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AGENDA ITEM 8: CAPACITY DEVELOPMENT AND IMPLEMENTATION

UPDATES ON IMPLEMENTATION OF ASIA-PACIFIC REGIONAL TRAINING COOPERATION FRAMEWORK

(Presented by the Regional Cooperation Mechanism Task Force)

SUMMARY

This paper provides updates on the progress of the implementation of the Regional Training Cooperation Framework (RTCF), which was endorsed by DGCA/58. It outlines the initiatives being undertaken by the RTCF Working Group under the Regional Cooperation Mechanism Task Force (RCM TF). The paper calls for the active participation of States and Administrations, and industry in the initiatives.

UPDATES ON IMPLEMENTATION OF ASIA-PACIFIC REGIONAL TRAINING COOPERATION FRAMEWORK

1. INTRODUCTION

1.1 The 59th Conference of the Directors-General of Civil Aviation Conference Asia and Pacific Regions (DGCA/59) in October 2024 noted the progress on the implementation of the Regional Training Cooperation Framework (RTCF) developed under the Regional Cooperation Mechanism Task Force (RCM TF).

1.2 The Conference also encouraged States / Administrations, civil aviation training academies and industry to support its key initiatives which included the ICAO APAC Regional Training Symposium and the regional Train-the-Trainer Programme (TTP).

2. DISCUSSION

2.1 The RTCF Working Group was established in August 2024 to implement key initiatives identified under the framework to meet regional training needs. The initiatives include an annual regional training symposium, a regional TTP, a regional training needs survey and a regional training compendium. The terms of reference for the Working Group are as follows:

a) Coordinate and work out details to implement the identified initiatives under the RTCF;

b) Review and propose additional coordination activities under the Framework; and

c) Monitor the progress of initiatives and review their effectiveness.

2.2 The RTCF Working Group is led by Singapore as Chair with the Republic of Korea and the United States as Vice Chairs. At present, the working group comprises 35 members from 18 States / Administrations.

ICAO APAC Aviation Training Symposium

2.3 The inaugural ICAO APAC Regional Training Symposium (RTS) was held from 16 to 17 July 2025 in Singapore and with the theme "*Enhancing Training Cooperation – Building Human Capital for the Sustainable Development of Civil Aviation*". The RTS is an international forum to exchange best practices and experiences in human resource development and aviation training. Over 500 Directors-General of Civil Aviation, academics as well as experts and professionals in aviation training and human resource development attended the event. The RTS is jointly organised by Singapore and ICAO, with Indonesia, the Philippines and Thailand providing input on the programme development and marketing.

2.4 Discussions at the RTS underscored the importance of strengthening regional training cooperation and explored various approaches to build a sustainable pipeline of aviation professionals to meet the evolving needs of the global aviation sector. The ICAO TRAINAIR PLUS Programme was highlighted as an important platform to enhance global training standards and collaboration, and to build capabilities of the region. The RTS also noted the unique challenges faced by Pacific Small Island Developing States (PSIDS) in developing their aviation workforce. States and industry at the Symposium were encouraged to commit to collaboration in training initiatives and sustained investment in training and development, through initiatives such as the regional train-the-trainer programme. (TTP).

2.5 In conjunction with the RTS, Singapore and ICAO jointly organised the inaugural Asia-Pacific Youth for Aviation (YFA) Programme from 14 to 18 July 2025 in Singapore in support of the ICAO Next Generation of Aviation Professionals (NGAP) initiative. 36 youths (aged between 18 to 25) from the region attended the programme, where they discussed the future of aviation and their role in

it. The programme also included group projects, site visits and engagement sessions with the ICAO Secretary General and senior aviation leaders.

Regional Train-the-Trainer Programme

2.6 The regional TTP seeks to build a pipeline of ICAO qualified instructors in the Asia Pacific region who can serve as instructors for the region, to better meet the training needs of States / Administrations. The regional TTP aims to develop at least 6 ICAO qualified instructors between 2025 and 2026.

2.7 In 2024, ICAO requested States / Administrations to nominate candidates for the regional TPP. 124 prospective instructors have been nominated by 21 States for the TPP, with the bulk of these prospective instructors (106 of them) having completed a Government Safety Inspector (GSI) course in 2023 and 2024. These courses were conducted by ICAO in partnership with the United States Federal Aviation Administration (FAA) and Boeing. Among the 124 prospective instructors, 2 (1 GSI-PEL and 1 GSI-AIR) have become ICAO qualified instructors.

2.8 States / Administrations have contributed towards the regional TTP. These include the ICAO TIC held in Singapore from 23 to 27 June 2025, with upcoming TICs to be held in September 2025 in the Republic of Korea as well as in China and Singapore in 2026. The Republic of Korea will also conduct a GSI-PEL course in Q2' 2026 while China will hold a GSI-PEL course in September 2025 with upcoming GSI-OPS and GSI-AIR courses (Q4 2025 or 2026). Civil aviation authorities are urged to support prospective instructors' qualification process and participation in GSI courses slated through 2026 to identify additional high-potential candidates for the pipeline.

2.9 Recognizing the very limited number of ICAO certified instructors based in the region, it is important to highlight an urgent requirement for scaling up certification activities to meet the region's oversight needs and establish a sustainable, multi-domain instructor network.

Training Needs Analysis (TNA) Survey in the APAC

2.10 The Survey was conducted online amongst the APAC States till 23 May 2025 by the ICAO State Letter issued on 27 Feb 2025. A total of 35 States/ Administrations responded showing an over 85% of response rate. The United States of America led the analysis, supported by the Philippines, and Vietnam, aiming to provide a comprehensive picture of training conditions, capability trends, and pain points within the region, so that it helps the region and Member States better design and deploy training and capacity building programmes for the enhancement of aviation safety.

2.11 The questionnaire asked 38 questions in 3 parts – Part I. Implementation of Training Plan, Part II. Aviation Professional Training (the Next Generation of Aviation Professionals), and Part III. Any Other Comments. Key observations in the results analyzed are:

a) Highest training needs are identified in Air Navigation Services (ANS), Personnel Licensing and Training (PEL), and Aircraft Operations (OPS);

b) Human and financial resource gaps are the primary roadblocks to safety-related training - lack of subject matter experts, insufficient funding, lack of qualified instructors, and limited opportunities for on-the-job training in the order of responses;

c) Primary expectations for ICAO assistance include provision of on-the-job training opportunities, subject matter experts, training materials, and funding support;

d) Most States foresee only modest increases in inspector numbers and remain largely dependent on external training for the next 3-5 years;

e) There is a strong call for hands-on and expert-led support mechanisms to build competence locally; and

f) While inspector training is paramount, operational roles, especially controllers and pilots, remain critical workforce priorities.

2.12 The comprehensive report is in **Attachment A** to this paper for States/ Administrations to take reference when planning and implementing the training activities for their aviation personnel.

2.13 In response to the TNA Survey Report and Recommendations, the ICAO APAC Regional Office has developed the Regional Training Program Proposal (RTPP), featuring a dual-track approach: an Interim Training Program (Program 1) to address immediate needs, and a Self-Sustaining Training Program (Program 2) to build long-term capacity. This parallel implementation ensures both urgent training gaps are met and a sustainable framework is established, reflecting the region's current conditions and future aspirations. The RTPP was presented at the 7th RTCF Working Group Meeting; details are provided in **Attachment B.**

ICAO APAC Training Compendium

2.14 To provide States / Administrations with reference materials for training and capacity-building opportunities in the region, a sub-team under the RTCF Working Group led by the Republic of Korea developed an APAC Training Compendium which covered the following areas:

a) List of APAC Aviation Training Institutes/Academies;

b) List of ICAO training courses for inspectors and instructors;

c) List of fellowship/scholarship courses provided by member States; and

d) List of ICAO-certified training instructors to be shared in the region.

2.15 A total of 13 States / Administrations provided information on their training courses and instructors. The compendium was first released at the RTS in Singapore. The full edition of the APAC Training Compendium is available in **Attachment C**.

3 LESSONS LEARNT AND WAY FOWARD

3.1 The region has seen stronger coordination on aviation training since the RTCF was established and there is scope to deepen cooperation. The TTP is a strong example of how the region has harnessed resources to improve access to training. Improved resource sharing and coordination among States / Administrations and training institutions are critical to maximising training outcomes. Leveraging shared resources and expertise, as demonstrated by collaborative regional training initiatives, reduces duplication of efforts, optimizes available funding, and promotes equitable access to training opportunities.

3.2 Addressing instructor shortages through structured certification pathways is vital for sustainable capacity-building. Ensuring a continuous pipeline of qualified and ICAO-certified instructors will directly support States / Administrations in meeting their oversight responsibilities and in maintaining a high standard of aviation safety.

3.3 The 3-week duration for GSI courses appears to pose challenges for States / Administrations with limited personnel availability and financial resources. To mitigate this, some measures could be taken into consideration by ICAO, e.g. (ex, modularising the GSI curriculum into shorter, intensive blocks combined with extended OJT and virtual coursework, allowing participants to complete core modules over multiple shorter sessions while maintaining course integrity and reducing operational disruptions). It may be beneficial for ICAO to consider more frequent reviews of the GSI course content to ensure it remains aligned with current industry practices and emerging needs, given the evolving nature of civil aviation.

4 ACTION BY THE CONFERENCE

4.1 The Conference is invited to:

a) Note the outcomes from the ICAO APAC Regional Training Symposium, regional Train-the-Trainer programme, APAC Training Needs Survey and ICAO APAC Training Compendium which are key initiatives under the Regional Training Cooperation Framework

b) Encourage States/ Administrations to commit to sustained investment in training and development, to uphold Member States' safety oversight obligations and responsibility under the Chicago Convention;

c) Encourage States/Administrations to implement the recommendations by the APAC Training Needs Analysis Survey Report and the RTCF Working group to support ICAO APAC RO to finalize and implement the APAC Regional Training Programme Proposal as a strategic roadmap for resource pooling, duplication avoidance, and maximizing cooperative capacity-building impact across the APAC region;

d) Encourage States / Administrations to refer to the ICAO APAC Training Compendium for training and capacity-building opportunities in the region; and

e) Encourage cooperation between States / Administration and ICAO to work on measures to enhance participation of ICAO GSI courses by exploring various measures, including modularising modules or allowing virtual coursework.

— END —

Comprehensive Report Outline:

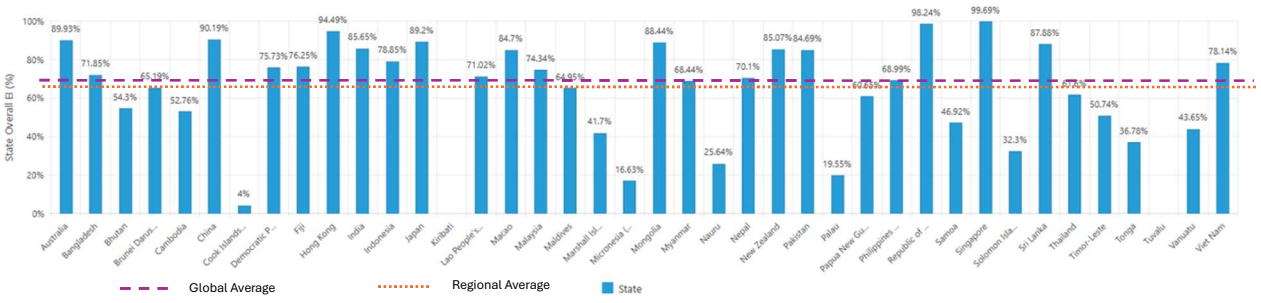
Regional Training Needs Analysis in the Asia Pacific Region

1. Executive Summary

This report presents the comprehensive findings from the regional Training Needs Analysis (TNA) survey conducted across the Asia Pacific region. With data collected from 35 out of 41 States/Administrations for a response rate of over 85%, the survey aimed to identify the current and evolving training needs within the aviation sector, focusing primarily on enhancing aviation safety, especially for Government Safety Inspectors (GSIs) and new generation aviation professionals. The survey results identified key skill gaps, training requirements, and challenges faced by States/Administrations in implementing effective training programs. The analysis was led by the United States of America with significant support and contribution from the Philippines and Vietnam. Key findings reveal shortages in Aircraft Operations (OPS), Air Navigation Services (ANS), and Personnel Licensing (PEL) inspectors, compounded by resource constraints such as inadequate funding and a lack of qualified instructors. This report focuses on the urgent need for strategic interventions and proposes recommendations to address these challenges. These include the development of comprehensive training programs, enhanced resource allocation, investing in local training infrastructure, promotion of training self-sufficiency, and enhanced collaboration between the States, regional bodies, and international organizations. This report will serve as a valuable resource for stakeholders in addressing the evolving training needs in the Asia-Pacific region.

2. Background

2.1 The Asia Pacific region is a dynamic and rapidly evolving area for civil aviation, presenting unique challenges and opportunities for enhancing aviation safety through targeted training and capacity building. It is one of the few regions with ICAO Universal Safety Oversight Audit Programme (USOAP) Effective Implementation (EI) scores lower than the global average with 66.6%, comparing 70.3% for global when this report was developed.



Graphic 2.1. EI overview indicates APAC's USOAP EI scores are lower than global average

2.2 In terms of Critical Elements (CE), the Asia-Pacific region had lower EI scores for all categories as compared to the global average. By CE, Resolution of Safety Concerns (CE-8) and Technical Personnel Qualifications and Training (CE-4) had the lowest scores at 49% and 54.98% respectively. The lower-than-average score for CE-4 has been identified as an area of improvement within the Asia Pacific Regional Aviation Safety Plan.

2.3 In response to these needs, the Training Needs Analysis (TNA) survey was initiated as part of the TNA Roadmap, agreed upon in August 2024 during the first meeting of the Regional Training Cooperation Framework Working Group (RTCF WG) under the Regional Cooperation Mechanism Task Force (RCM TF). The RTCF WG aims to systematically identify the common and evolving training needs of aviation professionals across the region.

2.4 The TNA survey serves as a tool in updating regional training need trends, focusing initially on aviation safety areas. This phase will inform subsequent efforts to address additional domains of civil aviation. The insights gathered from the survey results will culminate in the development of a Regional Training Program Proposal (RTPP), providing stakeholders with valuable guidance for designing and deploying effective training support tailored to the specific needs of aviation frontline professionals.

2.5 Key target groups for training enhancement include Government Safety Inspectors (GSIs), Commercial Pilots, Aircraft Maintenance Mechanics and Engineers, Cabin Crew, Air Traffic Controllers (ATCs), Flight Operations Officers, and Remotely Piloted Aircraft Systems (RPAS) Pilots/Operators. These roles are critical to maintaining and advancing aviation safety standards across the region.

2.6 This initiative is aligned with the strategic objectives of ICAO, supporting APAC States in fulfilling their commitments under the Beijing Declaration 2018 and the Delhi Declaration 2024.

2.7 The need for capacity building in APAC is underscored by the anticipated surge in air traffic, as highlighted in the recent joint Passenger Traffic Report by Airports Council International (ACI) World and ICAO. With global passenger traffic projected to exceed 12 billion by 2030, driven predominately by growth in APAC, the demand for skilled aviation professionals is set to rise significantly. By 2052, the region's influence in global air travel is expected to further solidify, with countries like China, India, Indonesia, and routes within APAC poised to dominate the top global markets, emphasizing the critical need for comprehensive training and capacity building to enhance safety and efficiency.

3. Purpose of the Report

3.1 The primary purpose of this report is to present the findings from the recently conducted regional TNA survey, which was distributed to 41 Asia Pacific States/Administrations[1]. This report provides a comprehensive analysis of the survey data results, identifying key trends, gaps,

[1] Afghanistan, Australia, Bangladesh, Bhutan, Brunei Darussalam, Cambodia, China, Hong Kong China, Macao China, Cook Islands, Democratic People's Republic of Korea, Fiji, India, Indonesia, Japan, Kiribati, Lao People's Democratic Republic, Malaysia, Maldives, Marshall Islands, Micronesia, Mongolia, Myanmar, Nauru, Nepal, New Zealand, Pakistan, Palau, Papua New Guinea, Philippines, Republic of Korea, Samoa, Singapore, Solomon Islands, Sri Lanka, Thailand, Timor Leste, Tonga, Tuvalu, Vanuatu, Viet Nam

and actionable recommendations. It is designed to serve as a foundational document for stakeholders, guiding collaborative efforts in capacity building and promoting a safer and more efficient aviation environment in the region.

3.2 The insights garnered from this survey are intended to inform the development of a comprehensive RTPP. This proposal will guide stakeholders in identifying key areas of concern and opportunities for the effective design and deployment of training support. The ultimate goal is to enhance the competencies of aviation frontline professionals, including GSIs, Commercial Pilots, Aircraft Maintenance Mechanics and Engineers, Cabin Crew, ATCs, Flight Operations Officers, and RPAS Pilots/Operators.

3.3 By aligning with the strategic objectives of ICAO and supporting the commitments made by APAC States under the Beijing Declaration 2018 and the Delhi Declaration 2024, this report seeks to foster a collaborative approach to capacity building within the region. It provides actionable recommendations that address the identified training needs and challenges, ensuring that the Asia Pacific aviation sector can meet the evolving demands of safety and efficiency.

3.4 Ultimately, this report serves as a foundational document for regional stakeholders, offering a roadmap to strengthen aviation safety through targeted training initiatives. It underscores the importance of harmonized efforts and regional cooperation in addressing the critical skill gaps and resource needs that have been highlighted through the survey responses.

4. Survey Methodology

4.1 To ensure a comprehensive understanding of the training needs across the Asia Pacific region, a detailed methodology was used to analyze survey responses received from 35 out of the 41 States/Administrations ('respondents') surveyed. This approach was structured to systematically categorize and interpret data, providing actionable insights for developing a RTPP.

4.2 The survey consisted of 38 questions divided into three parts: Part I focused on the Implementation of Training Plans, Part II addressed Aviation Professional Training for the Next Generation of Aviation Professionals, and Part III offered space for any additional comments. The survey was designed to capture a broad range of training-related issues, including skill development, resource needs, and training delivery methods.

4.3 Upon receiving responses, each submission was meticulously reviewed to identify key patterns and findings. Responses were categorized into thematic areas, enabling a focused analysis of skill gaps, resource requirements, and implementation challenges. This thematic approach facilitated the identification of cross-cutting trends and commonalities across different States, enhancing the depth of the analysis.

4.4 An in-depth analysis was conducted, which included synthesizing findings into cohesive sections and ensuring that all relevant insights were captured. Weekly team meetings were convened to discuss findings, address challenges, and refine thematic categories, ensuring comprehensive coverage of all survey responses.

4.5 Following the synthesis of data, a draft outline for the report was developed, highlighting identified needs and potential focus areas for training efforts. Initial data-driven recommendations were formulated. The team collaborated to refine these recommendations, focusing on clarity and feasibility.

4.6 The draft report underwent multiple rounds of refinement to integrate detailed analysis and supporting data. Consistency and coherence across sections were ensured through team review sessions. Visual aids and summaries were created to enhance the presentation of findings, making the report accessible and impactful.

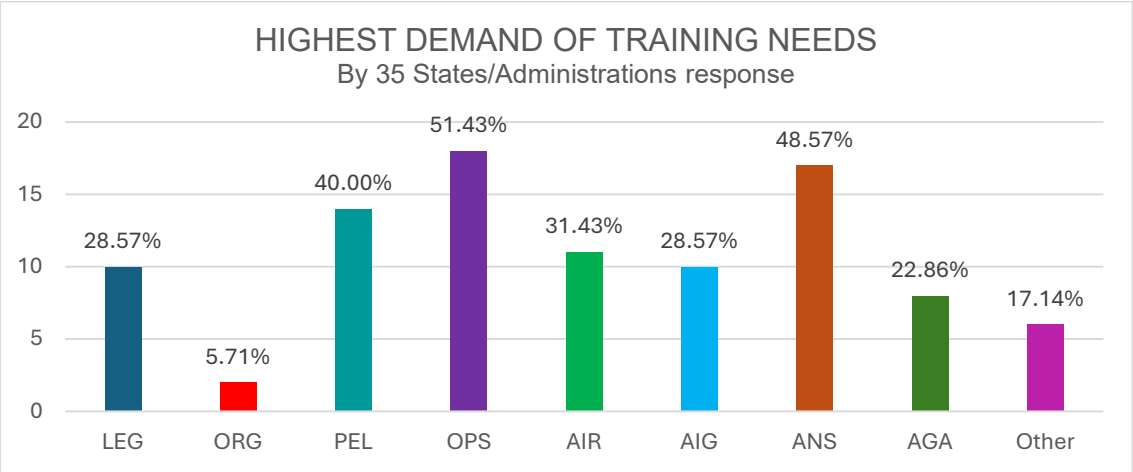
4.7 The final stages involved a polishing of the report to articulate insights and recommendations clearly, alongside a thorough review of visual aids for clarity and impact. Additional steps included expert consultations with both the analysis team and the ICAO Asia and Pacific Regional Office (ICAO APAC RO) to validate the findings and ensure the report's excellence and relevance to stakeholders.

4.8 This structured methodology not only ensured a high-quality analysis but also actionable recommendations, aligned with the strategic objectives of ICAO and the commitments of APAC States. Through this approach, the report aims to serve as a valuable resource for addressing the evolving training needs in the region's aviation sector.

5. Key Findings

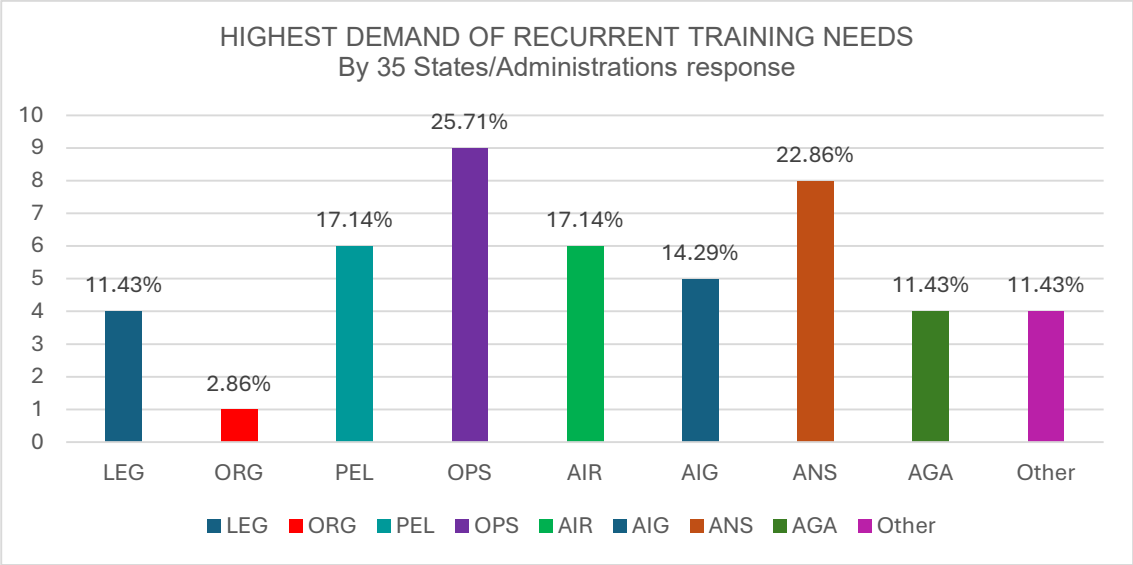
5.1 The survey results highlighted significant skills gaps, resource constraints, and barriers to effective training implementation. While many respondents have recognized their training needs and have developed plans to address them, others still lack formal strategies, indicating a need for targeted guidance and support. The core findings below emphasize the urgency for capacity building, with specific emphasis on developing a self-sustaining training ecosystem that addresses both immediate and long-term workforce demands.

6. Core Finding 1: Skill Gaps and Training Requirements



Graphic 6.1. Training Needs Infographic (with OPS, PEL and ANS emerging as Top 3)

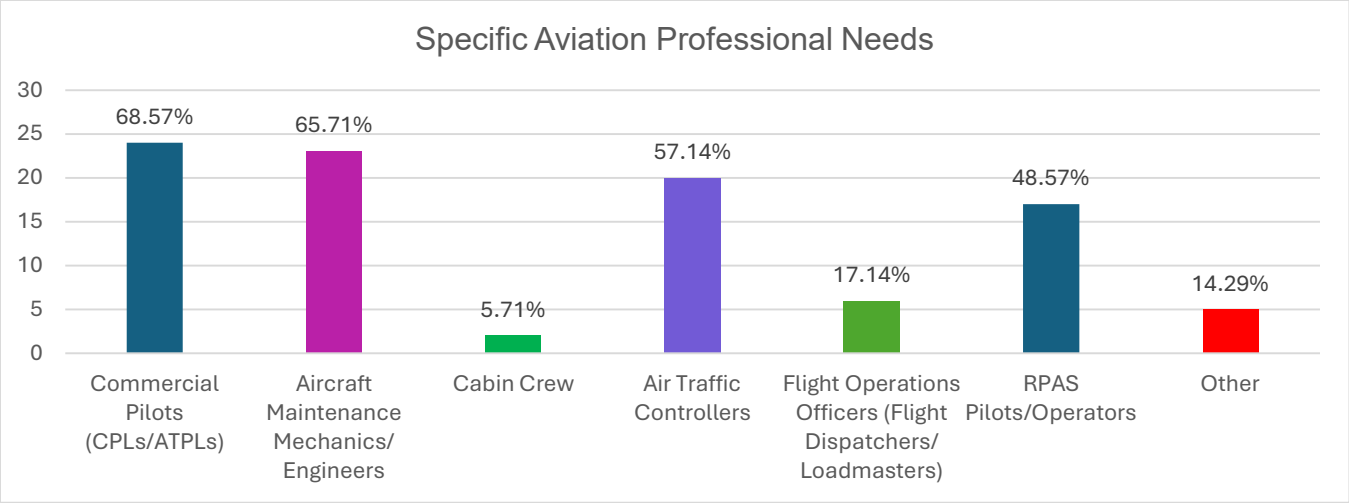
6.1 The survey results identify the top three focus areas where their State/Administration has the highest training needs for their inspectors. The results showed that OPS was the most demanded area with 18 out of 35 respondents identifying it as a high-demand area, which translates to approximately 51.4%, ANS at 48.6% with 17 respondents, and PEL at 40.0% with 14 respondents. A significant majority, 65.7% of States/Administrations, have existing training plans, indicating a strong awareness of training needs and a proactive approach to addressing them. Nonetheless, 12 out of 35 respondents lack a training implementation plan, suggesting a need for guidance in developing and executing these plans.



Graphic 6.2. Top 3 Recurrent Training Needs Infographic

6.2 In terms of recurrency training, the primary areas identified are OPS with 9 out of 35 respondents identifying it as a high-demand area, which translates to approximately 25.7%, ANS was highlighted by 8 out of 35 respondents (22.9%), PEL was identified by 6 out of 35 respondents (17.1%), and Airworthiness of Aircraft similarly (17.1%). Despite these needs, only 14 of 35 APAC States/Administrations currently express a need for recurrency training, indicating that most respondents may already be addressing these needs through existing programs or that they view initial training as a more pressing concern. This also highlights that recurrent training should be considered when developing training plans.

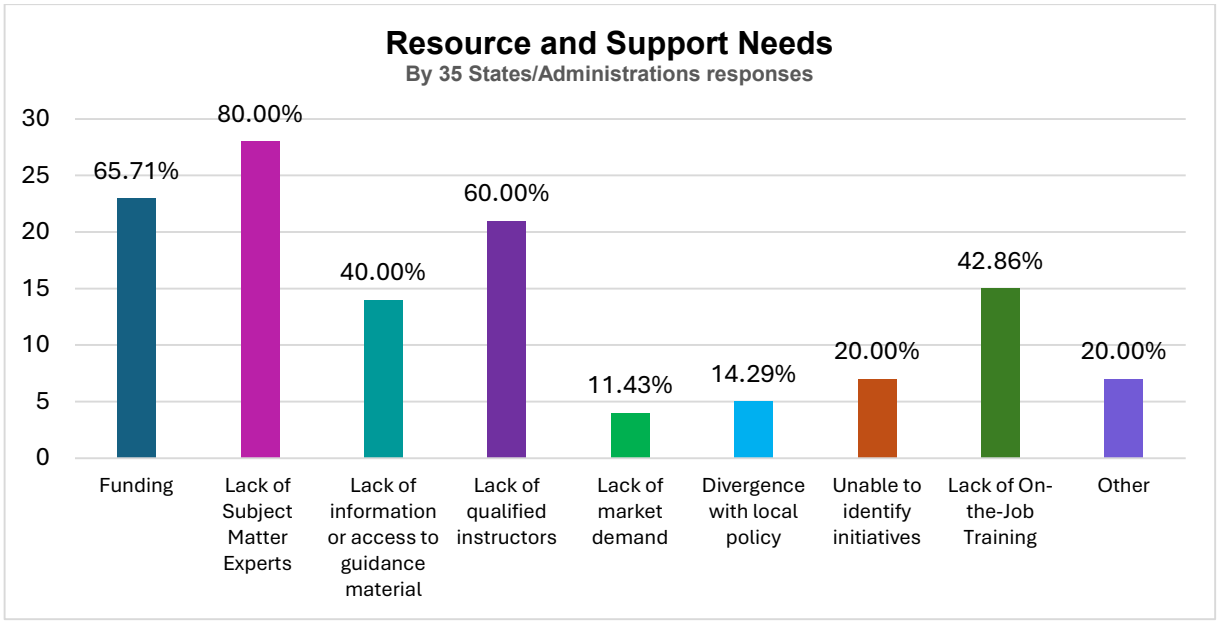
6.3 The results also highlight significant skill shortages in various GSI disciplines. Most respondents anticipate needing 0-5 new GSIs in OPS, PEL, and ANS over the next three years, with some expecting this number to rise above ten within five years. Specifically, 74% foresee a need for 0-5 new inspectors in ANS within three years, with 17% expecting 6-10 inspectors within five years. In OPS, 60% anticipate needing 0-5 new inspectors, 17% foresee 6-10 inspectors, and 23% expect 10-15 inspectors over five years. For PEL, 86% project a need for 0-5 new inspectors in three years, with 14% anticipating 6-10 inspectors in five years. These projections underscore the need for enhanced training efforts in regulatory roles.



Graphic 6.3. Specific Aviation Professional Needs Infographic

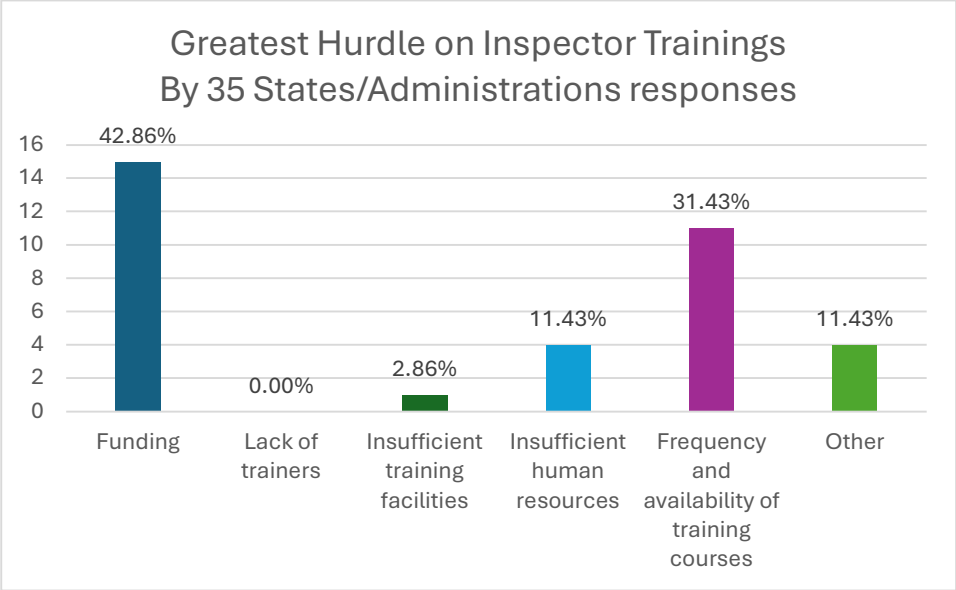
6.4 The demand for specific aviation professionals is also notable, with 24 respondents indicating a need for Commercial Pilots, 23 for Aircraft Maintenance Engineers, and 20 for ATCs over the next five years. However, local training capacity is insufficient, with approximately half of the States/Administrations only able to train 0-49 pilots and maintenance engineers, and 0-24 ATCs annually. RPAS training capacity is particularly in need, with 16 States/Administrations able to train fewer than 24 individuals per year and 16 unable to quantify their output. This reveals a critical mismatch between workforce needs and the training pipeline, emphasizing the urgency for expanded training infrastructure and capacity building.

7. Core Finding 2: Resource and Support Needs



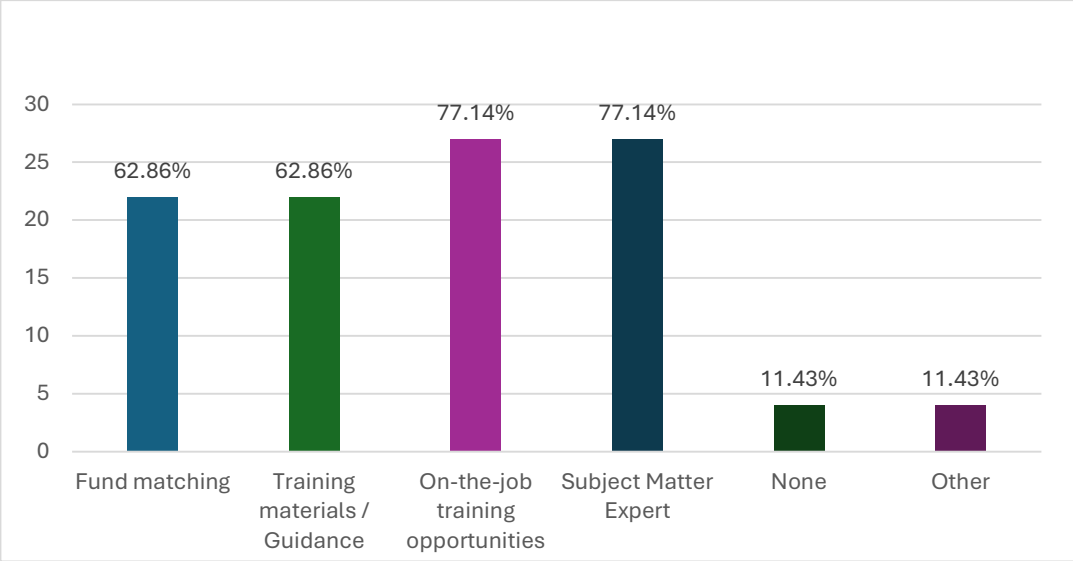
Graphic 7.1. Resources and Support Needs Infographic

7.1 The survey results indicate significant resources and support needs for safety-related training programs. The main challenges include a lack of SMEs (80.0%), funding (65.7%), and a shortage of qualified instructors (60.0%). Additionally, 14 out of 35 respondents reported inadequate training facilities, insufficient guidance materials and standardized training, infrequent training courses, and ineffective training plan implementation as significant pain points.

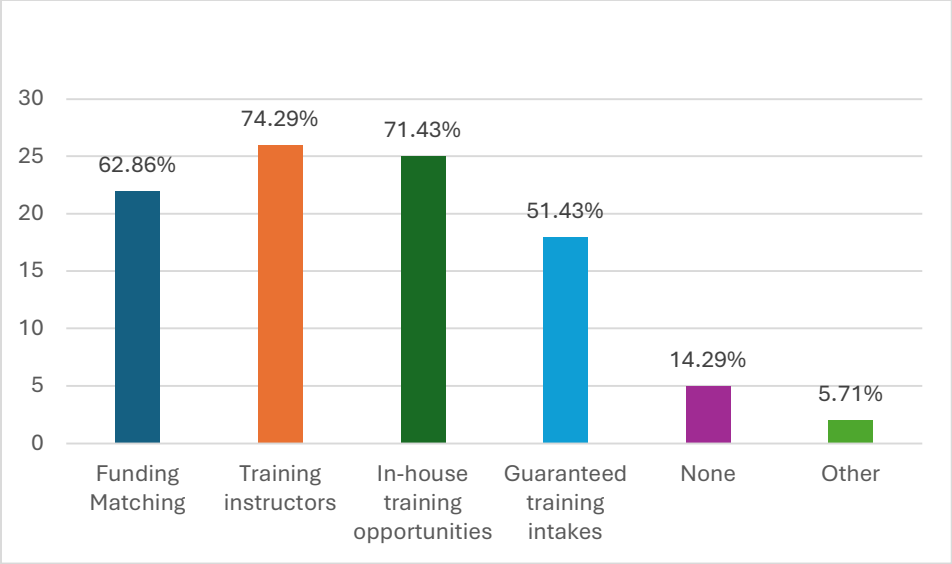


Graphic 7.2. Greatest Hurdles to Inspector Training Infographic

7.2 Inspector training faces similar barriers, with funding being the primary obstacle for 15 of the 35 respondents. The limited frequency and availability of training courses, reported by 11 respondents, are linked to the scarcity of qualified instructors, which in turn restricts the number of available training sessions.

