



# Draft project document

## Airport collaborative decision making (A-CDM) implementation in the AFI region (2026-2030)

1.	Beneficiary States/Group of States:	Ten States in the Eastern and Southern African (ESAF) and Western and Central African (WACAF) as follows:  a) Five States in ESAF: Ethiopia, Kenya, South Africa, Tanzania, Uganda  b) Five States in WACAF: Ivory Coast, Ghana, Nigeria, Senegal. Togo																						
2.	Project No.:	AFI/XXX/XXX																						
3.	Project Title:	Assistance to the implementation of A-CDM at 10 international aerodromes of the AFI region: <table><tr><th>Country</th><th>Airport</th></tr><tr><td>Ethiopia</td><td>Addis-Ababa</td></tr><tr><td>Ghana</td><td>Accra</td></tr><tr><td>Ivory Coast</td><td>Abidjan</td></tr><tr><td>Kenya</td><td>Nairobi</td></tr><tr><td>Nigeria</td><td>Lagos</td></tr><tr><td>Senegal</td><td>Dakar</td></tr><tr><td>South Africa</td><td>Johannesburg</td></tr><tr><td>Tanzania</td><td>Dar-Es-Salam</td></tr><tr><td>Togo</td><td>Lome</td></tr><tr><td>Uganda</td><td>Entebbe</td></tr></table>	Country	Airport	Ethiopia	Addis-Ababa	Ghana	Accra	Ivory Coast	Abidjan	Kenya	Nairobi	Nigeria	Lagos	Senegal	Dakar	South Africa	Johannesburg	Tanzania	Dar-Es-Salam	Togo	Lome	Uganda	Entebbe
Country	Airport																							
Ethiopia	Addis-Ababa																							
Ghana	Accra																							
Ivory Coast	Abidjan																							
Kenya	Nairobi																							
Nigeria	Lagos																							
Senegal	Dakar																							
South Africa	Johannesburg																							
Tanzania	Dar-Es-Salam																							
Togo	Lome																							
Uganda	Entebbe																							
4.	Project starting	June 2026																						
4.	Duration covered by this revision:	36 months (starting in June 2026)																						
5.	Implementation Agency:	ICAO																						
6.	Source of Funding:	AFI Plan budget																						
7.	Project estimated cost:	267 490 US\$																						

This is a CONFIDENTIAL DOCUMENT meant only for use by the Project participating States and the International Civil Aviation Organization (ICAO). No part of this document may be reproduced or used in any manner by any individual, company, or organization without the written approval of the ICAO. The deliverables produced by the ICAO experts pursuant to this project shall be the property of the beneficiary States, provided that ICAO shall retain the right to use the said material for the performance of further assistance to any of the States.

