided free of charge.
  - An accident investigation authority may, by mutual agreement, delegate the task of conducting an investigation on an accident or serious incident to another accident investigation authority, and shall facilitate the investigation process by that other authority.
- In particular, the Network shall be responsible for providing, at the request of the accident investigation authorities, appropriate assistance, including, but not limited to, a list of investigators, equipment and skills available in other Member States for possible use by the authority conducting the investigation.

The basis of AFICAIGN is that upon request, and subject to the availability of resources, one or more Assisting States or RAIOs would provide a combination of an Assistant A-IIC (Assistant Investigator in Charge), group leaders and investigators to the investigation. The role of the A-IIC could range from mentoring the Host Investigator in Charge (IIC) to assuming all the responsibilities of an IIC. The A-IIC is expected to be available for all phases of the investigation.
The term Assisting State refers to a State with some experience of a major investigation. It may also refer to a RAIO with the proper experience. The assisting AIA does not necessarily have to be a large AIA and does not need to have an extensive laboratory and the capability to carry out in-house testing and special examinations. Assistance for these activities could be provided by other AIA's, such as the AIA of the State of Design.

5.2. AIG resources in the AFI region

During the survey, it was not possible to estimate the AIG resources in the AFI States due to lack of time. However, as a minimum, some officials within the States should have expertise in accident investigation and safety analysis. National Accident Investigation Authorities may be challenged to be independent from the Civil Aviation Authority but effective expertise in AIG in each State may allow the State to ensure the responsibilities of conducting the investigation with the support of the AFICAIGN or decide to delegate the conduct of the investigation to another State or to the structure of the AFICAIGN.
We propose that some AIG experts should be part of the personnel of each RSOO.

Having AIG expertise in each State combined with RSOO expertise, even if scarce or combined with other disciplines, would ensure sufficient AIG resources in the region to face the number of occurrences.

5.3. Role of RAIO in the AFICAIGN

The only one RAIO in the AFI region is BAGAIA. The meeting with the BAGAIA management was very productive. As was very well explained during the meeting, the BAGAIA arrangement does not mean that the governments are giving up their sovereignty or responsibilities. The regional arrangement is an effective and efficient means for States to achieve the desired level of accident and incident investigation.

As expressed in the BAGAIA agreement, the BAGAIA functions are as follows:
- Strengthen cooperation and collaboration between Member States in respect to Investigation of accidents and serious incidents,
- Develop a common set of regulations (in conformance with Annex 13), referring to a delegation of the investigation performance to BAGAIA,
- Develop common guidance materials and investigator handbooks, manuals, and checklists,
- Develop and implement procedures for sharing of information about accidents and serious incidents,
- Develop and implement procedures to facilitate relations between BAGAIA teams and local authorities,
- Coordinate, where required, accident investigation activities among Member States,
- Support accident and incident prevention efforts,
- BAGAIA shall mobilise and solicit technical and financial resources from external sources,
- Monitor the accident investigation activities of Member States (to ensure they are in line with ICAO),
- Monitor and provide inputs to Member States on the formulation of ICAO SARPs accident investigation,
- Establish appropriately equipped and trained accident investigation teams.

The role of BAGAIA, established to support BAG States in Accident Investigation, is to assist States and to strengthen cooperation and collaboration between Member States in the investigation of accidents and serious incidents.

This should normally be the role reserved for the RAIO(s) in the AFICAIGN. BAGAIA alone with its current resources could not achieve this objective for the whole AFI region. As suggested in previous RSOO-RAIO study, the question becomes how much RAIOs will be needed to support efficiently the proposed AFICAIGN. Among the proposed options of the previous study, the option 2 (Expansion of BAGAIA to cover the ECOWAS-ECCAS regions, pursue and implement the EAC-RAIO initiative to cover both EAC and SADC regions, and for the remaining States to join / cooperate with individual States and RAIOs.) appears to be the best.

BAGAIA should be strengthened but should benefit from its existing structure and experience. An EAC RAIO may play a mirroring role for the ESAF States to complete the picture on AIG for the whole AFI region.

All experts from States and RSOOs, supported by the western (i.e. BAGAIA) and eastern (i.e. EAC-RAIO) RAIOs would then constitute the AFICAIGN and provide an effective solution to AFI States to discharge their responsibilities in AIG. AFICAIGN could be alternatively chaired by western and eastern RAIOs, ensuring like that a balanced and cooperative approach of AIG in the region.

5.4. Leading AFICAIGN to success

The success of AFICAIGN is dependent on States, who may require assistance, preparing a National Investigation Management Plan (NIMP), which could be part of the National Civil Aviation Accident Emergency Plan. The NIMP should include aspects such as cost sharing, mutual training, and local processes.

To assist States in preparing and maintaining their plans, AFICAIGN and the RAIOs will maintain a repository of Best / Good practices and an inventory of useful investigation tools on their restricted website.

To ensure that the NIMPs are viable, and remain current, AFICAIGN will help States run regular table-top exercises.

An AFICAIGN peer review process may also be used to help States identify any possible gaps and reinforce their plans.

5.5. Resources of the AFICAIGN

Despite the cooperative nature of AFICAIGN, some resources are needed to support AFICAIGN activities. Accident investigation is not governed by the same principles as safety oversight. Accident investigation capacities shall be planned in the case of an accident or serious incident occurrence but cannot be seen as contributing to the daily development of air transportation. Nevertheless, the accidents and incidents investigation capacities contribute to the effectiveness of air safety oversight system. A simple increase of 0.08$ to the air safety tax, bringing this air safety tax from 0.42$ to 0.50$ in our simulation would provide an income of approximately 3.5 M$. Such an amount, added to the States contribution (to be determined) could easily contribute to finance AFICAIGN activities.

6. Recommendations for strengthening safety oversight and AFI RSOO-RAIO efficiency

In consideration of the safety performance level globally in the AFI region, the RSOOs capabilities and their role in the improvement of the safety oversight activities, they remain challenged by several components, such as:

- effectiveness of the legal framework to govern the RSOO basis,
- Adequacy of the Agreements signed between States and the related respective RSOOs, to meet the detailed activities and services to be supplied by the RSOOs, in accordance with the States expectations and needs,
- Effectiveness and sustainability of the financial schemes for each RSOO to enable the efficient conduct of activities,
- quantitative and qualitative aspects regarding the technical personnel resources. Indeed, depending on the region, we observe either a lack in the availability of personnel, or a shortage in their qualifications and experience.