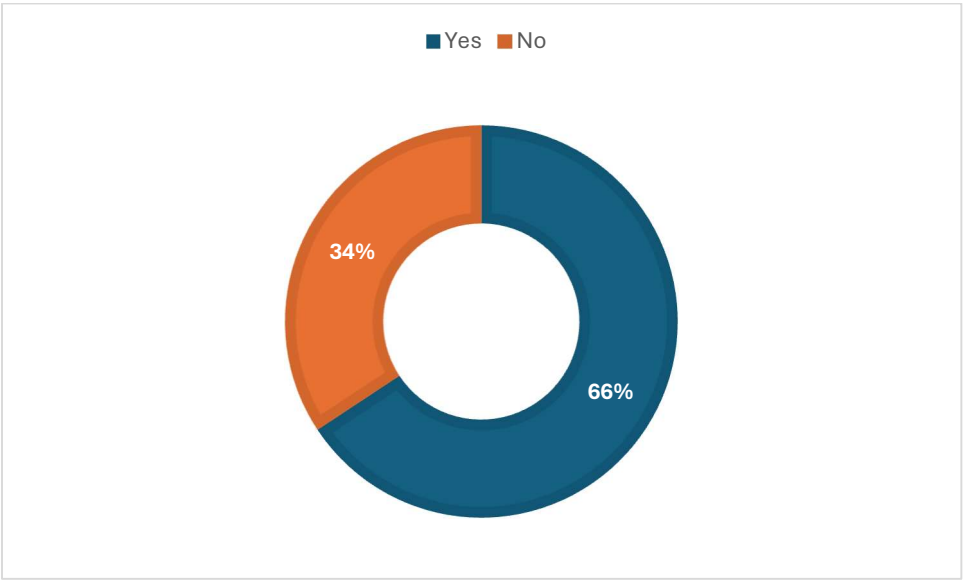


Graphic 7.3. Expected Training Assistance from ICAO by States/Administration responses

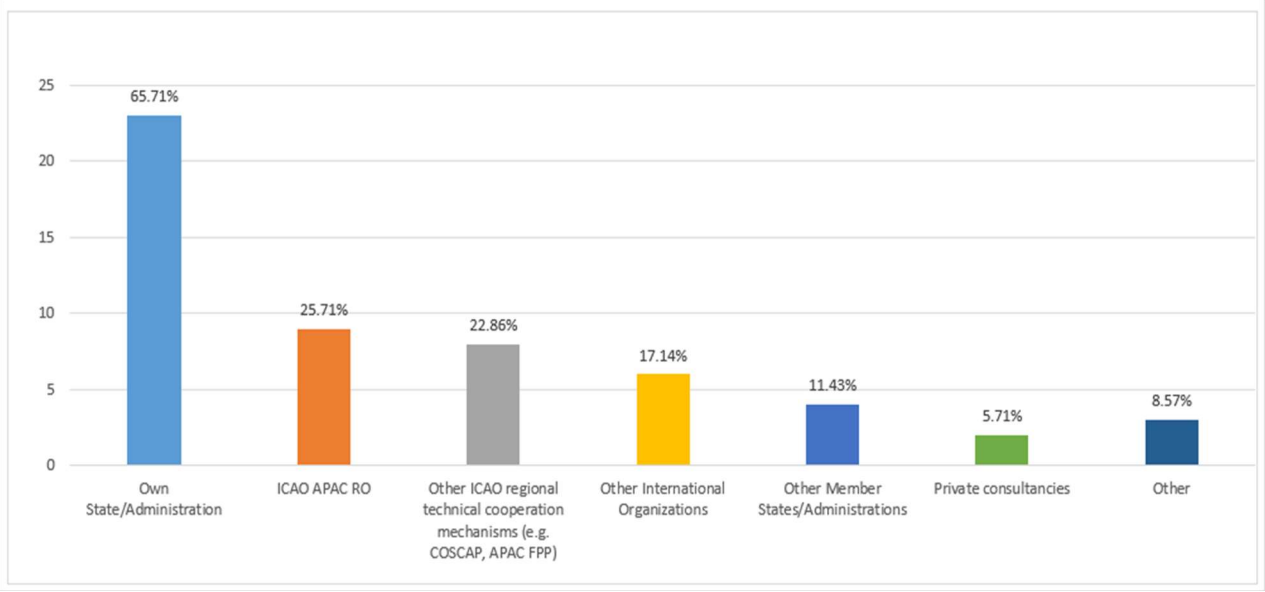


Graphic 7.4. Expected Training Assistance from Organizations other than ICAO by States/Administration responses

7.3 States/Administrations are actively seeking assistance, with 77.1% (27 respondents) looking to ICAO for SMEs and on-the-job training opportunities. Moreover, 62.9% (22 respondents) require fund matching and support with training materials and guidance. Beyond ICAO, 26 respondents (75.3%) are requesting support from other organizations for training instructors, 25 respondents are looking at in-house training opportunities (71.4%), and 22 respondents are seeking funding matching (62.8%).

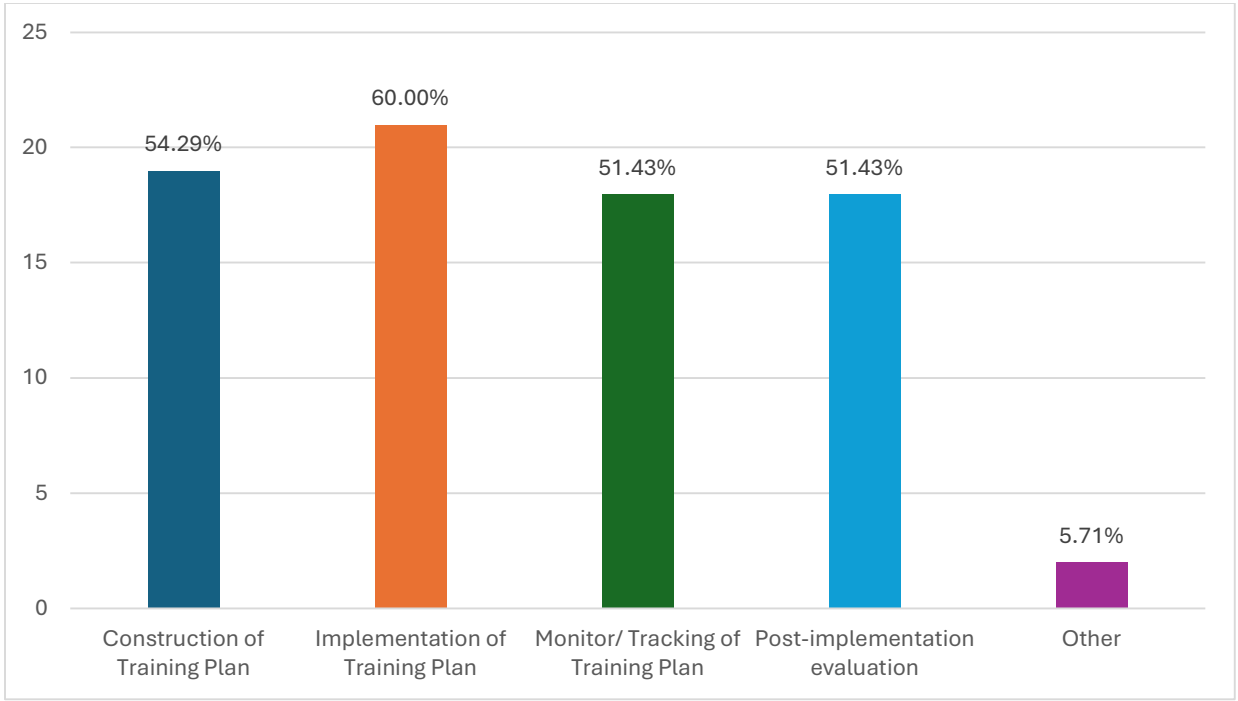


Graphic 7.5 Inspector Training Implementation on States/Administrations



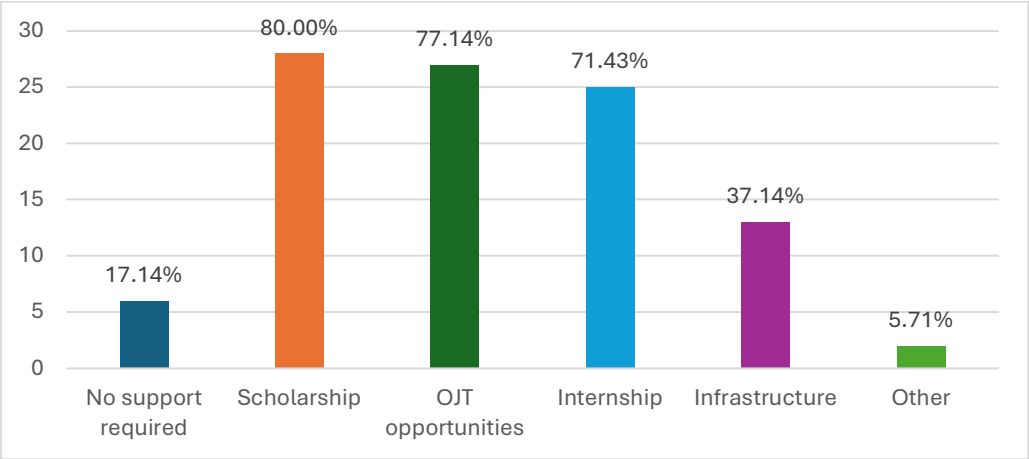
Graphic 7.6 Inspector training implementation support sources

7.4 In terms of training planning and implementation, 65.7% (12 of 35 respondents) of States/Administrations rely on their own administrations for support, with ICAO APAC RO and other ICAO regional mechanisms being secondary sources. Encouragingly, 65.7% of States/Administrations provide support for training implementation, highlighting a positive trend towards achieving organizational goals through leadership support.



Graphic 7.7 Service provided by the advisory/recommending bodies to Inspector Training

7.5 However, 40% to 45% of States/Administrations lack access to services that facilitate training planning and implementation. While 60.0% of States/Administrations have advisory bodies assisting in training plan implementation, only 54.3% receive services for constructing training plans, and 51.4% for monitoring and evaluation.



Graphic 7.8 Expected support from external agencies related to the Next Generation of Aviation Professional

7.6 To address these challenges and develop a self-sustaining training ecosystem, States/Administrations have identified a critical need for external resources and support. Funding, qualified instructors/SMEs, technical infrastructure, and ICAO guidance are top priorities. Scholarships (28 respondents), on-the-job training opportunities (27 respondents), and internships (25 respondents) are particularly sought after, indicating a strong desire for hands-on, capacity-building opportunities.

7.7 Additional comments emphasize the importance of regional collaboration, harmonized frameworks, access to planning tools, training materials, and instructor development programs as essential components of sustainable support mechanisms. These findings highlight the urgency for comprehensive external support to build a robust and self-sufficient aviation training ecosystem in the region.

8. Core Finding 3: Challenges and Barriers to Implementation

8.1 The survey results highlight several significant challenges and barriers to implementing effective training programs. As mentioned in section 6.1, a key issue is that 12 out of 35 respondents (35.3%) do not have existing training plans. While nine (75.0%) of these respondents plan to develop a training implementation plan within the next two years, and 2 respondents (18.2%) foresee this development in three to five years, the absence of current plans poses a challenge in addressing their training needs. One State views this as an urgent matter, intending to develop a plan immediately.

8.2 Further complicating training implementation are obstacles such as a lack of SMEs, as mentioned in section 7.1, limited funding, and a shortage of qualified instructors, particularly for

safety-related and inspector training. To overcome these challenges, 77.1% of respondents are seeking assistance from ICAO, while others are looking for support from additional organizations for training instructors (74.3%), in-house training opportunities (71.4%), and fund matching (62.8%).

8.3 A significant barrier to safety training is the absence of a specialized institute in over half of the respondents (51.4%), which increases the financial burden of accessing training elsewhere. Additionally, local training options for inspectors are limited: only 15 out of 35 respondents offer ANS inspector training, 14 respondents provide Aerodrome inspector training, and 13 out of 35 respondents have training for both OPS and Continuing Airworthiness Inspectors. This limitation contributes to the scarcity of GSIs, highlighting the need for technical and financial support to improve the situation.

8.4 External access to inspector training is primarily hindered by funding constraints, affecting 15 of the 35 States/Administrations. The availability and frequency of training courses are also problematic, linked to the limited number of qualified instructors, which in turn restricts the number of available training sessions.

8.5 States face considerable challenges in achieving training independence. A total of 82% of responses indicate that States/Administrations expect to be under 50% self-sufficient in training within three years, with 48% projecting under 25% self-sufficiency. Even in the medium-term, 45% of respondents anticipate remaining under 50% self-sufficient after five years. This heavy reliance on external systems is due to severe training capacity constraints, including limited funding, a lack of SMEs and instructors, and technical limitations.

8.6 Local training capacity is notably a challenge, with most respondents reporting annual outputs of under 49 across major roles. A significant portion of respondents (24–27%) cannot quantify their training outputs at all, indicating deficiencies in data systems, planning mechanisms, and institutional readiness, particularly for RPAS, ATCs, and dispatchers. These findings underscore the urgent need for strategic planning and enhanced training infrastructure to address these challenges effectively.

9. Core Finding 4: Timelines and Urgency of Needs

9.1 The survey data indicates a significant urgency among States to develop and implement training plans, particularly for key aviation roles. Among the 12 States/Administrations lacking existing training plans, 81.3% (9 out of 12) are aiming to establish such plans within the next 1-2 years, with one State prioritizing this as an immediate task.

9.2 In terms of specific roles, 80% of the respondents are planning to add 0-5 qualified Aerodromes and Ground Aids inspectors over the next three years. This projection reflects the limited availability of local training, as only 14 respondents currently offer training for Aerodromes inspectors. This constraint is expected to persist over the next 3-5 years, with 24 out of 35 respondents anticipating the addition of just 0-5 qualified inspectors in these areas.

9.3 Similarly, 68.6% of respondents (24 out of 35) project a modest increase of 0-5 additional qualified GSIs in the next three years. This is consistent with the limited training opportunities available for PEL, with only 12 respondents currently offering such programs. Looking ahead, 22 out of 35 respondents foresee adding 0-5 GSI instructors within the next five years.

9.4 The survey highlights a broader need for capacity-building within the next three to five years, as many respondents foresee the necessity to recruit and train additional inspectors but currently lack the infrastructure to meet these demands. This urgency is underscored by the finding that over 65% of respondents expect to add only 0–5 ANS inspectors within both the 3- and 5-year outlooks, reflecting limited self-sufficiency in inspector training.

9.5 The region is facing an urgent need for capacity building to maintain regulatory oversight and ensure safe, efficient aviation operations. The most critical aviation professionals required over the next five years include commercial pilots, aircraft maintenance engineers, and ATCs. Addressing these needs will require significant action to build the necessary training infrastructure and capacity in the short-term while working towards greater self-sufficiency in the medium-term. The current low levels of training capacity highlight a pressing need for external support and internal strategic planning to meet the region's growing aviation demands.

10. Identified Trends and Gaps

10.1 Training Plan Development: A significant portion of respondents (35.3%) lack formal training plans, though 81.3% of these States/Administrations plan to develop them within the next 1-2 years, indicating a positive trend toward addressing this gap.

10.2 Resource Constraints: There is a pronounced shortage of SMEs, qualified instructors, and funding, particularly for safety and inspector training programs. This gap is exacerbated by the absence of specialized training institutes in over half of the respondents (51.4%).

10.3 Local Training Capacity: The capacity to train key aviation professionals locally is notably insufficient. For example, only half of the respondents can train a small number of commercial pilots, aircraft maintenance engineers, and ATCs annually. This gap extends to RPAS training, where many States/Administrations lack the ability to quantify their training outputs.

10.4 Self-Sufficiency in Training: A significant reliance on external systems is evident, with 82% of respondents projecting less than 50% self-sufficiency in training within three years. This highlights the need for strategic planning and investment in local training infrastructure.

11. Actionable Recommendations

11.1 Develop Comprehensive Training Plans: Encourage all States/Administrations to formulate and implement robust training plans within the next 1-2 years, providing targeted guidance and resources to those currently without plans.

11.2 Enhance Resource Allocation: Increase funding and support for the recruitment, training, and retention of SMEs and ICAO qualified instructors, focusing on safety-related and inspector training programs.

11.3 Strengthen Local Training Infrastructure: Invest in the development of specialized training institutes and facilities to enhance local training capacity, particularly for critical roles such as ANS, aerodrome inspectors, and RPAS operators.

11.4 Promote Self-Sufficiency: Implement strategic initiatives to increase training self-sufficiency, aiming for at least 50% self-sufficiency across States/Administrations within the next five years.

11.5 Encourage Regional Collaboration: Foster partnerships between States, regional bodies, and international organizations to share resources, best practices, and training materials.

12. Implementation Strategies and Timelines

12.1 Short-Term (1-2 Years):

a) Develop Comprehensive Training Plans:
   - *Strategy:* Organize regional workshops to assist States/Administrations in drafting training plans using standardized templates and guidance documents. Facilitate peer-to-peer learning by connecting States/Administrations with established plans to those developing theirs.
   - *Timeline:* Initiate workshops within the first six months and complete initial drafts of training plans by the end of year one.

b) Enhance Resource Allocation:
   - *Strategy:* Establish a regional funding pool or grant system to support States/Administrations in recruitment, training and retention SMEs and instructors. Encourage private-public partnerships to leverage additional resources and expertise, and explore positive inducements/recognition programs for retention of SMEs and instructors.
   - *Timeline:* Launch the funding pool and partnerships within the first year, with initial funding allocations completed by year two.

12.2 Medium-Term (3-5 Years):

c) Strengthen Local Training Infrastructure:
   - *Strategy:* Conduct a needs assessment to identify gaps in existing infrastructure and prioritize investments. Develop a phased plan for building or upgrading training facilities.
   - *Timeline:* Complete the needs assessment within the first year, and begin infrastructure projects by year two, aiming for significant progress by the end of year five.

d) Promote Self-Sufficiency:

- *Strategy:* Create incentives for States/Administrations to develop in-house training programs and establish/promote certification processes for locally trained personnel. Monitor progress and provide feedback to encourage continuous improvements.
- *Timeline:* Roll out incentives and certification processes by year three, with a target of achieving 50% self-sufficiency across States/Administrations by the end of year five.

12.3 Ongoing Initiatives:

a) Encourage Regional Collaboration:

- *Strategy:* Establish a regional training compendium to facilitate regular communication and collaboration among States/Administrations. Develop an online platform for resource sharing and joint training initiatives.
- *Timeline:* Launch the network and platform within the first year and maintain regular communication and collaboration throughout the implementation period.

12.4 Roles for Stakeholders:

a) ICAO: Provide technical support and resources for plan development, fund allocation, and infrastructure projects.
b) Regional Bodies: Coordinate cross-border training initiatives, facilitate workshops, and manage the regional training network.
c) States: Develop and execute training plans, invest in local infrastructure, and participate actively in regional collaboration efforts.
d) International Organizations and Industry Partners: Contribute resources and expertise that support regional training.

13. Conclusion

13.1 The survey results identify critical gaps and urgent needs in the aviation training sector within the Asia-Pacific region. Addressing these challenges requires a coordinated effort from all stakeholders to invest in capacity building and establish a self-sustaining training ecosystem. By collaborating and leveraging resources effectively, States/Administrations can ensure the development of a skilled workforce to maintain regulatory oversight and support safe and efficient aviation operations.

13.2 Stakeholders are encouraged to prioritize collaboration and investment in aviation training infrastructure, embracing innovation and strategic planning to meet the growing demands of the industry. Together, we can build a resilient and capable workforce that will drive the region's aviation sector forward.

14. Appendices

A. TNA Report List of Acronyms

B. TNA Survey Data and Analysis

Appendix A

TNA Report List of Acronyms

Airports Council International	ACI
Air Navigation Services	ANS
Aircraft Operations	OPS
Air Traffic Controller	ATC
Effective Implementation	EI
Government Safety Inspector	GSI
ICAO Asia and Pacific Regional Office	ICAO APAC RO
ICAO Universal Safety Oversight Audit Programme	USOAP
On-the-Job Training	OJT
Personnel Licensing	PEL
Regional Cooperation Mechanism Task Force	RCM TF
Remotely Piloted Aircraft Systems	RPAS
Regional Training Cooperation Framework Working Group	RTCF WG
Regional Training Program Proposal	RTPP
Subject Matter Expert	SME
Training Needs Analysis	TNA

Appendix B

TNA Survey Data and Analysis

TNA Survey data and analysis derived from the from software is attached for reference.

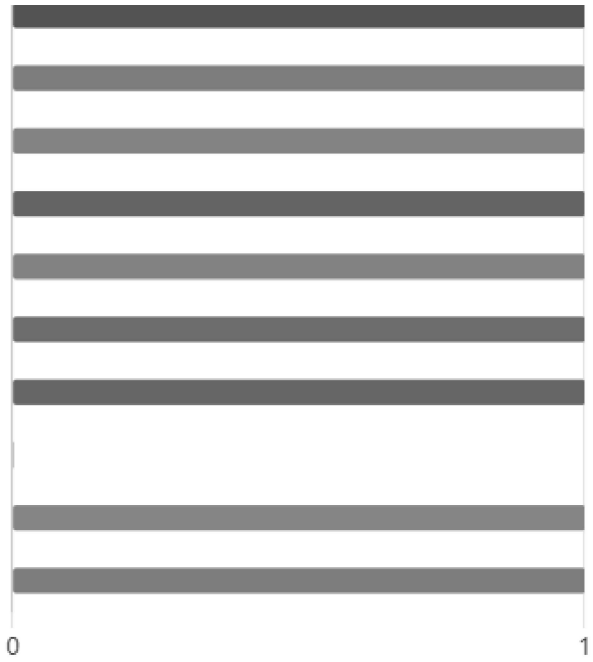
Responses Overview

Active

Responses	Average Time	Duration
35	762:35	146 Days

1. Please select your State/Administration

Afghanistan	1
Australia	1
Bangladesh	1
Bhutan	1
Brunei Darussalam	1
Cambodia	1
China	1
Hong Kong China	1
Macao China	1
Cook Island	0
Democratic People's Republic of Korea	0
Fiji	1
India	1
Indonesia	1
Japan	1
Kiribati	1
Lao People's Democratic Republic	1
Malaysia	1
Maldives	1
Marshal Islands	0
Micronesia	1
Mongolia	1
Myanmar	0
Nauru	1
Nepal	1
New Zealand	1
Pakistan	1
Palau	0
Papua New Guinea	1
Philippines	1
Republic of Korea	1
Samoa	1
Singapore	1
Solomon Islands	1
Sri Lanka	1



Thailand	1
Timor Leste	1
Tonga	1
Tuvalu	0
Vanuatu	1
Viet Nam	1

2. Name of Point of Contact (POC)

35
Responses

Latest Responses
"Ms Susanna Lui"
"Tiamwa Teaiwa"
"National Continous Monitoring Coordinator - Ms. Hannah P..."
• • •

2 respondents (6%) answered Mrs for this question.

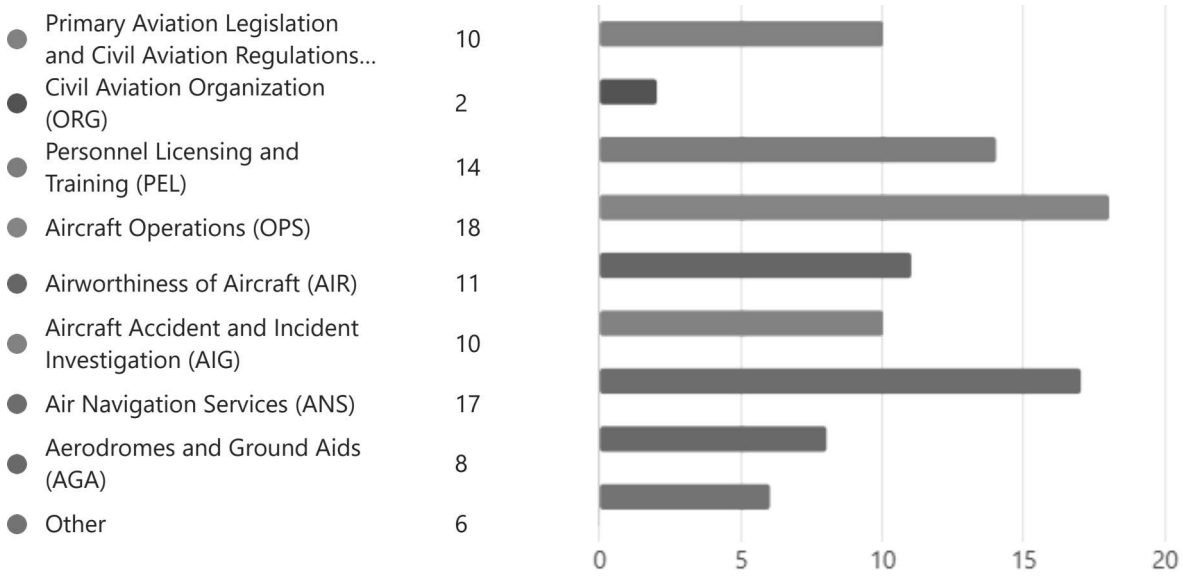
3. POC Email Address

35
Responses

Latest Responses
"snslui@cad.gov.hk"
"ans.ai@mict.gov.ki"
"htopa@casapng.gov.pg"
• • •

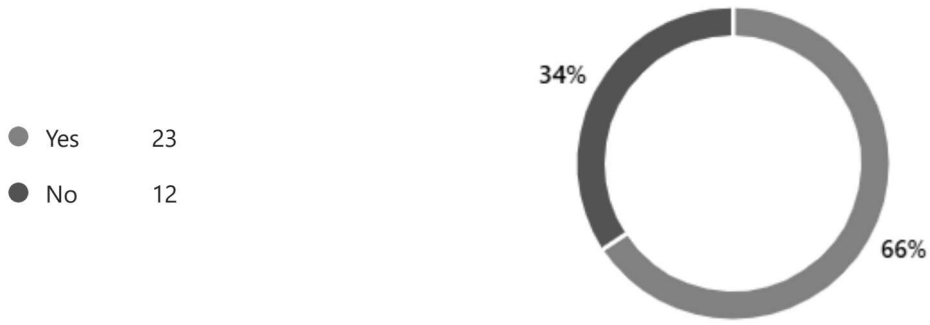
4. Question 1

Please Identify up to three (3) focus areas where your State/Administration has highest training need s.



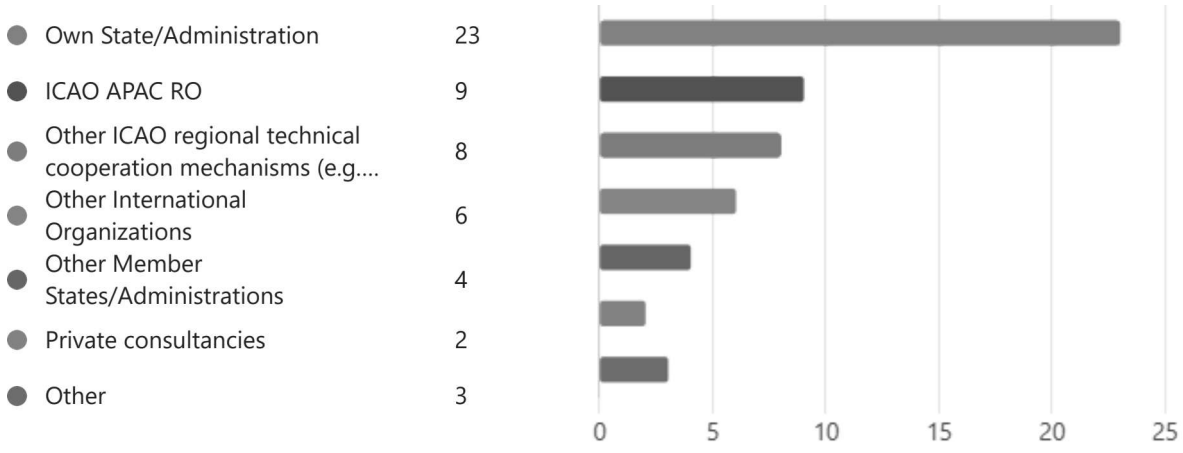
5. Question 2

Does your State/Administration have any existing implementation plans for the identified training ne eds?



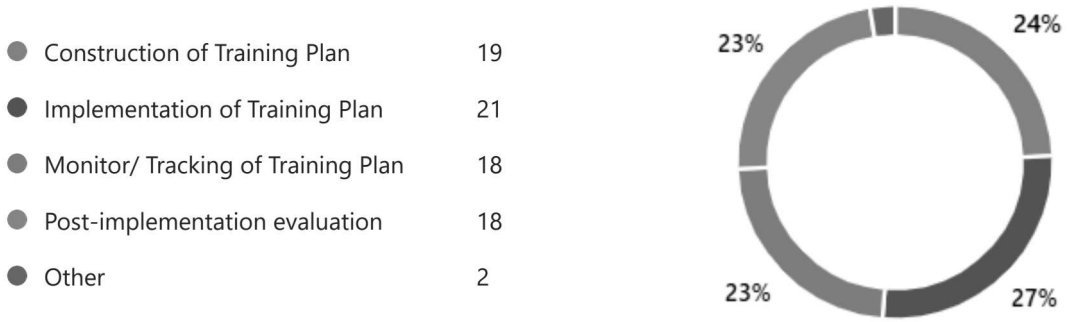
6. Question 3

Who is/are the advisory/ recommending bodies that support your training implementation plans?



7. Question 4

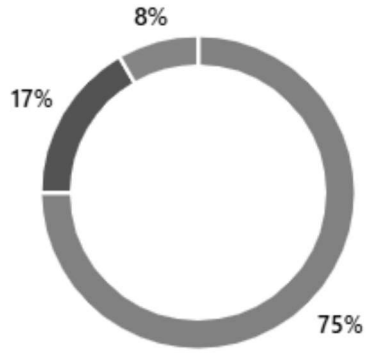
What kind of services would be provided by the advisory/recommending bodies to facilitate the traini ng implementation plan?



8. Question 5

Do you have any intention to develop a training implementation plan?

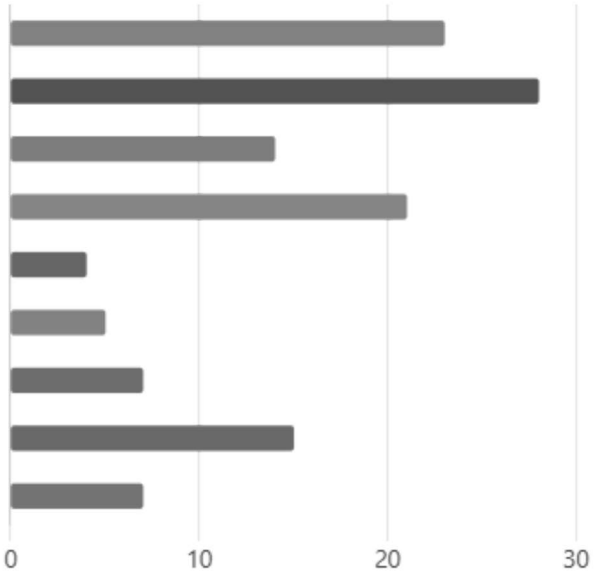
Yes, in coming 1-2 years	9
Yes, in coming 3-5 years	2
Yes, but not within the next 5 years	0
Other	1



9. Question 6

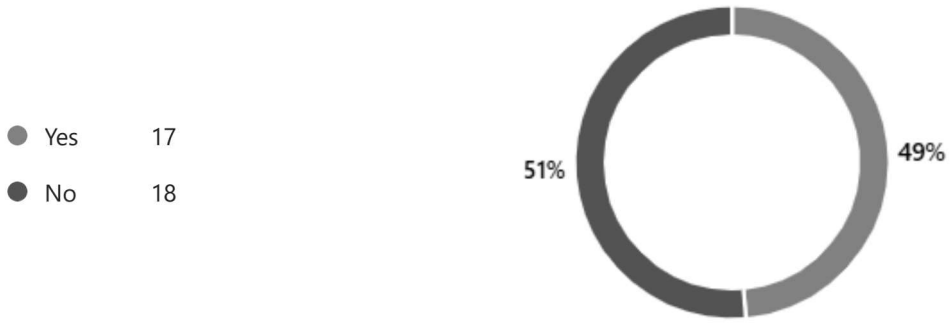
What challenges do you face in implementing any **safety** related training programmes?

Funding	23
Lack of Subject Matter Experts	28
Lack of information or access to guidance material	14
Lack of qualified instructors	21
Lack of market demand	4
Divergence with local policy	5
Unable to identify initiatives	7
Lack of On-the-Job Training	15
Other	7



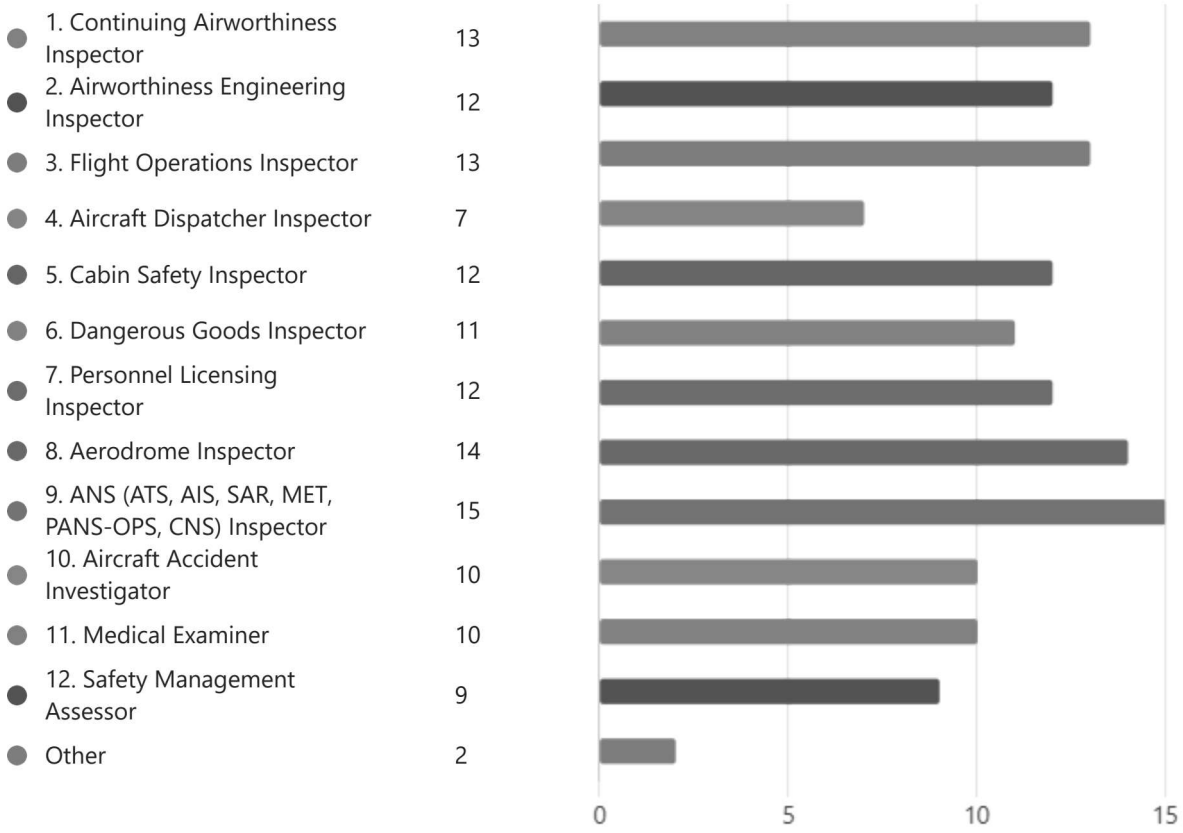
10. Question 7

Does your State/Administration have any specialised institutes or section for safety training?



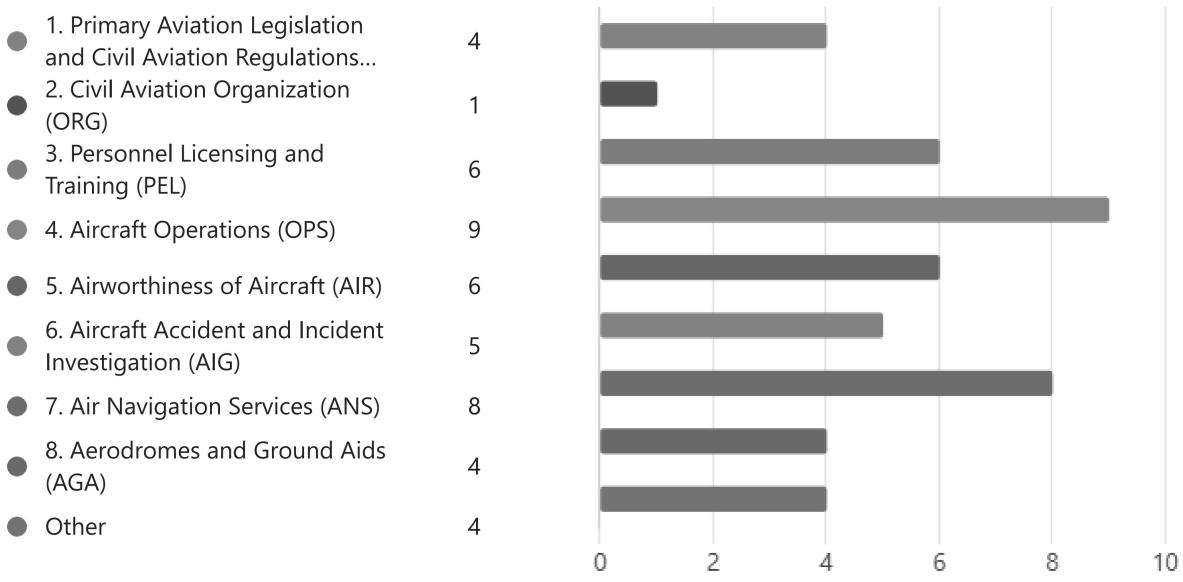
11. Question 8

Please identify the Inspectors training provided within your own State/Administration



12. Question 9

Please Identify up to three (3) focus area where your State/Administration has highest training need s for recurrent training.



13. Question 10

Please provide any weaknesses or pain points regarding **safety** related training in your State/Administration

27
Responses

Latest Responses

"1. Frequency of training courses; 2. Availability of trainees t..."

"qualified trainer on-the job training"

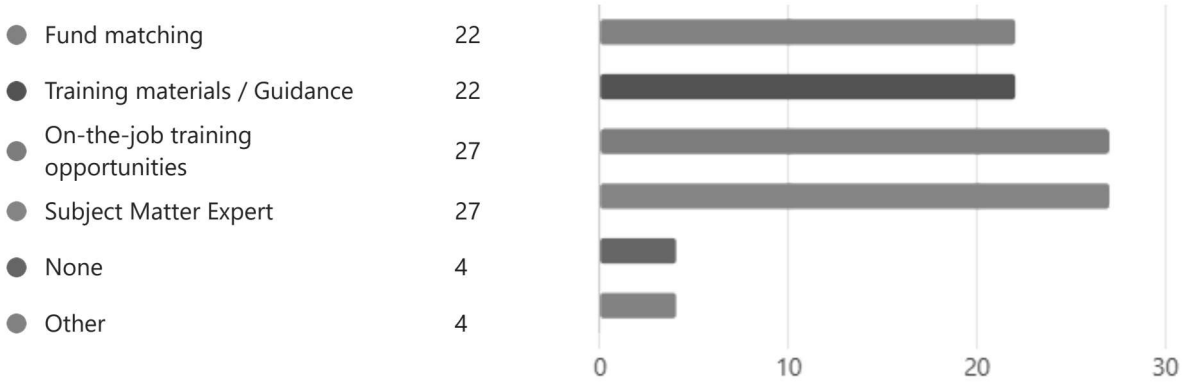
"Individual Training Plans for Safety Inspectors are develope..."