## **A. Project justification**

1. ICAO's global vision for the sustainable growth of civil aviation is anchored in strategic objectives such as Air Navigation Capacity and Efficiency and Environmental Protection. These aim to modernize air navigation systems, optimize airport operations, and reduce aviation's environmental footprint.
2. The Global Air Navigation Plan (GANP), aligned with the Global ATM Operational Concept (Doc 9854) and the Manual on ATM System Requirements (Doc 9882), provides a roadmap for achieving these goals through the Basic Building Blocks (BBB) and Aviation System Block Upgrades (ASBU) frameworks. The GANP supports the evolution of a globally harmonized, collaborative air navigation system that leaves no State or stakeholder behind.
3. The Eleventh Air Navigation Conference (AN-Conf/11) held in Montreal (22 September – 3 October 2003), endorsed the need for a collaborative decision-making environment to balance stakeholder expectations and improve system-wide outcomes.
4. In the AFI region in particular, traffic is increasing at several African airports, while infrastructure remains limited, leading to frequent delays, congestion, and increased fuel consumption.
5. Airport Collaborative Decision Making (A-CDM) offers a practical solution to these challenges. A-CDM has demonstrated significant benefits in Europe and the U.S. over the past two decades. By fostering real-time collaboration among airport operators, ANSPs, airlines, and regulators, A-CDM improves situational awareness, reduces delays, and optimizes infrastructure use. The development of Airport Operations Centres (APOCs) further enhances this collaborative environment.
6. Several regional initiatives were taken to support the implementation of A-CDM in the AFI region:
  - a. The aerodrome operations and planning subgroup, AOPSG/11 (Dakar, 3–7 August 2015) encouraged States to identify airports for A-CDM implementation.
  - b. The twenty first meetings of the AFI planning and implementation regional group, APIRG/21 (Nairobi, 9–11 October 2017) adopted Conclusion 21/08, promoting seamless ATM through collaborative approaches.
  - c. The Second meeting of the APIRG Airspace and Aerodrome Operations Subgroup, AAO-SG/2 (Nairobi, 21–25 May 2018) established the A-CDM Project Team under APIRG to develop guidelines and coordinate A-CDM implementation strategy in the AFI region.
7. However, despite these regional initiatives, implementation progress of A-CDM across the region remains low. No airport in the AFI region has yet reported full A-CDM implementation, despite its global recognition and proven benefits; Furthermore, effective stakeholder coordination remains a significant challenge, with limited real-time information sharing and lack of integration with the broader ATM network.
8. To foster A-CDM implementation in the region, the A-CDM Project Team developed a generic AFI A-CDM Implementation Guide to support the harmonized implementation by States and facilitate the adoption of the concept. This guide was reviewed during a virtual

pre-validation workshop held from 12 to 13 June 2025 and subsequently validated by the Eighth Meeting of the AAO Sub-Group (AAO-SG/8) held in Dakar, Senegal, from 14 to 18 July 2025.

9. The purpose of this project is therefore:

- a. To assist the ten (10) States identified above in completing A-CDM implementation at one of their international aerodromes as follows:

<b>Country</b>	<b>Airport</b>
Ethiopia	Addis-Ababa
Ghana	Accra
Ivory Coast	Abidjan
Kenya	Nairobi
Nigeria	Lagos
Senegal	Dakar
South Africa	Johannesburg
Tanzania	Dar-Es-Salam
Togo	Lome
Uganda	Entebbe

- b. To accelerate the implementation of Airport Collaborative Decision Making (A-CDM) in the AFI region, addressing current delays and operational inefficiencies at the selected airports.
- c. To support a structured and harmonized implementation across the AFI States by leveraging the content of the validated Generic AFI A-CDM Implementation Guide as a common reference framework.
- d. To build technical and operational capacity among stakeholders involved in airport operations, enabling effective adoption and integration of A-CDM principles and practices.

10. The selection of States to be assisted and airports to be supported in the implementation of A-CDM in the AFI region was based on the following criteria per order of priority:

1. States with at least one certified international airport, indicating a baseline level of regulatory and operational maturity.
2. Certified Airports with the highest traffic density in the ESAF and WACAF regions, where A-CDM implementation would yield the most immediate operational and environmental benefits.
3. States that have already initiated A-CDM-related activities or demonstrated readiness, ensuring alignment with ongoing national or regional efforts.
4. Additionally, the project may integrate additional States and airports, on a voluntary basis, under consideration of demonstrated progress or readiness for A-CDM implementation.

## **B. End of Project Status/ Target / Overall Objective**

11. By the end of the project, ten (10) international certified airports in the ESAF and WACAF regions falling within the scope of this project will have implemented A-CDM.

## **12. Implementation Strategy**

**12.1.Kick-off meetings:** A one-day kick-off meeting attended by the Directors General of the Civil Aviation Authorities and the Airports Authorities of the beneficiary States, representatives from ACI, IATA, CANSO, ASECNA, IFALPA, donor States, as well as Regional Organizations (CASSOA, SASO, AFCAC, ATNS, ACI, SADC, EAC, etc.) will be held with each State. The purpose of this meeting will be to sensitize States on the objectives of the project, formally adopt the project document and confirm the commitment of the key officials. The meeting will be held remotely. The meeting may also be conducted on-site at the request of the State. In such a case, all the costs will be supported by the State.

