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Project Activity #3.2.8
Regional WS: Implementation of SSP and Safety Risk Management

Dedicated session in preparation of the regional workshop: Cambodia (working session #1)
Tuesday, 8 September 2020

Daniel Cruz
ATM expert & Bangkok ARISE+ Project Office Manager

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Meet the facilitator

Daniel Cruz
EU-SEA APP ATM &
ARISE+ Expert
Daniel.cruz@ariseplusaviation.org

- +12 years of experience in the Air Navigation domain
- Former ANS inspector. Experienced ATS/AIS auditor
- Expert on ANS certification and surveillance processes

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- ICAO-Qualified Instructor on Safety Management

- Technical cooperation projects: Previous working experience supporting CAAs and ANSPs in: Spain, Zimbabwe, Jamaica, Central & Latin America, Kenya, UAE, Nepal, Kazakhstan, Cambodia, Thailand, Myanmar and Afghanistan

#3.2.8 Regional Workshop: Annex 19 Implementation and Definition of the SSP and Safety Risk Management Process

Approach

Background

- The implementation of the ICAO **Annex 19** requires States to implement the **State Safety Programme (SSP)** including **safety risk management processes** at State level
- States require service providers to implement **SMS** under their authority including also **safety risk management processes**

Objectives

- Provide **tools for SSP implementation** and monitoring in a harmonised manner
- By the end of 2021, deliver the conceptualization of the ASEAN **Safety Risk Management process (ASEAN SRMp)**

Duration/days
TBD

Location(s)
Cambodia
(TBD)

Indicative date
S2/2020
(TBD)

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Cambodia (working session #1)

1. Preliminary analysis for the SSP establishment and implementation status in Cambodia
2. Introduction to the SSP Exposition Document template
3. Recommended actions

SSO
SSP

According to the latest ICAO information, Cambodia must reinforce the ICAO safety level (USOAP %EI and SSP implementation level)

	1 USOAP % EI score	2 SSP Foundation PQs	3 SSP Implementation
Current status	42.44%	46.35%	Level 1 (SSP Gap Analysis 78.6%)
Target(s)	60% (at present) ⚠ > Global average (2020) ➕ 75% (2022) ➕	100% validated or submitted as completed ⚠	Level 2 (Gap Analysis 100%) ⚠ Effective implementation by 2025 ➕
Highlights	Cambodia has been active on the update of the CAPs 👍 Continuous improvement is mandatory ➕ Two (2) ICAO USOAP-CMA audits were conducted in Cambodia on December 2016/18 👍		Complete SSP Gap Analysis ⚠ Develop the SSP implementation plan ➕

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👍 Option / No action required ➕ Recommendation ⚠ Strong Recommendation

SSO

SSP

A revision of the primary legislation (CE-1); and mechanisms to manage inspectors' competencies (CE-4) and solve safety issues (CE-8) must be adopted as part of the SSP foundation

Highlights from latest USOAP by Critical Element (CE)

		Preliminary observations - GAPs	Recommendations	Priority
CE-1 Primary Legislation	**43.75%**	Current primary legislation is from 2008, and an updated version has been drafted, it must contain all legal requirement for the implementation of the SSP (33.33% of SSP primary leg)	**Revise the draft of primary legislation via workshop to ensure all SSP legal requirements are included and to promulgate it**	
CE-2 Regulations	**68.18%**	There is not an implemented procedure to manage an homogeneous regulatory framework. It involves amendment of regulations, notification of differences, and issue of exemptions	Develop and implement a procedure for an effective rulemaking process, ensuring a consistent and scalable regulatory framework	
CE-3 Organisation	**49.35%**	Cambodia has not established a clear separation of roles and responsibilities. There is not an implemented mechanism to ensure sufficient budget, neither number of inspectors to meet its obligations	Develop a mechanism to ensure a sustainable SSP system (sources – financial and personnel)	
CE-4 Competencies	**21.62%**	There is not a formal mechanism implemented for the active management of the whole recruitment and training processes	**Establish and implement a mechanism to manage inspectors' competencies (CBT training environment)**	
CE-5 Tools	**35.71%**	Tools to manage effectively the oversight of SMS and investigation of accidents & incidents and guidance material. There is a lack of an adequate IT tool to support the SSO and SSP	Revise tools for SSCA (inspector manuals and checklists) and industry (guidance material) for safety management	
CE-6 Certification	**49.78%**	There is no a formal procedure to ensure all regulatory requirements are correctly implemented and risk-based oversight is considered as part of the process	Reinforce the certification related to safety management and personnel competencies	
CE-7 Surveillance	**32.47%**	There is no a formal procedure to ensure the effective conduction of surveillance over the service providers	Establish and implement a mechanism to conduct effective surveillance of industry, including ramp inspections	
CE-8 Resolution of issues	**4.17%**	There is no mechanism/system in place for the elimination of deficiencies identified by SSCA inspectors	**Develop and implement a consistent safety issue resolution procedure**	