• • •

16 respondents (59%) answered training for this question.

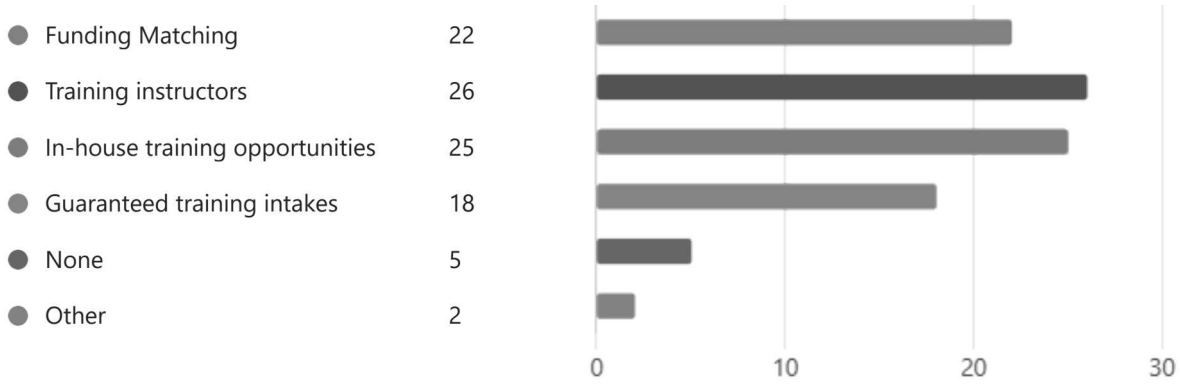
14. Question 11

What kind of training assistance do you expect from ICAO?



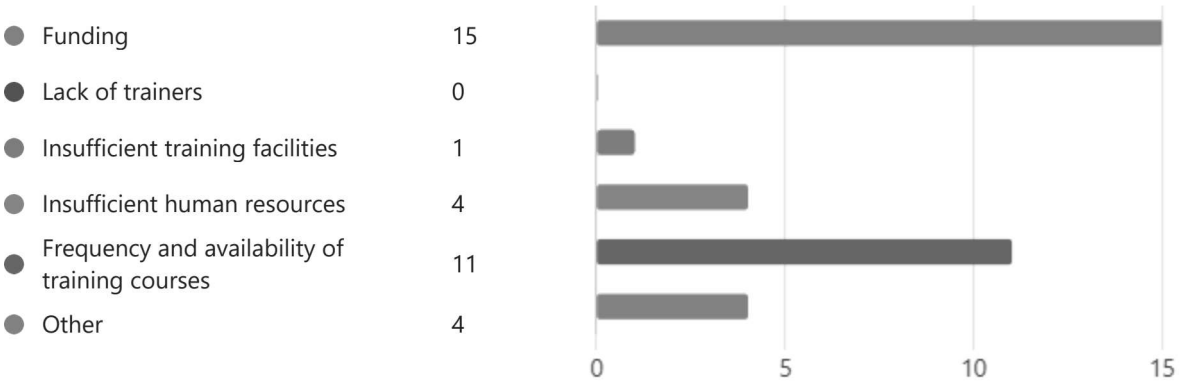
15. Question 12

What kind of training assistance do you expect from organizations other than ICAO?



16. Question 13

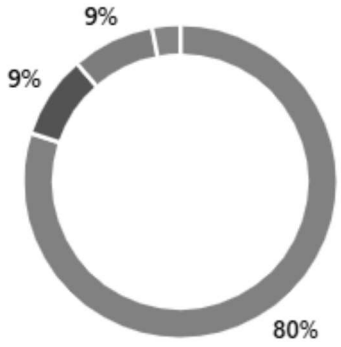
What is the greatest hurdle that hinder your organization from sending staff members to attend ins pector training?



17. Question 14

In 3 years, how many additional qualified inspectors in **Aerodromes and Ground Aids** are expected within your State/Administration?

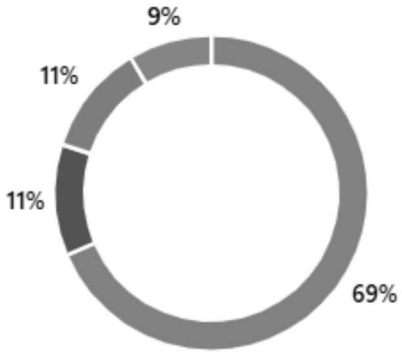
0-5	28
6-10	3
10-15	3
15+	1



18. Question 15

In 5 years, how many additional qualified inspectors in **Aerodromes and Ground Aids** are expected within your States/Administration?

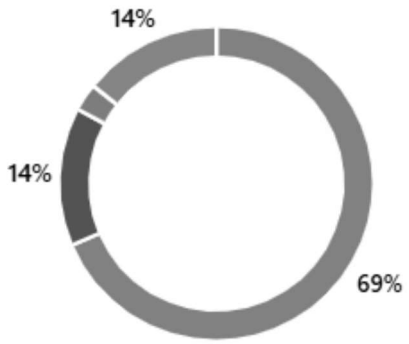
0-5	24
6-10	4
10-15	4
15+	3



19. Question 16

In 3 years, how many additional qualified Government Safety Inspectors (GSIs) in **Airworthiness** are expected within your State/Administration?

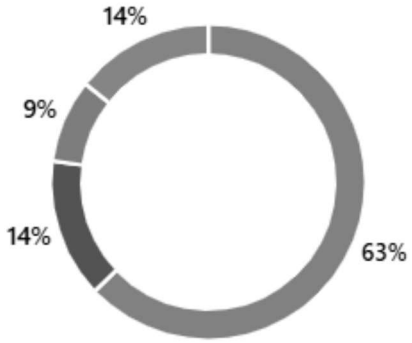
0-5	24
6-10	5
10-15	1
15+	5



20. Question 17

In 5 years, how many additional qualified Government Safety Inspectors (GSIs) in **Airworthiness** are expected within your States/Administration?

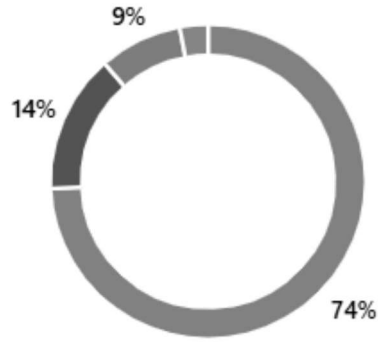
0-5	22
6-10	5
10-15	3
15+	5



21. Question 18

In 3 years, how many additional qualified inspectors in **Air Navigation Service** are expected within your State/Administration?

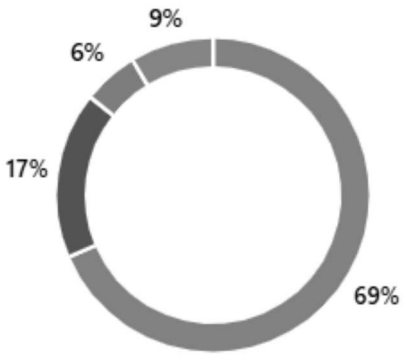
0-5	26
6-10	5
10-15	3
15+	1



22. Question 19

In 5 years, how many additional qualified inspectors in **Air Navigation Service** are expected within your State/Administration?

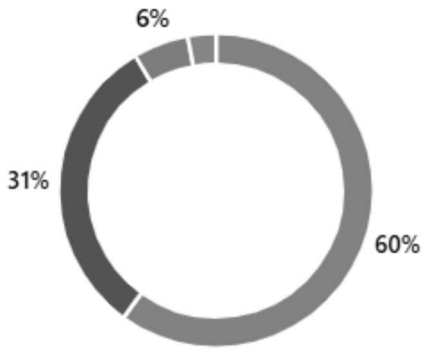
0-5	24
6-10	6
10-15	2
15+	3



23. Question 20

In 3 years, how many additional qualified Government Safety Inspectors (GSIs) in **Operations** are ex pected within your State/Administration?

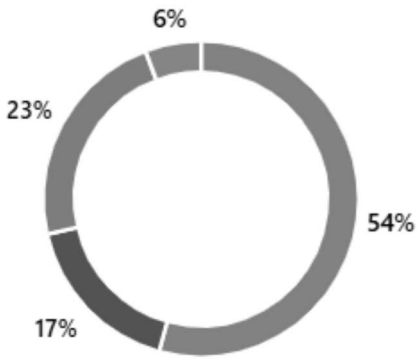
0-5	21
6-10	11
10-15	2
15+	1



24. Question 21

In 5 years, how many additional qualified Government Safety Inspectors (GSIs) in **Operations** are ex pected within your State/Administration?

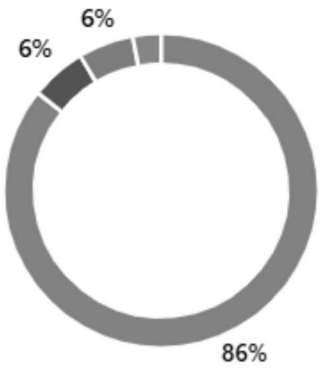
0-5	19
6-10	6
10-15	8
15+	2



25. Question 22

In 3 years, how many additional qualified Government Safety Inspectors (GSIs) in **Personnel Licensing** are expected within your State/Administration?

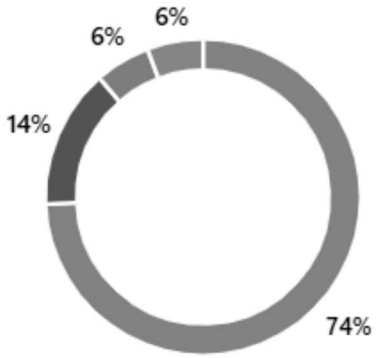
0-5	30
6-10	2
10-15	2
15+	1



26. Question 23

In 5 years, how many additional qualified Government Safety Inspectors (GSIs) in **Personnel Licensing** are expected within your State/Administration?

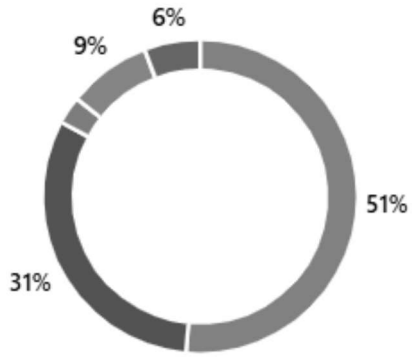
0-5	26
6-10	5
10-15	2
15+	2



27. Question 24

In 3 years, to what extent would your State/Administration be self-sufficient in conducting the inspe ctor training?

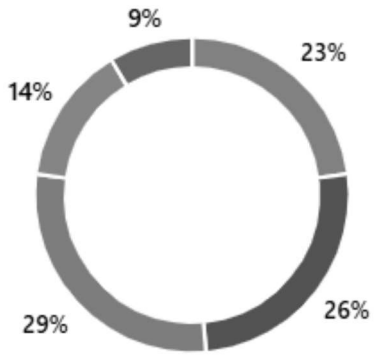
0-25%	18
26-50%	11
50-75%	1
75-99%	3
100%	2



28. Question 25

In 5 years, to what extent would your State/Administration be self-sufficient in conducting the inspe ctor training?

0-25%	8
26-50%	9
50-75%	10
75-99%	5
100%	3



29. Question 26

What kind of resources would assist your State/Administration to expedite the process to achieve a self-sufficient training ecosystem?

35
Responses

Latest Responses

"Nil assistance required"

"funding for invited trainers or for training our staff in certai... "

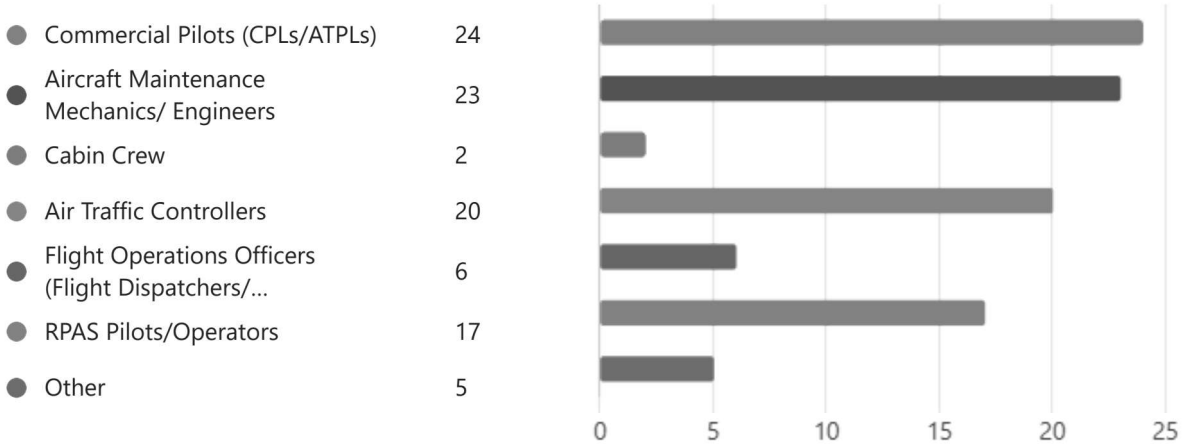
"Development of Course Syllabus/Curriculum and Training of..."

• • •

19 respondents (54%) answered training for this question.

30. Question 27

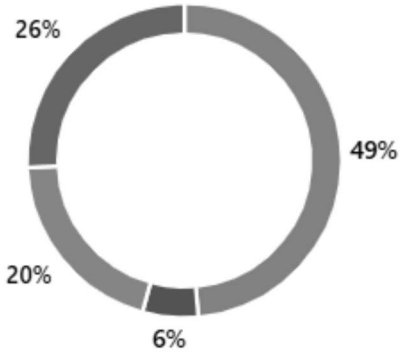
Identify up to three (3) most needed aviation operation professional for your State/Administration in the next 5 years.



31. Question 28

How many new commercial pilots can your State/Administration train locally per year?

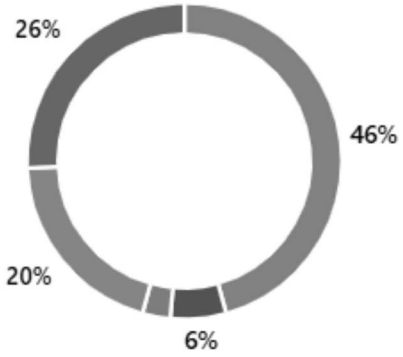
0-49	17
50-99	2
100-249	0
250+	7
Unable to quantify	9



32. Question 29

How many new aircraft maintenance mechanics/engineers can your State/Administration train locall y per year?

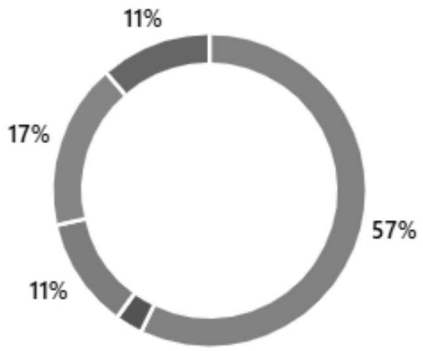
0-49	16
50-99	2
100-249	1
250+	7
Unable to quantify	9



33. Question 30

How many new air traffic controllers can your State/Administrations train locally per year?

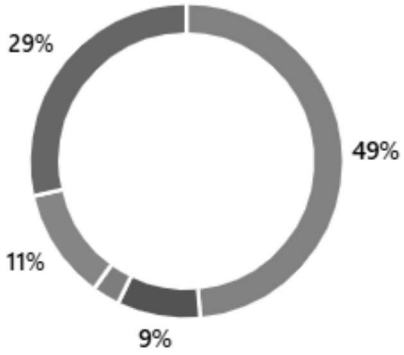
0-24	20
25-49	1
50-99	4
100+	6
Unable to quantify	4



34. Question 31

How many new cabin crew can your State/Administration train locally per year?

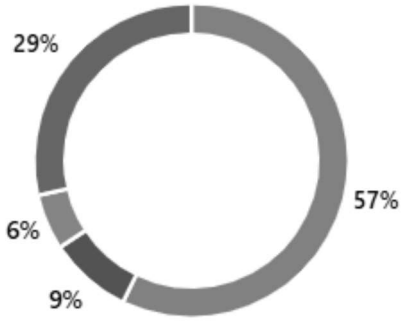
0-99	17
100-199	3
200-499	1
500+	4
Unable to quantify	10



35. Question 32

How many new flight operations officers (flight dispatchers/ loadmasters) can your State/Administration can train locally per year?

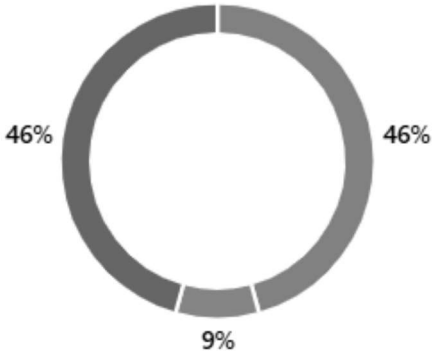
0-49	20
50-99	3
100-249	0
250+	2
Unable to quantify	10



36. Question 33

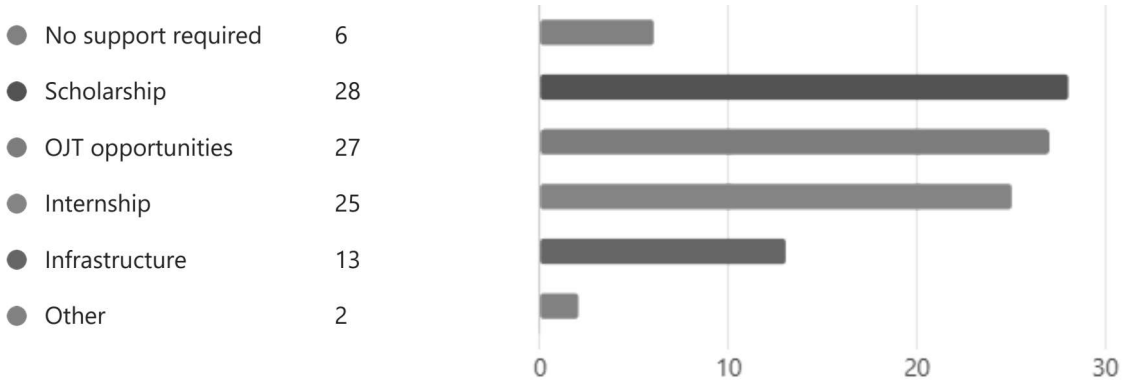
How many new professional RPAS pilots/operators can your State/Administration train locally per year?

0-24	16
25-49	0
50-99	0
100+	3
Unable to quantify	16



37. Question 34

Please specify the expected support from external agencies related to the Next Generation of Aviati on Professional in your State/Administration.



38. Question 35

Please provide any other information or comments that will contribute towards enhancing existing t raining frameworks in the region to better address your State/Administration's needs.

28
Responses

Latest Responses

"Nil comment"

"if the training can be designed according to the small island..."

"1. ICAO to provide more technical and funding assistance t... "

• • •

23 respondents (82%) answered training for this question.

ICAO

ASIA-PACIFIC

REGIONAL TRAINING PROGRAM

PROPOSAL (RTPP)

Prepared by:
Regional Training Cooperation Framework (RTCF) Working Group, 2025

Regional Training Program Proposal on Asia-Pacific Aviation Safety

Background

The global aviation industry faces persistent challenges, including rapid technological advancements, evolving regulatory frameworks, and a continuous demand for skilled professionals. In recognition of these complexities, a comprehensive Regional Training Needs Assessment (TNA) survey was conducted across the Asia-Pacific region. This TNA survey was initiated as part of the TNA Roadmap, agreed upon in August 2024 during the first meeting of the Regional Training Cooperation Framework Working Group (RTCF WG) under the Regional Cooperation Mechanism Task Force (RCM TF). The RTCF WG aims to systematically identify the common and evolving training needs of aviation professionals across the region. The survey engaging 35 out of 41 States/Administrations aimed to identify critical skill gaps, emerging training requirements, and areas for enhanced professional development within the aviation sector, focusing primarily on enhancing aviation safety. The survey results identified key skill gaps, training requirements, and challenges faced by States in implementing effective training programs. The analysis was led by the United States with significant support and contribution from the Philippines and Vietnam. Key findings reveal critical skill shortages in Aircraft Operations (OPS), Air Navigation Services (ANS), and Personnel Licensing (PEL), compounded by resource constraints such as inadequate funding and a lack of qualified instructors, which are crucial for strengthening regional safety oversight and operational integrity.

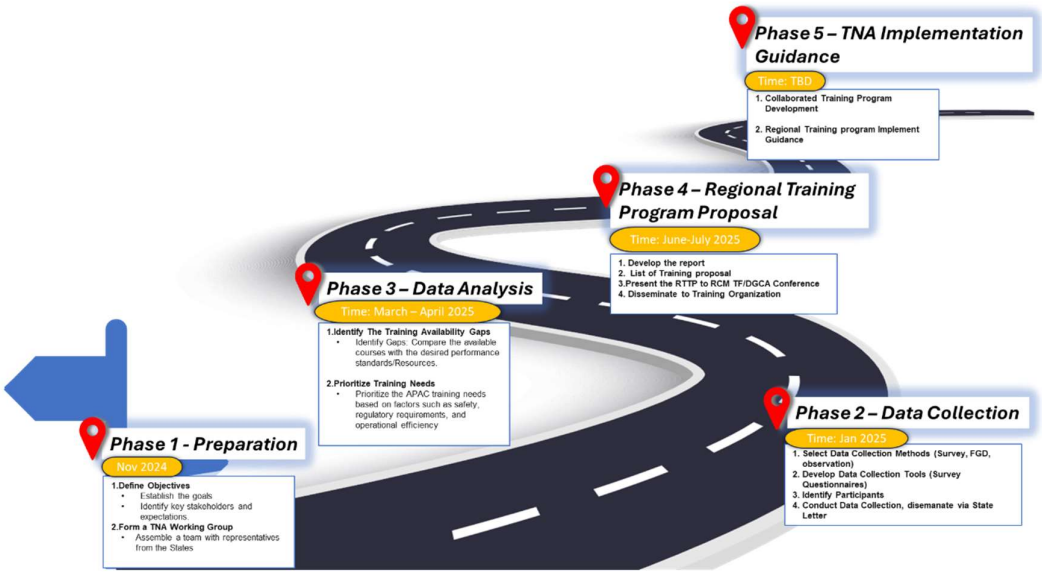
This Regional Training Program Proposal (RTPP) is a high-level document as crystalized action from the TNA survey report, emphasizing the capacity building implementation plan to address the identified gap in tangible manner.

The successful on RTTP implementation would be never apart from the spirit of “collaboration”. Hence, cooperation and support from the related stakeholder become a necessity to hand in hand on realizing a good deed of this training proposal initiative to achieve a better aviation capacity building in the Asia-Pacific region.

Regional Training Cooperation Framework Working Group, 2025

1. Executive Summary

This proposal outlines a regional training program designed to directly address the critical training gaps identified in our recent TNA survey, fostering a more resilient, efficient, and safer aviation ecosystem within the Asia-Pacific Region. Our core objectives are to elevate skill competencies across the aviation workforce, ensuring professionals are equipped with the latest knowledge and practical abilities, and to enhance safety standards by promoting best practices and fostering a robust safety culture. We also aim to promote harmonization in training approaches and content, leading to greater interoperability and mutual recognition of qualifications across the region. Furthermore, the program seeks to foster innovation and adaptability, preparing the workforce for future challenges like digitalization and automation, and ultimately improve operational efficiency by equipping professionals with skills to optimize processes and reduce human error.



Graphic 1.1. APAC TNA Roadmap

This RTPP is specifically designed for a broad spectrum of frontline aviation professionals and key personnel responsible for safety oversight and operational execution within the Asia-Pacific aviation sector. The primary beneficiaries of this program include:

- Government Safety Inspectors (GSIs),
- Commercial Pilots,
- Aircraft Maintenance Mechanics and Engineers,
- Cabin Crew, ATCs,
- Flight Operations Officers, and
- RPAS Pilots/Operators.

The goal is to enhance the competencies of aviation frontline professionals stated above. We also aim to cultivate a robust pool of ICAO qualified instructors and subject matter experts (SMEs) capable of sustaining future training initiatives. Upon successful implementation, we anticipate the following key outcomes:

- Elevated Professional Proficiency: A demonstrable improvement in the technical skills, operational knowledge, and safety awareness of all targeted aviation professionals, leading to more efficient and safer operations.
- Strengthened Regulatory Compliance & Oversight: GSIs will be better equipped with up-to-date knowledge and skills to conduct more effective safety oversight, ensuring higher levels of compliance with national and international aviation standards across the region.
- Reduced Incidents and Accidents: By enhancing the skills and decision-making capabilities of frontline personnel, the program is expected to contribute significantly to a measurable reduction in aviation incidents and accidents, thereby improving overall regional safety statistics.
- Enhanced Operational Efficiency and Reliability: Professionals will be empowered with the knowledge to optimize workflows, mitigate risks, and apply best practices, leading to more reliable flight operations, improved on-time performance, and reduced operational disruptions.
- Increased Regional Harmonization: The standardized curriculum and shared training experiences will foster greater consistency in operational procedures and safety practices across different organizations and nations within the region, promoting seamless cooperation.
- Cultivation of Local Expertise: A core group of highly trained instructors and SMEs will be developed, ensuring the sustainability of high-quality aviation training within the region long after the program's initial phase.
- Future-Ready Workforce: The program will prepare aviation professionals to confidently adapt to emerging technologies, evolving regulations, and new operational complexities, ensuring the region's aviation workforce remains competitive and resilient.
- These outcomes will collectively contribute to a more robust, secure, and advanced aviation ecosystem in Asia-Pacific Region, underpinning sustainable growth and connectivity for years to come.

2. Program Overview

2.1. Introduction:

The global aviation industry, particularly within the Asia-Pacific region, is in a perpetual state of flux. The Asia-Pacific region's aviation sector is essential for global connectivity, economic growth, and industry innovation. Its continued expansion and strategic importance underscore its pivotal role in the future of global aviation. In the other hand, this rapid growth raising risk level, parallelly. This dynamic environment, characterized by rapid technological advancements, evolving international regulations, and an ever-present demand for the highest safety standards, necessitates a proactive and adaptive approach to workforce development. Recognizing this critical need, a previous Training Needs Assessment (TNA) survey was conducted to establish a baseline understanding of existing skill sets and immediate training requirements across various aviation disciplines.

Building upon the insights garnered from that foundational assessment, this current program is specifically designed as a continuation and evolution of that initial effort. Its primary aim is to comprehensively identify and address the current and evolving training needs within the aviation sector, with an unwavering focus on enhancing aviation safety. The aviation landscape is constantly introducing new complexities – from the integration of advanced automation and artificial intelligence into aircraft and air traffic management systems, to the emergence of Remotely Piloted Aircraft Systems (RPAS) and the imperative for sustainable aviation practices. These innovations, while promising, introduce new operational challenges and potential safety risks that demand specialized knowledge and skills not covered by traditional training paradigms.

Furthermore, the TNA results underscored specific areas where regional capabilities could be significantly bolstered to meet global benchmarks for safety oversight and operational excellence. This program, therefore, is not merely about maintaining existing competencies; it is about future-proofing the aviation workforce. It seeks to bridge the gap between current proficiencies and the demanding requirements of a rapidly transforming industry, ensuring that all frontline professionals are not only compliant with the latest standards but are also equipped to anticipate and effectively manage future safety challenges. This continuous investment in human capital is vital to sustaining the region's impressive safety record and fostering a resilient, efficient, and secure air transport system.

2.2. Scope:

This RTPP focuses primarily on enhancing aviation safety by pursuing capacity building on this area.

2.3. Duration:

The implementation of this comprehensive Regional Training Program Proposal is strategically planned to unfold over a five-year period, commencing in 2026 and concluding in 2030. This duration allows for a phased approach to curriculum development, trainer-of-trainers programs, and the progressive rollout of specialized courses across the Asia-Pacific region. The initial phase will focus on establishing a

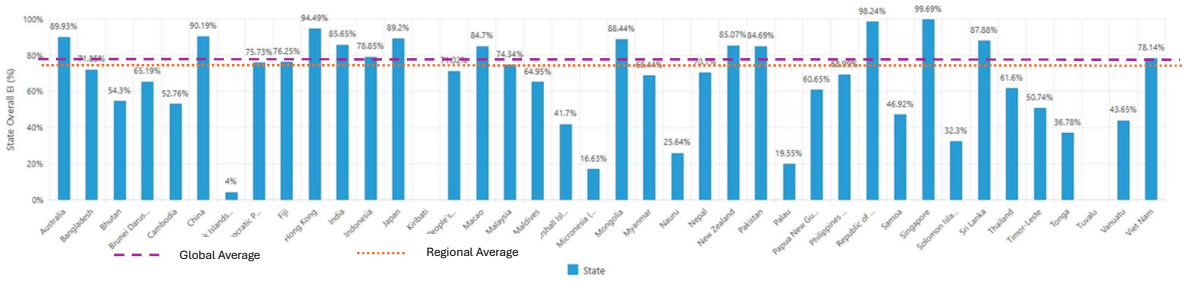
mechanism to implement the RTPP by interconnecting with relevant ICAO programs such as New Generation Aviation Professional (NGAP) Roadmap, Asia-Pacific Inspector Competency Building Framework (ICBF) Manual development as a reference on establishing inspector training system, and accrediting a core group of ICAO instructors and subject matter experts. Subsequent years will see the expansion of course offerings to address more advanced and niche areas identified in the TNA, while continuously evaluating program effectiveness and adapting to emerging industry needs. This three-year timeframe ensures sufficient time for robust planning, effective delivery, and the sustained embedding of enhanced competencies and safety culture throughout the regional aviation workforce.

This comprehensive Regional Training Program is envisioned as a multi-year initiative, with its implementation strategically phased over a three-year period, commencing in 2026 and concluding in 2029. This extended timeframe is critical to allow for systematic development, pilot testing, and full-scale deployment of diverse training modules, ensuring that the curriculum remains responsive to the evolving needs of the Asia-Pacific aviation sector. The three-year duration also provides ample opportunity for robust monitoring and evaluation, enabling continuous refinement of the program to maximize its impact on enhancing competencies, strengthening safety, and building sustainable training capabilities across the region.

3. Regional Training Needs Analysis Report

3.1. Background

The Asia Pacific region is a dynamic and rapidly evolving area for civil aviation, presenting unique challenges and opportunities for enhancing aviation safety through targeted training and capacity building. It is one of the few regions with ICAO Universal Safety Oversight Audit Programme (USOAP) Effective Implementation (EI) scores lower than the global average with 66.6%, comparing 70.3% for global when this report was developed.



Graphic 3.1. Effective Implementation (EI) overview indicates APAC's USOAP EI scores are lower than global

In terms of Critical Elements (CE), the Asia Pacific region had lower EI scores for all categories as compared to the global average. By CE, Resolution of safety concerns (CE-8) and technical personnel qualifications and training (CE-4) had the lowest scores at 49% and 54.98% respectively. The lower-than-average score for CE-4 has been identified as an area of improvement within the Asia Pacific Regional Aviation Safety Plan.

In response to these needs, the TNA survey was initiated as part of the TNA Roadmap, agreed upon in August 2024 during the first meeting of the Regional Training Cooperation Framework Working Group (RTCF WG) under the Regional Cooperation Mechanism Task Force (RCM TF). The RTCF WG aims to systematically identify the common and evolving training needs of aviation professionals across the region.

The TNA survey serves as a tool in updating regional training need trends, focusing initially on aviation safety areas. This phase will inform subsequent efforts to address additional domains of civil aviation. The insights gathered from the survey results will culminate in the development of a Regional Training Program Proposal (RTPP), providing stakeholders with valuable guidance for designing and deploying effective training support tailored to the specific needs of aviation frontline professionals.

Key target groups for training enhancement include Government Safety Inspectors, Commercial Pilots, Aircraft Maintenance Mechanics and Engineers, Cabin Crew, Air Traffic Controllers (ATCs), Flight Operations Officers, and Remotely Piloted Aircraft

Systems (RPAS) Pilots/Operators. These roles are critical to maintaining and advancing aviation safety standards across the region.

This initiative is aligned with the strategic objectives of ICAO, supporting APAC States in fulfilling their commitments under the Beijing Declaration 2018 and the Delhi Declaration 2024.

The need for capacity building in APAC is underscored by the anticipated surge in air traffic, as highlighted in the recent joint Passenger Traffic Report by Airports Council International (ACI) World and ICAO. With global passenger traffic projected to exceed 12 billion by 2030, driven predominately by growth in APAC, the demand for skilled aviation professionals is set to rise significantly. By 2052, the region's influence in global air travel is expected to further solidify, with countries like China, India, Indonesia, and routes within APAC poised to dominate the top global markets, emphasizing the critical need for comprehensive training and capacity building to enhance safety and efficiency.

3.2. Survey Methodology

To ensure a comprehensive understanding of the training needs across the Asia Pacific region, a detailed methodology was used to analyze survey responses received from 35 out of the 41 States/Administration[1] ('respondents') surveyed. This approach was structured to systematically categorize and interpret data, providing actionable insights for developing a RTPP.

The survey consisted of 38 questions divided into three parts: Part I focused on the Implementation of Training Plans, Part II addressed Aviation Professional Training for the Next Generation of Aviation Professionals, and Part III offered space for any additional comments. The survey was designed to capture a broad range of training-related issues, including skill development, resource needs, and training delivery methods.

Upon receiving responses, each submission was meticulously reviewed to identify key patterns and findings. Responses were categorized into thematic areas, enabling a focused analysis of skill gaps, resource requirements, and implementation challenges. This thematic approach facilitated the identification of cross-cutting trends and commonalities across different States, enhancing the depth of the analysis.

An in-depth analysis was conducted, which included synthesizing findings into cohesive sections and ensuring that all relevant insights were captured. Weekly team meetings were convened to discuss findings, address challenges, and refine thematic categories, ensuring comprehensive coverage of all survey responses.

Following the synthesis of data, a draft outline for the report was developed, highlighting identified needs and potential focus areas for training efforts. Initial data-

[1] Afghanistan, Australia, Bangladesh, Bhutan, Brunei Darussalam, Cambodia, China, Hong Kong China, Macao China, Cook Island, Democratic People's Republic of Korea, Fiji, India, Indonesia, Japan, Kiribati, Lao People's Democratic Republic, Malaysia, Maldives, Marshal Islands, Micronesia, Mongolia, Myanmar, Nauru, Nepal, New Zealand, Pakistan, Palau, Papua New Guinea, Philippines, Republic of Korea, Samoa, Singapore, Solomon Islands, Sri Lanka, Thailand, Timor Leste, Tonga, Tuvalu, Vanuatu, Vietnam

driven recommendations were formulated. The team collaborated to refine these recommendations, focusing on clarity and feasibility.

The draft report underwent multiple rounds of refinement to integrate detailed analysis and supporting data. Consistency and coherence across sections were ensured through team review sessions. Visual aids and summaries were created to enhance the presentation of findings, making the report accessible and impactful.

The final stages involved a polishing of the report to articulate insights and recommendations clearly, alongside a thorough review of visual aids for clarity and impact. Additional steps included expert consultations with both the analysis team and the ICAO Asia and Pacific Regional Office (ICAO APAC RO) to validate the findings and ensure the report's excellence and relevance to stakeholders.

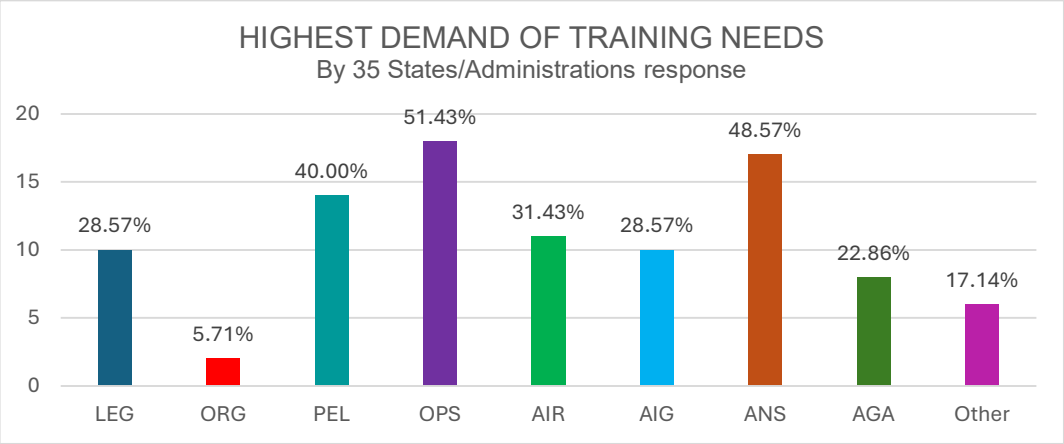
This structured methodology not only ensured a high-quality analysis but also actionable recommendations, aligned with the strategic objectives of ICAO and the commitments of APAC States. Through this approach, the report aims to serve as a valuable resource for addressing the evolving training needs in the region's aviation sector.

3.3. Key Findings

The survey results highlighted significant skills gaps, resource constraints, and barriers to effective training implementation. While many respondents have recognized their training needs and have developed plans to address them, others still lack formal strategies, indicating a need for targeted guidance and support. The core findings below emphasize the urgency for capacity building, with specific emphasis on developing a self-sustaining training ecosystem that addresses both immediate and long-term workforce demands.

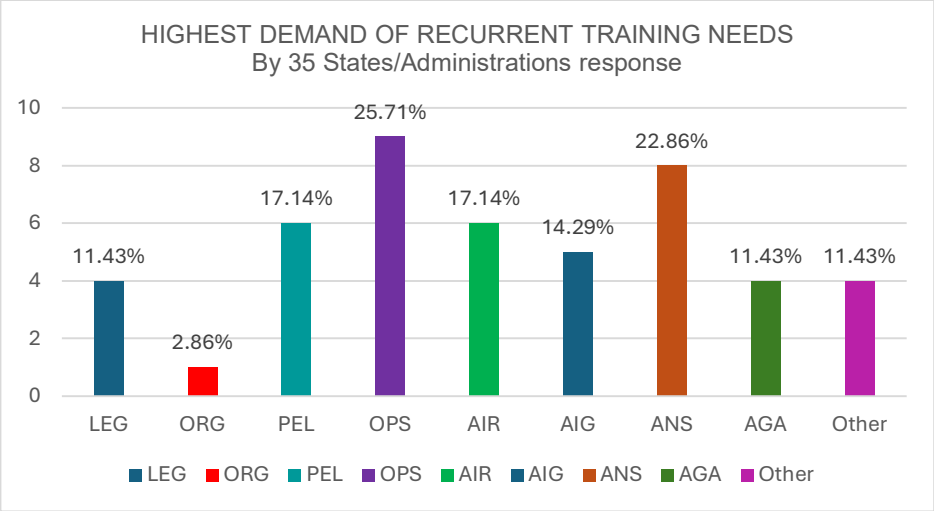
The core findings below emphasize the urgency for capacity building, with specific emphasis on developing a self-sustaining training ecosystem that addresses both immediate and long-term workforce demands.