**12.2.Project team selection:** Each beneficiary State will be assigned a project team to assist in the implementation of A-CDM at their selected international aerodrome. To constitute the project team, ICAO will identify resource-Experts of CAAs, Airport Authorities, RSOOs and international and regional organizations with demonstrated capabilities to assist other States.

- i. Resource experts responsible for assisting the CAAs should be aerodrome inspectors in their respective States.
- ii. Resource experts responsible for assisting airport authorities should be ACI APEX assessors or, if not, should have demonstrated the ability to assist other airports in addressing non-compliance.
- iii. RSOOs and any other relevant Organizations may provide additional expertise to support the resource experts.
- iv. The project team members will assist the assigned State under the guidance and supervision of the ICAO ESAF and WACAF Offices and will use the AFI A-CDM implementation guide as a reference for harmonized implementation.

**12.3.Project team composition:** The ICAO ESAF and WACAF Offices will establish the project team and ensure that the combination of expertise covers all domains with regards to airport collaborative decision making including aerodrome operations, aircraft operations and ground handling, and ATC operations. Experts from other areas may be consulted as needed. The Regional Offices will assess such needs and include the required expertise in the project team if necessary. If the deployment of additional expertise, not covered by the scope of the project, is needed, the State will cover the additional costs.

**12.4.Familiarization workshops on A-CDM implementation:** A ten-day familiarization workshop on A-CDM implementation will be conducted after the kick-off meeting, either in French or in English.

**12.5.** The purpose of the familiarization workshops is to:

- i. Provide briefing and orientation to the experts and project team on the project strategy.
- ii. Develop capacity and familiarize technical personnel of the beneficiary States involved in A-CDM implementation with the process and related activities.

- iii. Provide a platform for the familiarization with AFI A-CDM implementation guide and the sharing and exchange of procedures, tools, experience and lessons learned from States that have already initiated A-CDM implementation projects.
  - iv. Conduct a gap analysis and develop a A-CDM implementation action plan (A-CDM IAP) for each beneficiary State (CAA, airport authority and airport stakeholders).
- 12.6. Each familiarization workshop will target a group of States and will be conducted in hybrid mode (virtual and in-person):
- i. The theoretical part will be delivered virtually by the WACAF Office's Regional Officer for Aerodromes and Ground Aids (RO AGA/WACAF);
  - ii. The in-person part will be conducted at the location provided by each targeted State in presence of all the technical personnel involved in the A-CDM implementation process, from the CAAs, the airport authorities and relevant stakeholders. The resource experts will assist the State on-site, in coordination with the RO AGA/WACAF. Five days on-site will be allocated for preparatory activities, including the on-site visit of the airports and the review of documentation available, prior to the start of the theoretical part of the workshop.
- 12.7. The familiarization workshops will be delivered in either French or English.
- 12.8. **A-CDM IAP submission:** Within three months of the familiarization workshop, each State will develop and submit the A-CDM implementation action plan to the accredited regional office for review. The IAP should include the required actions from both the Civil Aviation Authority and the operators of the beneficiary aerodromes to achieve A-CDM implementation.
- 12.9. **A-CDM IAP implementation:** The project team members will assist the beneficiary States at each phase of the A-CDM implementation process in the conduct of implementation activities. The resource experts will provide continuous remote assistance to the beneficiary States and on-site assistance missions will be organized as follows:
- 12.9.1. *Phase 1- Initiation:* The purpose of the initiation phase is to establish the need for A-CDM implementation, including gap analysis, making the cost and benefit analysis, and ultimately getting a decision to go ahead to invest in the implementation phase of A-CDM. The airport resource experts will assist the airport authorities and relevant stakeholders in consolidating the documentation necessary for the completion phase as per the AFI A-CDM Implementation guide.
- 12.9.2. *Phase 2- Planning:* The airport resource experts will provide support to the airport authorities in developing the detailed planning documentation and conducting the preparatory activities required to initiate A-CDM implementation, in alignment with the AFI A-CDM Implementation Generic Guide. This support will include the establishment of the A-CDM Steering Group and Local Project Team, the development of a Communication Plan and Stakeholder Engagement Strategy and project governance and coordination mechanisms. To facilitate this process, a five-day on-site mission will be conducted at each beneficiary State. The mission will enable the validation of the detailed A-CDM implementation plan in coordination with all relevant stakeholders and serve as the official launch of A-CDM implementation activities, ensuring alignment with the regional framework and stakeholder commitments.