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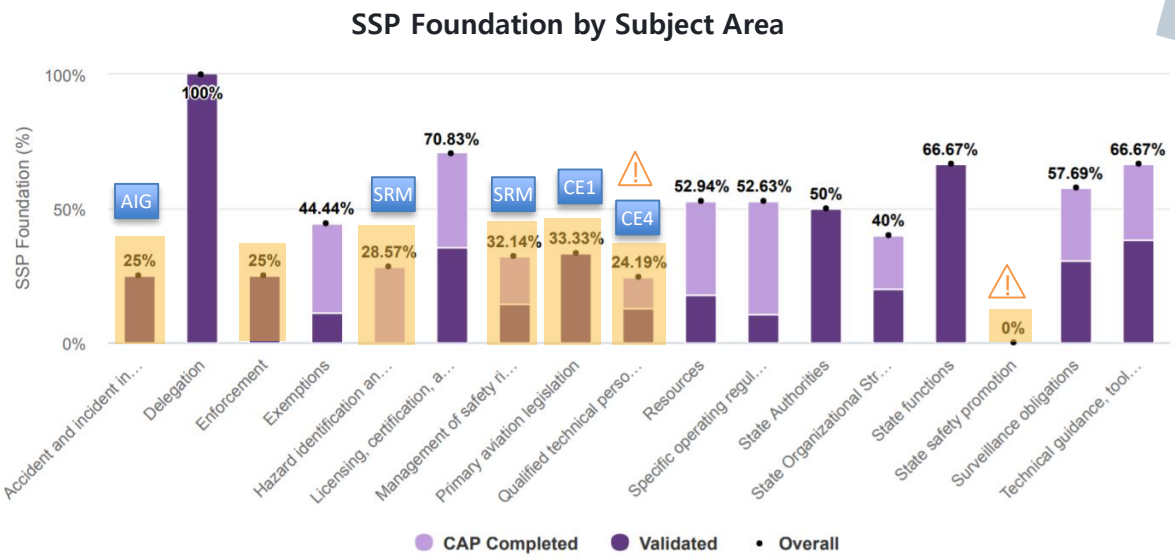
Option / No action required Recommendation Strong Recommendation

SSO

SSP

AIG, Enforcement, Management of safety risks (SRM - SSP Pillar 2) and State safety promotion (SSP Pillar 4) must also be enhanced as part of the initial phases of the SSP establishment

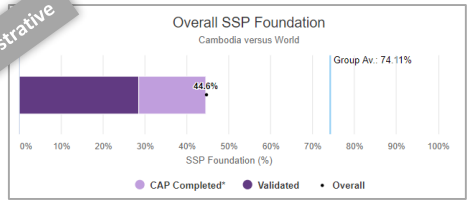


USOAP CMA PQs (943)

SSP Foundation PQs (299)

SSP GAP-related PQs (62)

Illustrative



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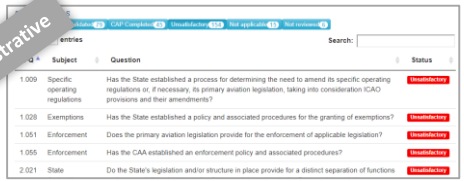


States need to achieve all 299 PQs at 100%

** Note: CAP completed are corrective action plans as reported by the State using the USOAP CMA Online Framework*

SSO

SSP

For an effective SSP implementation all stakeholder must be considered and cooperate towards the enhanced safety goal

- The level of SSP establishment (phase 1, GAP analysis incomplete) is **lower than the GASP targets** (phase 2, reviewed all the GAP analysis questions)
- The importance of performing a preliminary **hazard identification** as the basis of SRM, one of the 2 key principles of SSP development (beyond the SSO elements, including **participation from industry**)