A. Core Finding 1: Skill Gaps and Training Requirements



Graphic 3.1. Training Needs Infographic (with OPS, PEL and ANS emerging as Top 3)

The survey results identify the top three focus areas where their State/Administration has the highest training needs for their inspectors. The results showed that Aircraft Operations (OPS) was the most demanded area with 18 out of 35 respondents identified it as a high-demand area, which translates to approximately 51.4%, ANS at 48.6% with 17 respondents, and PEL at 40.0% with 14 respondents. A significant majority, 65.7% of States/Administrations, have existing training plans, indicating a strong awareness of training needs and a proactive approach to addressing them. Nonetheless, 12 out of 35 respondents lack a training implementation plan, suggesting a need for guidance in developing and executing these plans.

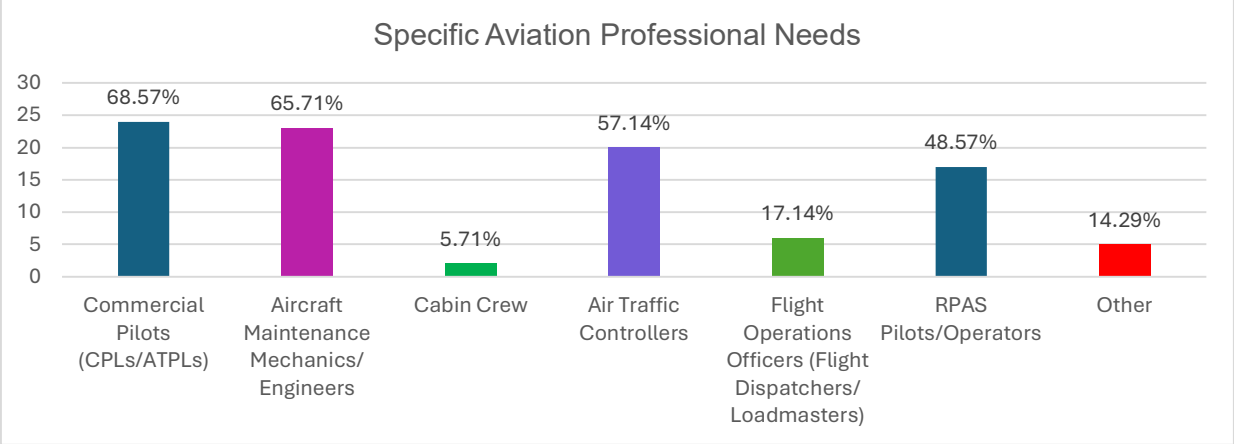


Graphic 3.2. Top 3 Recurrent Training Needs Infographic

In terms of recurrency training, the primary areas identified are OPS with 9 out of 35 respondents identifying it as a high-demand area, which translates to approximately 25.7%, ANS was highlighted by 8 out of 35 respondents (22.9%), PEL was identified by 6 out of 35 respondents (17.1%), and Airworthiness of Aircraft similarly (17.1%). Despite these needs, only 14 of 35 APAC States/Administrations currently express a need for recurrency training, indicating that most respondents may already be addressing these needs through existing programmes or that they view initial training as a more

pressing concern. This also highlights that recurrent training should be considered when developing training plans.

The results also highlight significant skill shortages in various government safety inspectors' disciplines. Most respondents anticipate needing 0-5 new GSIs in OPS, PEL, and ANS over the next three years, with some expecting this number to rise above ten within five years. Specifically, 74% foresee a need for 0-5 new inspectors in ANS within three years, with 17% expecting 6-10 inspectors within five years. In OPS, 60% anticipate needing 0-5 new inspectors, 17% foresee 6-10 inspectors, and 23% expect 10-15 inspectors over five years. For PEL, 86% project a need for 0-5 new inspectors in three years, with 14% anticipating 6-10 inspectors in five years. These projections underscore the need for enhanced training efforts in regulatory roles.



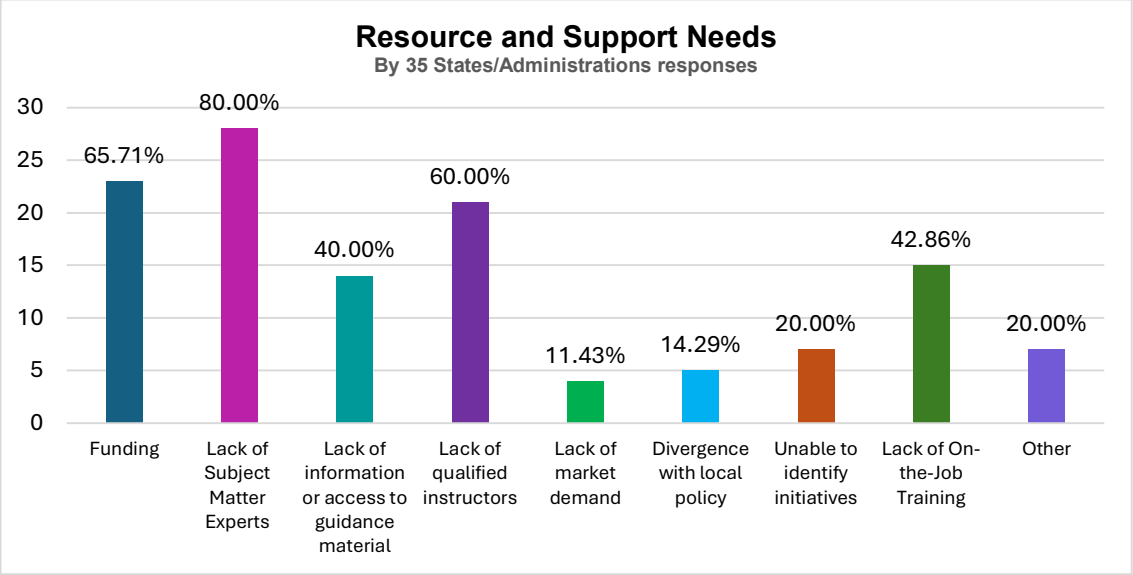
Graphic 3.3. Specific Aviation Professional Needs Infographic

The demand for specific aviation professionals is also notable, with 24 States indicating a need for Commercial Pilots, 23 for Aircraft Maintenance Engineers, and 20 for ATCs over the next five years. However, local training capacity is insufficient, with approximately half of the States only able to train 0-49 pilots and maintenance engineers, and 0-24 ATCs annually. RPAS training capacity is particularly in need, with 16 States able to train fewer than 24 individuals per year and 16 unable to quantify their output. This reveals a critical mismatch between workforce needs and the training pipeline, emphasizing the urgency for expanded training infrastructure and capacity building.

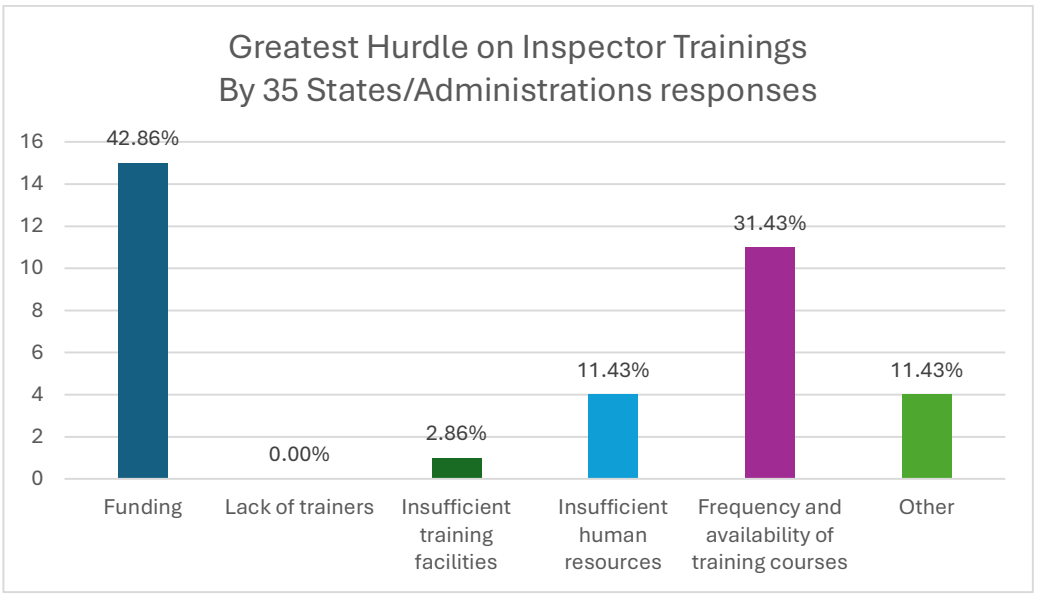
B. Core Finding 2: Resource and Support Needs

The survey results indicate significant resources and support needs for safety-related training programmes. The main challenges include a lack of SMEs (80.0%), funding (65.7%), and a shortage of qualified instructors (60.0%).

Additionally, 14 out of 35 respondents reported inadequate training facilities, insufficient guidance materials and standardized training, infrequent training courses, and ineffective training plan implementation as significant pain points.

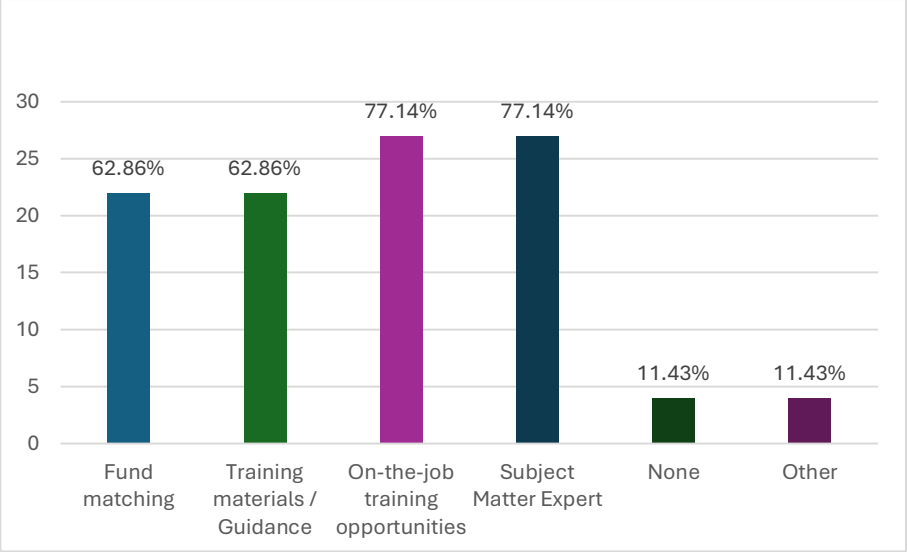


Graphic 3.4. Resources and Support Needs Infographic

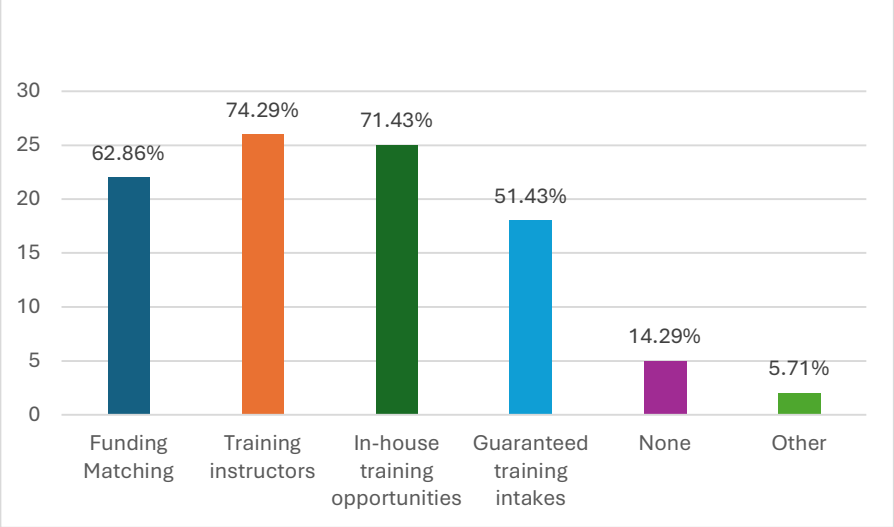


Graphic 3.5. Greatest Hurdle on Inspector Training Infographic

Inspector training faces similar barriers, with funding being the primary obstacle in 15 of the 35 respondents. The limited frequency and availability of training courses, reported by 11 respondents, are linked to the scarcity of qualified instructors, which in turn restricts the number of available training sessions.

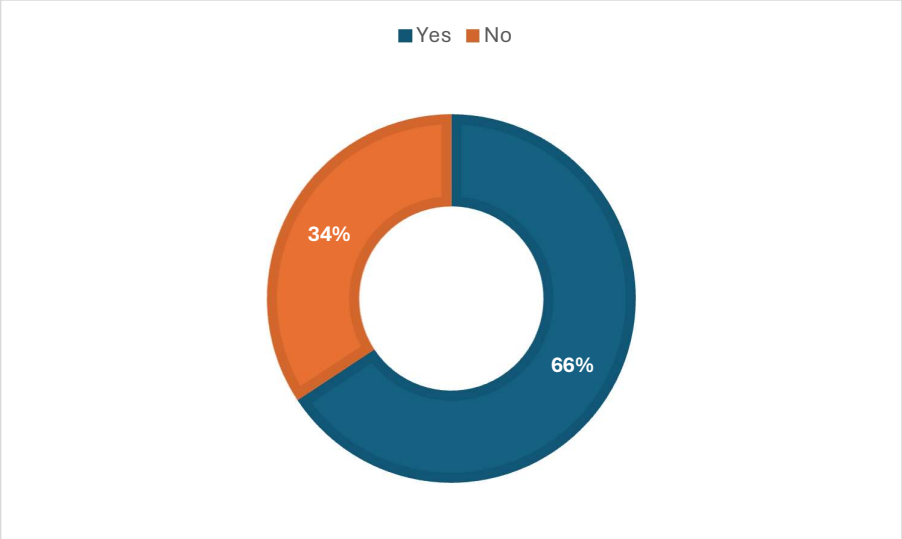


Graphic 3.6. Expected Training Assistance from ICAO by States/Administration responses

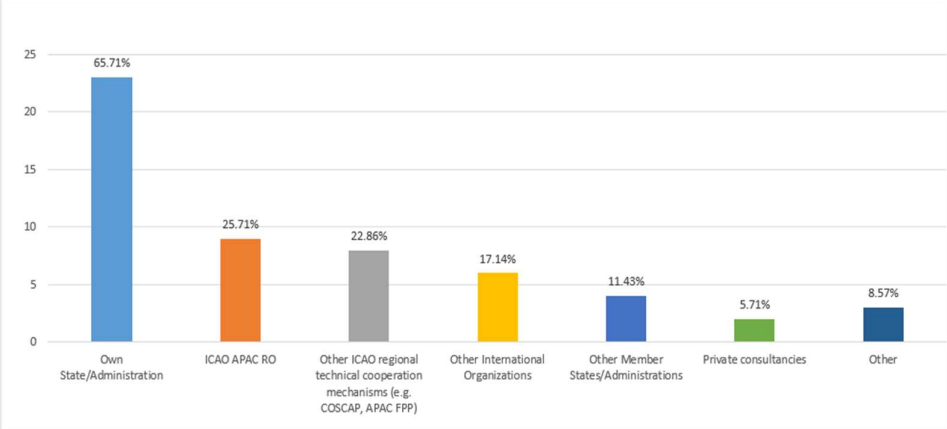


Graphic 3.7. Expected Training Assistance from Organization other than ICAO by States/Administration responses

States/Administrations are actively seeking assistance, with 77.1% (27 respondents) looking to ICAO for SMEs and on-the-job training opportunities. Moreover, 62.9% (22 respondents) require fund matching and support with training materials and guidance. Beyond ICAO, 26 respondents (75.3%) are requesting support from other organizations for training instructors, 25 respondents are looking at in-house training opportunities (71.4%), and 22 respondents are seeking funding matching (62.8%).



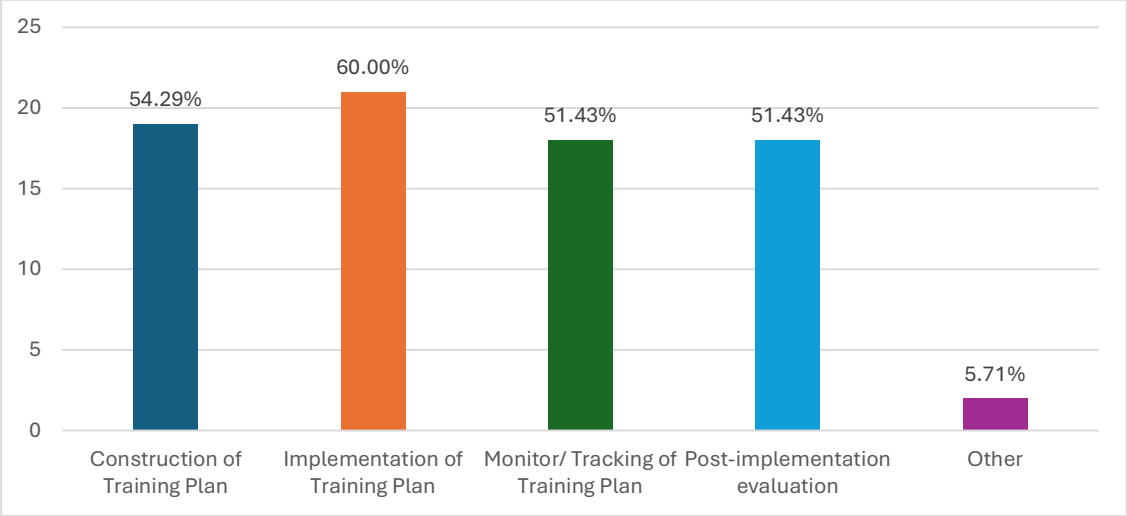
Graphic 3.8 Inspector Training Implementation on States/Administrations



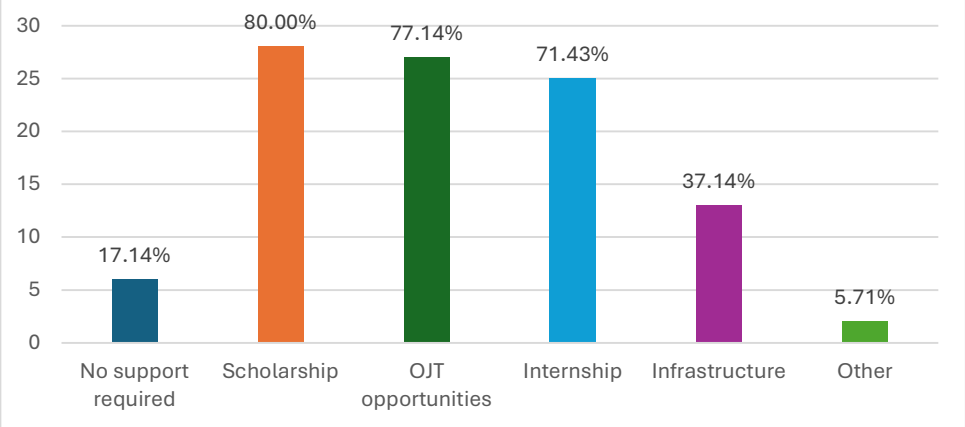
Graphic 3.9 Inspector training implementation support sources

In terms of training planning and implementation, 65.7% (12 of 35 respondents) of States/Administrations rely on their own administrations for support, with ICAO APAC RO and other ICAO regional mechanisms being secondary sources. Encouragingly, 65.7% of States/Administrations provide support for training implementation, highlighting a positive trend towards achieving organizational goals through leadership support.

However, 40% to 45% of States lack access to services that facilitate training planning and implementation. While 60.0% of States have advisory bodies assisting in training plan implementation, only 54.3% receive services for constructing training plans, and 51.4% for monitoring and evaluation.



Graphic 3.10. Service provided by the advisory/recommending bodies to Inspector Training



Graphic 3.11. Expected support from external agencies related to the Next Generation of Aviation Professional

To address these challenges and develop a self-sustaining training ecosystem, States/Administrations have identified a critical need for external resources and support. Funding, qualified instructors/SMEs, technical infrastructure, and ICAO guidance are top priorities. Scholarships (28 respondents), on-the-job training opportunities (27 respondents), and internships (25 respondents) are particularly sought after, indicating a strong desire for hands-on, capacity-building opportunities.

Additional comments emphasize the importance of regional collaboration, harmonized frameworks, access to planning tools, training materials, and instructor development programs as essential components of sustainable support mechanisms. These findings highlight the urgency for comprehensive

external support to build a robust and self-sufficient aviation training ecosystem in the region.

C. Core Finding 3: Challenges and Barriers to Implementation

The survey results highlight several significant challenges and barriers to implementing effective training programs. As mentioned in the section 7.4, a key issue is that 12 out of 35 respondents (35.3%) do not have existing training plans. While 9 (75.0%) of these respondents plan to develop a training implementation plan within the next two years, and 2 respondents (18.2%) foresee this development in three to five years, the absence of current plans poses a challenge in addressing their training needs. One State views this as an urgent matter, intending to develop a plan immediately.

Further complicating training implementation are obstacles such as a lack of SMEs, as mentioned in section 7.3, limited funding, and a shortage of qualified instructors, particularly for safety-related and inspector training. To overcome these challenges, 77.1% of respondents are seeking assistance from ICAO, while others are looking for support from additional organizations for training instructors (74.3%), in-house training opportunities (71.4%), and fund matching (62.8%).

A significant barrier to safety training is the absence of a specialized institute in over half of the responding States/Administrations (51.4%), which increases the financial burden of accessing training elsewhere. Additionally, local training options for inspectors are limited: only 15 out of 35 respondents offer ANS inspector training, 14 respondents provide Aerodrome inspector training, and 13 out of 35 respondents have training for both OPS and Continuing Airworthiness Inspectors. This limitation contributes to the scarcity of government safety inspectors, highlighting the need for technical and financial support to improve the situation.

External access to inspector training is primarily hindered by funding constraints, affecting 15 of the 35 States/Administrations. The availability and frequency of training courses are also problematic, linked to the limited number of qualified instructors, which in turn restricts the number of available training sessions.

States face considerable challenges in achieving training independence. A total of 82% of responses indicate that States/Administrations expect to be under 50% self-sufficient in training within three years, with 48% projecting under 25% self-sufficiency. Even in the medium term, 45% of States/Administrations anticipate remaining under 50% self-sufficient after five years. This heavy reliance on external systems is due to severe training capacity constraints, including limited funding, a lack of SMEs and instructors, and technical limitations.

Local training capacity is notably a challenge, with most respondents reporting annual outputs of under 49 across major roles. A significant portion of States/Administrations (24–27%) cannot quantify their training outputs at all, indicating deficiencies in data systems, planning mechanisms, and institutional readiness, particularly for RPAS, ATCs, and dispatchers. These findings underscore the urgent need for strategic planning and enhanced training infrastructure to address these challenges effectively.

D. Core Finding 4: Timelines and Urgency of Needs

The survey data indicates a significant urgency among States to develop and implement training plans, particularly for key aviation roles. Among the 12 States/Administrations lacking existing training plans, 81.3% (9 out of 12) are aiming to establish such plans within the next 1-2 years, with one State prioritizing this as an immediate task.

In terms of specific roles, 80% of the respondents are planning to add 0-5 qualified Aerodromes and Ground Aids inspectors over the next three years. This projection reflects the limited availability of local training, as only 14 respondents currently offer training for Aerodromes inspectors. This constraint is expected to persist over the next 3-5 years, with 24 out of 35 States/Administrations anticipating the addition of just 0-5 qualified inspectors in these areas.

Similarly, 68.6% of respondents (24 out of 35) project a modest increase of 0-5 additional qualified GSIs in the next three years. This is consistent with the limited training opportunities available for PEL, with only 12 respondents currently offering such programs. Looking ahead, 22 out of 35 States/Administrations foresee adding 0-5 GSI instructors within the next five years.

The survey highlights a broader need for capacity-building within the next three to five years, as many respondents foresee the necessity to recruit and train additional inspectors but currently lack the infrastructure to meet these demands. This urgency is underscored by the finding that over 65% of States/Administrations expect to add only 0–5 ANS inspectors within both the 3- and 5-year outlooks, reflecting limited self-sufficiency in inspector training.

The region is facing an urgent need for capacity building to maintain regulatory oversight and ensure safe, efficient aviation operations. The most critical aviation professionals required over the next five years include commercial pilots, aircraft maintenance engineers, and ATCs. Addressing these needs will require significant action to build the necessary training infrastructure and capacity in the short term while working towards greater self-sufficiency in the medium term. The current low levels of training capacity highlight a pressing

need for external support and internal strategic planning to meet the region's growing aviation demands.

3.4. Identified Trends and Gaps

Training Plan Development: A significant portion of respondents (35.3%) lack formal training plans, though 81.3% of these States/Administrations plan to develop them within the next 1-2 years, indicating a positive trend toward addressing this gap.

Resource Constraints: There is a pronounced shortage of SMEs, qualified instructors, and funding, particularly for safety and inspector training programs. This gap is exacerbated by the absence of specialized training institutes in over half of the respondents (51.4%).

Local Training Capacity: The capacity to train key aviation professionals locally is notably insufficient. For example, only half of the respondents can train a small number of commercial pilots, aircraft maintenance engineers, and ATCs annually. This gap extends to RPAS training, where many States/Administrations lack the ability to quantify their training outputs.

Self-Sufficiency in Training: A significant reliance on external systems is evident, with 82% of respondents projecting less than 50% self-sufficiency in training within three years. This highlights the need for strategic planning and investment in local training infrastructure.

3.5. Actionable Recommendation: Summarize the recommendation come from TNA survey

- Develop Comprehensive Training Plans: Encourage all States to formulate and implement robust training plans within the next 1-2 years, providing targeted guidance and resources to those currently without plans.
- Enhance Resource Allocation: Increase funding and support for the recruitment and training of SMEs and qualified instructors, focusing on safety-related and inspector training programs.
- Strengthen Local Training Infrastructure: Invest in the development of specialized training institutes and facilities to enhance local training capacity, particularly for critical roles such as ANS, aerodrome inspectors, and RPAS operators.
- Promote Self-Sufficiency: Implement strategic initiatives to increase training self-sufficiency, aiming for at least 50% self-sufficiency across States within the next five years.
- Encourage Regional Collaboration: Foster partnerships between States, regional bodies, and international organizations to share resources, best practices, and training materials.

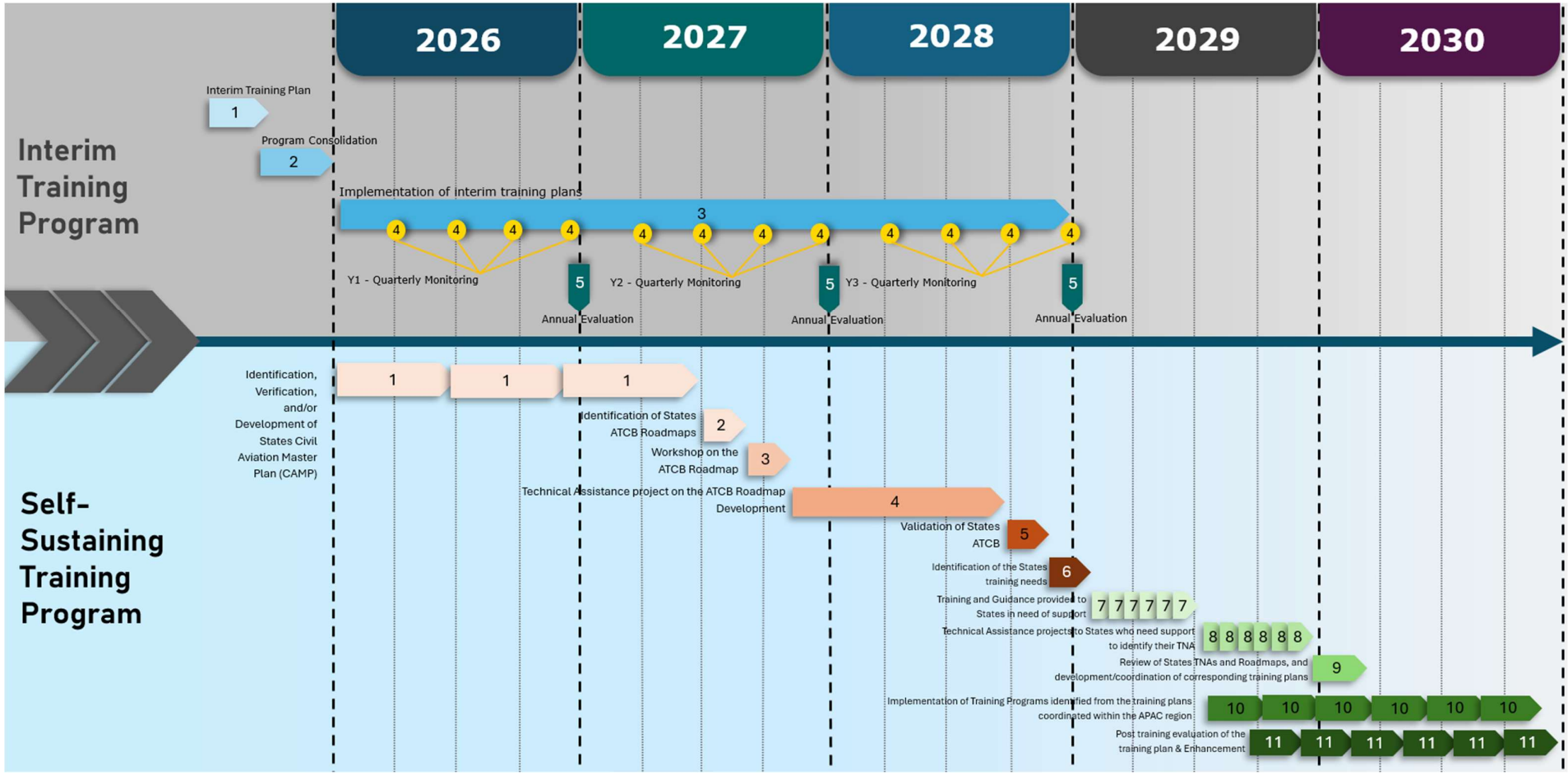
4. Implementation Plan

4.1. Timeline: 5 Years (2026-2030).

4.1. Regional Training Program Road Map

To effectively bridge the existing training program gap in the region which can be found in section in Section 3.3, a two-pronged, parallel program approach is recommended, comprising an **Interim Training Program (Program 1)** and a **Self-Sustaining Training Program (Program 2)**. This dual-program strategy offers a realistic and tangible solution that directly addresses current needs while simultaneously building long-term capacity. By running these programs in parallel, we can immediately begin to address urgent training deficiencies through the Interim Program, while the Self-Sustaining Program focuses on establishing robust, enduring frameworks that will ensure continued training capabilities without external reliance in the future. This parallel implementation acknowledges and suits the actual conditions on the ground which urge an improved training ecosystem in the region, providing both immediate impact and sustainable growth.

Graphic 4.1 RTPP Program Breakdown



Graphic 4.2 Regional Training Program Roadmap

a. Program 1: Interim Training Program

The aviation industry is constantly evolving, and with it, the need for continuous training and development of personnel. To address the immediate training needs identified in the recent survey, we propose an Interim Training Program. This program aims to bridge the gap between current capabilities and future requirements by providing structured training, on-the-job training (OJT), and internships.

1) Interim Training Plan Proposal.

(2 Months)

The Interim Training Plan will encompass various types of activities designed to enhance the skills and knowledge of aviation personnel immediately refer to the TNA Survey result. The scope of the program includes:

- Priority Training/Courses: Structured courses covering essential topics identified in the survey. With the following priority:

  i. Government Safety Inspector
     - Operations
     - Air Navigation
     - Personnel Licensing
     - Airworthiness
     - Aircraft Accident Incident Investigation
     - Legislation
     - Aerodrome and Ground Aids
     - Medical Examiner
     - Safety Management Assessor
     - Airworthiness Engineering Inspector
     - Safety Management
     - Other: Inspector initial basic training

  These inspector training courses will implement competency-based training methodology which is adopted from ICAO recognized training profiles whether its ICAO Training Packages (ITPs), Member-developed ITPs (M-ITPs), Partnership Training Packages (PTPs), and/or Standardized Training Packages (STPs).

  It is noted that specialized inspector training (Government Safety Inspector) courses have not existed yet in ICAO GAT (e.g.: GSI for Aerodromes Inspector, ANS Inspector, Security, Air Transport, etc.). To support the ICAO Implementation Plan for the New TRAINAIR Plus Program

Framework, region may encourage TTP Member to develop those training packages.

ii. Aviation Professional

- Commercial Pilot (CPL/ATPL)
- Aircraft Maintenance Mechanics/ Engineers
- Air Traffic Controllers
- RPAS Pilots/Operators
- Flight Operations Officers (Flight Dispatchers/ Loadmasters)
- Cabin Crew
- Other: RPAS, Artificial Intelligence

To address the demand for specific aviation professionals and its professional capacity building, it's proposed to define the mechanism on how to match the scarce of human resources and pivot the self-sustain capability on capacity building. Some of the ideas may include Human resource information pooling/database, bilateral or mutual recognition among Asia-Pacific region, and promote this capacity building prioritization to the training organizations via States/Administrations.

- On-the-Job Training (OJT): Practical training opportunities to apply theoretical knowledge in real-world scenarios.
- Internships: Hands-on experience in different aviation sectors to provide a comprehensive understanding of the industry.
- SME Pooling. By expanding and promoting Electronic Capacity Building Metrics (ECBM) Database) developed by COSCAP-SA.
- Scholarship Information.

2) Program Consolidation

(2 Months)

To ensure the success of the Interim Training Program, it is crucial to consolidate efforts and collaborate with various stakeholders. This step involves:

a. Discussions with Related Parties: Engaging with ICAO Regional Office (RO), Cooperative Development of Operational Safety and Continuing Airworthiness Programme (COSCAP) CTA,

RTCF/WG, international organizations, champion/donor states, and TrainAir Plus members.

b. Program scope agreement: Finalizing the scope of the program through discussions and obtaining necessary agreement from all involved parties.

c. Estimated Cost and Accountability Distribution: Estimating the cost of the program and distributing accountability among stakeholders to ensure transparency and effective resource management. Establish a regional funding pool or grant system to support Training program implementation. Encourage private-public partnerships to leverage additional resources and expertise.

3) Implementation of Interim Training Plans.

(3 Years)

Once the program scope is approved, the next step is to execute the training plans. This involves:

3.1. Preparation and Resource Allocation

Before executing the interim training plans, it's essential to prepare thoroughly. This involves:

- Identifying Trainers: Selecting qualified trainers who have the expertise and experience to deliver the training effectively.
- Securing Training Materials: Ensuring that all necessary training materials, such as manuals, presentations, and equipment, are ready and available.
- Allocating Budget: Allocating the necessary budget to cover training costs, including trainer fees, materials, and logistics.

3.2. Scheduling and Coordination

Effective scheduling and coordination are crucial for smooth execution. When the training program are consolidated, in coordination with ICAO GAT, the Secretariat have to monitor the implementation. by make and RTCF team This includes:

- Setting Training Dates: Determining the dates and times for the training sessions to ensure maximum participation.
- Coordinating with Participants: Communicating with participants to confirm their availability and provide them with all necessary information.
- Venue Arrangements: Booking venues or arranging online platforms for the training sessions.

The training should be conducted via ICAO Global Aviation Training. Hence, these activities will be covered on the TPEMS Learning Management System.

3.3. Implementation of Training Sessions

Once the interim training plan is established, it is crucial to execute it efficiently. This involves implementing the identified training programs, ensuring that all necessary resources are in place, and monitoring the progress of the training activities. Execution should be carried out with a focus on achieving the immediate training objectives and preparing the groundwork for the comprehensive roadmap. The actual implementation of the training sessions involves:

- Conducting Training: Delivering the training sessions according to the planned schedule, ensuring that the content is covered comprehensively.
- Interactive Activities: Incorporating interactive activities, such as group discussions, practical exercises, and case studies, to enhance learning.
- Monitoring Attendance: Keeping track of participant attendance and engagement throughout the sessions.

3.4. Feedback Collection

Collecting feedback is vital for assessing the effectiveness of the Interim Training program. This includes:

- Participant Surveys: Distributing surveys to participants to gather their opinions on the training content, delivery, and overall experience.
- Trainer Feedback: Obtaining feedback from trainers on the participants' performance and engagement.
- Session Reviews: Conducting reviews of each training session to identify areas for improvement.

If the training is conducted via ICAO Global Aviation Training this feedback will be retrieved from the TPEMS Learning Management System.

4) Monitoring

(Quarterly for 3 Years)

Continuous monitoring is essential to ensure the effectiveness of the training program. Quarterly review during 3 years training plan implementation is proposed which may include:

- Tracking Progress: Regularly assessing the progress of trainees and the overall program.
- Feedback Mechanisms: Implementing systems to gather feedback from participants and trainers to make necessary adjustments.

5) **Evaluation**
(Annually for 3 Years)
The final step in the Regional Training Program Roadmap is the evaluation of the training programs. This involves a thorough assessment of the training outcomes, including the skills and knowledge gained by the participants, the impact on aviation safety and efficiency, and the overall effectiveness of the training initiatives. Evaluation provides valuable insights into what worked well and what needs improvement, informing future training plans and ensuring continuous enhancement of aviation training and capacity building efforts.

b. Program 2: Self-Sustaining Training Program

The aviation industry is a dynamic and rapidly evolving sector that requires a continuous supply of qualified and competent personnel. To address this need, the Self-Sustaining Training Program has been developed as a strategic initiative aligned with the ICAO Aviation Training and Capacity-Building Roadmap. This program aims to ensure that States have the necessary human resources to support sustainable, safe, and secure global aviation development.