RSOO should have sufficient and competent staff to provide effective support to Member States and to carry out its functions. Membership should be consolidated, and the commitment of Member States clarified. The activities of the respective RSOOs' and those of the member States should complement each other and be perceived as beneficial to the States without any doubt about possible duplication or competition for resources. Trust, cooperation and delegation of activities between States and RSOOs go hand in hand with a clear recognition of the capacity of RSOOs to deliver services. This requires the stabilisation of professional staff. This includes the financial capacity to employ them and

the recognition of the competencies of the RSOO. The legitimacy and credibility of the RSOO staff is essential to create the necessary trust of Member States for a healthy development of the RSOO and, more importantly, for a dynamic, cooperative, and sustainable strengthening of aviation safety in the respective region. As early as possible in the development process of the RSOO, recognition by an external body and at least an assessment of the RSOO by ICAO should promote the legitimacy and credibility of the RSOO. Therefore, the participation of each RSOO and RAIO in the ICAO RSOO and RAIO Assessment Programme (RRAP) is highly appropriate.

Looking at the various RSOOs in the AFI region, it seems more important to consolidate and rationalise the membership than to increase it. The institutional constitution of the RSOO should allow a simple and flexible way for the RSOO organisation to progress efficiently and to take productive initiatives in support to States. Looking at the optimal size of RSOOs, a minimum of 6 Member States and a maximum of between 12 and 15 members seems appropriate. Therefore, the RSOO should not be the addition of all the weaknesses observed in the Member States but the creation of a common capacity to solve them by adding their respective strengths. It is important that the membership of an RSOO is composed of States that have real commonalities, especially in the field of aviation, to work efficiently together. It is also important to consider that the RSOO should have sufficient autonomy and flexibility to carry out its technical work with pragmatism and efficiency. For associated States, an association agreement should be signed based on the same duties and responsibilities as with other members of the RSOO and the associated State should contribute financially to the RSOO, taking over the potential contribution of the REC to the RSOO. In this case, a cooperation agreement should be drawn up and signed, defining the scope and responsibilities of this cooperation and the corresponding modalities of contribution. This may lead to a possible future membership under the RSOO or simply be self-sufficient to normalise the cooperation scheme between the State and the RSOO.

In distinguishing between "operational membership" and "institutional membership", a specific definition of "operational membership" needs to be developed. This definition should include all activities that cannot be duplicated in different environments. For example, neither the regulatory framework, nor delegated Safety Oversight activities can be duplicated.
In conclusion, Operational membership to RSOO should at least comprise:
- Harmonised regulation framework, and
- Delegation of Safety Oversight activities which should be supported by a formal delegation agreement.

In principle, the responsibilities of the RSOO (domains, functions and tasks of certification and surveillance to be performed) should be precisely defined in the constitutive instrument or in its subsidiary legal instruments. Failing this, a MoU concluded between the RSOO and the Member States should define the content of these functions and tasks to be performed on behalf of the Member States. The establishment of an effective cooperative scheme with CAAs is essential to the success of the RSOO development process. Distribution of responsibilities between the bodies of the RSOO and the regional economic organisation should also be clear. In the case of AAMAC, clarification of the scope of responsibilities between AAMAC and other RSOOs involved is necessary to avoid any duplication and ensure synergetic approach.

"Delegated regional safety oversight activities" appear to bring real benefit to Member States and aviation industry. Organising and delegating these activities at a regional level is only possible if the RSOO exists, is stable enough with the proper delegation protocols. The responsibility of the RSOO increases a lot and it is of utmost importance that its organisation and resources be stabilised and consolidated.

Exchange of experience, common participation to ICAO groups and activities are obvious but a more in-depth cooperation, prefigurating some possible future mergers, can be envisaged. Training and workshop activities may be commonly supported.

It could be advised to create an inter-AFI-RSOO forum where exchange between RSOO management could lead to improved sharing of experience. An annual workshop could also help to share challenges, solutions and initiatives. It is nevertheless important that such workshops don't duplicate with other AFI regional forums. Having installed in anticipation inter-RSOO cooperation should smoothen some potential merging projects without jeopardising the benefits of the creation and development of RSOOs. Therefore, it is highly recommendable that some inter-RSOO cooperation be encouraged.

Consolidation of the RSOOs should be the top priority before launching difficult, lengthy and potentially disruptive merger processes between RSOOs.

Having mentioned AFI RSOO main challenges, we recommend coordinated efforts to be deployed in this regard between Member States within an RSOO, in order to:

- Consolidate and share harmonised regulatory framework,
  The most critical issue lies in the interpretation and implementation of the regulatory framework and related means of compliance, developed under different RSOO contexts and requirements. In fact, to effectively share expertise, homogenise training, and carry out active safety oversight activities in each region, the Member States (RSOOs) need to work under a common regulatory basis and framework and build their oversight processes and inspection procedures in accordance with a single harmonised regulatory framework.

  This is therefore essential that large States effectively support the RSOO to which they belong and accept that the harmonised material or support activities address the needs of smaller States in the region. In terms of regulation, it is recommended that large States do not impose complex regulations that may be difficult for small States to administer.

  However, for AAMAC, a challenge remains regarding the regulatory system, which will then have to follow the same scheme in the different regions covered by AAMAC. AAMAC has to set up a system to support and monitor the transposition of the regulations.

  Therefore, the legal approach and the regulatory structure of the different RSOO members should be sufficiently harmonised. Considering that States have committed to regulatory harmonisation or to transposition, RSOOs should set up a system for monitoring the transposition/adoption of national legal acts.

- Develop and implement harmonised training programs for the technical personnel and the inspectors.
  We also recommend that practical activities in safety oversight be reserved for the RSOOs and CAAs and that a directory of available inspectors with appropriate competencies be maintained at the level of the RSOOs. This will help to monitor safety oversight resources in the relevant group of States, support the regional training strategy and contribute effectively to the practical organisation of safety oversight activities.

- Develop and implement harmonised operations procedures and guides, including a uniform approach for inspection and resolution of the significant safety concerns,

- Develop and maintain a consolidate database enclosing the industry inspections, the safety data and safety tools used under each RSOO framework.

The basic budget of the RSOO should correspond to the budget at which the RSOO is essentially staffed with redundant expertise in the disciplines of the RSOO, a sufficient administrative structure and the operational budget to carry out its missions. Alternative sources of funding should be proportionate to aviation activity and to the "operational pressure" on aviation safety in the region. The financial sustainability of RSOOs could only be ensured by a gradual shift from a funding mechanism coming

from the Member/Partner States (and donors) to a funding one based on the combination of several sources determined, according to the level of safety oversight activities of the RSOO and aviation activities in member States. To effectively use the different sources of financing, RSOOs must define and implement a funding policy based on evaluation, planning and compliance with certain principles.