- **High level commitment and cooperation among all stakeholders** are key enablers; and require a dedicated framework, starting by primary legislation, with appropriate tools and training. **Clear separation between SSP-SMS responsibilities**

Key SSP stakeholders: Civil aviation related State entities and private service providers

Ministerial functions	Regulatory oversight	*Firewalls*	Investigation of accidents	*Firewalls*	Service provision		
					ANS	Airports	AOCs, AMOs & ATOs
SSCA (State Secretariat of Civil Aviation)	SSCA		SSCA – AIG Unit		CATS – Cambodia Air Traffic Services	SSCA – Airports	SSCA – CATC (for ANS)
SSP management					SSCA (various units)	Cambodia Airports	6 AOCs and 8 AMOs
SSCA							

One of the key challenges is where to start from.
A brief roadmap is detailed in the following slides based on the 5 stages/phases

Strong Recommendation

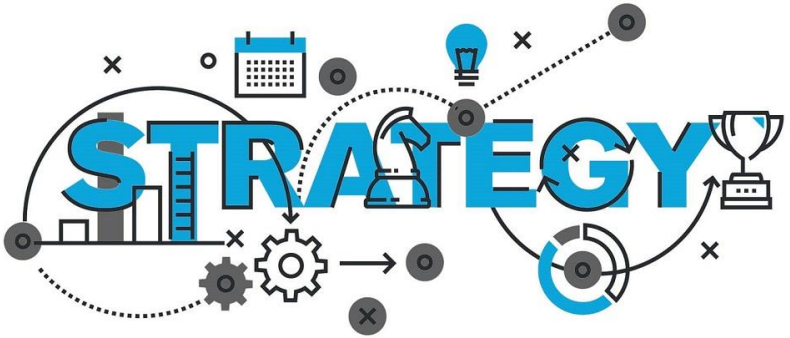
SSO

SSP

The definition and implementation of the SSP can be done through a phased approach divided into five main phases

1. Set-up SSP framework
2. Conduct SSP gap analysis
3. Define SSP implementation plan
4. Implement the SSP
5. Ongoing monitoring and continuous improvement

- A **five-phase approach** is proposed for the implementation of the SSP in most of the States and it is recommended for Cambodia
- However, the implementation of the SSP should be **commensurate with the size and complexity of Cambodia's aviation system**, and it may require **coordination among multiple authorities and entities** responsible for individual element functions in Cambodia.
- The **main actor will be the SSCA as responsible of SSP management**, safety oversight regulation, accident and incident investigation and service provision (some air navigation services, various aerodromes and training for ANSP personnel) until full separation is implemented



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Recommended roadmap will kick-off with a workshop to enhance cooperation and SSP familiarisation

1. **Set-up SSP framework**
2. Conduct SSP gap analysis
3. Define SSP implementation plan
4. Implement the SSP
5. Ongoing monitoring and continuous improvement

0. **Kick Off Workshop** - Familiarization with SSP principles
   - ➢ It may be extended to facilitate a preliminary hazard identification session basis of SRM (Safety Risk Management identification of hazards and associated risks)

1. Agree on the **State entity** that will be responsible for **leading the implementation of the SSP (SSCA – independent SSP Unit)** and identify all the stakeholders to be involved

2. Establish an **SSP implementation project lead**, **co-ordination team and SSP Coordination Group** membership, including the definition of key responsibilities and Terms of Reference

3. Obtain **senior management commitment** for the implementation of the SSP in terms of funding and human resources and assign an appropriate person in authority to take ownership of the SSP

Outputs

- → Senior management commitment for the implementation of the SSP
- → Agreement on responsibilities and SSP organization:
  - → SSP implementation project lead and co-ordination team.
  - → SSP Coordination Groups

2nd phase will be the deployment of a gap analysis to confirm main actions to be taken during the coming months

1. Set-up SSP framework
2. **Conduct SSP gap analysis**
3. Define SSP implementation plan
4. Implement the SSP
5. Ongoing monitoring and continuous improvement