1) **Identification, Verification, and/or Development of States' Civil Aviation Master Plan (CAMP)"**
(18 Months)
A comprehensive initiative designed to support States and Administrations in establishing or enhancing their national aviation strategies. Over an 18-month period, the project will begin with a three-month identification phase to determine which States currently possess a CAMP and assess their existing frameworks. This will be followed by a six-month period dedicated to workshops and training, focusing on key areas such as the preparation for CAMP development, understanding the State aviation system and its alignment with national aviation plans, the process of CAMP development, approval, and implementation, as well as the economic and financial planning necessary for a sustainable civil aviation system. A nine-month technical

assistance phase will then provide tailored support to States/Adminustration requiring help in developing or refining their CAMPs. This includes hands-on guidance and expert consultation. The final stage involves the validation of each State's CAMP, ensuring alignment with international standards and national development goals.

2) **Identification of States Aviation Training and Capacity Building Roadmaps.**
(3 Months)
The first step in the Self-Sustaining Training Program involves identifying the existing Aviation Training and Capacity Building Roadmaps of various States in the Asia-Pacific region. This process includes:
   - Reviewing Current Roadmaps: Assessing the existing training and capacity-building plans of Asia-Pacific States/Administration to understand their current capabilities and gaps.
   - Engaging with Stakeholders: Collaborating with civil aviation authorities, training institutions, and other relevant organizations to gather comprehensive information

3) **Workshop on the Aviation Training and Capacity Building (ATCB) Roadmap for States in Need of Support to develop theirs.**
(6 Months)
Workshop on the Aviation Training and Capacity Building (ATCB) Roadmap is proposed to assist States/Administration that require support in developing their ATCB roadmaps, a series of workshops will be conducted. This ICAO workshop focusses on:
   - Capacity Building: Providing guidance on creating effective training and capacity-building plans.
   - Best Practices: Sharing successful strategies and practices from other States to help participants develop robust roadmaps.

4) **Technical Assistance Project on the ATCB Roadmap for States in Need of Increased Support to Develop Theirs**
(9 Months/Project)
For States that need additional support to develop their ATCB, technical assistance projects will be initiated. These projects will involve:

- **Customized Support**: Offering tailored assistance to address specific challenges faced by the States.
- **Expert Consultation**: Providing access to experts who can offer insights and solutions for developing comprehensive roadmaps.

5) **Validation of States Aviation Training and Capacity Building Roadmaps.**
   (3 months)
   Once the roadmaps are developed, they will undergo a validation process to ensure their effectiveness and adherence to ICAO requirements. This includes:
   - **Review and Feedback**: Conducting thorough reviews of the roadmaps and providing feedback for improvement.
   - **Approval Process**: Ensuring that the roadmaps meet the required standards and are approved by relevant authorities.

6) **Identification of the States training needs.**
   (3 months)
   Identifying the specific training needs of States is crucial for developing effective training programs. This involves:
   - **Training Needs Assessment (TNA)**: Conducting assessments to determine the training requirements for various aviation roles.
   - **Data Analysis**: Analyzing the data collected to identify gaps and prioritize training needs.

7) **Training and Guidance provided to States in need of support,**
   (2 months/project)
   States that require support will receive training and guidance to help them perform the TNA of their organizations through the scheduling of the ICAO TNA course and iPack. These covers:
   - Training Programs: Offering training sessions on various aspects of TNA development.
   - Guidance and Mentorship: Providing ongoing support and mentorship to ensure successful development through the TNA iPack implementation.

8) **Technical Assistance projects to States who need support to identify their TNA.**
   (12 months/project)

Technical assistance projects will be initiated by States that need help identifying their training needs which includes:

- Expert Assistance: Providing access to experts who can conduct thorough Training Needs Assessments.
- Customized Solutions: Developing tailored solutions based on the specific needs of each State.

9) **Review of States TNAs and Roadmaps, and development/coordination of corresponding training plans.** (3 months)

The training needs assessments and roadmaps will be reviewed jointly to develop and coordinate corresponding training plans. This includes:

- Comprehensive Review: Ensuring that the training plans align with the identified needs and roadmaps.
- Coordination: Collaborating with various stakeholders to ensure effective implementation of the training plans.

10) **Implementation of Training Programs identified from the training plans coordinated within the APAC region.**

(3 years)

The training programs identified in the training plans will be implemented across the APAC region. This involves:

- Program Execution: Conducting training sessions and workshops as per the training plans.
- Monitoring and Support: Providing ongoing monitoring and support to ensure the success of the training programs.

11) **Post training evaluation of the training plan & Enhancement**

(3 Years/6 Months)

After the training programs are implemented, a post-training evaluation will be conducted every 6 Months to assess their effectiveness. This includes:

- **Evaluation and Feedback**: Gathering feedback from participants and evaluating the outcomes of the training programs.
- **Continuous Improvement**: Making necessary enhancements to the training plans based on the evaluation results.

4.2. Resources:

In order to make smooth progress, resources are needed to implement the training program.

a. Human Resources

- Regional Training Program Implementation Monitoring: Personnels who will manage, monitor, and coordinate the program. It could include the scheduling proposal refer to the consolidated training plan, funding arrangement, monitoring and evaluation, and proposing program revision as appropriate.
- Technical Experts: Professionals to provide technical assistance and ensure the quality of training materials. To expand the ICAO training standard (ITP, M-ITP, PTP, or STP).

In addition, other resources should be accommodated by ICAO Global Aviation Training (GAT) via TRAINAIR PLUS Electronic Management System (TPeMS). Includes:

- Instructor Management: Qualified instructors and subject matter experts (SMEs) to deliver training sessions can confirm their availability and accept or decline training session invitations through the system
- Course Management: It allows organizations to apply to host ICAO courses, set up training sessions, select instructors, and manage the administrative aspects of training delivery.
- Certificate Generation: For certain courses, it allows for the generation of certificates, such as TDC and TIC certificates.
- Access to Training Materials: Members can view, order, and exchange Standard Training Packages (STPs) and other course materials, including instructor guidance.
- Membership and Development Processes: TPeMS streamlines the navigation of membership and STP development processes within the TRAINAIR PLUS Programme.

b. Finance

- Funding: Allocation of budget for training materials, venue rentals, trainer fees, and other operational costs.
- Grants and Sponsorships: Securing financial support from international organizations, states, and private partnerships.

c. Database

- Interim Training Program Record: A comprehensive database to track the progress and outcomes of the interim training program.

- Train The Trainer Program (TTP) Record: A detailed record of trainers' qualifications, training sessions conducted, and feedback received.

d. Technical Infrastructure
   - Training Facilities: Equipped venues for conducting training sessions, including classrooms, simulation centers, and laboratories.
   - IT Systems: Robust IT infrastructure to support online training, data management, and communication.
   - Training Materials: Comprehensive and up-to-date training manuals, presentations, and equipment.

e. Collaboration and Support
   - Partnerships: Collaboration with ICAO, regional bodies, and international organizations to leverage expertise and resources.
   - Advisory Bodies: Engagement with advisory bodies to provide guidance and support for training plan implementation.
   - Mentorship Programs: Establishing mentorship programs to support trainers and participants throughout the training process.

4.3. Budget Sources:

The budget costs and funding sources for RTPP may come from, but are not limited to:

a. Donor States
b. SAFE and AVSEC Funds,
c. States Grant,
d. International Organization
e. Public and Private Partnership
f. Buddy Partnership, and
g. All possible budget sources

5. Monitoring and Evaluation

Effective monitoring is crucial for the successful implementation of the Regional Training Program Proposal (RTPP). This section outlines the performance metrics, feedback mechanisms, and reporting processes that will ensure the program's objectives are met and sustained. By systematically tracking progress and evaluating outcomes, we can identify areas for improvement and ensure continuous enhancement of aviation training and capacity-building efforts across the Asia-Pacific region.

5.1. Performance Metrics

5.1.1. Program 1: Interim Training Program

Key Performance Indicators and Implementation Strategies:

a) **Training Completion Rates:**

- Objective: To ensure participants successfully complete the training programs, maximizing the impact of the interim training initiatives.
- Metric: Percentage of participants who successfully complete the training programs.
- Tracking Mechanism: We will diligently measure the percentage of participants who successfully complete each training program. High completion rates will serve as a key indicator of effective training delivery, strong participant engagement, and the overall accessibility and design of the program.

b) **Participant Feedback:**

- Objective: To continuously assess and improve the quality, relevance, and impact of the training delivered.
- Metric: Satisfaction scores collected through surveys and feedback forms.
- Tracking Mechanism: Systematically collect satisfaction scores from all participants through comprehensive surveys and feedback forms upon completion of each training module. This data will be analyzed to gauge the quality and relevance of the training content and delivery. Consistent positive feedback will reflect well-designed and impactful training sessions, while areas for improvement will be promptly identified and addressed.

c) **ICAO Qualified Instructor/Trainer Development:**

- Objective: To build a robust and qualified pool of local instructors and trainers capable of delivering aviation training.
- Metric: Number of instructors and trainers trained and certified.
- Tracking Mechanism: Measure the number of trainers and instructors who successfully complete our specialized 'Train the Trainer' programs. A growing pool of qualified, locally-based trainers is absolutely essential for sustaining training programs beyond the interim phase and for ensuring long-term capacity building within each state.

d) On The Job Training (OJT)

- Objective: To provide practical, real-world experience that reinforces theoretical knowledge and develops specific job skills.
- Metric: Number of participants successfully completing OJT, documented skill acquisition, and supervisor evaluations.
- Tracking Mechanism: Meticulously track the number of participants engaged in and successfully completing OJT components. This includes documenting specific skill acquisition through practical assessments and collecting structured evaluations from OJT supervisors. High success rates in OJT indicate effective knowledge transfer and practical application.

e) Internship

- Objective: To offer immersive experiences within aviation organizations, fostering professional development and industry exposure.
- Metric: Number of interns placed, duration of internships, and feedback from both interns and host organizations.
- Tracking Mechanism: Monitor the number of interns placed within relevant aviation organizations and the duration of their internships. Crucially, we will gather comprehensive feedback from both the interns themselves regarding their learning experience and from the host organizations on the intern's performance and contribution. Positive feedback and successful placements will underscore the program's effectiveness in developing future aviation professionals.

f) Scholarship

- Objective: To alleviate financial barriers and enable deserving individuals to pursue advanced aviation training and education.
- Metric: Number of scholarships awarded, completion rates of scholarship recipients in their chosen programs, and their subsequent employment in the aviation sector.
- Tracking Mechanism: Track the number of scholarships awarded and the completion rates of scholarship recipients in their respective aviation training or educational programs. Furthermore, we will monitor their subsequent employment within the aviation sector, which serves as a vital indicator of

the scholarship program's long-term impact on building local aviation capacity.

5.1.2. Program 2: Self-Sustaining Training Program

Key Performance Indicators and Implementation Strategies:

a) **Establishment of ATCB Roadmap:**

- Objective: To ensure states have a clearly defined, long-term strategy for aviation training and capacity development.
- Metric: Number of states with an approved and actively implemented ATCB Roadmap.
- Tracking Mechanism: A centralized tracking system will monitor the progress of each state in developing, approving, and executing their ATCB Roadmap. Regular progress reports will highlight achievements and areas requiring support.

b) **Completion of Training Needs Assessments (TNAs)**

- Objective: To systematically identify skill gaps and training requirements within each state's aviation sector.
- Metric: Number of completed and validated Training Needs Assessments (TNAs).
- Implementation Strategy:
  - Centralized Database: Establish a comprehensive database to log and monitor the status of TNA completion for all participating states.
  - Standardized Methodology: Provide a standardized TNA methodology and tools to ensure consistency and quality across all assessments.
  - Regular Reporting: Generate periodic reports on TNA completion rates, identifying trends and informing future training interventions.

c) **Training Plans**

Objective: To ensure the effective planning, implementation, and monitoring of immediate and short-term training initiatives based on identified needs.

- Standardized Plan Template: Develop and disseminate a user-friendly, standardized template for training plans, promoting consistency and ease of data capture across all states. This ensures consistency and ease of tracking. In this case we may refer to ICAO Doc 9941 (Training Development Guidelines), ICAO Doc 10070, other related documents.

- Central repository: Establish a secure, accessible central repository for all submitted training plans, facilitating easy review, updates, and historical tracking.
- Review and approval process: Implement a clear and efficient review and approval process for training plans, ensuring alignment with ATCB roadmaps and TNA findings, and adherence to quality standards.
- Progress tracking: Utilize dedicated project management tools to effectively monitor the execution and progress of training plans across all states, allowing for proactive identification of challenges and timely intervention. This includes tracking completion rates, participant numbers, and initial feedback.

d) **Courses Delivered by Stated**
- Objective: To monitor the effectiveness and reach of training programs delivered directly by participating states.
- Metric: Comprehensive reports summarizing courses delivered, enrollment, completion rates, and quality assessments.
- Tracking Mechanism: Generate periodic reports that summarize the courses delivered by each state, including enrollment and completion statistics, and quality assessments from participants. These reports will be critical in identifying successful practices, areas for improvement, and overall training impact.

e) **Establishment of Training Center:**
- Objective: To build a robust, localized training infrastructure capable of supporting ongoing aviation training needs.
- Metric: Number and quality assessment of specialized aviation training institutes established or significantly enhanced within participating states.
- Tracking Mechanism: To track the establishment of new training centers and assess the quality of these institutes based on pre-defined criteria such as accreditation, facility standards, and instructor qualifications. Successful establishment indicates tangible progress toward building a self-sufficient training ecosystem.

f) **Inspector Training System Development:**
- Objective: To ensure that all States/Administration have a comprehensive and active training implementation plan for aviation inspectors.
- Metric: Improvement in the implementation of inspector training plans within states currently lacking such initiatives.

- Tracking Mechanism: Monitor and support states that currently do not have a robust inspector training implementation plan. Our focus will be on guiding them through the development and initial phases of execution, tracking their improvement in establishing and delivering these vital programs.

g) **Curriculum Development:**
- Objective: To ensure all training programs remain relevant, up-to-date, and aligned with international and ICAO and Industry standards.
- Metric: Regular review and update cycles of comprehensive training curricula.
- Implementation Strategy: Implement a systematic process for the regular review and updating of comprehensive training curricula. This ensures that all training programs offered or utilized by states remain relevant and up-to-date with evolving industry standards, technological advancements, and regulatory changes.

h) **Collaboration and Support:**
- Objective: To foster strong partnerships and secure necessary resources for sustained training initiatives.
- Metric: Level of engagement with advisory bodies and success in securing external resources.
- Tracking Mechanism: Evaluate the level of engagement with key advisory bodies (e.g., ICAO, States/Administrations, industry associations, international organizations) and assess the success in securing external resources (e.g., funding, expert support, equipment). Strong collaboration and consistent support are paramount for the long-term success and growth of training initiatives.

i) Long-term Sustainability:
- Objective: To ensure that training programs can operate independently and continue to serve the aviation sector without continuous external reliance.
- Metric: Financial stability and self-sufficiency of training programs within states.
- Tracking Mechanism: We will assess the financial stability and self-sufficiency of training programs established under this initiative. This includes evaluating funding models, revenue generation, cost recovery mechanisms, and overall operational independence. Financially stable programs are key to ensuring continued operation independently without external support.

5.2. Feedback Mechanisms

5.2.1. Collection Methods:

a) Surveys
Distribute regular surveys to participants, trainers, and stakeholders to gather their opinions on various aspects of the training programs. Surveys should be designed to capture both quantitative and qualitative data.

b) Feedback Form
Provide feedback forms at the end of each training session to collect immediate reactions from participants. These forms should include questions about the content, delivery, and overall experience.

c) Observation
Use direct observation of training sessions and operational changes to assess the effectiveness of the training. Observations can help identify areas where adjustments are needed.

5.2.2. Usage:

a) Analysis
Aggregate and analyze the collected feedback to identify trends, strengths, and areas for improvement. Use statistical methods to quantify feedback and thematic analysis to interpret qualitative data.

b) Adjustments
Make necessary adjustments to training programs based on the feedback. This may include revising training materials, improve delivery methods, or addressing specific concerns raised by participants.

c) Reporting
Include feedback analysis in regular progress reports to stakeholders. Transparent reporting ensures that all parties are informed about the effectiveness of the training programs and the actions taken in response to feedback.

d) Continuous Improvement: Use feedback to inform ongoing improvements and updates to training curricula and methods. A continuous improvement approach ensures that training programs evolve to meet changing needs and standards.

5.3. Reporting:

5.3.1. Quarterly Reports

Deliver comprehensive reports every quarter in the RTCF WG Meeting (Another way to align with the ICAO APAC RO Program), including detailed analysis of performance metrics, feedback, and progress towards goals. Quarterly reports should provide a deeper dive into the data and highlight significant achievements and challenges.

5.3.2. Annual Reports

Summarize yearly achievements, lessons learned, and strategic adjustments in annual reports. These reports should provide a holistic view of the training programs' impact and outline plans for the future (DGCA Conference/RASG/APANPIRG/).

6. Summary

The Regional Training Program Proposal (RTPP) for the Asia-Pacific aviation sector is a comprehensive initiative designed to address critical training gaps and enhance aviation safety across the region. The proposal outlines several key points:

1. The aviation industry faces persistent challenges, including rapid technological advancements, evolving regulatory frameworks, and a continuous demand for skilled professionals. A comprehensive Training Needs Assessment (TNA) survey was conducted to identify critical skill gaps and emerging training requirements.
2. The RTPP aims to elevate skill competencies, strengthen regulatory compliance, reduce incidents and accidents, and improve operational efficiency. Key outcomes include increased regional harmonization, cultivation of local expertise, and preparation of the workforce for future challenges.
3. The proposal includes a detailed implementation plan, focusing on enhancing aviation safety through capacity building. The plan is strategically phased over a five-year period, commencing in 2026 and concluding in 2030.
4. **Key Findings**: The TNA survey identified significant skill gaps, resource constraints, and barriers to effective training implementation. The survey results highlighted the need for enhanced training efforts in regulatory roles and the development of a self-sustaining training ecosystem.
5. **Actionable Recommendations**: The proposal recommends developing comprehensive training plans, enhancing resource allocation,

strengthening local training infrastructure, promoting self-sufficiency, and encouraging regional collaboration.

Stakeholders are encouraged to support and actively participate in the RTPP to ensure its successful implementation. Collaboration and resource sharing are essential to building a robust and self-sufficient aviation training ecosystem in the Asia-Pacific region.

Appendices

- **TNA Survey Report**
- **Matrix of Training Needs**

Comprehensive Report Outline:

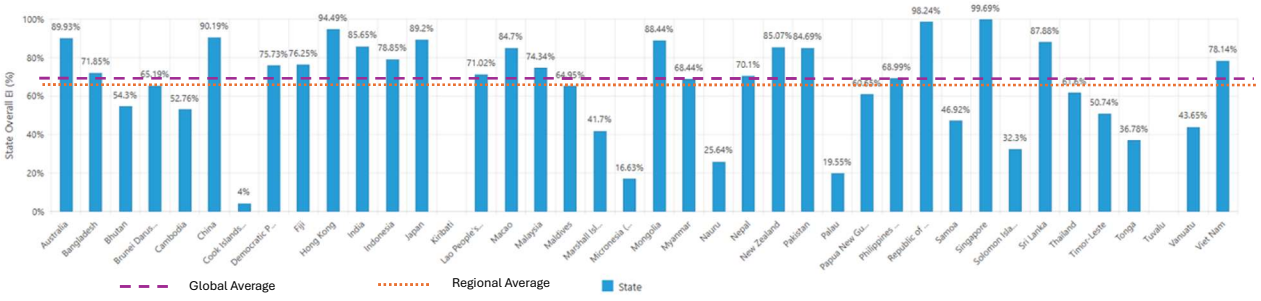
Regional Training Needs Analysis in the Asia Pacific Region

1. Executive Summary

This report presents the comprehensive findings from the regional Training Needs Analysis (TNA) survey conducted across the Asia Pacific region. With data collected from 35 out of 41 States/Administrations for a response rate of over 85%, the survey aimed to identify the current and evolving training needs within the aviation sector, focusing primarily on enhancing aviation safety, especially for Government Safety Inspectors (GSIs) and new generation aviation professionals. The survey results identified key skill gaps, training requirements, and challenges faced by States/Administrations in implementing effective training programs. The analysis was led by the United States of America with significant support and contribution from the Philippines and Vietnam. Key findings reveal shortages in Aircraft Operations (OPS), Air Navigation Services (ANS), and Personnel Licensing (PEL) inspectors, compounded by resource constraints such as inadequate funding and a lack of qualified instructors. This report focuses on the urgent need for strategic interventions and proposes recommendations to address these challenges. These include the development of comprehensive training programs, enhanced resource allocation, investing in local training infrastructure, promotion of training self-sufficiency, and enhanced collaboration between the States, regional bodies, and international organizations. This report will serve as a valuable resource for stakeholders in addressing the evolving training needs in the Asia-Pacific region.

2. Background

2.1 The Asia Pacific region is a dynamic and rapidly evolving area for civil aviation, presenting unique challenges and opportunities for enhancing aviation safety through targeted training and capacity building. It is one of the few regions with ICAO Universal Safety Oversight Audit Programme (USOAP) Effective Implementation (EI) scores lower than the global average with 66.6%, comparing 70.3% for global when this report was developed.



Graphic 2.1. EI overview indicates APAC's USOAP EI scores are lower than global average

2.2 In terms of Critical Elements (CE), the Asia-Pacific region had lower EI scores for all categories as compared to the global average. By CE, Resolution of Safety Concerns (CE-8) and Technical Personnel Qualifications and Training (CE-4) had the lowest scores at 49% and 54.98% respectively. The lower-than-average score for CE-4 has been identified as an area of improvement within the Asia Pacific Regional Aviation Safety Plan.

2.3 In response to these needs, the Training Needs Analysis (TNA) survey was initiated as part of the TNA Roadmap, agreed upon in August 2024 during the first meeting of the Regional Training Cooperation Framework Working Group (RTCF WG) under the Regional Cooperation Mechanism Task Force (RCM TF). The RTCF WG aims to systematically identify the common and evolving training needs of aviation professionals across the region.

2.4 The TNA survey serves as a tool in updating regional training need trends, focusing initially on aviation safety areas. This phase will inform subsequent efforts to address additional domains of civil aviation. The insights gathered from the survey results will culminate in the development of a Regional Training Program Proposal (RTPP), providing stakeholders with valuable guidance for designing and deploying effective training support tailored to the specific needs of aviation frontline professionals.

2.5 Key target groups for training enhancement include Government Safety Inspectors (GSIs), Commercial Pilots, Aircraft Maintenance Mechanics and Engineers, Cabin Crew, Air Traffic Controllers (ATCs), Flight Operations Officers, and Remotely Piloted Aircraft Systems (RPAS) Pilots/Operators. These roles are critical to maintaining and advancing aviation safety standards across the region.

2.6 This initiative is aligned with the strategic objectives of ICAO, supporting APAC States in fulfilling their commitments under the Beijing Declaration 2018 and the Delhi Declaration 2024.

2.7 The need for capacity building in APAC is underscored by the anticipated surge in air traffic, as highlighted in the recent joint Passenger Traffic Report by Airports Council International (ACI) World and ICAO. With global passenger traffic projected to exceed 12 billion by 2030, driven predominately by growth in APAC, the demand for skilled aviation professionals is set to rise significantly. By 2052, the region's influence in global air travel is expected to further solidify, with countries like China, India, Indonesia, and routes within APAC poised to dominate the top global markets, emphasizing the critical need for comprehensive training and capacity building to enhance safety and efficiency.

3. Purpose of the Report

3.1 The primary purpose of this report is to present the findings from the recently conducted regional TNA survey, which was distributed to 41 Asia Pacific States/Administrations[1]. This report provides a comprehensive analysis of the survey data results, identifying key trends, gaps,

[1] Afghanistan, Australia, Bangladesh, Bhutan, Brunei Darussalam, Cambodia, China, Hong Kong China, Macao China, Cook Islands, Democratic People's Republic of Korea, Fiji, India, Indonesia, Japan, Kiribati, Lao People's Democratic Republic, Malaysia, Maldives, Marshall Islands, Micronesia, Mongolia, Myanmar, Nauru, Nepal, New Zealand, Pakistan, Palau, Papua New Guinea, Philippines, Republic of Korea, Samoa, Singapore, Solomon Islands, Sri Lanka, Thailand, Timor Leste, Tonga, Tuvalu, Vanuatu, Viet Nam

and actionable recommendations. It is designed to serve as a foundational document for stakeholders, guiding collaborative efforts in capacity building and promoting a safer and more efficient aviation environment in the region.

3.2 The insights garnered from this survey are intended to inform the development of a comprehensive RTPP. This proposal will guide stakeholders in identifying key areas of concern and opportunities for the effective design and deployment of training support. The ultimate goal is to enhance the competencies of aviation frontline professionals, including GSIs, Commercial Pilots, Aircraft Maintenance Mechanics and Engineers, Cabin Crew, ATCs, Flight Operations Officers, and RPAS Pilots/Operators.

3.3 By aligning with the strategic objectives of ICAO and supporting the commitments made by APAC States under the Beijing Declaration 2018 and the Delhi Declaration 2024, this report seeks to foster a collaborative approach to capacity building within the region. It provides actionable recommendations that address the identified training needs and challenges, ensuring that the Asia Pacific aviation sector can meet the evolving demands of safety and efficiency.

3.4 Ultimately, this report serves as a foundational document for regional stakeholders, offering a roadmap to strengthen aviation safety through targeted training initiatives. It underscores the importance of harmonized efforts and regional cooperation in addressing the critical skill gaps and resource needs that have been highlighted through the survey responses.

4. Survey Methodology

4.1 To ensure a comprehensive understanding of the training needs across the Asia Pacific region, a detailed methodology was used to analyze survey responses received from 35 out of the 41 States/Administrations ('respondents') surveyed. This approach was structured to systematically categorize and interpret data, providing actionable insights for developing a RTPP.

4.2 The survey consisted of 38 questions divided into three parts: Part I focused on the Implementation of Training Plans, Part II addressed Aviation Professional Training for the Next Generation of Aviation Professionals, and Part III offered space for any additional comments. The survey was designed to capture a broad range of training-related issues, including skill development, resource needs, and training delivery methods.

4.3 Upon receiving responses, each submission was meticulously reviewed to identify key patterns and findings. Responses were categorized into thematic areas, enabling a focused analysis of skill gaps, resource requirements, and implementation challenges. This thematic approach facilitated the identification of cross-cutting trends and commonalities across different States, enhancing the depth of the analysis.

4.4 An in-depth analysis was conducted, which included synthesizing findings into cohesive sections and ensuring that all relevant insights were captured. Weekly team meetings were convened to discuss findings, address challenges, and refine thematic categories, ensuring comprehensive coverage of all survey responses.

4.5 Following the synthesis of data, a draft outline for the report was developed, highlighting identified needs and potential focus areas for training efforts. Initial data-driven recommendations were formulated. The team collaborated to refine these recommendations, focusing on clarity and feasibility.

4.6 The draft report underwent multiple rounds of refinement to integrate detailed analysis and supporting data. Consistency and coherence across sections were ensured through team review sessions. Visual aids and summaries were created to enhance the presentation of findings, making the report accessible and impactful.

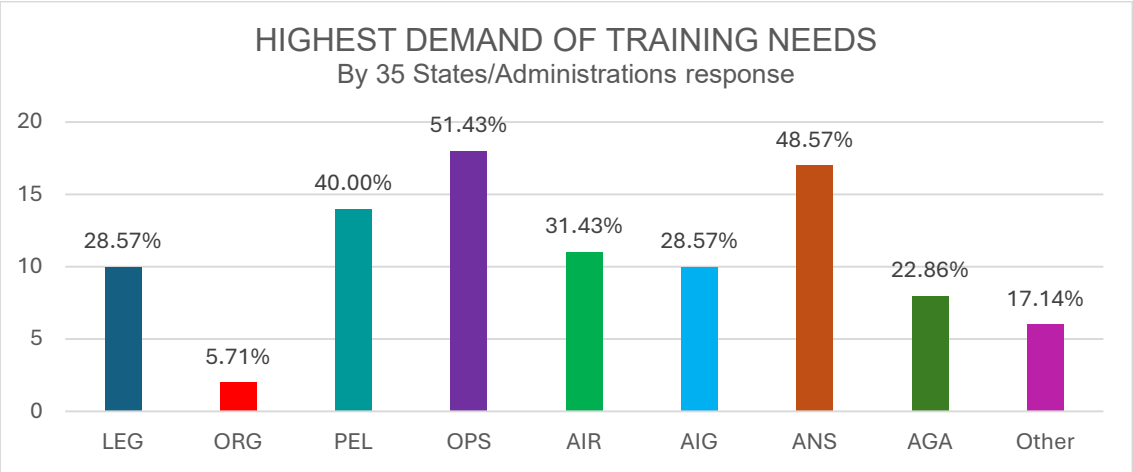
4.7 The final stages involved a polishing of the report to articulate insights and recommendations clearly, alongside a thorough review of visual aids for clarity and impact. Additional steps included expert consultations with both the analysis team and the ICAO Asia and Pacific Regional Office (ICAO APAC RO) to validate the findings and ensure the report's excellence and relevance to stakeholders.

4.8 This structured methodology not only ensured a high-quality analysis but also actionable recommendations, aligned with the strategic objectives of ICAO and the commitments of APAC States. Through this approach, the report aims to serve as a valuable resource for addressing the evolving training needs in the region's aviation sector.

5. Key Findings

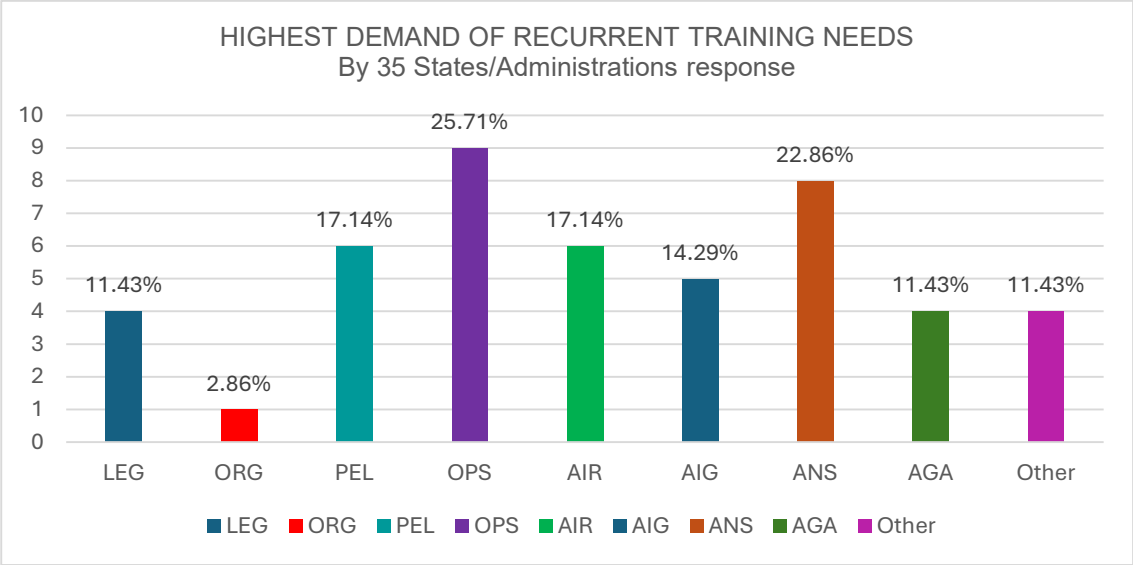
5.1 The survey results highlighted significant skills gaps, resource constraints, and barriers to effective training implementation. While many respondents have recognized their training needs and have developed plans to address them, others still lack formal strategies, indicating a need for targeted guidance and support. The core findings below emphasize the urgency for capacity building, with specific emphasis on developing a self-sustaining training ecosystem that addresses both immediate and long-term workforce demands.

6. Core Finding 1: Skill Gaps and Training Requirements



Graphic 6.1. Training Needs Infographic (with OPS, PEL and ANS emerging as Top 3)

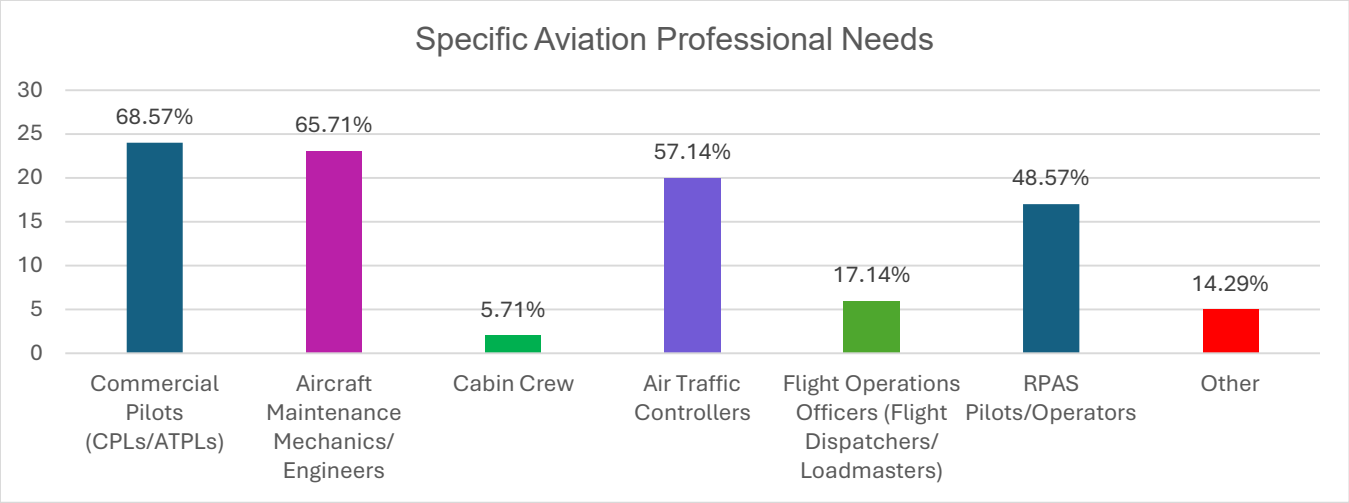
6.1 The survey results identify the top three focus areas where their State/Administration has the highest training needs for their inspectors. The results showed that OPS was the most demanded area with 18 out of 35 respondents identifying it as a high-demand area, which translates to approximately 51.4%, ANS at 48.6% with 17 respondents, and PEL at 40.0% with 14 respondents. A significant majority, 65.7% of States/Administrations, have existing training plans, indicating a strong awareness of training needs and a proactive approach to addressing them. Nonetheless, 12 out of 35 respondents lack a training implementation plan, suggesting a need for guidance in developing and executing these plans.



Graphic 6.2. Top 3 Recurrent Training Needs Infographic

6.2 In terms of recurrency training, the primary areas identified are OPS with 9 out of 35 respondents identifying it as a high-demand area, which translates to approximately 25.7%, ANS was highlighted by 8 out of 35 respondents (22.9%), PEL was identified by 6 out of 35 respondents (17.1%), and Airworthiness of Aircraft similarly (17.1%). Despite these needs, only 14 of 35 APAC States/Administrations currently express a need for recurrency training, indicating that most respondents may already be addressing these needs through existing programs or that they view initial training as a more pressing concern. This also highlights that recurrent training should be considered when developing training plans.

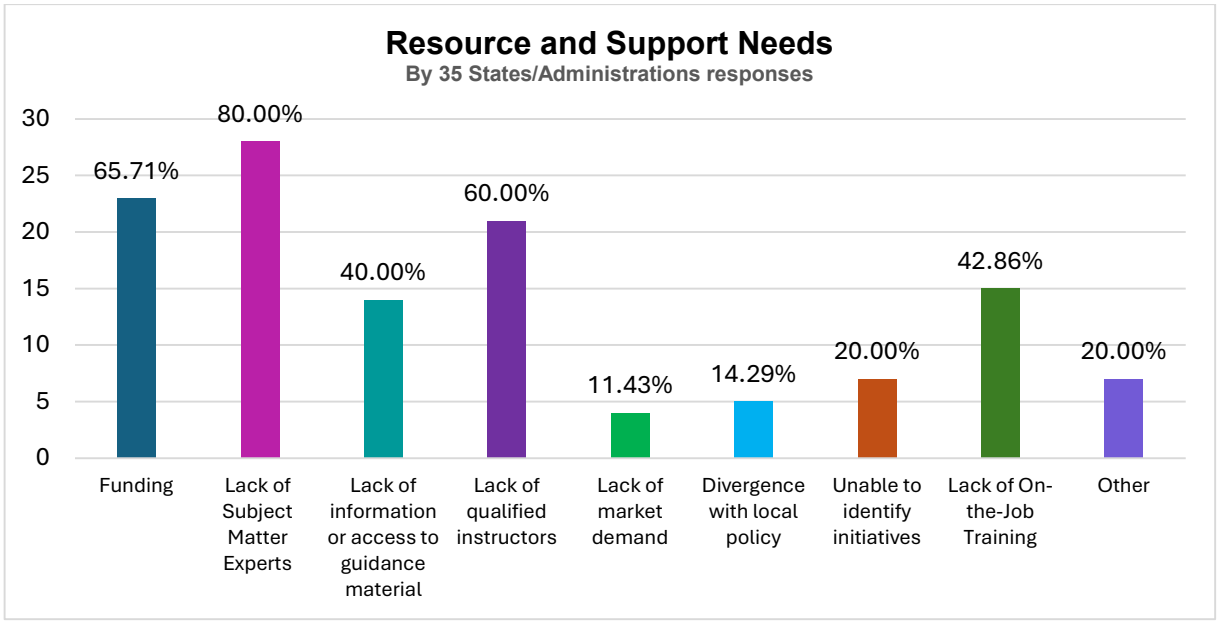
6.3 The results also highlight significant skill shortages in various GSI disciplines. Most respondents anticipate needing 0-5 new GSIs in OPS, PEL, and ANS over the next three years, with some expecting this number to rise above ten within five years. Specifically, 74% foresee a need for 0-5 new inspectors in ANS within three years, with 17% expecting 6-10 inspectors within five years. In OPS, 60% anticipate needing 0-5 new inspectors, 17% foresee 6-10 inspectors, and 23% expect 10-15 inspectors over five years. For PEL, 86% project a need for 0-5 new inspectors in three years, with 14% anticipating 6-10 inspectors in five years. These projections underscore the need for enhanced training efforts in regulatory roles.