In the AIG domain, the priority for the AFI region is to be able to lead and organise an investigation in an independent and sovereign manner with the support of available regional expertise. The challenge is then to develop this expertise, to ensure that States have some AIG experts able to lead some investigative activities and to share experience in the region on the occurrences that may arise. Some RSOOs have added a dedicated AIG expert to their organigram chart. Therefore, after analysing the current situation in the AFI region in terms of AIG competencies, resources and responsibilities, it seems more realistic to develop a mutual support and cooperative AFI network in AIG which could be articulated around one or two RAIOs, than to develop a multiregional approach as for RSOO.

BAGAIA should be strengthened but should benefit from its existing structure and experience. An EAC RAIO may play a mirroring role for the ESAF States to complete the picture on AIG for the whole AFI region.
All experts from States and RSOOs, supported by the western (i.e. BAGAIA) and eastern (i.e. EAC-RAIO) RAIOs would then constitute the AFICAIGN and provide an effective solution to AFI States to discharge their responsibilities in AIG. AFICAIGN could be alternatively chaired by western and eastern RAIOs, ensuring like that a balanced and cooperative approach of AIG in the region.

7.   Conclusion

After shaping the landscape of RSOOs in the AFI region and as a conclusion of the study survey, it appeared clearly that in order to strengthen the RSOO system in the AFI region, it was necessary, not only to establish a clear and sound legal basis of the different RSOOs but also to clarify expectations of Member States towards their respective RSOOs.

Although economies of scale should be a target in the optimisation of the AFI RSOO system, it does not appear as the first and prior condition of gaining efficiency in that system for the purpose of improving aviation safety in the AFI region. Consolidating then maturing the structure of every existing RSOO and making sure a proper balance in sharing safety oversight activities is found in between State CAAs and RSOOs would certainly bring more benefit in the short- and medium-term than engaging in some long and cumbersome merger process. It is proposed to postpone any merger to the optimisation phase of the roadmap after having created a strong and result-oriented dynamic of the AFI RSOO system during the consolidation and maturation phases.

Rationalising the legal basis of existing RSOOs, avoiding duplication and consolidating financial and personnel resources of existing RSOOs will enable to create real additional safety oversight capacities in support of AFI states. Safety oversight experts related resources are scarce in the AFI region and empowering RSOOs in supporting training at a regional level will certainly help in developing a sustainable and ICAO compliant overall safety oversight system in the AFI region. For the best use of these scarce resources, coordination of safety oversight support activities for AFI states should be put at the level of the RSOO to avoid any duplication of efforts or lack of adequacy between the need of member states and proposed support.

AFCAC could play an active role in this AFI RSOO system, given that aviation safety is an asset for the development and liberalisation of air transport in Africa, by monitoring and reporting safety performance in the AFI region and incentivising safety improvement in the region by updating annually AFI aviation performance review and demonstrating the benefit of improved safety in support of the development of the SAATM.

Considering financial resources of RSOOs, it is of utmost importance to create alternative resources in addition to institutional contributions since these institutional contributions are already difficult to be endorsed by states and that the collection mechanism and redistribution of aviation charges be robust, efficient and reliable. Such a mechanism for the collection of aviation charges in the AFI region should be supported by a global organisation capable of counting passengers and movements and providing some assurance of transparency and fairness. IATA or ICAO would be good candidates.

In the AIG area, the creation of a cooperative network as proposed under AFICAIGN supported by a western RAIO and an eastern RAIO would certainly assist in structuring the AFI region approach to AIG capacities.

By implementing the proposed roadmap, the objective of reinforcing the Regional Safety Oversight Organisations in the AFI region should be reached. Through that consolidation and reinforcement including a stabilised resource plan for RSOOs, these organisations will be able to contribute efficiently to the improvement of the safety oversight regulatory environment in the AFI region. Harmonisation of regulatory framework is indeed a primary condition for RSOO operational efficiency. With the contribution of RSOOs and an efficient coordination of supporting activities to Member States, this will significantly achieve safety oversight implementation in the AFI region. In addition, the inclusion of safety management experts in all the AFI RSOOs, combined with safety data collection and analysis approaches will be implemented effectively at a regional level and will contribute to the global improvement of the risks-based management of aviation-safety in the AFI region. In addition, the AFCAC global performance review scheme will enhance the monitoring of a positive trend of aviation development in Africa supported by enhanced safety.

8.   Proposed way-forward

The proposed way forward is to organise a workshop to discuss all issues identified by the present study. This workshop should allow to conclude on the validation of the proposed roadmap for RSOO operationalisation in the AFI region and on the development of the proposed AFI Cooperative AIG Network.

Every RSOO should then decline the roadmap through the development of a dedicated strategic plan which would be supported by the present study and seek for value added activities and efficiency in the support of their Member States. Harmonisation of regulatory framework, development of a structured training plan and identification of synergies in contribution to ICAO activities and duties should be part of every RSOO strategic plan.

Duplication of membership in the various RSOOs should be adopted by either individual decisions of States opting for a unique RSOO or by a definition of the type of membership declined in two possible modalities, institutional or operational. Institutional membership would allow to participate in training and/or other awareness raising activities while operational membership would lead to the adoption of shared regulatory framework and active cooperation in safety oversight activities. As for the corresponding financial aspects, they will be dealt with accordingly.

The complete AFI RSOO scheme should then be completed by a structured approach to associated membership for States such as Mauritania, Sao Tome and Principe, or States of the Horn of Africa.

A key aspect of the consolidation and operationalisation of AFI RSOOs is the implementation of alternative financial sources to strengthen their resources in a sustainable way. This should be achieved by the development and implementation of an appropriate collecting mechanism for different aviation charges in respective Sub-regions associated with RSOOs. The financial supply channels for these various new alternative sources should be independent of States in order to avoid the problems observed with Member State contributions.

In the Accident Investigation domain, the development of the proposed AFICAIGN should be initiated as well as the creation of an Eastern Africa RAIO and the extension of BAGAIA to constitute a Western Africa RAIO.

9.   Annexes

Annex 1: AFI Traffic Data

Annex 2: RSOO Budget simulation

Annex 3: SWOT Analysis

Annex 4: Sample of a Delegation of services.