12.9.3. *Phase 3- Implementation:* The purpose of the implementation phase is to undertake the activities to successfully carry out the A-CDM project, which is different from many other implementation projects due to its multi- stakeholders' involvement and impact on operations. The airport resource experts will assist the airport authorities and relevant stakeholders in implementing the actions identified in the detailed implementation plan. Once at least 80 per cent of the A-CDM IAP is completed, a 10-day mission will be organized on-site to assist each beneficiary State in the conduct of on-site verifications to assess the effectiveness of A-CDM implementation.

12.9.4. *Phase 4- Monitoring:* The purpose of the operation and monitoring phase is to ensure A-CDM procedures, supporting systems and information sharing processes are operational and effective. The airport resource experts will assist the airport authorities and relevant stakeholders in the development and implementation of a performance framework through the identification of performance indicators and monitoring mechanisms. The resource experts will assist the State in the assessment of the performance of A-CDM operations for a period of at least six months following A-CDM operationalization. The resource experts will assist the States/airports in completing the activities necessary to adjust the processes until full A-CDM implementation is confirmed by the CAA.

12.10. **A-CDM IAP progress monitoring:** The ICAO ESAF and WACAF Offices will monitor the implementation progress of the A-CDM IAP in coordination with the Project team and the beneficiary States. Regular coordination should be established by the Regional Officer AGA, as follows:

- i. Each beneficiary State will nominate a focal point for the A-CDM implementation process. The airport authorities will also nominate local airport focal points.
- ii. The State focal point will coordinate with airport local focal points on the implementation of the IAP and submit evidence of completion of actions to the project team.
- iii. The project team will validate the evidence of completion, and the State focal point will update the IAP accordingly.
- iv. The regional office will conduct quarterly coordination meetings to discuss the progress of implementation and review the updates of the IAP. The meeting will review the IAP and provide additional recommendations for its update, if necessary.
- v. The State focal point will submit the revised IAP monthly.
- vi. The Regional Officer will monitor and validate the progress of the implementation of the IAP.

12.11. **Wrap-up missions:** At the end of the whole process in each beneficiary State, a 5-day wrap up mission will be conducted by the RO/AGA from the accredited regional office. The objective of the mission will be to review the assistance activities, documentation and records.