Graphic 6.3. Specific Aviation Professional Needs Infographic

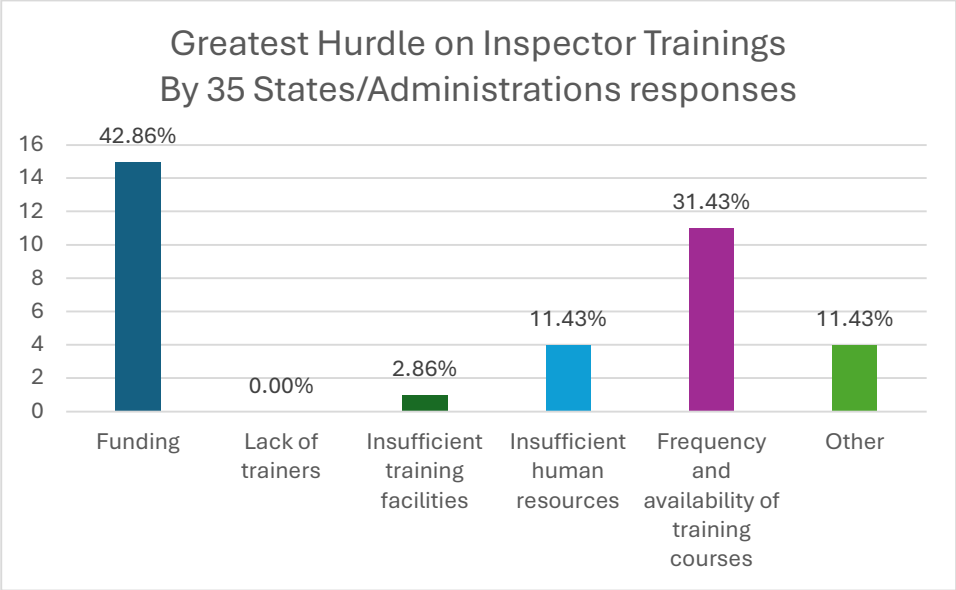
6.4 The demand for specific aviation professionals is also notable, with 24 respondents indicating a need for Commercial Pilots, 23 for Aircraft Maintenance Engineers, and 20 for ATCs over the next five years. However, local training capacity is insufficient, with approximately half of the States/Administrations only able to train 0-49 pilots and maintenance engineers, and 0-24 ATCs annually. RPAS training capacity is particularly in need, with 16 States/Administrations able to train fewer than 24 individuals per year and 16 unable to quantify their output. This reveals a critical mismatch between workforce needs and the training pipeline, emphasizing the urgency for expanded training infrastructure and capacity building.

7. Core Finding 2: Resource and Support Needs



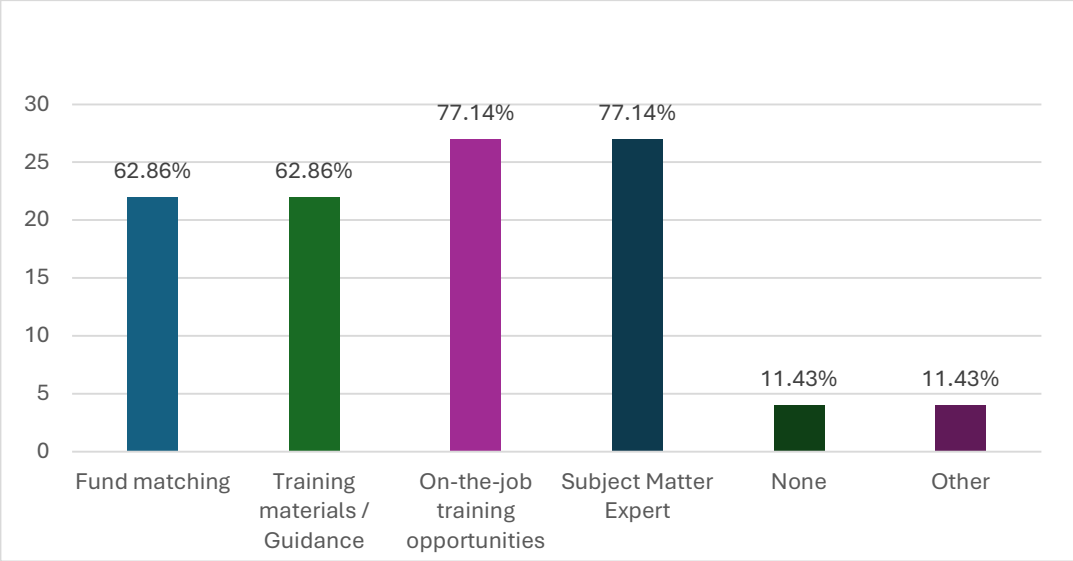
Graphic 7.1. Resources and Support Needs Infographic

7.1 The survey results indicate significant resources and support needs for safety-related training programs. The main challenges include a lack of SMEs (80.0%), funding (65.7%), and a shortage of qualified instructors (60.0%). Additionally, 14 out of 35 respondents reported inadequate training facilities, insufficient guidance materials and standardized training, infrequent training courses, and ineffective training plan implementation as significant pain points.

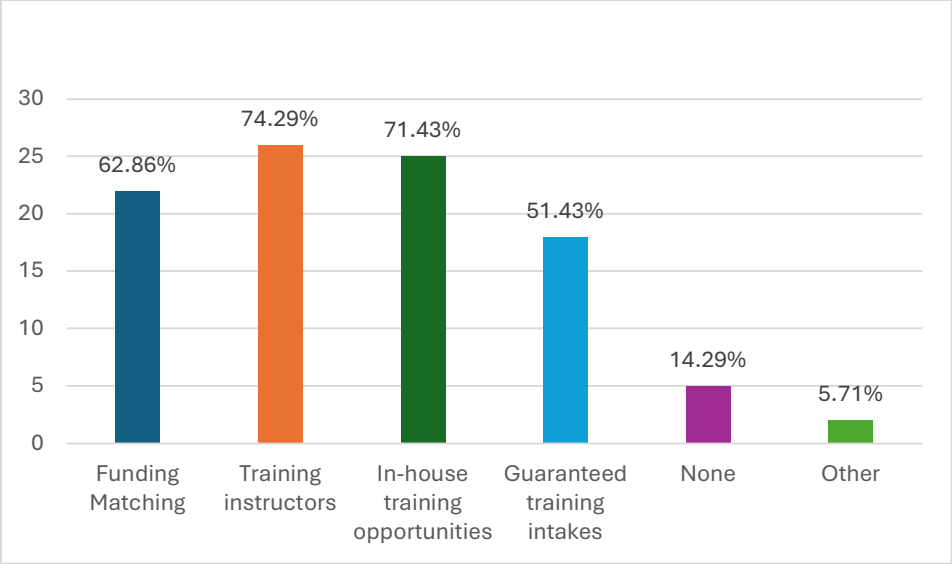


Graphic 7.2. Greatest Hurdles to Inspector Training Infographic

7.2 Inspector training faces similar barriers, with funding being the primary obstacle for 15 of the 35 respondents. The limited frequency and availability of training courses, reported by 11 respondents, are linked to the scarcity of qualified instructors, which in turn restricts the number of available training sessions.

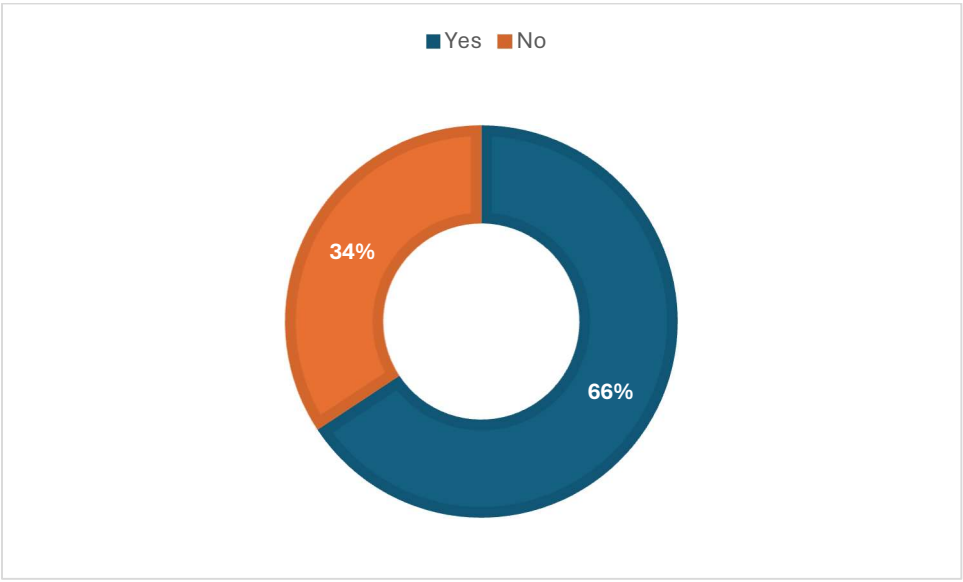


Graphic 7.3. Expected Training Assistance from ICAO by States/Administration responses

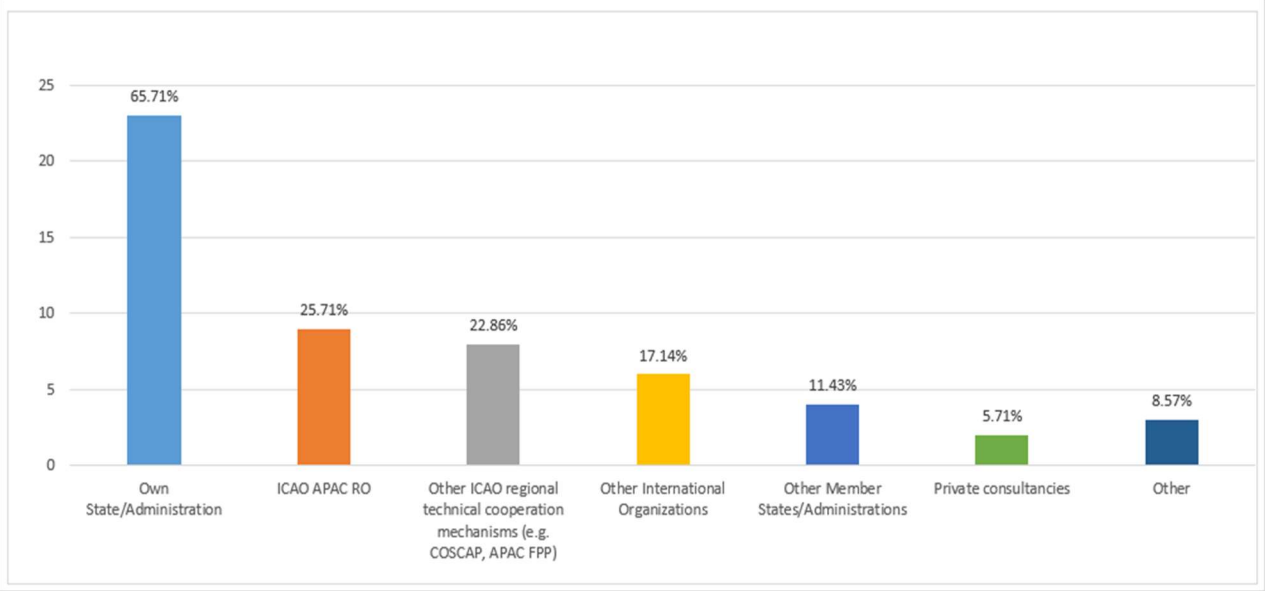


Graphic 7.4. Expected Training Assistance from Organizations other than ICAO by States/Administration responses

7.3 States/Administrations are actively seeking assistance, with 77.1% (27 respondents) looking to ICAO for SMEs and on-the-job training opportunities. Moreover, 62.9% (22 respondents) require fund matching and support with training materials and guidance. Beyond ICAO, 26 respondents (75.3%) are requesting support from other organizations for training instructors, 25 respondents are looking at in-house training opportunities (71.4%), and 22 respondents are seeking funding matching (62.8%).

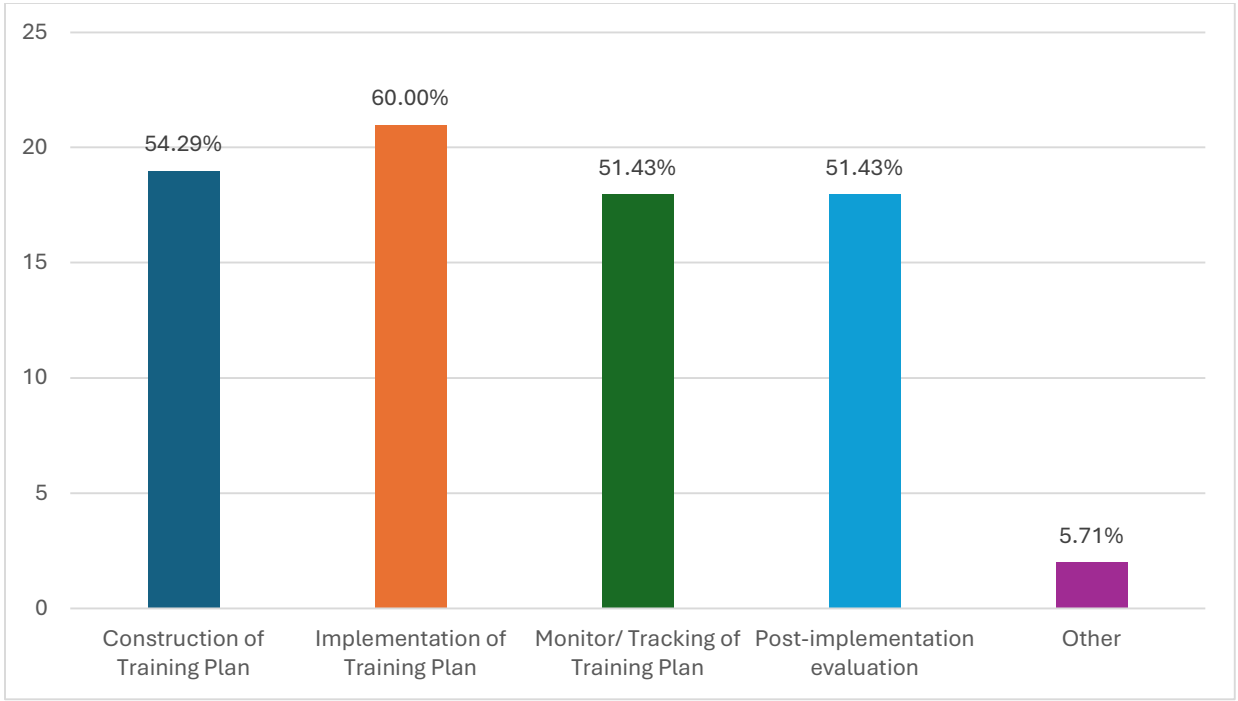


Graphic 7.5 Inspector Training Implementation on States/Administrations



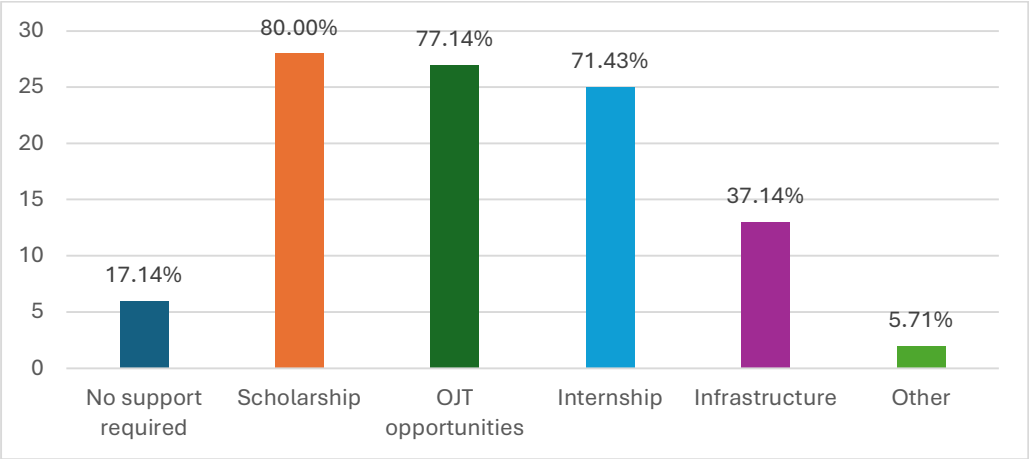
Graphic 7.6 Inspector training implementation support sources

7.4 In terms of training planning and implementation, 65.7% (12 of 35 respondents) of States/Administrations rely on their own administrations for support, with ICAO APAC RO and other ICAO regional mechanisms being secondary sources. Encouragingly, 65.7% of States/Administrations provide support for training implementation, highlighting a positive trend towards achieving organizational goals through leadership support.



Graphic 7.7 Service provided by the advisory/recommending bodies to Inspector Training

7.5 However, 40% to 45% of States/Administrations lack access to services that facilitate training planning and implementation. While 60.0% of States/Administrations have advisory bodies assisting in training plan implementation, only 54.3% receive services for constructing training plans, and 51.4% for monitoring and evaluation.



Graphic 7.8 Expected support from external agencies related to the Next Generation of Aviation Professional

7.6 To address these challenges and develop a self-sustaining training ecosystem, States/Administrations have identified a critical need for external resources and support. Funding, qualified instructors/SMEs, technical infrastructure, and ICAO guidance are top priorities. Scholarships (28 respondents), on-the-job training opportunities (27 respondents), and internships (25 respondents) are particularly sought after, indicating a strong desire for hands-on, capacity-building opportunities.

7.7 Additional comments emphasize the importance of regional collaboration, harmonized frameworks, access to planning tools, training materials, and instructor development programs as essential components of sustainable support mechanisms. These findings highlight the urgency for comprehensive external support to build a robust and self-sufficient aviation training ecosystem in the region.

8. Core Finding 3: Challenges and Barriers to Implementation

8.1 The survey results highlight several significant challenges and barriers to implementing effective training programs. As mentioned in section 6.1, a key issue is that 12 out of 35 respondents (35.3%) do not have existing training plans. While nine (75.0%) of these respondents plan to develop a training implementation plan within the next two years, and 2 respondents (18.2%) foresee this development in three to five years, the absence of current plans poses a challenge in addressing their training needs. One State views this as an urgent matter, intending to develop a plan immediately.

8.2 Further complicating training implementation are obstacles such as a lack of SMEs, as mentioned in section 7.1, limited funding, and a shortage of qualified instructors, particularly for

safety-related and inspector training. To overcome these challenges, 77.1% of respondents are seeking assistance from ICAO, while others are looking for support from additional organizations for training instructors (74.3%), in-house training opportunities (71.4%), and fund matching (62.8%).

8.3 A significant barrier to safety training is the absence of a specialized institute in over half of the respondents (51.4%), which increases the financial burden of accessing training elsewhere. Additionally, local training options for inspectors are limited: only 15 out of 35 respondents offer ANS inspector training, 14 respondents provide Aerodrome inspector training, and 13 out of 35 respondents have training for both OPS and Continuing Airworthiness Inspectors. This limitation contributes to the scarcity of GSIs, highlighting the need for technical and financial support to improve the situation.

8.4 External access to inspector training is primarily hindered by funding constraints, affecting 15 of the 35 States/Administrations. The availability and frequency of training courses are also problematic, linked to the limited number of qualified instructors, which in turn restricts the number of available training sessions.

8.5 States face considerable challenges in achieving training independence. A total of 82% of responses indicate that States/Administrations expect to be under 50% self-sufficient in training within three years, with 48% projecting under 25% self-sufficiency. Even in the medium-term, 45% of respondents anticipate remaining under 50% self-sufficient after five years. This heavy reliance on external systems is due to severe training capacity constraints, including limited funding, a lack of SMEs and instructors, and technical limitations.

8.6 Local training capacity is notably a challenge, with most respondents reporting annual outputs of under 49 across major roles. A significant portion of respondents (24–27%) cannot quantify their training outputs at all, indicating deficiencies in data systems, planning mechanisms, and institutional readiness, particularly for RPAS, ATCs, and dispatchers. These findings underscore the urgent need for strategic planning and enhanced training infrastructure to address these challenges effectively.

9. Core Finding 4: Timelines and Urgency of Needs

9.1 The survey data indicates a significant urgency among States to develop and implement training plans, particularly for key aviation roles. Among the 12 States/Administrations lacking existing training plans, 81.3% (9 out of 12) are aiming to establish such plans within the next 1-2 years, with one State prioritizing this as an immediate task.

9.2 In terms of specific roles, 80% of the respondents are planning to add 0-5 qualified Aerodromes and Ground Aids inspectors over the next three years. This projection reflects the limited availability of local training, as only 14 respondents currently offer training for Aerodromes inspectors. This constraint is expected to persist over the next 3-5 years, with 24 out of 35 respondents anticipating the addition of just 0-5 qualified inspectors in these areas.

9.3 Similarly, 68.6% of respondents (24 out of 35) project a modest increase of 0-5 additional qualified GSIs in the next three years. This is consistent with the limited training opportunities available for PEL, with only 12 respondents currently offering such programs. Looking ahead, 22 out of 35 respondents foresee adding 0-5 GSI instructors within the next five years.

9.4 The survey highlights a broader need for capacity-building within the next three to five years, as many respondents foresee the necessity to recruit and train additional inspectors but currently lack the infrastructure to meet these demands. This urgency is underscored by the finding that over 65% of respondents expect to add only 0–5 ANS inspectors within both the 3- and 5-year outlooks, reflecting limited self-sufficiency in inspector training.

9.5 The region is facing an urgent need for capacity building to maintain regulatory oversight and ensure safe, efficient aviation operations. The most critical aviation professionals required over the next five years include commercial pilots, aircraft maintenance engineers, and ATCs. Addressing these needs will require significant action to build the necessary training infrastructure and capacity in the short-term while working towards greater self-sufficiency in the medium-term. The current low levels of training capacity highlight a pressing need for external support and internal strategic planning to meet the region's growing aviation demands.

10. Identified Trends and Gaps

10.1 Training Plan Development: A significant portion of respondents (35.3%) lack formal training plans, though 81.3% of these States/Administrations plan to develop them within the next 1-2 years, indicating a positive trend toward addressing this gap.

10.2 Resource Constraints: There is a pronounced shortage of SMEs, qualified instructors, and funding, particularly for safety and inspector training programs. This gap is exacerbated by the absence of specialized training institutes in over half of the respondents (51.4%).

10.3 Local Training Capacity: The capacity to train key aviation professionals locally is notably insufficient. For example, only half of the respondents can train a small number of commercial pilots, aircraft maintenance engineers, and ATCs annually. This gap extends to RPAS training, where many States/Administrations lack the ability to quantify their training outputs.

10.4 Self-Sufficiency in Training: A significant reliance on external systems is evident, with 82% of respondents projecting less than 50% self-sufficiency in training within three years. This highlights the need for strategic planning and investment in local training infrastructure.

11. Actionable Recommendations

11.1 Develop Comprehensive Training Plans: Encourage all States/Administrations to formulate and implement robust training plans within the next 1-2 years, providing targeted guidance and resources to those currently without plans.

11.2 Enhance Resource Allocation: Increase funding and support for the recruitment, training, and retention of SMEs and ICAO qualified instructors, focusing on safety-related and inspector training programs.

11.3 Strengthen Local Training Infrastructure: Invest in the development of specialized training institutes and facilities to enhance local training capacity, particularly for critical roles such as ANS, aerodrome inspectors, and RPAS operators.

11.4 Promote Self-Sufficiency: Implement strategic initiatives to increase training self-sufficiency, aiming for at least 50% self-sufficiency across States/Administrations within the next five years.

11.5 Encourage Regional Collaboration: Foster partnerships between States, regional bodies, and international organizations to share resources, best practices, and training materials.

12. Implementation Strategies and Timelines

12.1 Short-Term (1-2 Years):

a) Develop Comprehensive Training Plans:
   - *Strategy:* Organize regional workshops to assist States/Administrations in drafting training plans using standardized templates and guidance documents. Facilitate peer-to-peer learning by connecting States/Administrations with established plans to those developing theirs.
   - *Timeline:* Initiate workshops within the first six months and complete initial drafts of training plans by the end of year one.

b) Enhance Resource Allocation:
   - *Strategy:* Establish a regional funding pool or grant system to support States/Administrations in recruitment, training and retention SMEs and instructors. Encourage private-public partnerships to leverage additional resources and expertise, and explore positive inducements/recognition programs for retention of SMEs and instructors.
   - *Timeline:* Launch the funding pool and partnerships within the first year, with initial funding allocations completed by year two.

12.2 Medium-Term (3-5 Years):

c) Strengthen Local Training Infrastructure:
   - *Strategy:* Conduct a needs assessment to identify gaps in existing infrastructure and prioritize investments. Develop a phased plan for building or upgrading training facilities.
   - *Timeline:* Complete the needs assessment within the first year, and begin infrastructure projects by year two, aiming for significant progress by the end of year five.

d) Promote Self-Sufficiency:

- *Strategy:* Create incentives for States/Administrations to develop in-house training programs and establish/promote certification processes for locally trained personnel. Monitor progress and provide feedback to encourage continuous improvements.
- *Timeline:* Roll out incentives and certification processes by year three, with a target of achieving 50% self-sufficiency across States/Administrations by the end of year five.

12.3 Ongoing Initiatives:

a) Encourage Regional Collaboration:

- *Strategy:* Establish a regional training compendium to facilitate regular communication and collaboration among States/Administrations. Develop an online platform for resource sharing and joint training initiatives.
- *Timeline:* Launch the network and platform within the first year and maintain regular communication and collaboration throughout the implementation period.

12.4 Roles for Stakeholders:

a) ICAO: Provide technical support and resources for plan development, fund allocation, and infrastructure projects.
b) Regional Bodies: Coordinate cross-border training initiatives, facilitate workshops, and manage the regional training network.
c) States: Develop and execute training plans, invest in local infrastructure, and participate actively in regional collaboration efforts.
d) International Organizations and Industry Partners: Contribute resources and expertise that support regional training.

13. Conclusion

13.1 The survey results identify critical gaps and urgent needs in the aviation training sector within the Asia-Pacific region. Addressing these challenges requires a coordinated effort from all stakeholders to invest in capacity building and establish a self-sustaining training ecosystem. By collaborating and leveraging resources effectively, States/Administrations can ensure the development of a skilled workforce to maintain regulatory oversight and support safe and efficient aviation operations.

13.2 Stakeholders are encouraged to prioritize collaboration and investment in aviation training infrastructure, embracing innovation and strategic planning to meet the growing demands of the industry. Together, we can build a resilient and capable workforce that will drive the region's aviation sector forward.

14. Appendices

A. TNA Report List of Acronyms

B. TNA Survey Data and Analysis

Appendix A

TNA Report List of Acronyms

Airports Council International	ACI
Air Navigation Services	ANS
Aircraft Operations	OPS
Air Traffic Controller	ATC
Effective Implementation	EI
Government Safety Inspector	GSI
ICAO Asia and Pacific Regional Office	ICAO APAC RO
ICAO Universal Safety Oversight Audit Programme	USOAP
On-the-Job Training	OJT
Personnel Licensing	PEL
Regional Cooperation Mechanism Task Force	RCM TF
Remotely Piloted Aircraft Systems	RPAS
Regional Training Cooperation Framework Working Group	RTCF WG
Regional Training Program Proposal	RTPP
Subject Matter Expert	SME
Training Needs Analysis	TNA

Appendix B

TNA Survey Data and Analysis

TNA Survey data and analysis derived from the from software is attached for reference.

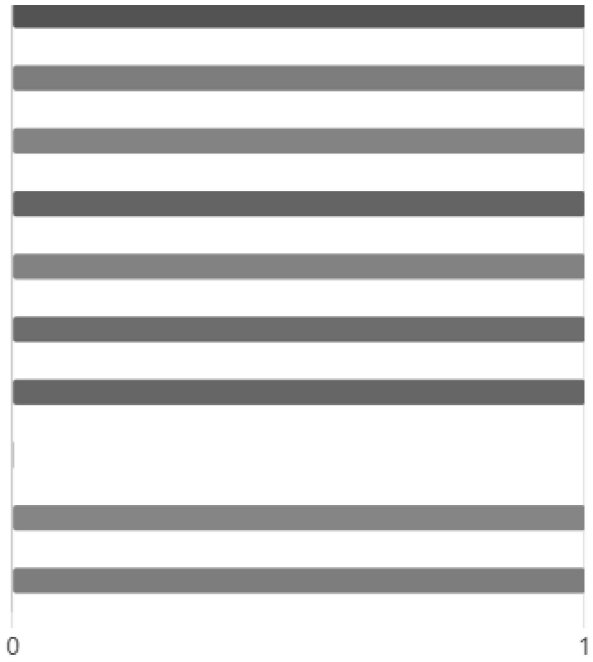
Responses Overview

Active

Responses	Average Time	Duration
35	762:35	146 Days

1. Please select your State/Administration

Afghanistan	1
Australia	1
Bangladesh	1
Bhutan	1
Brunei Darussalam	1
Cambodia	1
China	1
Hong Kong China	1
Macao China	1
Cook Island	0
Democratic People's Republic of Korea	0
Fiji	1
India	1
Indonesia	1
Japan	1
Kiribati	1
Lao People's Democratic Republic	1
Malaysia	1
Maldives	1
Marshal Islands	0
Micronesia	1
Mongolia	1
Myanmar	0
Nauru	1
Nepal	1
New Zealand	1
Pakistan	1
Palau	0
Papua New Guinea	1
Philippines	1
Republic of Korea	1
Samoa	1
Singapore	1
Solomon Islands	1
Sri Lanka	1



Thailand	1
Timor Leste	1
Tonga	1
Tuvalu	0
Vanuatu	1
Viet Nam	1

2. Name of Point of Contact (POC)

35
Responses

Latest Responses
"Ms Susanna Lui"
"Tiamwa Teaiwa"
"National Continous Monitoring Coordinator - Ms. Hannah P..."
• • •

2 respondents (6%) answered Mrs for this question.

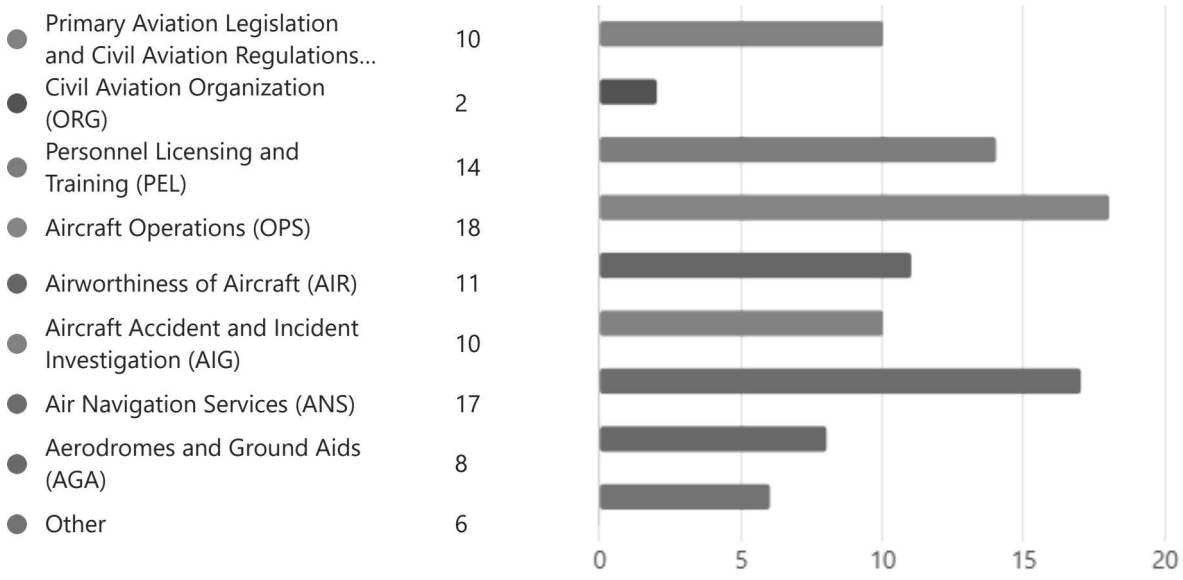
3. POC Email Address

35
Responses

Latest Responses
"snslui@cad.gov.hk"
"ans.ai@mict.gov.ki"
"htopa@casapng.gov.pg"
• • •

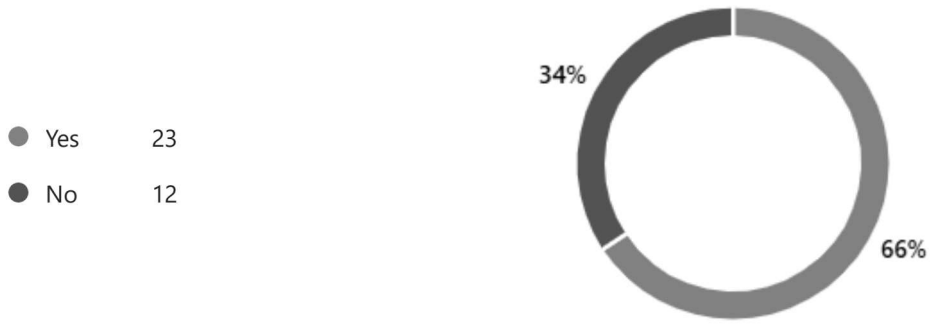
4. Question 1

Please Identify up to three (3) focus areas where your State/Administration has highest training need s.



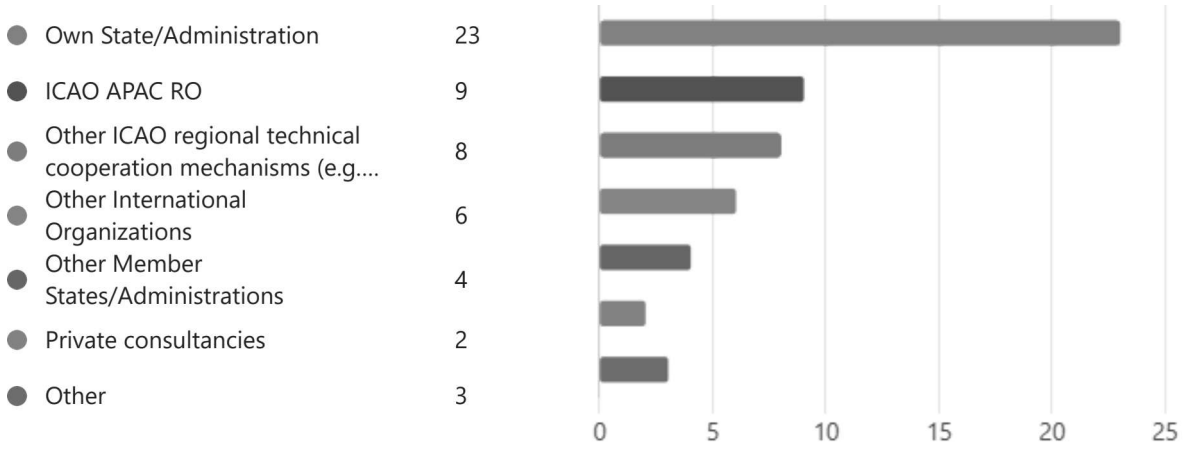
5. Question 2

Does your State/Administration have any existing implementation plans for the identified training ne eds?



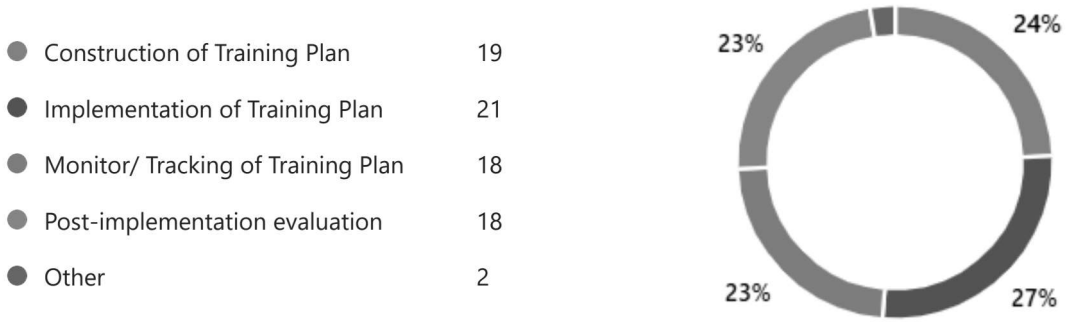
6. Question 3

Who is/are the advisory/ recommending bodies that support your training implementation plans?



7. Question 4

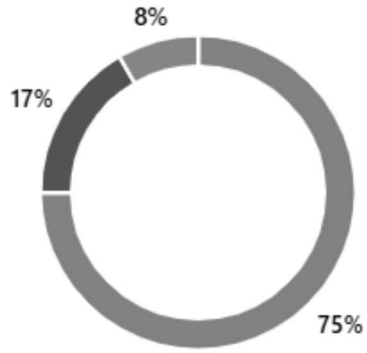
What kind of services would be provided by the advisory/recommending bodies to facilitate the traini ng implementation plan?



8. Question 5

Do you have any intention to develop a training implementation plan?

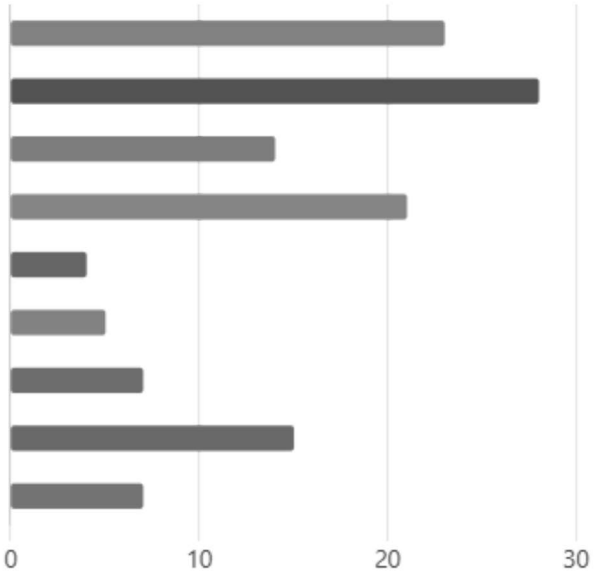
Yes, in coming 1-2 years	9
Yes, in coming 3-5 years	2
Yes, but not within the next 5 years	0
Other	1



9. Question 6

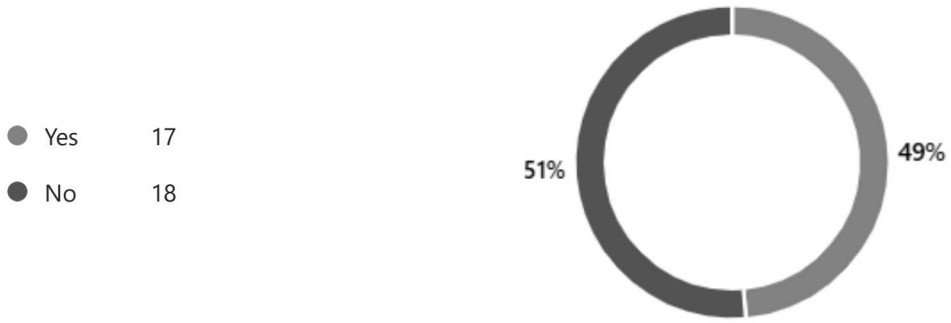
What challenges do you face in implementing any **safety** related training programmes?