Annex 1: Air Traffic Data 2022

Country	Code ATD	Code WB	GDP (current US$)	GDP per capita (current US$)	Population	Year Soc. Eco.	MVT domestic	MVT Intl'	MVT Total	PAX domestic	PAX Intl'	PAX Total	Year Traffic
Algeria	ALGR	DZA	194 998 449 769	4 343	44 903 225	2022	20 893	28 317	49 210	2 188 078	4 129 715	6 317 793	2022
Angola	ANGL	AGO	106 782 770 715	3 000	35 588 987	2022	NA	NA	36 089	965 898	958 858	1 924 756	2022
Benin	DAHM	BEN	17 396 792 700	1 303	13 352 864	2022	NA	NA	7 719	0	457 067	457 067	2022
Botswana	BOTW	BWA	20 355 541 963	7 739	2 630 296	2022	49 006	12 743	61 749	296 796	350 279	647 075	2022
Burkina Faso	UPVL	BFA	18 820 064 798	830	22 673 762	2022	NA	NA	8 950	45 545	417 853	463 398	2022
Burundi	BURU	BDI	3 338 722 828	259	12 889 576	2022	0	4 440	4 440	0	219 424	219 424	2022
Cameroon	CAMR	CMR	43 644 068 311	1 563	27 914 536	2022	NA	NA	29 746	408 704	1 051 206	1 459 910	2022
Cabo Verde	CAPV	²	2 226 862 134	3 754	593 149	2022	9 381	15 669	25 050	493 934	1 501 244	1 995 178	2022
Central African Rep.	CEAF	CAF	2 382 618 615	427	5 579 144	2022	NA	NA	2 217	4 287	113 888	118 175	2022
Chad	CHAD	TCD	12 704 149 840	717	17 723 315	2022	NA	NA	11 201	NA	NA	299 160	2014
Comoros	COMO	COM	1 242 519 407	1 485	836 774	2022	NA	NA	5 844	58 780	173 080	231 860	2022
Congo, Republic of	CONG	COG	15 816 996 655	2 649	5 970 424	2022	10 534	6 955	17 489	707 535	331 221	1 038 756	2022
Djibouti	FTAI	DJI	3 515 108 860	3 136	1 120 849	2022	0	7 654	7 654	0	268 997	268 997	2016
DRC	ZAIR	COD	64 718 641 221	654	99 010 212	2022	NA	NA	18 561	591 421	389 889	981 310	2019
Egypt	EGYP	EGY	476 747 720 365	4 295	110 990 103	2022	71 764	232 875	304 639	5 767 162	32 199 315	37 966 477	2022
Equatorial Guinea	EQGU	GNQ	12 029 633 747	7 182	1 674 908	2022	NA	NA	5 949	133 214	108 824	242 038	2022
Eritrea	ERIT	ERI	2 065 001 626	643	3 207 570	2011	0	3 920	3 920	0	326 080	326 080	2019
eSwatini	SWAZ	SWZ	4 790 922 066	3 987	1 201 670	2022	0	1 943	1 943	0	36 411	36 411	2022
Ethiopia	ETHP	ETH	126 783 471 598	1 028	123 379 924	2022	NA	NA	86 744	2 877 881	3 778 635	6 656 516	2022
Gabon	GABN	GAB	21 071 739 225	8 820	2 388 992	2022	NA	NA	13 217	165 354	418 342	583 696	2022
Gambia	GAMB	GMB	2 187 194 563	808	2 705 992	2022	0	4 750	4 750	0	359 681	359 681	2022
Ghana	GHAN	GHA	73 766 052 452	2 204	33 475 870	2022	37 886	22 096	59 982	1 704 202	1 800 341	3 504 543	2022
Guinea	GUIN	GIN	20 999 229 260	1 515	13 859 341	2022	NA	NA	8 130	11 616	520 848	532 464	2022
Guinea-Bissau	GUNB	GNB	1 633 559 092	776	2 105 566	2022	0	516	516	0	83 191	83 191	2021
Cote d'Ivoire	IVOR	CIV	70 018 715 017	2 486	28 160 542	2022	NA	NA	28 968	111 182	1 845 439	2 057 124	2022
Kenya	KENY	KEN	113 420 008 179	2 099	54 027 487	2022	NA	NA	217 694	3 847 256	4 927 126	8 774 382	2022
Lesotho	LESO	LSO	2 236 502 124	970	2 305 825	2022	NA	NA	2 429	181	57 550	57 731	2016
Liberia	LIBR	LBR	4 001 046 970	755	5 302 681	2022	0	3 125	3 125	0	114 970	114 970	2009
Libya	LIBY	LBY	45 752 336 036	6 716	6 812 341	2022	NA	NA	71 513	NA	NA	6 706 833	2013
Madagascar	MADG	MDG	15 297 192 799	517	29 611 714	2022	NA	NA	9 017	300 033	489 562	789 595	2022
Malawi	MALA	MWI	13 164 667 627	645	20 405 317	2022	NA	NA	2 805	8 928	116 393	125 321	2021
Mali	MALI	MLI	18 827 176 530	833	22 593 590	2022	NA	NA	7 692	120 525	637 364	757 889	2022
Mauritania	MAUR	MRT	9 780 863 579	2 065	4 736 139	2022	NA	NA	6 476	37 947	398 827	436 774	2022

			GDP (current US$)	GDP per capita (current US$)	Population	Year Soc. Eco.	MVT domestic	MVT Intl'	MVT Total	PAX domestic	PAX Intl'	PAX Total	Year Traffic
Mauritius	MAUT	MUS	12 948 726 654	10 256	1 262 523	2022	NA	NA	16 764	326 439	2 603 681	2 930 120	2022
Morocco	MORC	MAR	130 912 558 830	3 442	37 457 971	2022	NA	NA	174 820	2 103 477	18 391 612	20 495 089	2022
Mozambique	MOZB	MOZ	18 406 835 955	558	32 969 518	2022	30 929	12 548	43 477	916 242	430 949	1 347 191	2022
Namibia	NAMB	NAM	12 914 932 656	5 031	2 567 012	2022	NA	NA	40 646	130 835	606 506	737 341	2022
Niger	NIGE	NER	15 342 278 919	585	26 207 977	2022	NA	NA	13 289	71 241	314 428	385 669	2022
Nigeria	NIGR	NGA	472 624 597 403	2 163	218 541 212	2022	208 809	35 344	244 153	13 714 521	3 603 346	17 317 867	2022
Rwanda	RWAN	RWA	13 311 487 445	966	13 776 698	2022	NA	NA	16 645	15 821	645 771	661 592	2022
Sao Tome and Principe	SATP	STP	542 686 976	2 387	227 380	2022	NA	NA	2 860	37 122	83 118	120 240	
Senegal	SENG	SEN	27 684 264 748	1 599	17 316 449	2022	888	28 821	29 709	36 830	2 569 854	2 606 684	2022
Seychelles	SEYC	SYC	1 588 438 144	13 250	119 878	2022	17 561	5 876	23 437	183 385	795 634	979 019	2022
Sierra Leone	SIER	SLE	4 094 563 859	476	8 605 718	2022	0	2 540	2 540	0	240 317	240 317	2022
Somalia	SOML	SOM	10 419 541 202	592	17 597 511	2022	NA	NA	NA	25 647	110 183	135 830	1988
South Africa	SOUF	ZAF	405 270 850 099	6 766	59 893 885	2022	NA	NA	384 387	21 934 812	8 091 630	30 026 442	2022
South Sudan	-	SSD	11 997 800 760	1 071	11 194 299	2015	NA	NA	NA	NA	NA	NA	
Sudan	SUDN	SDN	51 662 241 775	1 102	46 874 204	2022	NA	NA	21 382	262 449	2 249 553	2 512 002	2021
Tanzania	TANZ	TZA	75 732 311 666	1 193	65 497 748	2022	NA	NA	156 681	2 770 776	2 051 968	4 822 744	2022
Togo	TOGO	TGO	8 341 225 241	943	8 848 699	2022	0	13 076	13 076	0	1 163 592	1 163 592	2022
Tunisia	TUNS	TUN	46 303 552 449	3 747	12 356 117	2022	9 734	65 948	75 682	374 029	8 316 475	8 690 504	2022
Uganda	UGND	UGA	45 567 304 608	964	47 249 585	2022	NA	NA	28 983	20 355	1 574 405	1 594 760	2022
Zambia	ZAMB	ZMB	29 163 782 138	1 457	20 017 675	2022	NA	NA	44 098	381 796	920 992	1 302 788	2022
Zimbabwe	ZIMB	ZWE	27 366 627 153	1 677	16 320 537	2022	NA	NA	40 185	227 623	1 296 176	1 523 799	2022
54			**2 964 712 949 351**	**2 601**	**1 424 635 281**	**2022**	**467 385**	**509 156**	**2 498 242**	**64 379 859**	**114 641 810**	**186 128 165**	2022