## C. Major Elements

<b>Objective 1</b>	Engage States (CAAs, airport authorities and relevant stakeholders) in the A-CDM implementation process	
<b>Deliverable 1.1</b>	A one-day kick-off meeting is held for each beneficiary State	
<i>Activity #</i>	<i>Description</i>	<i>Actors</i>
1.1.1	Plan and coordinate the organization of the kick-off meeting of the project with each beneficiary State	ICAO Beneficiary State
1.1.2	Hold the kick-off meeting	ICAO Beneficiary State
<b>Deliverable 1.2</b>	10 familiarization workshop conducted, one for each beneficiary state	
1.2.1.	Plan and coordinate the organization of the 10-day workshop with the targeted States	ICAO Beneficiary States
1.2.2.	Hold the resource experts' briefing session	ICAO
1.2.3.	Conduct the 10-day workshop for each beneficiary State (3 resource experts -airport operations, airlines operations, ATC operations per beneficiary airport of the targeted States)	ICAO Resource experts
1.2.4	Assist States in the development of a gap analysis for A-CDM implementation	Resource experts States
<b>Deliverable 1.3</b>	An A-CDM implementation action plan is developed for each beneficiary State after the familiarization workshop	
<i>Activity #</i>	<i>Description</i>	<i>Actors</i>
1.3.1.	Assist States in the development of the A-CDM implementation plan to address the gaps identified	Resource experts States
1.3.2.	Conduct a 5-day on site visit to validate the A-CDM IAP in coordination with all relevant stakeholders and officially launch the implementation phase	ICAO Resource experts
1.3.3.	Submit the A-CDM IAP to the accredited regional office	States
<b>Objective 2</b>	Assist States in A-CDM implementation at the selected international aerodrome	
<b>Deliverable 2.1</b>	Documentation required for A-CDM implementation developed for each beneficiary State (regulatory framework and airport procedures and systems)	
<i>Activity #</i>	<i>Description</i>	<i>Actors</i>
2.1.1	Assist States in the development of the regulatory framework for A-CDM implementation	Resource experts
2.1.2	Assist airports in the development of aerodrome procedures and systems as per the AFI A-CDM implementation guide	Resource experts
<b>Deliverable 2.2</b>	10 airports with full implementation of A-CDM	
2.2.1	Assist States in the evaluation of A-CDM milestone procedure and associated operational procedures including common phraseology	Resource experts States ICAO

2.2.2	Assist States in the development and implementation of A-CDM information sharing system	Resource experts States ICAO
2.2.3	Assist States in the conduct of training activities for all relevant stakeholders	Resource experts States ICAO
2.2.4	Assist States in the conduct of on-site verifications for assessing the effectiveness of A-CDM implementation	Resource experts States ICAO
2.2.5	Assist States in the operations and monitoring of the A-CDM processes until the confirmation of A-CDM full implementation	Resource experts States ICAO
2.2.6	Conduct a 5-day project wrap up mission for each beneficiary State.	ICAO- RO/AGA

#### **D. Inputs:**

##### **1. *Input from States***

- 1.1 **Counterparts:** A-CDM Implementation focal points designated by each CAA and Airport operators and relevant stakeholders will coordinate the development and implementation of the State action plan. The national stakeholders will comprise CAAs, airport operators, ANSPs, Ground handling companies, fuel providers, other government agencies, etc. for the development and implementation of the action plan. Additionally, experts, called resource-experts in this document (from CAAs, Airport Operators and international and regional organizations), will be identified by ICAO to assist States in the implementation of their A-CDM implementation action plans
- 1.2 **Support staff:** CAAs will provide ICAO with support staff as necessary.
- 1.3 **Familiarization workshops:** Each beneficiary State will provide logistics (meeting room, catering, transportation, access to aerodrome, documentation, etc.) for the organization of the workshop. The state should identify a central location as the venue of the workshop and ensure that all the stakeholders involved in the A-CDM implementation process are represented. The State will also cover the costs of experts for the local transportation to the targeted aerodromes as necessary.
- 1.4 **Office(s):** Each State will provide suitable working tools (telephone, internet, printer, meeting room etc.) for on-site activities.
- 1.5 **Transport:** The CAAs and Airports will provide local transportation to ICAO staff while on site. The CAAs will also facilitate obtaining entry visas for the ICAO RO and for the Experts accredited by ICAO and will provide any other assistance that may be necessary for the fulfilment of their missions.
- 1.6 **A-CDM Equipment:** The purchase of the equipment necessary for the implementation of the A-CDM is the responsibility of the States/Airports.

##### **2. *ICAO Inputs***



- 2.1 **Funding for the project:** The project will be funded under AFI PLAN.
- 2.2 **Experts:** ICAO will rely on its RO/AGA, the resource-experts and Experts seconded by organization partners.
- 2.3 **International missions:** A provision has been included to cover the ICAO Staff and resources experts' mission expenses for the workshops and on-site visits to States.
- 2.4 **Monitoring and reporting:** ICAO Regional Offices will be responsible for the monitoring of the project, the production of periodic reports (after each mission and periodic project progress reports) as well as the Project Terminal report. The ICAO Regional Offices will also establish and maintain coordination with all the stakeholders during the project.
- 2.5 **Launching meeting:** ICAO will cover the costs of the meeting using project funds
- 2.6 **Miscellaneous expenses:** administrative overhead that may be incurred shall be covered by in the project funds.