Funding	23
Lack of Subject Matter Experts	28
Lack of information or access to guidance material	14
Lack of qualified instructors	21
Lack of market demand	4
Divergence with local policy	5
Unable to identify initiatives	7
Lack of On-the-Job Training	15
Other	7



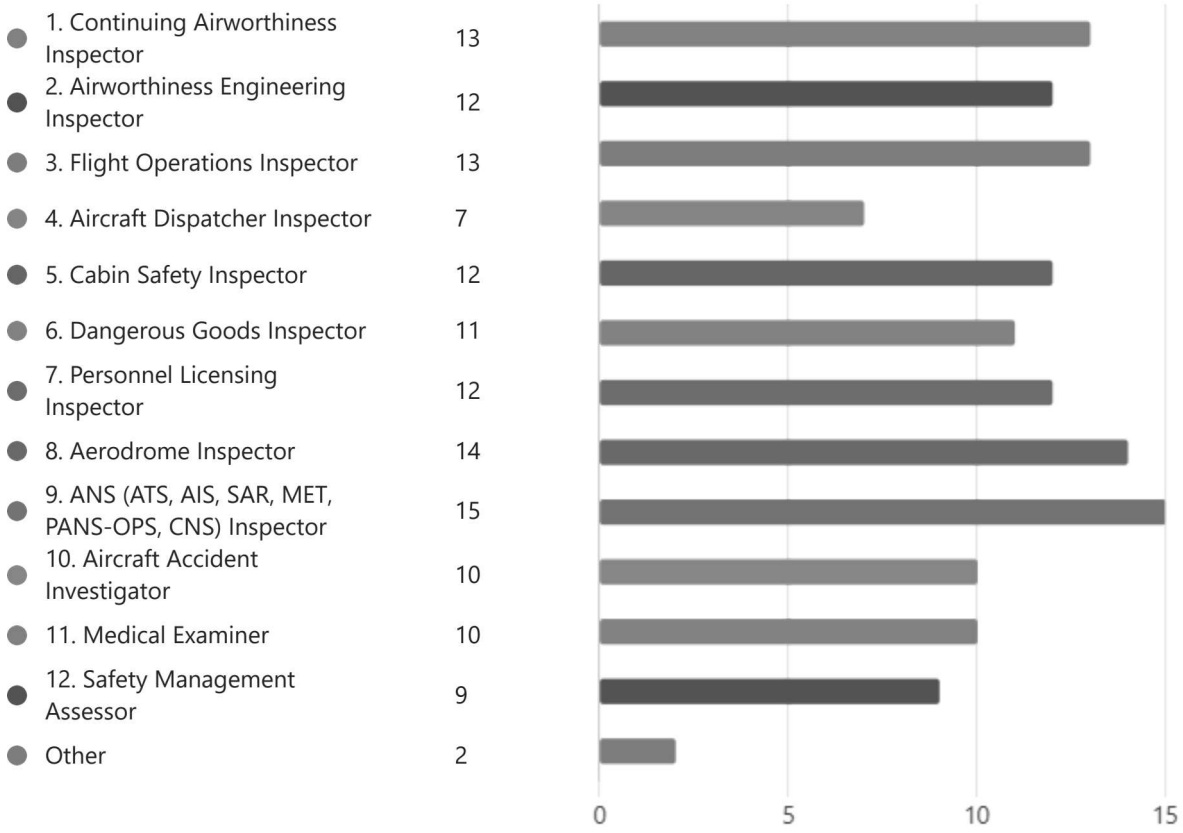
10. Question 7

Does your State/Administration have any specialised institutes or section for safety training?



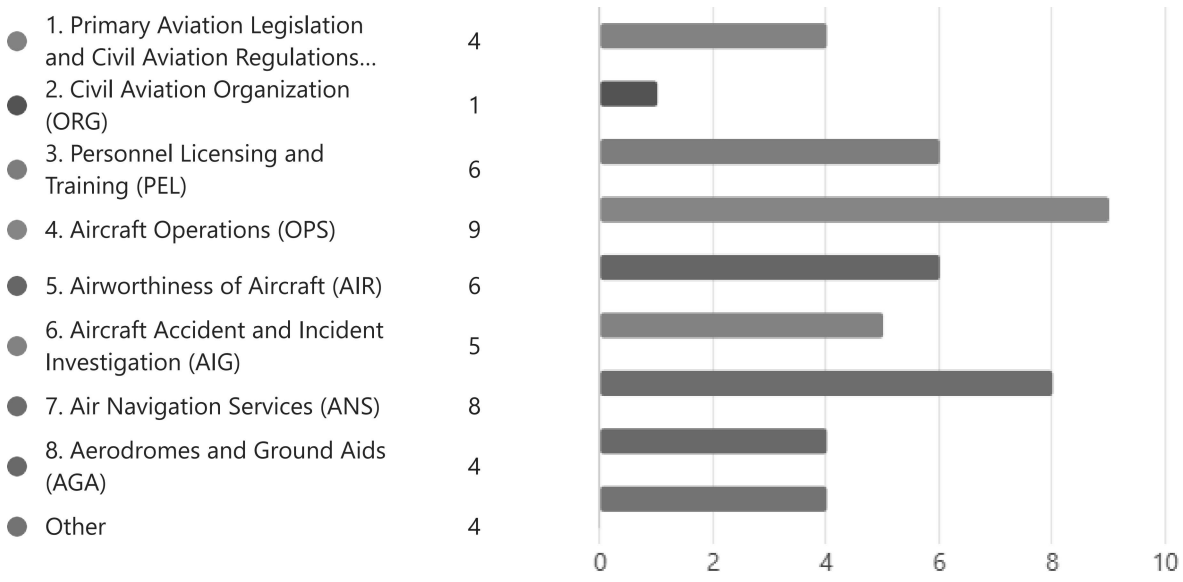
11. Question 8

Please identify the Inspectors training provided within your own State/Administration



12. Question 9

Please Identify up to three (3) focus area where your State/Administration has highest training need s for recurrent training.



13. Question 10

Please provide any weaknesses or pain points regarding **safety** related training in your State/Administration

27
Responses

Latest Responses

"1. Frequency of training courses; 2. Availability of trainees t..."

"qualified trainer on-the job training"

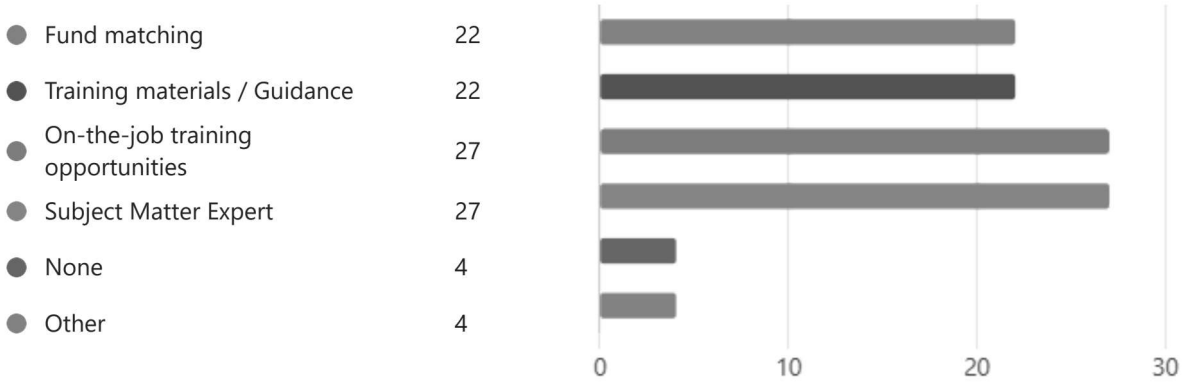
"Individual Training Plans for Safety Inspectors are develope..."

• • •

16 respondents (59%) answered training for this question.

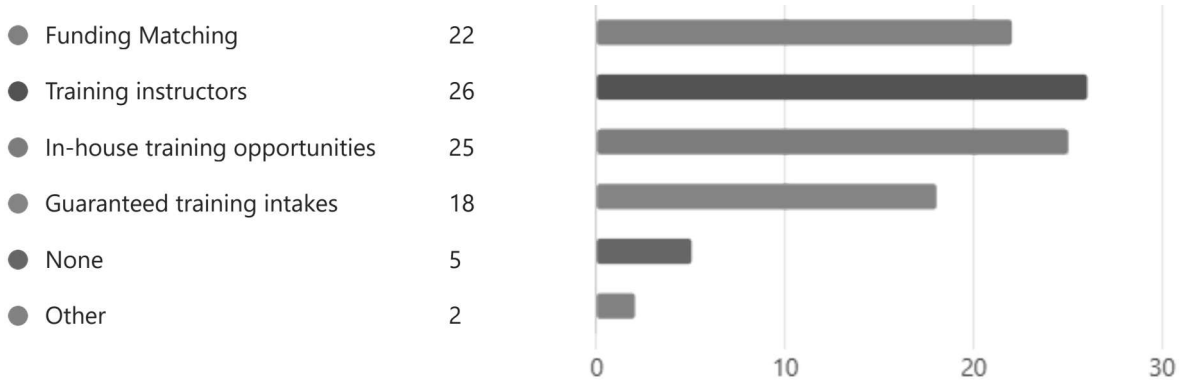
14. Question 11

What kind of training assistance do you expect from ICAO?



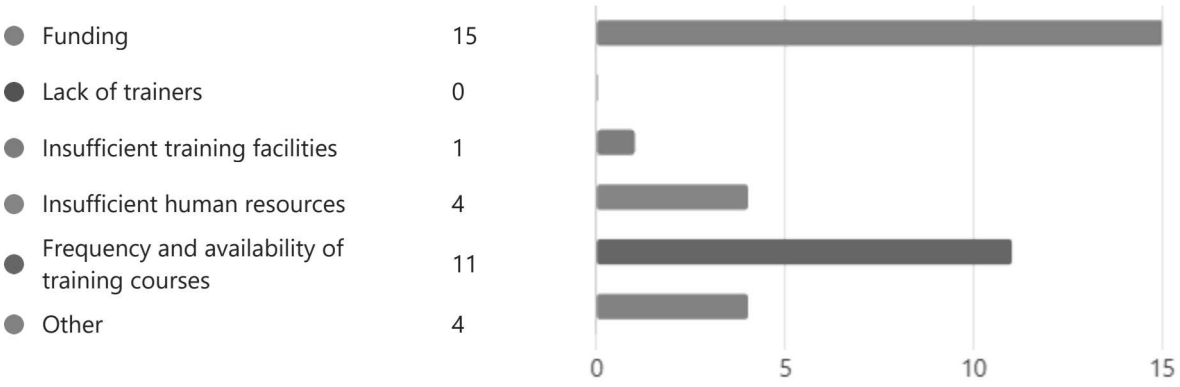
15. Question 12

What kind of training assistance do you expect from organizations other than ICAO?



16. Question 13

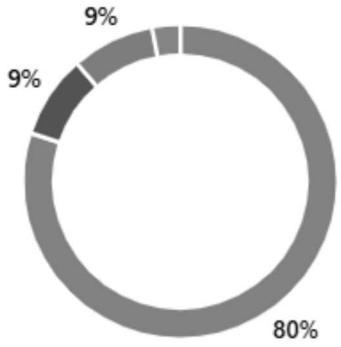
What is the greatest hurdle that hinder your organization from sending staff members to attend ins pector training?



17. Question 14

In 3 years, how many additional qualified inspectors in **Aerodromes and Ground Aids** are expected within your State/Administration?

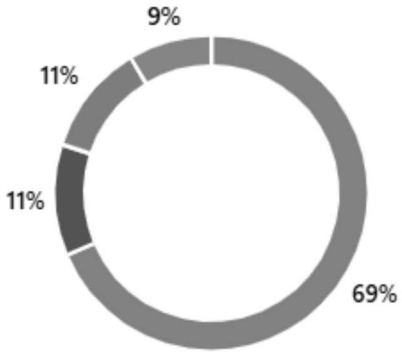
0-5	28
6-10	3
10-15	3
15+	1



18. Question 15

In 5 years, how many additional qualified inspectors in **Aerodromes and Ground Aids** are expected within your States/Administration?

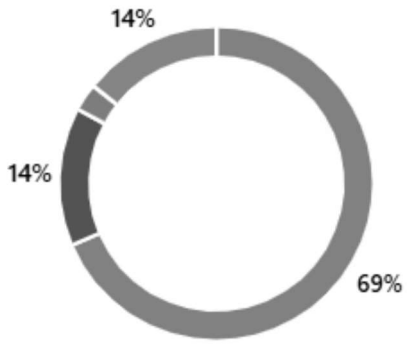
0-5	24
6-10	4
10-15	4
15+	3



19. Question 16

In 3 years, how many additional qualified Government Safety Inspectors (GSIs) in **Airworthiness** are expected within your State/Administration?

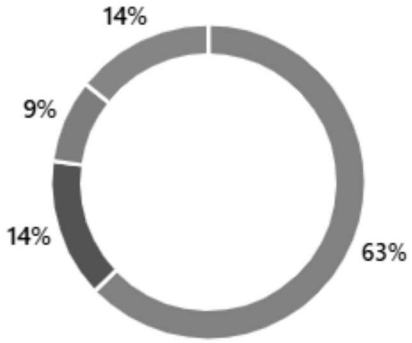
0-5	24
6-10	5
10-15	1
15+	5



20. Question 17

In 5 years, how many additional qualified Government Safety Inspectors (GSIs) in **Airworthiness** are expected within your States/Administration?

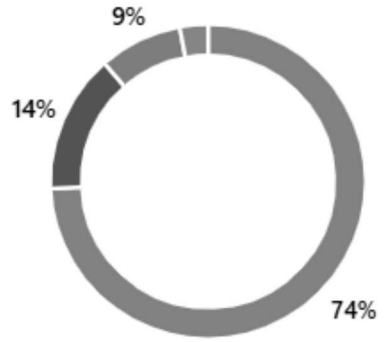
0-5	22
6-10	5
10-15	3
15+	5



21. Question 18

In 3 years, how many additional qualified inspectors in **Air Navigation Service** are expected within your State/Administration?

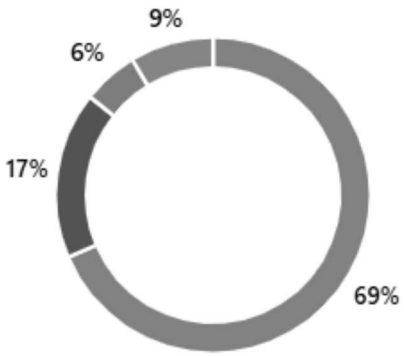
0-5	26
6-10	5
10-15	3
15+	1



22. Question 19

In 5 years, how many additional qualified inspectors in **Air Navigation Service** are expected within your State/Administration?

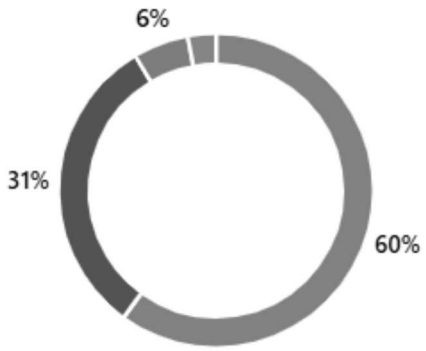
0-5	24
6-10	6
10-15	2
15+	3



23. Question 20

In 3 years, how many additional qualified Government Safety Inspectors (GSIs) in **Operations** are ex pected within your State/Administration?

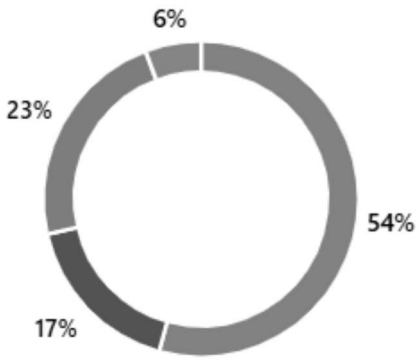
0-5	21
6-10	11
10-15	2
15+	1



24. Question 21

In 5 years, how many additional qualified Government Safety Inspectors (GSIs) in **Operations** are ex pected within your State/Administration?

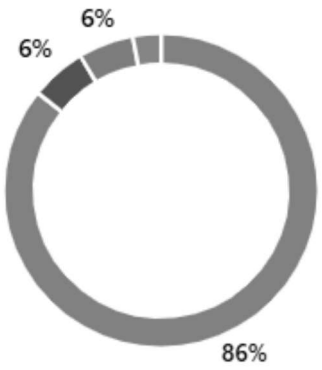
0-5	19
6-10	6
10-15	8
15+	2



25. Question 22

In 3 years, how many additional qualified Government Safety Inspectors (GSIs) in **Personnel Licensing** are expected within your State/Administration?

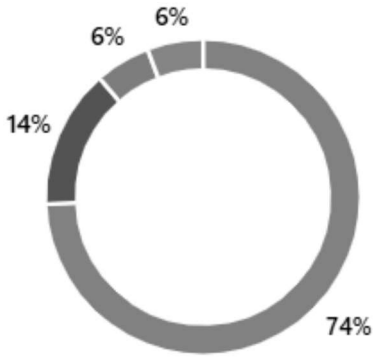
0-5	30
6-10	2
10-15	2
15+	1



26. Question 23

In 5 years, how many additional qualified Government Safety Inspectors (GSIs) in **Personnel Licensing** are expected within your State/Administration?

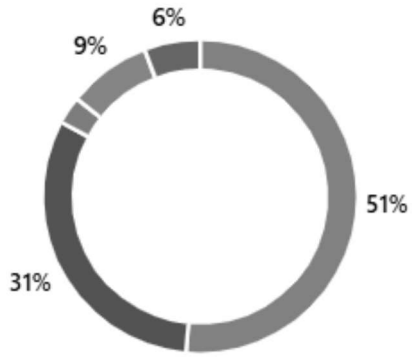
0-5	26
6-10	5
10-15	2
15+	2



27. Question 24

In 3 years, to what extent would your State/Administration be self-sufficient in conducting the inspe ctor training?

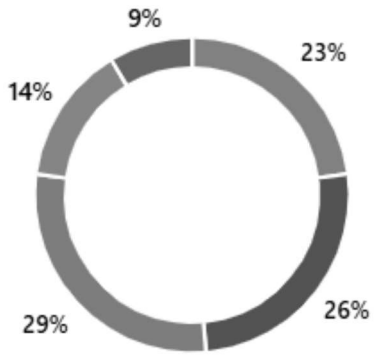
0-25%	18
26-50%	11
50-75%	1
75-99%	3
100%	2



28. Question 25

In 5 years, to what extent would your State/Administration be self-sufficient in conducting the inspe ctor training?

0-25%	8
26-50%	9
50-75%	10
75-99%	5
100%	3



29. Question 26

What kind of resources would assist your State/Administration to expedite the process to achieve a self-sufficient training ecosystem?

35
Responses

Latest Responses

"Nil assistance required"

"funding for invited trainers or for training our staff in certai... "

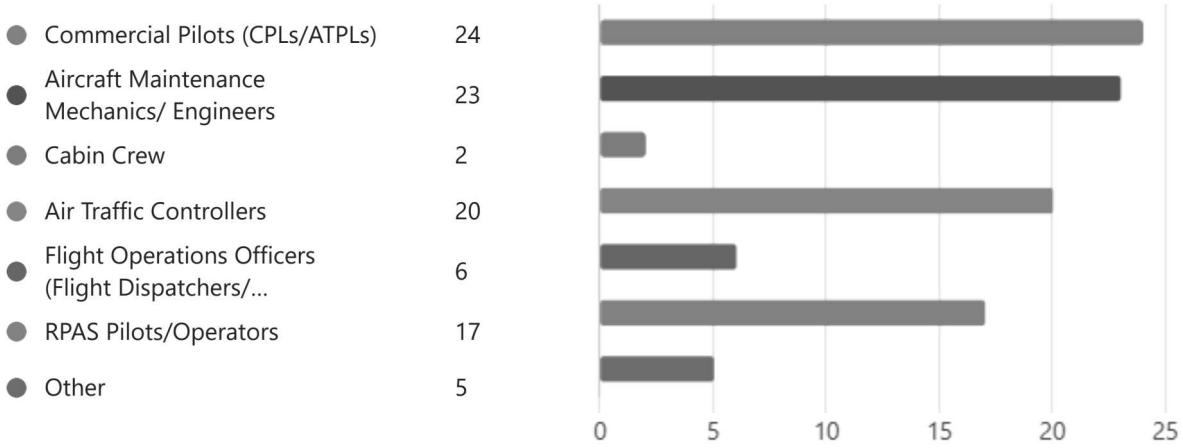
"Development of Course Syllabus/Curriculum and Training of..."

• • •

19 respondents (54%) answered training for this question.

30. Question 27

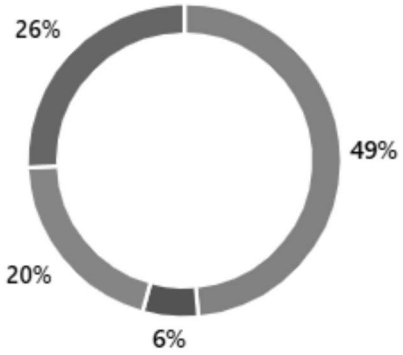
Identify up to three (3) most needed aviation operation professional for your State/Administration in the next 5 years.



31. Question 28

How many new commercial pilots can your State/Administration train locally per year?

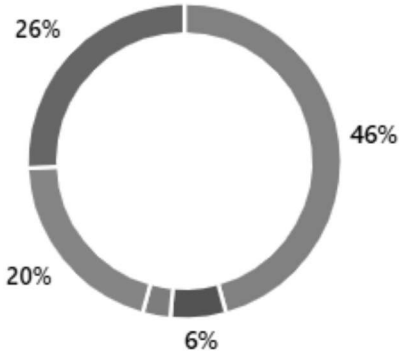
0-49	17
50-99	2
100-249	0
250+	7
Unable to quantify	9



32. Question 29

How many new aircraft maintenance mechanics/engineers can your State/Administration train locall y per year?

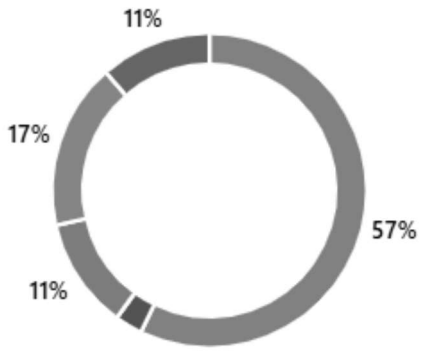
0-49	16
50-99	2
100-249	1
250+	7
Unable to quantify	9



33. Question 30

How many new air traffic controllers can your State/Administrations train locally per year?

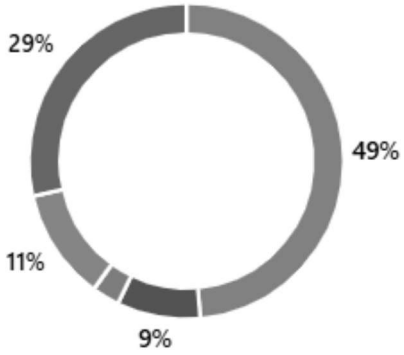
0-24	20
25-49	1
50-99	4
100+	6
Unable to quantify	4



34. Question 31

How many new cabin crew can your State/Administration train locally per year?

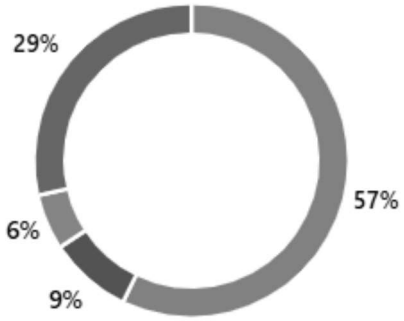
0-99	17
100-199	3
200-499	1
500+	4
Unable to quantify	10



35. Question 32

How many new flight operations officers (flight dispatchers/ loadmasters) can your State/Administration can train locally per year?

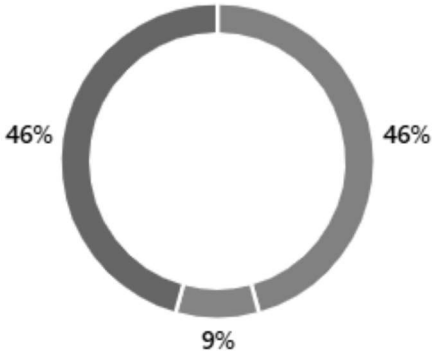
0-49	20
50-99	3
100-249	0
250+	2
Unable to quantify	10



36. Question 33

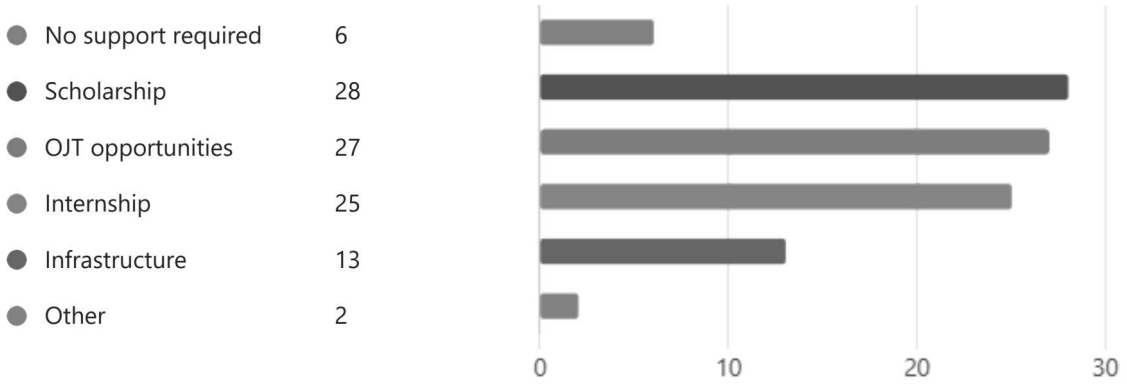
How many new professional RPAS pilots/operators can your State/Administration train locally per year?

0-24	16
25-49	0
50-99	0
100+	3
Unable to quantify	16



37. Question 34

Please specify the expected support from external agencies related to the Next Generation of Aviati on Professional in your State/Administration.



38. Question 35

Please provide any other information or comments that will contribute towards enhancing existing t raining frameworks in the region to better address your State/Administration's needs.

28
Responses

Latest Responses

"Nil comment"

"if the training can be designed according to the small island..."

"1. ICAO to provide more technical and funding assistance t... "

• • •

23 respondents (82%) answered training for this question.

APPENDIX B - MATRIX OF NEEDS BASED ON TNA SURVEY

Matrix of Needs Based on TNA Survey

No.	TNA SUBJECT		ACTION PLAN	DELIVERABLE
Priority Index	**Core Finding 1: Skill Gaps and Training Requirements**	**Example of ICAO Training Profile (ITP/STP)**		
1	OPS	GSI-OPS course	Develop Training Plan	
2	Air Navigation Services	ANS Inspector Courses	Develop Training Plan	
3	Personnel Licensing	GSI-PEL	Develop Training Plan	
4	Airworthiness	GSI-AIR	Develop Training Plan	
5	Aircraft Accident Incident Investigation	Aircraftt Accident Incident Investigation & management	Develop Training Plan	
6	Legislation	Rule making	Develop Training Plan	
7	Aerodrome and Ground Aids	PCN, Wildlife Course	Develop Training Plan	
8	Other	Safety Management, RPAS, AI	Develop Training Plan	
NEXT GENERATION AVIATION PROFESSIONAL				
1	Commercial Pilot	Mutual Recognition		
2	Aircraft Maintenance Mechanics/ Engineers	Mutual Recognition	Insert on Compendium	
3	Air Traffic Controllers		Insert on Compendium	
4	RPAS Pilots/Operators		Insert on Compendium	
5	Flight Operations Officers (Flight Dispatchers/ Loadmasters)		Insert on Compendium	
6	Cabin Crew		Insert on Compendium	
7	Other		Insert on Compendium	
Priority Index	**Core Finding 2: Resource and Support Needs**	**Detailed**		
	NGAP TRAINING Burden		**ICAO**	**External ORG**
1	Lack of SMEs		SME Pooling (ICBM expansion)	Scholarship
2	Funding		Fund matching	Scholarship
3	Shortage if qualified Instructor		Train the Trainer Program	Opprotunities/Interns
4	Lack of on the Job Training		OJT program pooling	
5	Information/access to guidance Material		Training Compendium	
6	Unable to identify initiative			
7	Divergence with local policy			
8	Lack of market demand		Consolidated Training plan	
	INSPECTOR TRAINING			
1	Funding			
2	Frequency and Availability of training courses			
3	Insufficient human resourse			
Priority Index	**Core Finding 3: Challenges and Barriers to Implementation**	**Detailed**		
1	12 out of 35 respondents (35.3%) do not have existing training plans			
2	9 (75.0%) of these respondents plan to develop a training implementation plan within the next two years			
3	2 respondents (18.2%) foresee this development in three to five years			
	Complicating training implementation are obstacles such as a lack of SMEs, limited funding, and a shortage of qualified instructors, particularly for safety-related and inspector training.		To overcome these challenges, 77.1% of respondents are seeking assistance from ICAO, while others are looking for support from additional organizations for training instructors (74.3%), in-house training opportunities (71.4%), and fund matching (62.8%)	
	A significant barrier to safety training is the absence of a specialized institute in over half of the responding States/Administrations (51.4%)			
	Local training options for inspectors are limited: a). only 15 out of 35 respondents offer ANS inspector training b). 14 respondents provide Aerodrome inspector training, c). and 13 out of 35 respondents have training for both OPS and Continuing Airworthiness Inspectors			
	External access to inspector training is primarily hindered by funding constraints, affecting 15 of the 35 States/Administrations. The availability and frequency of training courses are also problematic, linked to the limited number of qualified instructors, which in turn restricts the number of available training sessions			
	States face considerable challenges in achieving training independence.	82% of responses indicate that States/Administrations expect to be under 50% self-sufficient in training within three years 48% projecting under 25% self-sufficiency This heavy reliance on external systems is due to severe training capacity constraints, including limited funding, a lack of SMEs and instructors, and technical limitations		
	Local training capacity is notably a challenge	most respondents reporting annual outputs of under 49 across major roles A significant portion of States/Administrations (24–27%) cannot quantify their training outputs		
Priority Index	**Core Finding 4: Timelines and Urgency of Needs**	**Detailed**		
1	States to develop and implement training plans			
2	80% of the respondents are planning to add 0-5 qualified Aerodromes and Ground Aids inspectors over the next three years 68.6% of respondents (24 out of 35) project a modest increase of 0-5 additional qualified GSIs in the next three years			
3	Lack the infrastructure to meet these demands			
	Over the next five years NGAP	Commercial pilots, aircraft maintenance engineers, and ATCs.		

ICAO Asia Pacific
Regional Training Cooperation Framework (RTCF)

COMPENDIUM OF APAC TRAINING PROGRAMMES

1st Edition

Table of Content

Foreword

Welcome to the Compendium of APAC Training Programmes, a comprehensive guide designed to support and enhance the professional development of individuals across various civil aviation domains. This catalogue is an initiative by the Regional Training Cooperation Framework Working Group (RTCF WG) under the ICAO APAC Regional Cooperation Mechanism Taskforce (RCM TF) committed to foster enhancement in regional cooperation and capacity building within the region.

In today's rapidly evolving industry, continuous training and development are more relevant than ever. This compendium brings together a diverse array of training resources, tailored to meet the unique needs and challenges. Whether you are seeking to advance your career, acquire new skills, or stay updated with the latest industry trends, this catalogue offers a wealth of opportunities to help you achieve your goals.

We have meticulously curated these resources to ensure they are relevant and accessible. Each entry in this compendium has been selected based on its potential to provide valuable insights and practical knowledge.

We, on behalf of RTCF Working Group, extend our heartfelt gratitude to all the States /Administrations, trainers, and organizations who contributed to developing this compendium. Your dedication to aviation technical training and professional development is truly inspiring.

Message

from the Ministry of Land, Infrastructure and Transport
of the Republic of Korea

The Republic of Korea is pleased to contribute to this regional effort to strengthen the foundation for aviation training cooperation across the Asia-Pacific.

This Compendium is more than a catalogue – it is a reflection of our shared ambition to build a forward-looking, skilled, and connected aviation workforce. By consolidating training offerings and promoting collaboration among States and institutions, we reaffirm our collective commitment to elevate regional capacity and safety.

Special appreciation is extended to the Incheon Airport Aviation Academy (IAAA) of Incheon International Airport Corporation (IIAC) for its essential support in the production of this publication. Their dedication and contribution have been vital to realizing this meaningful milestone.

We hope this Compendium becomes a valuable resource that fuels continued exchange, innovation, and progress in aviation human development throughout the Asia and Pacific region and beyond.

16 July 2025

Jong Wan JOO
Deputy Minister
Korea Office of Civil Aviation (KOCA)
Ministry of Land, Infrastructure and Transport (MOLIT)
Republic of Korea

1

RTCF Overview

1.1 Background

1.2 Governance Structure

1.3 List of Training Centers

Background

The Asia-Pacific region faces significant challenges in aviation training due to a shortage of resources and qualified instructors. To address these issues, ICAO APAC Regional Office proposed enhancing cooperation among civil aviation training academies to improve training accessibility and effectiveness.

During the 54th APAC DGCA Conference (Ulaanbaatar, Mongolia, 7-11 August 2017), it was agreed to establish a new Taskforce to focus exclusively on strengthening and evolving existing regional mechanisms for regional cooperation towards capability and capacity building and technical assistance. The RCM Task Force aims to identify common and/or evolving needs of States/Administrations or a Group of States /Administrations in the APAC region for capability and/or capacity development by conducting a survey. The Task Force was instructed to report on its work to the DGCA Conference.

In November 2022, the Regional Cooperation Mechanisms Taskforce (RCM TF) established a working group to develop a Regional Training Cooperation Framework (RTCF Working Group). Existing members of the RCM TF and key industry partners were invited to join the RTCF Working Group. The objectives for the RTCF Working Group are as follows:

Ⓐ Coordinate and work out the details to implement the identified initiatives under the Asia Pacific Regional Training Cooperation Framework
Ⓑ Review and propose additional coordination activities under the Framework; and
Ⓒ Monitor the progress of initiatives and review their effectiveness.

A training needs analysis survey conducted in June 2023 across Asia-Pacific States /Administrations revealed gaps in aviation safety, security, and capacity development in the region. The outcome of the survey indicated all critical need for inspector training, particularly in aviation safety and security, highlighting it as top priorities.
The RTCF aims to foster stronger collaboration among civil aviation training academies and institutions within the APAC region by improving coordination, reducing duplication of courses, and addressing gaps in required training among the APAC States/Administrations.

This training compendium is a part of the initiatives of RTCF. Various activities such as organizing the First Regional Training Symposium, training needs analysis survey and a set of train-the-trainer programme are down the pipeline to facilitate dialogue, share best practices and cultivate standardized training approaches.

Ultimately, the RTCF is designed to create a self-sufficient aviation training ecosystem that enhances regional capacity and ensures long-term sustainability.

The Third Meeting of the Regional Training Cooperation Framework Working Group (RTCF WG/3)

ICAO Asia Pacific Regional Office, Bangkok, Thailand, 18-19 November 2024

Governance Structure

During the 58th Conference of the Directors General of Civil Aviation, Asia and Pacific Regions in Dhaka, Bangladesh in 2023, the Conference endorsed establishment of the Regional Training Cooperation Framework (RTCF) under the Regional Cooperation Mechanism Task Force (RCM TF). RTCF Working Group was officially established under RCM TF in August 2024. Members include representatives from States'/ Administrations' civil aviation authorities and training institutions.