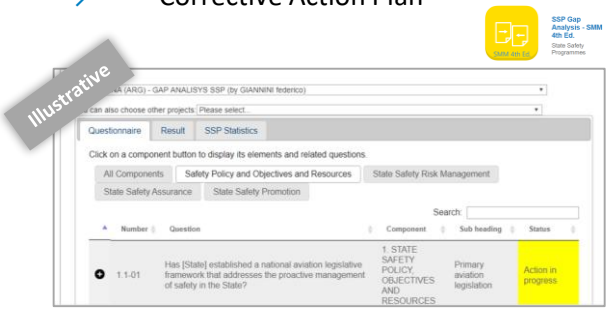
1. Complete the **SSP Gap Analysis*** in order to identify the gap between the current organizational structures and processes and those required for effective SSP or SMS implementation and operation

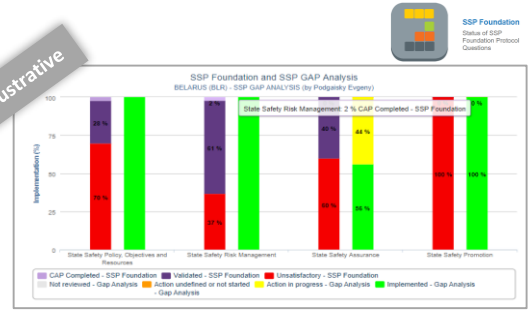
2. Review, develop or **update CAPs**, and prioritize CAP implementation for **non-satisfactory SSP Foundation PQs** under USOAP CMA (iSTARS tool)
   - Operational group(s) for the development
   - Tactical group for consolidation and approval

Outputs

→ **Identified gap** between the current organizational structures and processes and those required for effective SSP or SMS implementation and operation

→ Corrective Action Plan





** Note: for the development of the gap analysis, the ICAO tool iSTARS may be used*

3rd phase will be the formalisation of the SSP documents as the basis of the safety management at Cambodia's level

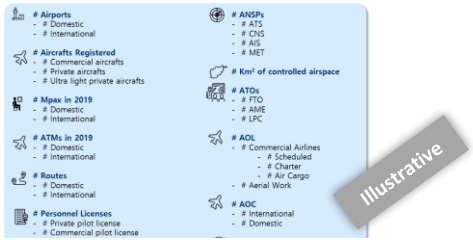
1. Set-up SSP framework
2. Conduct SSP gap analysis
3. **Define SSP implementation plan**
4. Implement the SSP
5. Ongoing monitoring and continuous improvement

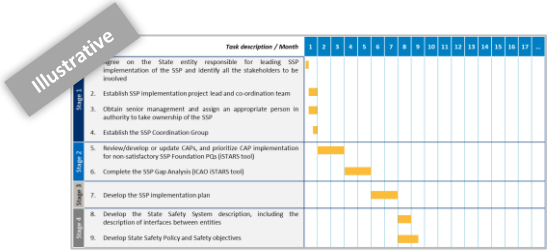
1. Develop the **SSP implementation plan***:
   - → Once the gap analysis has been completed, SSCA shall define the State Safety objectives, which are brief, high-level statements that provide direction to the SSCA
   - → The Implementation Plan must be **accessible** to all relevant personnel involved in the SSP implementation

2. Develop the **State safety system description**, including the structure of the existing aviation regulatory framework, description of interfaces among entities (both SSCA internal – regulatory oversight, other Ministerial functions, finance, HR, legal departments, AIG or service provision – and external – other States, international organizations, service providers or other Cambodia agencies)

Output

→ **SSP Implementation Plan**, including all relevant information to manage the implementation (timeframe, responsible and progress of key actions)