#### **E. Project Work plan**

- 1. A preliminary work plan is attached as Appendix A. This preliminary work plan is indicative and will be refined during the implementation of the project.

#### **F. Estimated Cost (USD): 267 490 US\$**



**Draft project document**  
**Airport collaborative decision making (A-CDM) implementation in the AFI region**  
**(2026-2030)**

---

**Appendix A – ESTIMATED COSTS**

Prodoc Reference	Activity	2026	2027	2028	2029	2030	Total
	<b>Expenditures</b>	<b>82100</b>	<b>81600</b>	<b>33960</b>	<b>57920</b>	<b>11910</b>	<b>267490</b>
Objective 1	Engage States and airports in the A-CDM implementation process						
Deliverable 1.1	10 Kick-off meetings conducted with States						
Activity 1.1.1	Conduct of Kick-off meetings(virtual, 1 day)						
Deliverable 1.2.	10 Familiarization workshops (10-days)	<b>49860</b>	<b>33960</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>83820</b>
Activity 1.2.1	Familiarisation workshop 26-1-FR	8670					
Activity 1.2.2	Familiarisation workshop 26-2-EN	7950					
Activity 1.2.3	Familiarisation workshop 26-4-EN	7950					
Activity 1.2.4	Familiarisation workshop 26-4-EN	7950					
Activity 1.2.5	Familiarisation workshop 26-5-EN	8670					
Activity 1.2.6	Familiarisation workshop 26-6-EN	8670					
Activity 1.2.7	Familiarisation workshop 27-1-EN		8670				
Activity 1.2.8	Familiarisation workshop 27-2-EN		8670				
Activity 1.2.9	Familiarisation workshop 27-3-FR		7950				
Activity 1.2.10	Familiarisation workshop 27-4-EN		8670				
Deliverable 1.3	An A-CDM implementation action plan	<b>32240</b>	<b>47640</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
Activity 1.3.1	South Africa	8180					
Activity 1.3.2	Ethiopia	7700					
Activity 1.3.3	Kenya		7700				
Activity 1.3.4	Tanzania		7700				
Activity 1.3.5	Uganda		8180				
Activity 1.3.6	Nigeria	8180					
Activity 1.3.7	Ghana	8180					
Activity 1.3.8	Senegal		8180				
Activity 1.3.9	Ivory coast		7700				
Activity 1.3.10	Togo		8180				
<b>Objective 2</b>	<b>Assist States in A-CDM implementation at the selected international aerodrome</b>						
Deliverable 2.1	10 airports with A-CDM implemented	<b>0</b>	<b>0</b>	<b>33960</b>	<b>49860</b>	<b>0</b>	<b>0</b>
Activity 2.1.1	South Africa			8670			
Activity 2.1.2	Ethiopia			7950			
Activity 2.1.3	Kenya				7950		
Activity 2.1.4	Tanzania				7950		
Activity 2.1.5	Uganda				8670		
Activity 2.1.6	Nigeria			8670			
Activity 2.1.7	Ghana			8670			
Activity 2.1.8	Senegal				8670		
Activity 2.1.9	Ivory coast				7950		
Activity 2.1.10	Togo				8670		
Deliverable 2.2	10 wrap up missions conducted				<b>8060</b>	<b>11910</b>	
Activity 2.2.1	South Africa				2045		
Activity 2.2.2	Ethiopia				1925		
Activity 2.2.3	Kenya					1925	
Activity 2.2.4	Tanzania					1925	
Activity 2.2.5	Uganda					2045	
Activity 2.2.6	Nigeria				2045		
Activity 2.2.7	Ghana				2045		
Activity 2.2.8	Senegal					2045	
Activity 2.2.9	Ivory coast					1925	
Activity 2.2.10	Togo					2045	