	GDP (current US$)	GDP per capita (current US$)	Population	Year Soc. Eco.	MVT domestic	MVT Intl'	MVT Total	PAX domestic	PAX Intl'	PAX Total	Year Traffic
7-Partner	142 783 123 286	1 350	145 305 854	2022*	-	11 574	98 318	2 903 528	4 483 895	7 387 423	2022*
AAMAC	312 033 859 222	2 046	237 695 395	2022*	11 422	49 368	211 075	2 201 177	10 573 738	13 174 578	2022*
ACSAC	178 064 077 045	1 169	141 259 449	2022*	888	42 413	109 919	385 323	7 488 788	7 974 614	2022*
ASSA-AC	107 649 206 392	3 560	61 251 319	2022*	10 534	6 955	79 819	1 419 094	2 023 481	3 741 735	2022*
BAGASOO	580 442 233 618	1 758	283 311 343	2022*	256 076	83 524	350 590	15 961 395	8 223 865	24 185 260	2022*
CASSOA	263 367 635 486	1 092	204 635 393	2022*	-	4 440	424 443	6 654 208	9 418 694	16 072 902	2022*
MENA	956 157 722 803	3 673	264 130 100	2022*	102 391	327 140	703 722	10 733 142	65 685 497	83 125 472	2022*
SASO	736 248 950 721	3 866	324 741 823	2022*	97 496	33 110	731 431	26 323 169	17 317 590	43 640 759	2022*
	2 964 712 949 351	**2 353**	**1 424 635 281**	**2022***	**467 385**	**509 156**	**2 498 242**	**64 379 859**	**114 641 810**	**186 128 165**	**2022***

Annex 2:   RSOO Budget simulation

1. Introduction

The present RSOO budget simulation has been developed as a feasibility study to address the financial capacity of RSOOs and Member States to support the consolidated development of RSOOs.
The source of the traffic data is the FRACS ATD databases.
The average income for each function has been estimated on the basis of interviews with various managers, recognising that the situation may vary from one region to another.
The results of this RSOO budget simulation should be considered as indicative, for the sole purpose of demonstrating the feasibility of a proposed contribution scheme from different types of financial sources.

2. Components of the simulated RSOO budget:

The various components of the simulated RSOO budget could not be discussed in detail and some aspects may be overlooked in the budget estimate. However, we believe that the essential aspects of the RSOO budget are considered and that the different orders of magnitude are respected.

a. Human Resources and Payroll

Human resources and the associated payroll are the first item of expenditure for an RSOO. The estimation of the human resources was based on a basic organisation chart as described below.
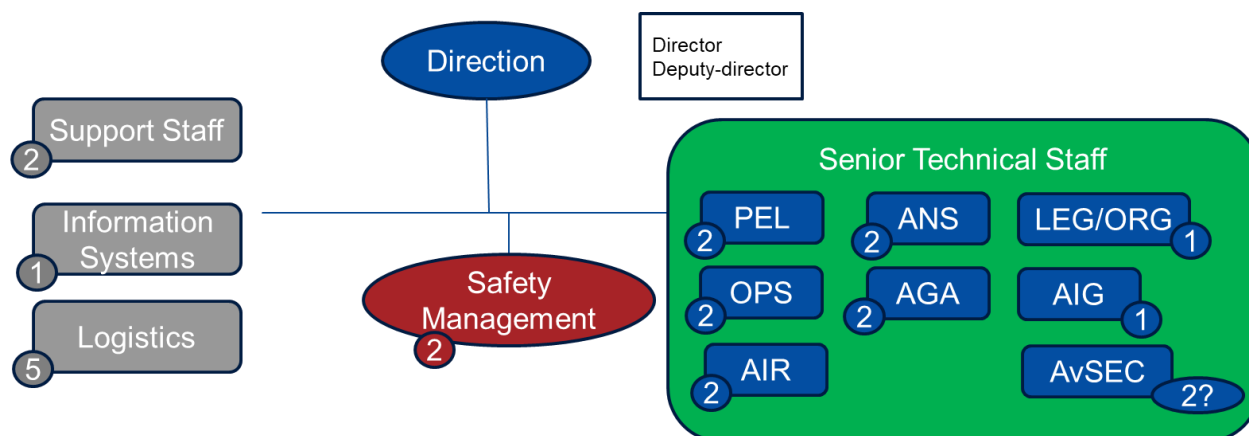
The first post in the organisational structure is the top management of the RSOO, referred to here as the "Direction". It was considered to be composed of a director and a deputy director or a director and a technical director.
The second post to be considered is the support staff: administrative and financial management of the structure.
The size of the technical staff was based on the principle of having 2 permanent staff at senior level for each safety oversight discipline, 1 for LEG and ORG (Some have a legal expert) and 1 for AIG. Given the increasing importance of safety management in safety oversight, safety management expertise was also considered to require 2 experts. Then, depending on the scope of the RSOO, AvSEC experts may be required.

As safety oversight activities are increasingly supported by digital tools and platforms, an information systems management post was considered.

Finally, a number of personnel including assistants, drivers and other functions, were considered under a post called "Logistics" with a size of 5.