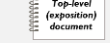


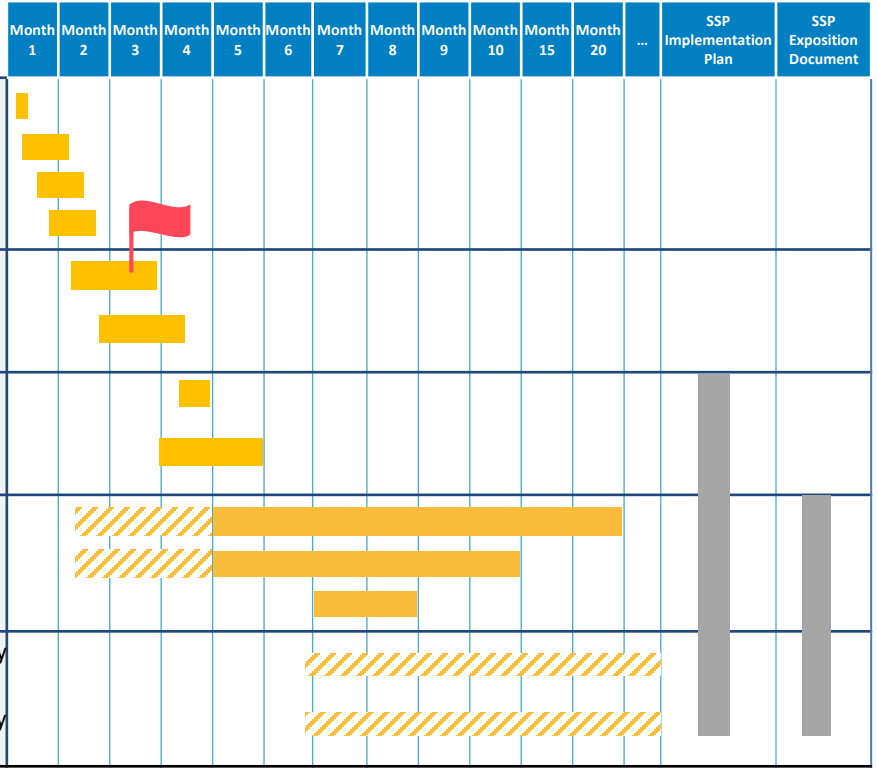
** Note: example of the SSP Implementation Plan is contained in the next slide*

Proposed SSP Implementation Plan to guide the establishment and implementation during the next 12 months

Illustrative

	Task description / Month
Phase 1	0. Kick Off Workshop - Familiarization with SSP principles
	1. Agree on responsible personnel
	2. Establish SSP coordination groups and project lead with terms of reference
	3. Senior management commitment
Phase 2	4. Complete the SSP Gap Analysis (ICAO iSTARS tool)
	5. Review/develop or update CAPs, and prioritize CAP implementation for non-satisfactory SSP Foundation PQs (ICAO iSTARS tool)
Phase 3	6. Develop the SSP implementation plan
	7. Develop the State Safety System description, including the description of interfaces among entities
Phase 4	8. Develop and implement all (4) SSP components
	9. Develop or update, approve and publish the SSP documentation
	10. Update the NASP (National Aviation Safety Plan)
Phase 5	11. Periodical assessment of the identifies safety risks by analyzing the safety information generated by the SSP
	12. Review the progress towards achieving safety objectives and monitor safety performance





4th phase will develop the 4 SSP components and related documentation, from legislation to tools for SSCA and industry

1. Set-up SSP framework
2. Conduct SSP gap analysis
3. Define SSP implementation plan
4. **Implement the SSP**
5. Ongoing monitoring and continuous improvement

1. Develop and implement the **4 SSP components***
    1) State Safety Policy and Safety objectives
    2) State Safety risk management
    3) State safety assurance
    4) State safety promotion

2. Develop or update, approve and publish the SSP documentation, including the **SSP Top-Level Exposition Document**

    (This step may be extended over a longer period due to the timeframe for approving and publishing legislative, regulatory and/or organizational changes related to safety management)

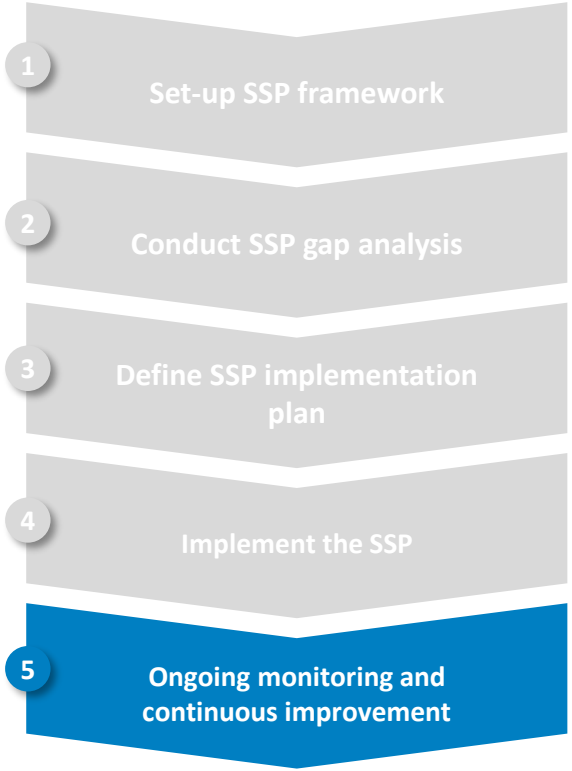
3. Update the **National Aviation Safety Plan (NASP)** to include significant State aviation risks and actions planned to address them