An average estimation of the salary level of the different functions along various indications collected during the study survey conducted to the following table:

	Monthly Net Salary	Averaged annual charged Salary
Inspector	$ 3 500	$ 84 000
Director and Deputy	$ 5 000	$ 120 000
Support	$ 2 000	$ 48 000
Information Systems	$ 2 500	$ 60 000
Logistics	$ 1 500	$ 36 000

The average annual charge is taken into account by multiplying the net monthly salary by 12 and then doubling it to ensure that all charges are covered.

In addition, a precautionary margin has been added in case some adjustment is needed to bring the income in line with the standard of living in the host State.

The final annual estimate for salary in the simulation will be: **$ 1 952 500**

b. Staff Training

As the RSOO is a very technical organisation with a need to regularly update staff skills, it was considered that the training costs would be an important part of the annual expenditure. A rate of 25% was chosen and should be considered as a maximum, including corresponding travel costs. In fact, 25% of time should not be spent on training. This was deliberately chosen as a maximum for the simulation.

The final annual estimate for training will be: **$ 488 125**

c. Safety tools

Safety tools will inevitably support safety oversight activities. For an RSOO, they should be instrumental in harmonizing methods between Member States, sharing regulations and various activities. Three types of tools have been considered with an approximative annual cost:

Safety Oversight Toolbox	$ 50 000
Aviation Safety Event Reporting	$ 10 000
Information Collection	$ 10 000

The final annual estimate for Safety tools will be: **$ 70 000**

d. Surveillance activities

The surveillance activities considered under this heading, are considered in support of and in collaboration with the Member States. Salary costs have not been taken into account, only the direct costs of the activities, including travel costs.

The global annual estimate for Surveillance activities will be: **$ 200 000**

e. Workshops, Safety promotion and Communication

Workshops, safety promotion and communication can be considered as something that could really benefit from having an RSOO. 15 workshops or training sessions per year and publication costs were considered. Salary costs were not considered, only the direct cost of the activities.

The global annual estimate for Safety Promotion activities will be: **$ 200 000**

f. International Coordination (extra RSOO)

Considering that having RSOO organisations can help AFI regions to participate more in some international activities, some budget has been saved to participate in international meetings, be it continental or global.

The global annual estimate for international coordination will be: **$ 100 000**

g. Support to States for ICAO duties

In the case of harmonised regulation in an RSOO region, many synergies become possible. These include RSOO support to Member States in fulfilling their ICAO obligations: OLF, SAAQ, EFOD, monitoring of safety indicators, sharing of safety events, effective implementation monitoring, …

The global annual estimate for supporting States in ICAO tasks will be: **$ 80 000**

h. Real Estate

Depending on the commitment of the host State, RSOOs may have some real estate cost. Some provisions have been considered without the support of in-depth analysis.

The annual provision for real estate will be: **$ 30 000**

i. Analytic and Prospective studies (15% of above)

By having a regional organisation working on Safety, it will be possible to manage some analyses in common and to launch prospective studies. This could help to solve some common problems; this could also help to anticipate and strategise on some implementation of future common services or address some common regional issues.

The standard annual evaluation for studies has been brought down to 15% of the above: **$ 463 594**

j. Miscellaneous (10% of the above)

As with any budget, a miscellaneous expenditure line has been estimated at 10% of the global RSOO budget.

Estimated annual miscellaneous expenditure: **$ 355 422**

After all these considerations, the global simulated RSOO budget is: **$ 3 939 641**

This budget is certainly overestimated but with a view to analysing the affordability of a financial strategy for RSOOs, this is preferable to an underestimation of the same budget. Rational and rigorous management of such a budget would also make it possible to increase the staff or to undertake more activities.

Annual basic simulated RSOO budget (3 940 K$)
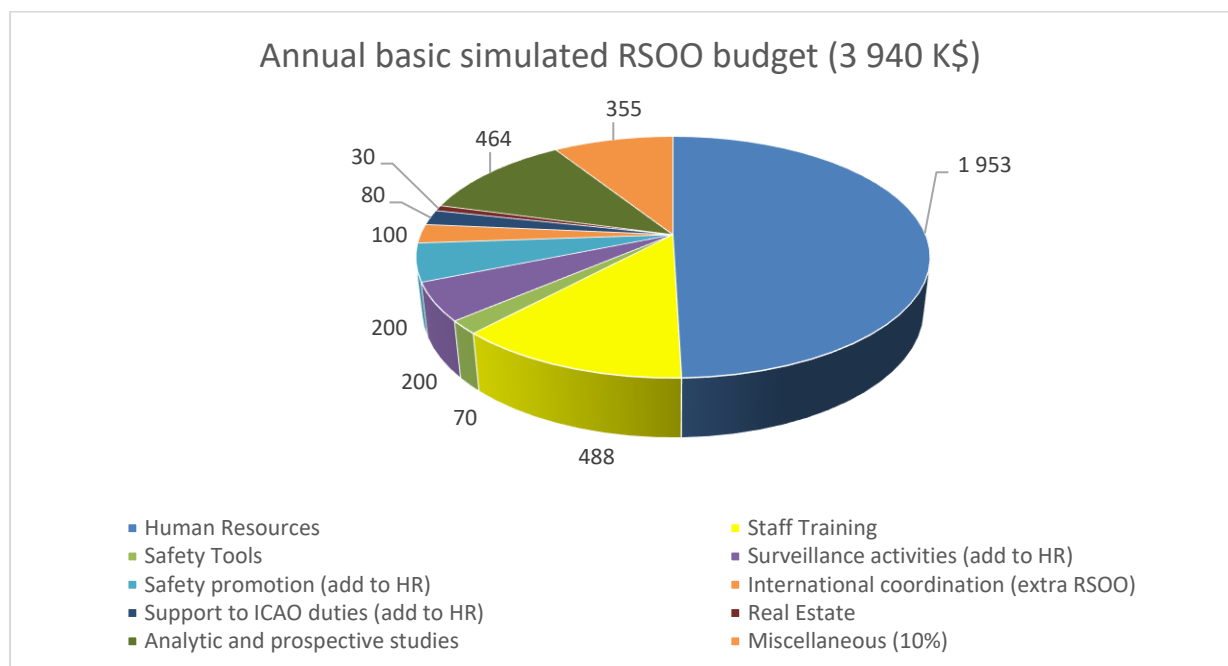
3. Considering various financial income sources

The various sources of financial income may be combined in very different ways depending on the AFI region considered and its characteristics. The following chapters describe the considerations for each of the various potential sources of income that could contribute to balancing the annual budget of the RSOO.

Knowing that States are currently experiencing some difficulties in assuming their current financial contribution to RSOOs, it is of utmost importance to open an independent and efficient complementary channel to finance RSOO activities.