Outputs

- → **SSP Exposition Document**
- → SSP related documentation
- → NASP (National Aviation Safety Plan)

* *Note: based on the SSP Exposition Document presented in slide #16*

5th phase will consolidate continuous improvement based on communication and monitoring



1. Once the SSP has been implemented, SSP Management team, on behalf of Cambodia, should **periodically assess its identified safety risks** by analysing the safety information generated by the SSP
   - → The analysis should be carried out by using USOAP SSP PQs during the SSP implementation period
   - → This analysis will support the identification of emerging issues
2. Cambodia should also review its progress towards **achieving its safety objectives** and their continued relevance, and should **monitor the safety performance** and continuously update, amend or develop and improve the SSP

Outputs & benefits

- → Effective communication
- → Implemented procedures and tools
- → Increase of the level of USOAP EI
- → Enhance safety performance of the overall civil aviation system

** Note: based on the SSP Exposition Document and approved plan during phase 3*

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Cambodia (working session #1)

1. Preliminary analysis for the SSP establishment and implementation status in Cambodia
2. **Introduction to the SSP Exposition Document template**
3. Recommended actions

SSO

SSP

SSP Exposition Document should be structured in on two parts plus appendices with templates and forms

Part 1 General

- Purpose of this document
- Introduction to Cambodia SSP
- Cambodia challenges and priorities
- Cambodia aviation system description. Size and complexity of the national industry

Part 2 SSP Components

Component 1: State safety policy and objectives

- Cambodia safety legislative framework
- CE1 – Primary aviation legislation
- CE2 – Specific operating regulations
- CE3 – State system and functions
- CE4 – Qualified technical personnel
- CE5 – Technical guidance, tools, and provision of safety critical information

Component 2: State safety risk management

- CE6 – Licensing, certification, authorization and/or approval obligations
- SMS obligations
- Accident and incident investigation
- Hazard identification and safety risk assessment
- Management of safety risks including CE8 “Resolution of safety issues”

Component 3: State safety assurance

- CE7 – Surveillance obligations
- State safety performance
- Management of change

Component 4: State safety promotion

- Internal communication and dissemination of safety information
- External communication and dissemination of safety information

Appendices

1. Cambodia Safety Policy & Objectives
2. Letter of commitment for the SSP implementation
3. SSP coordination group framework

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Cambodia (working session #1)

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3. **Recommended actions**

The ARISE+ Project recommends that the SSCA/State implement the actions listed below related with the SSP implementation

		Priority
#1	**Review the primary aviation legislation:** Ensure that the legislation in place empower the various State aviation authorities to perform their roles related to the SSP implementation	
#2	**SSP Gap Analysis and SSP Implementation Plan:** 1. SSCA to complete de SSP GAP Analysis within the following 60 days thought the ICAO iSTARS app 2. Upon completion of the GAP Analysis, elaborate the SSP implementation roadmap with the GAPs identified in the previous step and the CAP corresponding to the not satisfactory foundational PQs	
#3	**Customize the SSP Exposition Document and engage with other aviation authorities:** SSCA to review the SSP Exposition Document upon the conclusion of the GAP analysis, and: 1. Coordinate the signing, promulgation, and enactment of Appendix I of the SSP Exposition document 2. coordinate the signing, promulgation, enactment of Appendix II of the SSP Exposition document	
#4	**SSP Working Groups:** 1. SSCA to coordinate and create the National Safety Committee with the stakeholders identified in the SSP Exposition Document 2. SSCA to create, empower, and implement the SSP Implementation Team within the SSCA in accordance with the SSP Exposition Document	
#5	**Enforce and share the SSP Exposition Document:** 1. SSCA to finalize the SSP Exposition Document as a formal SSCA Policy 2. SSCA to share the SSP Exposition Document with all aviation authorities and other stakeholders within Cambodia	

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Option / No action required Recommendation Strong Recommendation

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