Various rates have been realistically considered, either based on some existing RSOO study or to obtain a realistic order of magnitude compared to the actual State contribution. The rates are considered uniformly for all AFI sub-regions in the simulation in order not to create an unbalanced approach or economic advantage for some regions over others.

The units on which the calculation of the different potential sources of funding is based should be easy to define and not create any controversy.

a. Institutional Contributions

Institutional contributions consist of State contributions and REC contributions. It is proposed to consider them as a global package corresponding to the importance of the State in aviation. As regards the determining of State contributions to ICAO, a criterion has been sought which combines the wealth and the importance of the air transport of the country. **GDP/capita**, which is a unit very much related to the demand for air transport and at the same time represents the economic wealth of a country, seems to be a good one. It is also a criterion that is regularly published by international agencies and is unambiguous.

We propose to use an annual contribution of **$100** per State per unit of GDP/capita for the purposes of the simulation.

As explained in the report, even in the case of the REC contribution, it would be healthy for Member States to contribute on their own as they are the main beneficiaries of RSOO services. Therefore, a 2/3; 1/3 institutional contribution ratio between the REC and the States was calculated in the simulation.

b. Air Safety charges

Air Safety charges are already being considered by some RSOOs (i.e. URSAC/ACSAC and ASSA-AC) as an alternative source of income. The unit considered is the annual number of PAX. We have only considered the annual **number of international PAX** at a rate of **$0.42 (260 CFA)** per passenger. This rate is the one currently discussed in the WAEMU region, while ASSA-AC distinguishes between intra-regional passengers and extra-regional passengers at $1.60 and $2.40 per passenger respectively.

As mentioned in the report, an additional charge of **0.08$ per pax** has been added to support the AFICAIGN proposal.

c. Airport and ATC charges

Airport and ATC charges were mainly considered to take into account the specificity of ANS and the specific case of AAMAC and consequently of URSAC/ACSAC and ASSA-AC in reduction. The unit considered is the **annual number of international airports and en-route movements**. The 2019 data included in the ASECNA report was used as a reference for the simulation calculation. The proposed rate is **$5** per movement.

	NOMBRE DE VOLS	TAUX DE CROISSANCE
2015	543 439	1,34%
2016	575 040	5,82%
2017	585 234	1,77%
2018	597 905	2,17%
2019	614 184	2,72%

Some data is missing, obviously for CASSOA, but it was important to introduce this unit to address the specific case of AAMAC.

d. RSOO service fees

Fees for RSOO services are a sensitive issue as many RSOO services are currently provided free of charge to Member States. However, in case of delegation of practical safety oversight activities to RSOOs or services provided to a State outside the geographical scope of the RSOO, it would be logical that some fees would be paid for the services provided.

The simulation was based on a calculation of the workload for safety oversight activities according to the table prepared in the previous RSOO study, for which some service fees were defined on the basis of some known national fees.

RSOO	NUMBER OF LICENSES, CERTIFICATES, APPROVALS & AUTHORIZATIONS								SUB- TOTALS
	AOC	AIRWORTHINESS	AIRCRAFT REGISTRATION	PEL	AGA	AMO	ATO	ANS	
AAMAC	-	-	-	-	-	-	-	-	-
ASSA-AC	17	57	80	360	1	53	31	-	599
MENA	3	11	19	213	1	10	7	-	264
BAGASOO	35	466	556	2 150	7	156	33	-	3 403
BAGAIA	-	-	-	-	-	-	-	-	-
CASSOA	119	1 235	2 018	4 576	6	184	31	-	8 169
URSAC/ACSAC	19	109	140	1 278	7	38	28	-	1 619
iSASO (SADC)	291	8 086	16 703	34 946	28	492	303	-	60 849
7-Partner States	7	179	183	11 900	4	8	4	-	12 285
	491	10 143	19 699	55 423	54	941	437	-	**87 188**

	AOC	AIRWORTHINESS	AIRCRAFT REGISTRATION	PEL	AGA	AMO	ATO	ANS
Service Fee	$ 3 160	$ 2 528.00	$ 3 000.00	$ 474.00	$ 7 900.00	$ 2 370.00	$ 1 896.00	$ 3 000.00

For the purpose of the simulation, a ratio of **10%** of the regional volume of safety oversight activities has been used. This ratio may vary depending on the RSOO and the actual effective involvement of the RSOO in regional practical safety oversight activities.

4. Results of the Simulation

The results of the simulation are summarised in the following table:

	Budget resources Simulation Results						REC Contribution	State Contribution	
	Institutional Contribution	Air Safety Charges	Airport and ATC Charges	RSOO Service fees					
Rate	$ 0.42	$ 5.00	10%			0.67%	0.33%	
Unit	GDP/Capita	Pax	Mvts	SO activities	Total	Actual	of Institutional Contribution		Comment
URSAC/ACSAC	$ 935 521	$ 3 145 291	$ -	$ 155 981	$ 4 236 793	$ 1 304 000	$ 623 680.52	$ 311 840.26	
ASSA-AC	$ 2 135 919	$ 849 862	$ -	$ 80 074	$ 3 065 855		$ 1 423 945.94	$ 711 972.97	No actual budget
BAGASOO	$ 1 167 427	$ 3 419 114	$ 417 620	$ 446 334	$ 5 450 495	$ 1 200 000	$ 778 284.82	$ 389 142.41	
CASSOA	$ 655 272	$ 3 955 851	$ 22 200	$ 1 571 980	$ 6 205 303	$ 2 479 593	$ 436 848.09	$ 218 424.05	Lack of Mvt data
SASO	$ 5 488 426.51	$ 7 012 769.82	$ 165 550.00	$ 7 812 442.20	$ 20 479 188.53	$ 3 789 000	$ 3 658 951.00	$ 1 829 475.50	
AAMAC	0	0	$ 3 070 920.00	0	$ 3 070 920.00	$ 2 892 600			
	$ 10 382 566	$ 18 382 888	$ 3 676 290	$ 10 066 811	$ 42 508 554	$ 11 665 193			
URSAC/ACSAC	22%	74%	0%	4%	$ 4 236 793	31%	15%	7%	
ASSA-AC	70%	28%	0%	3%	$ 3 065 855	0%	46%	23%	
BAGASOO	21%	63%	8%	8%	$ 5 450 495	22%	14%	7%	
CASSOA	11%	64%	0%	25%	$ 6 205 303	40%	7%	4%	
SASO	27%	34%	1%	38%	$ 20 479 189	19%	18%	9%	
AAMAC	0%	0%	100%	0%	$ 3 070 920.00	94%			
AFICAIGN		$ 3 501 502.48							

These results should not be taken literally. They only offer some views of the various possible components contributing to the respective RSOO budgets. However, they do demonstrate the ability of such a mix of funding sources to provide a consolidated financial base for RSOO operations in the future that is far more comfortable than the current one. It is, except for ASSA-AC, higher than the simulated standard RSOO budget presented above.

In most cases, except for SASO, the institutional contribution is decreasing. The case of SASO should be analysed in more detail.

BAGASOO and URSAC/ACSAC are comparable, which is in line with the general ECOWAS economic situation.

The ASSA-AC mix is different with a small amount of air safety charges, which could justify their decision to increase the air safety charge rate.

The simulated budget for AAMAC seems realistic compared to the actual one.

The calculation of airport and ATC charges needs to be consolidated.

This simulation needs to be further developed and detailed, but it already provides a good overview of the various orders of magnitude. The corresponding RSOO financial system should be supported by a reliable and efficient charges collection system.

Annex 3: RSOO SWOT analysis

RSOO	STRENGTHS	WEAKNESSES	OPPORTUNITIES	THREATS
ACSAC/ URSAC	• Heads of State commitment / International agreement • Anchored to an economic and monetary sub-regional organisation - Direct applicability of WAEMU Regulations; - Additional funding • Good number of States (8). • Member States share the French language, which is also the working language of the RSOO; • All Member States share a common regional Air Navigation Service Provider (ASECNA) with a corresponding RSOO (AAMAC).	• ACSAC is not operationalized • URSAC is not an autonomous body • Duplication of functions with AAMAC temporarily handled through a tripartite MoU with AAMAC and CEMAC.	• Hosting agreement • Implementation of the roadmap for the operationalisation of URSAC • Adoption of the draft framework MoU on the delegation of functions and tasks • Signing of the new MoU which establishes a regulatory cooperation mechanism with the AAMAC and CEMAC/ASSA-AC • Collaboration with AAMAC in ANS • Collaboration with CEMAC/ASSA-AC • SAATM/AFCAC	• URSAC remains the "RSOO" • Overlapping membership with AAMAC without formal distinction of services • Delay in regulatory harmonisation of ANS with AAMAC.
ASSA-AC	• Heads of State commitment / International agreement • Anchored to an economic and monetary sub-regional organisation - Direct applicability of CEMAC Regulations; - Additional funding • Member States share the French language, which is also the working language of the RSOO; • All Member States share a common regional Air Navigation Service Provider (ASECNA) with a corresponding RSOO (AAMAC).	• Small membership (6) • Insufficient funding by the Community integration tax and by the States • No formal delegation of functions and tasks • Duplication of functions with AAMAC temporarily handled through a tripartite MoU with AAMAC and WAEMU.	• Soon operational • Implement the safety charge that has been decided • Initiative to enlarge ASSA-AC to all 11 central African States of the ECCAS/CEEAC region by including the non-CEMAC States • Signing of the new MoU which establishes a regulatory cooperation mechanism with the AAMAC and UEMOA/ACSAC • Collaboration with AAMAC in ANS • Collaboration with UEMOA/ACSAC • SAATM/AFCAC	• Overlapping membership without formal distinction of services. • Delay in regulatory harmonisation of ANS with AAMAC.
AAMAC	• Heads of State commitment/ International agreement. • Anchored to an ANSP. • Large group of States (17). • Specialized in ANS.	• Not all states have ratified the Treaty • Resources mainly provided by ASECNA	• Signing of the new MoU which establishes a regulatory cooperation mechanism with	• Overlapping membership without formal distinction of services.

RSOO	STRENGTHS	WEAKNESSES	OPPORTUNITIES	THREATS
	• For almost all the Member States, the use of the French language facilitates the daily working exchanges. • The AAMAC increasingly appears as a reference RSOO in terms of ANS.	• No formal delegation for the tasks carried out at the request of a State • Only the most advanced Member States proceed with transposition of regulations issued by the AAMACs. • Duplication of functions with ASSA-AC and URSAC/ACSAC temporarily handled through a tripartite MoU. • The use of the French language raises certain difficulties to other States, such as Guinea Bissau or Equatorial Guinea, which are not French-speaking States.	CEMAC/ASSA-AC and UEMOA/ACSAC • Cooperation with UEMOA/ACSAC and CEMAC/ASSA-AC (harmonisation of regulations) • Cooperation with CASSOA (agreement for mutual support). • Support to Sao Tome and the DRC • SAATM/AFCAC	
CASSOA	• Heads of State commitment International agreement • Anchored to a REC (EAC). • Institutionally strong. • Models EAC Primary Civil Aviation Act (and Aircraft Accident and Incident Investigation Act), civil aviation regulations and technical guidance materials. • Formal delegation of functions and tasks.	• Small membership (8) • Duplication of REC membership (Tanzania and DRC are members of SADC; Burundi, DRC and Rwanda are members of ECCAS). • Funded by contributions from States. • Delayed implementation of harmonized standards by Partner States. • Limited mandate that does not allow enforcement of harmonized standards in the Region	• • Collaboration with other RSOOs. • Cooperation with SASO. • SAATM/AFCAC.	• Lack of funding/ Delayed remittance of funds to the Agency. • Lack of involvement due to duplication of membership.

RSOO	STRENGTHS	WEAKNESSES	OPPORTUNITIES	THREATS
		• High Staff turnover due to low remuneration levels.		
SASO	• Heads of State commitment/International agreement. • Anchored to a REC (SADC). • Large number of States (12). • Formal delegation of functions and tasks (under review). •	• Duplication of membership (Tanzania and DRC are members of CASSOA, DRC and Angola are members of ECCAS) • Funded by contributions from States, donors and others • Recruitment issues due to financial sustainability challenges • Generic Regulations issued by SASO not adopted by all States • Potential conflict of interest in inclusion of AIG functions	• • Cooperation with BAGASOO and CASSOA for the harmonisation of their policies, laws, programmes, strategic objectives and activities • Cooperation with AFCAC for the use of national inspectors under the AFI Cooperative Inspectorate Scheme • SAATM/AFCAC	• Lack of funding • Lack of regulatory harmonisation • Lack of involvement due to duplication of membership • Limited activities due to recruitment issues
BAGASOO	• International agreement. • Formal delegation of functions and tasks. • Signing of an MoU by member States to establish a pool of qualified inspectors.	• Funded by contributions from States. • Small membership of (7) States. (4) of them with low financial contributions • Formal delegation of functions and tasks is not widespread.	• Collaboration with other RSOOs. • Cooperation with ECOWAS and ICAO (establishment of a regional pool of aviation security experts to support ECOWAS Member States, training and capacity building of safety inspectors). • SAATM/AFCAC.	• Dependence on a State for its funding. • Lack of continuous commitment from some State.

Annex 4:   Sample of an Agreement on a Delegation of Services

✈   ✈   ✈   ✈   ✈