Regional Cooperation Mechanism Task Force (RCM TF)

Regional Training Cooperation Framework (RTCF) Working Group

CO-CHAIR	CHAIR	CO-CHAIR
Republic of Korea	Singapore	United States

State/Administration Members
As of May 2025

- Bangladesh
- Cambodia
- China
- Hong Kong, China
- Fiji
- India
- Indonesia
- Japan
- Kiribati
- Malaysia
- Pakistan
- Philippines
- Republic of Korea
- Singapore
- Sri Lanka
- Thailand
- United States
- Vietnam

Institute Members
As of May 2025

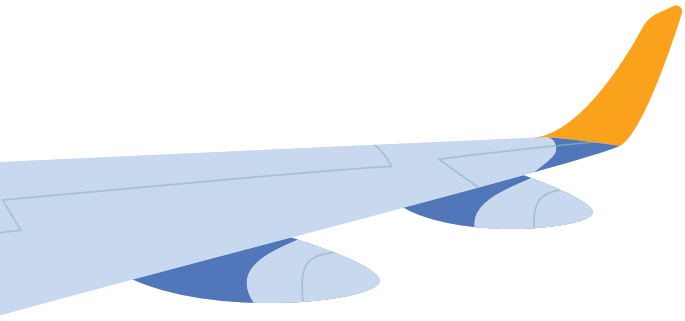
- Centre for Human Resources Development on Civil Aviation (CHRDCA), Indonesia
- Civil Aviation Management Institute of China
- Civil Aviation Training Center (CATC), Thailand
- Civil Aviation University of China
- Hong Kong International Aviation Academy (HKIAA)
- Incheon Airport Aviation Academy (IAAA)
- Indian Aviation Academy
- National Institute of Civil Aviation (Cambodia)
- Singapore Aviation Academy
- Vietnam Aviation Academy (VAA)

List of Training Centers

Aviation Training Centers in Asia Pacific Region
that provide English-based courses to international trainees

	Name	Location	Website	ICAO Certification
Bangladesh	Civil Aviation Academy (CAA)	Dhaka, Bangladesh	http://www.caab.gov.bd	TRAINAIR PLUS (Gold Member)
China	Civil Aviation University of China (CAUC)	Tianjin, China	https://www.cauc.edu.cn	TRAINAIR PLUS (Platinum Member)
	Civil Aviation Flight University of China (CAFUC)	Guanghan, China	https://www.cafuc.edu.cn	TRAINAIR PLUS (Bronze Member)
Hong Kong, China	Hong Kong International Aviation Academy (HKIAA)	Hong Kong	https://www.hkiaacademy.com	TRAINAIR PLUS (Platinum Member)
Republic of Indonesia	Center for Human Resources Development on Civil Aviation (CHRDCA)	Tangerang, Indonesia	https://ppsdmpu.bpsdm.kemenhub.go.id	TRAINAIR PLUS (Platinum Member)
Japan	Aeronautical Safety College (ASC)	Osaka, Japan	https://www.cab.mlit.go.jp/asc/toppage-english.html	TRAINAIR PLUS (Bronze Member)
Mongolia	The Civil Aviation Training Center of the National Civil Aviation Center of Mongolia	Ulaanbaatar, Mongolia	https://tc.ncac.mn/	TRAINAIR PLUS (Gold Member)
Nepal	Civil Aviation Academy of Nepal	Sanothimi, Bhaktapur	https://academy.caanepal.gov.np	TRAINAIR PLUS (Full Member)

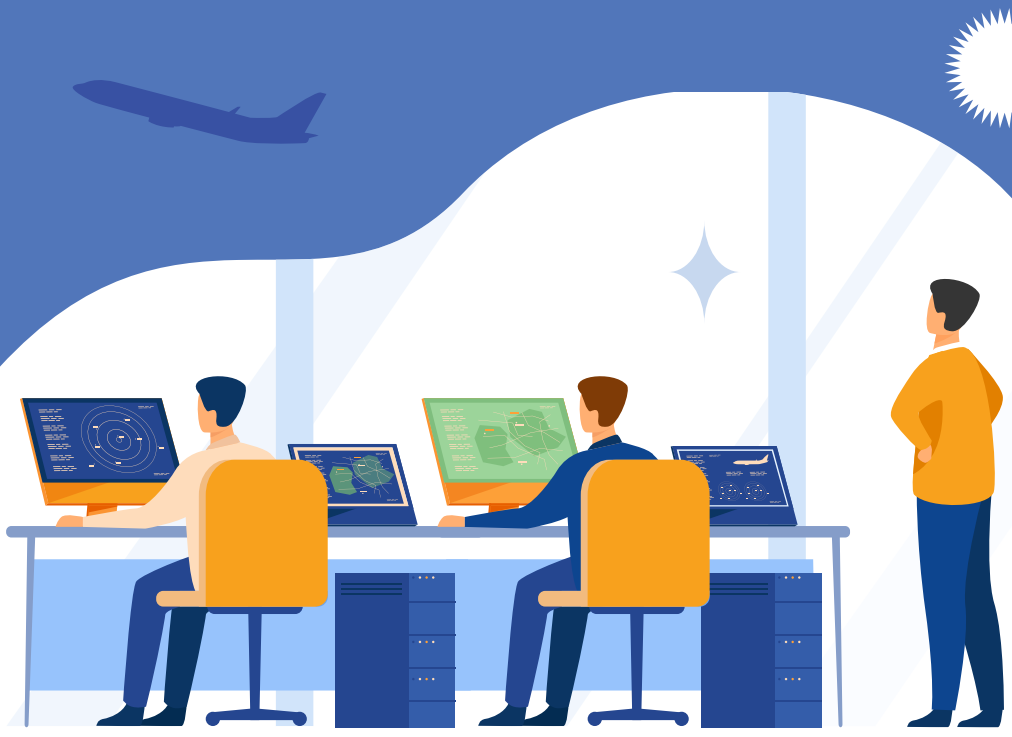
List of Training Centers



	Name	Location	Website	ICAO Certification
Pakistan	Civil Aviation Training Institute (CATI)	Hyderabad, Pakistan	https://www.catipakistan.com.pk	TRAINAIR PLUS (Full Member)
Republic of Korea	Incheon Airport Aviation Academy (IAAA)	Incheon, Republic of Korea	https://iaaa.airport.kr:10443	TRAINAIR PLUS (Platinum Member)
	Civil Aviation Training Center (CATC)	Cheongju, Republic of Korea	https://www.airport.co.kr/kcaaeng/index.do	Regional Training Centre of Excellence
	Aviation Security Training Center (ASTC)	Seoul, Republic of Korea	https://www.airport.co.kr/kcaaeng/cms/frCon/index.do?MENU_ID=310	Regional Training Centre of Excellence
Singapore	Singapore Aviation Academy (SAA)	Singapore	https://www.caas.gov.sg/saa	TRAINAIR PLUS (Platinum Member)
Sri Lanka	Sri Lanka Airport & Aviation Academy (SLAAA)	Colombo, Sri Lanka	https://catc.airport.lk/index.php	TRAINAIR PLUS (Full Member)
Thailand	Civil Aviation Training Center (CATC) Thailand	Bangkok, Thailand	https://www.catc.or.th	TRAINAIR PLUS (Platinum Member)
Vietnam	Vietnam Aviation Academy (VAA)	Ho Chi Minh City, Vietnam	https://vaa.edu.vn/en/gioi-thieu/	TRAINAIR PLUS (Associate Member)

2

Aviation Training Centers



2.1 Bangladesh

Civil Aviation Academy (CAA)

WEBSITE | www.caab.gov.bd
CONTACT | dcaa@caab.gov.bd (+880 1799900652)

OVERVIEW

Civil Aviation Training Center (CATC) established in 1975 with the grants from the UNDP. CATC has been upgraded as Civil Aviation Academy in 2021. Civil Aviation Academy has become ICAO TRAINAIR PLUS Associate Member in 2013 for a 03 years period i.e. up to 2016. In 2022 the Trainair Plus Associate (Bronze) membership has been restored. The membership has been upgraded to Silver in 2024 and in 2025 the Membership has been upgraded further and recognised as Gold Member. The Academy provides training to the personnel of civil aviation regulators, airport operators, airlines, air navigation services providers, air traffic controllers, aviation managers and AVSEC members. The Academy regularly hosts significant number of ICAO courses at Dhaka, Bangladesh. During the last three years CA Academy hosted 27 ICAO course in different areas of CA activities including GSI-OPS, GSI-PEL & GSI-AW in coordination with ICAO and FAA.

The academy is working in development of CAA professionals through the partnerships with ICAO, FAA and ACI. The Academy has signed the Training Service Agreement with ICAO in 2023 for the capacity building of CA Academy. The Academy has started development of two MITP in the areas of ATM and Aerodromes.

Global Recognition

2013 CAAB Approved Training Organization

2025 ICAO TRAINAIR PLUS full (Gold) member

Key Training Areas

- Air Traffic Management
- Aerodromes
- Aviation Safety and Safety Management
- Airport Operations
- Aviation Management
- Aviation Security

2.2.1
China

Civil Aviation University of China (CAUC)

WEBSITE | https://www.cauc.edu.cn
CONTACT | international@cauc.edu.cn (+86 22 24092036)

OVERVIEW

Civil Aviation University of China (CAUC), under the direct administration of Civil Aviation Administration of China (CAAC), is an industry-oriented university featuring the coordinated development of multiple discipline categories - engineering, management, science, economics, literature, law and art. Rooted in civil aviation industry, CAUC serves society and embraces the world, by promoting the integrated development of education, science and talent. Based on the resources of education and science, CAUC provides a wide range of training programs related to the civil aviation sector, supporting overseas aviation professionals from more than 30 countries. CAUC is committed to becoming a leading institution in higher education, a demonstration zone for scientific and technological innovation, a think tank for policy consultation, and a pacesetter in international exchanges.

Global Recognition

- 2017 ICAO TRAINAIR PLUS Full Member
- 2017 AABI Educator Member
- 2025 ICAO Platinum/Training Centre of Excellence

Key Training Areas

- Training Development
- Safety Management
- Flight Training
- Aircraft Traffic Management
- Aircraft Maintenance

2.2.2
China

Civil Aviation Flight University of China (CAFUC)

WEBSITE | https://www.cafuc.edu.cn/
CONTACT | cafuc@cafuc.edu.cn (+86 8385183827)

OVERVIEW

Civil Aviation Flight University of China (CAFUC), founded in 1956, is a highly esteemed institution under the direct administration of the Civil Aviation Administration of China. It is committed to cultivating innovative professionals in civil aviation fields such as flying, engineering, and operation management. Over the past decades, CAFUC has played a crucial role in shaping the civil aviation industry by training nearly 200,000 professionals for the sector and developing over 1,000 civil aviation professionals for more than 30 ICAO Member States. CAFUC is the first full-time institution in Asia to partner with ICAO's Next Generation Aviation Professionals (NGAP) programme. It is also a member of the TRAINAIR PLUS Programme and the first institution in Asia to achieve full accreditation from ICAO TPP, covering flight training, aircraft maintenance training, and air traffic control training. CAFUC continues to expand its global influence by strengthening partnerships with overseas universities, training institutions, and international organizations.

Global Recognition

2015 ICAO's NGAP Partner

2024 ICAO TRAINAIR PLUS member

Key Training Areas

2.3 Hong Kong, China

Hong Kong International Aviation Academy (HKIAA)

WEBSITE | https://www.hkiaacademy.com
CONTACT | AcademyEnquiry@hkiaaAcademy.com (+852 2183 2388)

OVERVIEW

The Hong Kong International Aviation Academy (HKIAA) is Hong Kong's first civil aviation academy. Established in 2016, the HKIAA is a member company of HKIA Services Holdings Limited, a subsidiary of Airport Authority Hong Kong. The HKIAA offers a diverse curriculum catering to the training needs of professionals, industry newcomers and young people pursuing careers in aviation. In partnership with local and overseas education institutions, professional organisations and industry practitioners, the HKIAA's five training centres deliver all levels of programmes including aviation summer day camps, job placements, professional certificates and accredited courses.

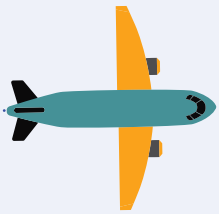


Global Recognition

- 2018 ICAO Aviation Security Training Centres (ASTC)
- 2023 ACI Accredited Training Partner
- 2023 ACI-ICAO TPP-Airport
- 2023 IATA Regional Training Partner
- 2023 ICAO TTP Platinum Member
- 2024 CANSO Academia Member

Key Training Areas

- Air Traffic Management
- Airport Operations and Crisis Management
- Aviation Security and Safety
- Flight Training and Engineering
- Foundation and Academic Programmes



2.4 Indonesia

Centre for Human Resources Development on Civil Aviation (CHRDCA)

WEBSITE | https://ppsdmpu.bpsdm.kemenhub.go.id
CONTACT | ppsdmhubud@kemenhub.go.id (+62 21 5982207)

OVERVIEW

Centre for Human Resources Development on Civil Aviation is under the Indonesian Ministry of Transportation, in charge of carrying out technical guidance and Human Resources Development in the air transportation sector and representing eight satellite offices spread around Indonesia. Centre for Human Resources Development on Civil Aviation is representing Indonesian Aviation Polytechnic of Curug, Aviation Polytechnic of Surabaya, Aviation Polytechnic of Medan, Aviation Polytechnic of Makassar, Aviation Polytechnic of Palembang, Aviation Polytechnic of Jayapura, Indonesian Pilot Academy of Banyuwangi and Curug Aviation College.

Global Recognition

- 2020 IATA Authorized Training Center
- 2022 ICAO Aviation Security Training Center
- 2022 ICAO TRAINAIR Plus Member "Platinum Training Center of Excellence"
- 2023 Accredited Training Partner of ACI

Key Training Areas

- Aviation Safety
- Aviation Security
- Air Navigation Services
- Airport Operation & Management
- Flight Operation & Licensing
- Aviation English & Human Performance
- MRO & Technical Training
- Aviation Digital Transformation
- Training for Trainers (ToT)

2.5 Japan

Aeronautical Safety College (ASC)

WEBSITE | https://www.cab.mlit.go.jp/asc/toppage-english.html
CONTACT | cab-asc@gxb.milt.go.jp (+81 72 458 3010)

OVERVIEW

The Aeronautical Safety College (ASC) is the only training institution in Japan for Aeronautical Safety Personnel of the Ministry of Land, Infrastructure, Transport and Tourism, such as Air traffic controllers, ATS flight information officers, Air traffic communications specialists, Air traffic safety electronics personnel, Visual aids and electricity specialists, etc. and basic training courses are provided at ASC.

It was first established in 1959 as the "Aviation Personnel Training Institute" in Tokyo International Airport (Haneda). In 1971, it was renamed to its current name, "Aeronautical Safety College (ASC)", and in 2008, it was moved from Haneda to its current location in Izumisano-shi Osaka Prefecture (near Kansai International Airport).

In 2011, it became an Associate member to join the ICAO TRAINAIR PLUS program, and in 2013, it was recognized as a Full member by developing a first STP. In 2023, ASC became a Bronze member.

Global Recognition

- 2011 ICAO TRAINAIR PLUS Associate member
- 2013 ICAO TRAINAIR PLUS Full member
- 2023 ICAO TRAINAIR PLUS Bronze member

Key Training Areas

ANS

2.6 Mongolia

The Civil Aviation Training Center of the National Civil Aviation Center of Mongolia

WEBSITE | https://tc.ncac.mn
CONTACT | anarzul.d@ncac.mn (+976 71283082)

OVERVIEW

The Civil Aviation Training Center (CATC) is the approved training body of the National Civil Aviation Center of Mongolia and the Mongolian Civil Aviation Authority and we are committed to delivering high-quality education and training in the regional aviation sector. Established in 1980, the CATC offers an extensive range of courses covering both domestic and international trainees. The CATC joined TRAINAIR PLUS Program in 2012, became full member in 2016 and Gold member in 2025. Its core training programs include Training Competency Development and Aeronautical information management specialist courses.

Global Recognition

- 2012 ICAO TRAINAIR PLUS Associate member
- 2016 ICAO TRAINAIR PLUS Full member
- 2025 ICAO TRAINAIR PLUS Gold member

Key Training Areas

- Aerodromes
- Air Navigation Services
- Flight Safety and Safety Management
- Aviation Security
- Training Competency Development

2.7 Nepal

Civil Aviation Academy of Nepal

WEBSITE | academy.caanepal.gov.np
CONTACT | caacademy@caanepal.gov.np (+977-01-6630211, 5639856, 5639404)

OVERVIEW

Civil Aviation Academy (CAA), previously known as the Civil Aviation Training Center (CATC), is a public training institution operated by the Civil Aviation Authority of Nepal (CAAN). Established in 1974 under the UNDP/ICAO project's reinforcement plan, it plays a vital role in developing skilled aviation professionals in Nepal.

On December 31, 1998, with the transformation of the Department of Civil Aviation (DCA) into the autonomous CAAN, the center was renamed Civil Aviation Academy.

CAA is the sole national institution for producing skilled manpower required by CAAN in various fields, including Air Traffic Services (ATS), Aerodrome Rescue and Fire Fighting (ARFF), Aviation Security (AVSEC), Communications and Navigation Surveillance (CNS), instructional development, safety management, flight dispatch, Administration and Management, Airside operation and safety and other courses required to maintain airport/air navigation system and regulatory job functions. Additionally, CAA offers specialized courses for the broader aviation industry.

Since 2012, CAA has been a member of the ICAO Train Air Plus Program (TPP). It operates with five dedicated faculties and two divisions, managed by experienced Subject Matter Expert (SME) instructors and course managers, overseeing the delivery of 90 different training courses.

CAA is primarily an ATO (Approved Training Organization) dedicated to producing air traffic controllers to meet the organizational and industry demands of the country and it is pursuing ATO certification for the Flight Operation Officers/Flight Dispatchers.

Global Recognition

- 2012 ICAO TRAINAIR PLUS member
- 2019 ICAO TRAINAIR PLUS full member

Key Training Areas

- Air Traffic Services Courses
- Aerodrome Fire Fighting Service Courses
- Aviation Security Courses
- Flight Safety Courses
- Training Instructor Courses
- Engineering Courses (Aerodrome, Com and Nav. Facilities and Electro- Mechanical related)

2.8 Pakistan

Civil Aviation Training Institute (CATI)

WEBSITE | www.catipakistan.com.pk
CONTACT | Director.CATI@paa.gov.pk (+92 229260310-19 Ext 210)

OVERVIEW

Civil Aviation Training Institute Hyderabad (CATI) established in December, 1982 under the sponsorship of the International Civil Aviation Organization (ICAO). ICAO accredited this institute as an Associate Member of ICAO TRAINAIR Programme from 1992 to 2012. Since its inception, it has provided a range of training programs to more than 600 overseas aviation professionals from 49 countries. In January 2018, CATI attained the status of a Full Member of the ICAO TRAINAIR Plus Programme, reinforcing its position in aviation education and excellence.

Global Recognition

2018 ICAO TRAINAIR PLUS full member

Key Training Areas

2.9.1 Republic of Korea

Incheon Airport Aviation Academy (IAAA)

WEBSITE | https://iaaa.airport.kr:10443
CONTACT | iaaa@airport.kr (+82 32 741 4344)

OVERVIEW

Incheon Airport Aviation Academy (IAAA), established in 2008 at Incheon International Airport Corporation (IIAC), is a leading aviation training center in Northeast Asia. Since its opening, it has provided a range of training programs for more than 11,000 overseas aviation professionals from 150 countries. IAAA is among the first training centers in the Asia-Pacific region to be certified by three major aviation organizations: ICAO, ACI, and IATA. In 2011, it became the first global training center to join the ICAO TRAINAIR PLUS program, and in 2014, it was recognized as an ICAO Regional Training Centre of Excellence. In May 2024, IAAA acquired the Platinum membership status in the ICAO TRAINAIR PLUS Programme. The academy continues to strengthen its partnerships with overseas universities, training institutions, and international organizations.

Global Recognition

- 2007 ACI Global Training Hub
- 2011 ICAO TRAINAIR PLUS full member
- 2014 ICAO Regional Training Centre of Excellence
- 2022 ACI Accredited Training Partner
- 2022 IATA Regional Training Partner
- 2022 World's First ICAO-ACI Dual Recognition
- 2024 ICAO Platinum/Training Centre of Excellence

Key Training Areas

Airport operations and management courses (Aerodrome Operations, Airport Security, etc.)

ICAO instructor and course development courses (TIC, TDC, OJTI, VCI, etc.)

2.9.2 Republic of Korea

Civil Aviation Training Center (CATC)

WEBSITE | https://www.airport.co.kr/kcaaeng/index.do
CONTACT | jieun24@airport.co.kr (+82-43-290-2374)

OVERVIEW

Civil Aviation Training Center (CATC) is Korea's leading aviation training institution under Korea Airports Corporation (KAC), responsible for training aviation professionals worldwide. Established in 1984 through a collaboration between the Korean Government and UNDP/ICAO, CATC operates over 100 specialized training programs in areas such as airport operations, air navigation services, and aviation security. As an ICAO-recognized Regional Training Center of Excellence (RTCE), CATC plays a vital role in fostering international aviation professionals. Since 2001, in cooperation with ICAO, KOICA, and the Ministry of Land, Infrastructure and Transport, CATC has delivered training to over 1,000 aviation personnel from more than 100 countries.
With decades of experience and a strong commitment to global capacity building, CATC continues to lead in advancing aviation safety and airport operational excellence.

Milestones

- 1984 Established CATC through agreement with Korean Government and UNDP/ICAO
- 1999 Launched Air Traffic Controller Training Course
- 2001 Designated as international training organization
- 2009 Completed Global Training Center
- 2015 Certified as ICAO TRAINAIR PLUS aviation training organization
- 2016 Certified as ICAO Regional Training Center of Excellence (RTCE)

Key Training Areas

Airport operations and management courses
(VOR, UAS, ILS, Radar Approach, etc.)

2.9.3 Republic of Korea

Aviation Security Training Center (ASTC)

WEBSITE | https://www.airport.co.kr/kcaaeng/cms/frCon/index.do?MENU_ID=310
CONTACT | kac_astc@airport.co.kr (+82-2-2660-4484)

OVERVIEW

The Aviation Security Training Center (ASTC) is a specialized branch of the Civil Aviation Training Center (CATC), dedicated to advanced aviation security training. Located separately from the CATC, ASTC was certified by ICAO in 2010 as the first ASTC in Northeast Asia. It offers a wide range of security-focused training programs, including passenger and cargo screening, threat assessment, emergency response, and behavior detection. The center also provides training on advanced security equipment and operates a testbed for AI-based X-ray screening technologies. Through its ICAO-certified curriculum and expert instructors, ASTC contributes to strengthening global aviation security capabilities in both domestic and international contexts.

Milestones

- 2003 Established by the Korean government as a specialized aviation security training center under the Aviation Security Act
- 2008 Launched ICAO aviation security training courses to enhance aviation security training systems
- 2010 Certified as a northeast Asia's first ICAO Aviation Security Training Center
- 2015 Certified as an ICAO TRAINAIR PLUS aviation training organization
- 2022 Designated as an Excellent training institute by the Ministry of Employment and Labor

Key Training Areas

Airport Security
(Landside security, Screening Checkpoint Supervisors, etc.)

2.10 Singapore

Singapore Aviation Academy (SAA)

WEBSITE | https://www.caas.gov.sg/saa
CONTACT | saa@caas.gov.sg (+65 6542 1122)
caas enquiries and feedback | formsg

OVERVIEW

The Singapore Aviation Academy (SAA), the training arm of the Civil Aviation Authority of Singapore, offers a comprehensive range of internationally recognised training programmes in core functions such as aviation management, aviation safety and security, air traffic services, and airport firefighting.

Adopting a practice-oriented approach, SAA delivers training programmes for aviation professionals at junior, middle management, and C-suite levels to cater to the diverse training and professional needs of individuals at different stages of their aviation careers.

A leader in civil aviation training and a convenor of global experience and expertise, SAA is an International Civil Aviation Organization (ICAO) TRAINAIR PLUS Platinum Training Centre of Excellence and a member of the ICAO TRAINAIR PLUS Steering Committee, a recognition of its commitment to providing quality training for aviation professionals internationally.

Global Recognition

- 2011 ICAO TRAINAIR PLUS Associate Member
- 2012 ICAO TRAINAIR PLUS Full member
- 2013 ICAO Aviation Security Training Center
- 2014 ICAO Regional Training Centre of Excellence
- 2022 ICAO Platinum (Training Centre of Excellence)

Key Training Areas

2.11 Sri Lanka

Sri Lanka Airport & Aviation Academy (SLAAA)

WEBSITE | https://catc.airport.lk/index.php
CONTACT | catc@airport.lk (+94 11 263 4763)

OVERVIEW

Accreditation of the Sri Lanka Airport & Aviation Academy
SLAAA is the premier aviation training institution in Sri Lanka and the only local aviation training institution that possesses the prestigious International Civil Aviation Organization (ICAO) TRAINAIR PLUS Accreditation. The SLAAA has been a member of the ICAO TRAINAIR PLUS program since 2012, and it became a full member in 2014.

SLAAA is the Approved Training Organization (ATO) by the Civil Aviation Authority of Sri Lanka for the provision of training on Air Traffic Services.

The SLAAA is a registered institution of Tertiary and Vocational Education Commission of Sri Lanka.

The SLAAA is also affiliated with Massey University of New Zealand.

Key Training Areas

2.12 Thailand

Civil Aviation Training Center (CATC)

WEBSITE | https://www.catc.or.th
CONTACT | itrain@catc.or.th (+66 2 272 5741)

OVERVIEW

The Civil Aviation Training Center (CATC), Thailand, was established in 1961 as a cooperative initiative between the United Nations Special Fund (UNSF), the International Civil Aviation Organization (ICAO), and the Royal Thai Government. Now a state enterprise under the Ministry of Transport, CATC is dedicated to developing human resources in aircraft maintenance, aviation services, and related fields.

CATC offers training programs ranging from vocational certificates to Bachelor's, Master's, and Doctoral degrees in aviation disciplines. A dedicated unit also designs short courses to meet industry needs.

Training is conducted at two locations: ground training at CATC's Bangkok headquarters and flight training at the Flight Training Center in Hua Hin, which also houses a CAAT-certified Light Aircraft Repair Center. In addition, CATC has served as Thailand's official ICAO Language Proficiency Testing Center.

In 2021, CATC was accredited as a Regional Training Centre of Excellence (RTCE) in Air Navigation Services and Flight Safety & Safety Management. For 2024–2025, it remains Thailand's only aviation-specialized training center to achieve ICAO TRAINAIR PLUS's highest distinction, TCE Platinum.

Global Recognition

- 2012 ICAO TRAINAIR PLUS Associate Member
- 2015 ICAO TRAINAIR PLUS Full Member
- 2021 ICAO Regional Training Centre of Excellence
- 2024 ICAO Platinum/Training Centre of Excellence

Key Training Areas

- Aerodromes
- Air Transport
- Training Competency Development
- Aviation Management
- Air Navigation Services
- Flight Safety and Safety Management

2.13 Vietnam

Vietnam Aviation Academy (VAA)

WEBSITE | https://vaa.edu.vn/en/gioi-thieu/
CONTACT | info@vaa.edu.vn (+84 (0)83 844 22 51)

OVERVIEW

Vietnam Aviation Academy (VAA) is the leading higher education institution in the national university system that provides training programs from bachelor's to master's degrees for the aviation industry. Over the past 46 years, VAA has successfully fulfilled its mission of training and providing high-quality human resources, as well as conducting research and offering scientific and technological solutions for the aviation industry and other economic and technical sectors in Vietnam, Laos, and Cambodia.
VAA has achieved significant milestones, including becoming a member of the TRAINAIR PLUS international aviation training program under the International Civil Aviation Organization (ICAO) in 2020. The academy received its second accreditation certificate from the Center for Education Accreditation (CEA-AVU&C) in 2023 and was awarded ISO 9001:2015 certification for its second cycle by the Directorate for Standards, Metrology, and Quality in 2023. Additionally, in 2024, the Ministry of Transport recognized VAA as a tier-1 autonomous educational institution.

Global Recognition

- 2020 ICAO TRAINAIR PLUS associate member
- 2024 Member university of the Southeast Asia Network of Aerospace Engineering
- 2024 Member of The International Association of Aviation and Aerospace Education (ALICANTO)

Key Training Areas

- Undergraduate/graduate programs: Safety, Aeronautical engineering, ANS, Airport/Airlines management
- Aerodrome Safety Management Incorporating PANS – Aerodrome
- Training Developers Course

3

Training Programmes and Instructors

3.1 ICAO ITP & STP Courses

3.2 ICAO APAC Fellowship/ Scholarship Programmes

3.3 ICAO Certified Training Instructors

ICAO ITP & STP Courses

This section is to provide a list of upcoming ICAO ITP/STP courses related to instructor development and Government Safety Inspector (GSI) training, delivered by training centers in the APAC region.

※ **Registration and course schedules are available on the ICAO TPeMS**
ICAO Training - Schedule of Upcoming Training Sessions

How to become ICAO Qualified Instructor -Certification Process

1. **Nomination & Vetting**
2. **Completion of Relevant ICAO Course & the TIC (Training Instructors Course)**
3. **Application for OJT approval**
4. **On-the-Job Training (OJT)**
5. **Final Qualification**

1. TIC

Training Instructors Course

Goal	This course will provide instructors with the competencies to deliver competency-based courses in a classroom, in accordance with the ICAO Adapted Instructor Competency Model.			
Learning Objective	After successful completion of the course, participants will be able to: - Complete course preparation procedures using corresponding checklists; - Apply instructor competencies in the delivery of a classroom training session; - Evaluate the training session.			
Course Period (Duration)	5 days (27 hours)			
Mode of Delivery	Onsite / Virtual			
Language	English			
Course Content	**Module 0**	Introduction		
	Module 1	Preparing for Instruction		
	Module 2	Training Delivery		
	Module 3	Training Evaluation		
Course Schedule *** Subject to Change** **- See TPeMS for Exact Dates**	**No**	**Host Organization**	**Location**	**Date (Planned)**
	1	Incheon Airport Aviation Academy (IAAA)	Incheon, Republic of Korea	10-16 Jul, 2025 4-10 Sep, 2025
	2	Civil Aviation Academy (CAA) Bangladesh	Dhaka, Bangladesh	3-7 Aug, 2025 21-25 Sep, 2025
	3	Civil Aviation University of China (CAUC)	Tianjin, China	1-5 Sep, 2025 24-28 Nov, 2025
	4	Civil Aviation Flight University of China (CAFUC)	Guanghan, China	1-5 Dec, 2025
	5	Hong Kong International Aviation Academy (HKIAA)	Hong Kong, China	26-30 Jan, 2026
	6	Civil Aviation Training Center (CATC) Thailand	Bangkok, Thailand	2-6 Feb, 2026

2. TDC

Training Developers Course

Goal	The Training Developers Course (TDC) provides civil aviation course developers with the competencies to design and develop Standardized Training Packages (STPs), in accordance with the ICAO Doc 9941, Training Development Guide.	
Learning Objective	After successfully completing the course, participants will be able to: - Conduct a preliminary study; - Conduct a job analysis; - Conduct a population analysis; - Design the curriculum; - Design the modules; - Establish validity and reliability of tests; - Establish validity of a training course.	
Course Period (Duration)	10 days (60 hours)	
Mode of Delivery	Onsite / Virtual	
Language	English	
Course Content	**Module 0**	Introduction
	Module 1	Preliminary Study
	Module 2	Job Analysis
	Module 3	Population Analysis
	Module 4	Design of Curriculum
	Module 5	Design of Modules
	Module 6	Production and Developmental Testing
	Module 7	Validation

Course Schedule

*** Subject to Change**
- See TPeMS for Exact Dates

No	Host Organization	Location	Date (Planned)
1	Civil Aviation Training Center (CATC) Mongolia	Ulaanbaatar, Mongolia	11-22 Aug, 2025
2	Civil Aviation Academy (CAA) Bangladesh	Dhaka, Bangladesh	14-25 Sep, 2025
3	Civil Aviation University of China (CAUC)	Tianjin, China	20-31 Oct, 2025
4	Hong Kong International Aviation Academy (HKIAA)	Hong Kong, China	12-23 Jan, 2026
5	Civil Aviation Training Center (CATC) Thailand	Bangkok, Thailand	19-30 Jan, 2026

3. TMCR

Training Managers Course – Regulatory

Goal	The Training Managers Course (TMC) addresses the operational aspects of managing an aviation training organization that meets the required standards of operation, training delivery, and quality management. It will enable the participants to apply the ICAO training organization assessment guidelines in order to prepare their training organization to meet and maintain operational and quality standards for ICAO recognition.			
Learning Objective	Upon completion of the course, participants will be able to manage their operational teams to: - Identify requirements for the establishment of an aviation Training Organization; - Evaluate the level of compliance of a training center with ICAO provisions; - Develop an action plan to ensure compliance of a Training Organization with relevant international requirements.			
Course Period (Duration)	5 days (30 hours)			
Mode of Delivery	Onsite / Virtual			
Language	English			
Course Content	**Module 0**	Introduction		
	Module 1	Training Organization Set Up		
	Module 2	Training Organization Operations		
	Module 3	Training Organization Quality Management System		
Course Schedule *** Subject to Change** **- See TPeMS for Exact Dates**	**No**	**Host Organization**	**Location**	**Date (Planned)**
	1	Civil Aviation Academy (CAA) Bangladesh	Dhaka, Bangladesh	5-9 Oct, 2025
	2	Hong Kong International Aviation Academy (HKIAA)	Hong Kong, China	10-14 Nov, 2025

4. OJTI for ATC

On-the-job Training Instructor for Air Traffic Control

Goal	The aim of this Course is to provide field-instructors with specific instructional technical capabilities that will enable them to optimize the job post performance to already graduate ATCOs in the most efficient way and at the lowest possible cost.
Learning Objective	1. Prepare course syllabus according to Unit Training Plan (UTP) 2. Prepare course schedule 3. Perform instructor self-preparation 4. Organize the delivery 5. Prepare course material and devices 6. Brief trainee the program 7. Perform training on the operational workplace 8. Debrief trainee feedback 9. Assess trainee's progress 10. Complete Summative Report
Course Period (Duration)	7 days (42 hours)
Mode of Delivery	Onsite / Virtual
Language	English

Course Schedule

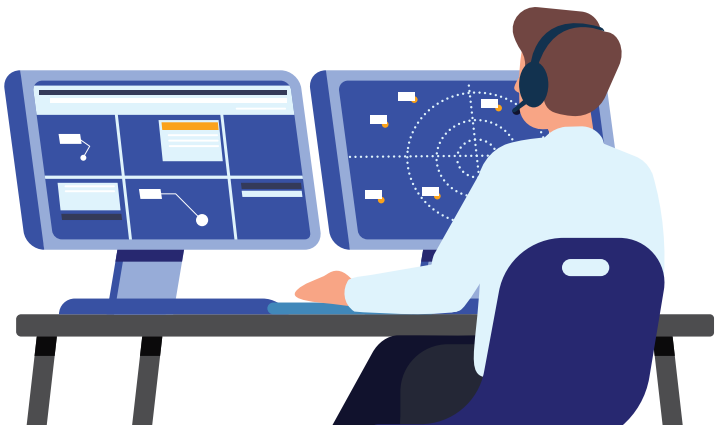
*** Subject to Change**
- See TPeMS for Exact Dates

No	Host Organization	Location	Date (Planned)
1	Civil Aviation Training Center (CATC) Thailand	Bangkok, Thailand	30 Jun - 8 Jul, 2025

5. VCI

Virtual Classroom Instruction

Goal	This Virtual Classroom Instruction (VCI) course provides instructors with the competencies required to deliver courses in a virtual classroom.			
Learning Objective	Upon completion of the course, participants will be able to: - Prepare for a virtual classroom delivery; - Manage learning activities in a virtual classroom; - Deliver instruction effectively in a virtual classroom.			
Course Period (Duration)	1 day (5 hours)			
Mode of Delivery	Virtual			
Language	English			
Course Content	**Module 0**	Introduction		
	Module 1	Virtual Classroom Instruction		
Course Schedule *** Subject to Change** **- See TPeMS for Exact Dates**	**No**	**Host Organization**	**Location**	**Date (Planned)**
	1	Incheon Airport Aviation Academy (IAAA)	Incheon, Republic of Korea	29 Aug, 2025



6. GSI-PEL

Government Safety Inspector – Personnel Licensing

Goal	The course provides personnel licensing aviation safety inspectors with the competencies required to conduct specific safety oversight functions in accordance with ICAO's Standards and Recommended Practices (SARPs), Model Civil Aviation Regulations (MCARs), and technical guidance.
Learning Objective	After having successfully completed the GSI PEL, participants will be able to: - Establish and maintain a CAA PEL system; - Obtain knowledge testing services from an outside provider; - Manage a knowledge testing system; - Evaluate a license application for completeness and accuracy; - Determine if an applicant is eligible for the license sought; - Administer, grade, and document the results of knowledge tests; - Conduct flight crew license skill tests; - Conduct maintenance technician skill tests; - Determine the appropriate document to be issued based on the skill test results; - Validate and convert foreign licenses; and - Suspend or revoke a license.
Course Period (Duration)	15 days (120 hours)
Mode of Delivery	Onsite / Virtual
Language	English

Course Content	**Module 0**	Introduction
	Module 1	ICAO Licensing Obligations
	Module 2	The PEL System
	Module 3	Medical Certification Process
	Module 4	Designate an Aviation Medical Examiner
	Module 5	Examining Principles: Knowledge, Skill, and Language Proficiency
	Module 6	Deciding to Develop and/or Obtain Licensing Tests
	Module 7	Conduct Application Phase: Determine Application's Acceptability
	Module 8	Conduct Evaluation Phase: Determine Applicant's Eligibility
	Module 9	Conduct Demonstration Phase: Manage Knowledge Test Administration
	Module 10	Conduct Demonstration Phase: Manage FCL Skill Test Administration
	Module 11	Conduct Demonstration Phase: Manage AMT Skill Test Administration
	Module 12	Conduct Issuance Phase: Issue Appropriate Document
	Module 13	Validation and Conversion of a Licence
	Module 14	Surveillance of Licensed Aviation Personnel
	Module 15	Compliance and Enforcement Action

Course Schedule *** Subject to Change** **- See TPeMS for Exact Dates**	**No**	**Host Organization**	**Location**	**Date (Planned)**
	1	Incheon Airport Aviation Academy (IAAA)	Incheon, Republic of Korea	TBD, 2026
	2	Civil Aviation University of China (CAUC)	Tianjin, China	8-26 Sep, 2025

7. GSI-AIR

Government Safety Inspector Airworthiness
– Air Operator and Approved Maintenance Organization Certification

Goal	The GSI-AIR (Government Safety Inspector – Airworthiness) Course was jointly developed by ICAO and the FAA to provide aviation safety inspectors worldwide with standardized skills and knowledge. This 15-day course focuses on the fundamental concepts and steps involved in certifying Approved Maintenance Organizations (AMO) and Air Transport Operators (AOC), based on ICAO Standards and Recommended Practices (SARPs) and Model Civil Aviation Regulations (MCARs). Participants follow a five-phase certification process through practical exercises using "mock" organizations, evaluating manuals and observing operations to assess regulatory compliance. Part One covers AMO certification, while Part Two focuses on AOC certification.
Learning Objective	After having successfully completed the GSI AIR, the trainees will be able to: - Evaluate a Perspective Operators Pre-Assessment Statement Form; - Identify Pre-Application Meeting Objectives; - Review a mock AMO formal application and identify formal application meeting objectives; - Evaluate portions of an applicant's Maintenance Procedures Manuals (MPM) and identify unacceptable errors; - Evaluate an applicant's training curriculum and determine if initial approval can be granted; - Evaluate the results of a main base inspection and determine inspector actions; - Complete a mock AMO certificate and Standard Operating Procedures (SOPs) and identify items that must be included in the certification report; - Evaluate narrative and reference statements; - Evaluate a mock operator's Maintenance Control Manual; - Evaluate a mock operator's proposed Minimum Equipment List (MEL) and identify Configuration Design Limitations (CDL); - Evaluate an inspection report from a mock operator's conformity inspection; - Identify recommendations involving inspector observations/reports of demonstration flights; and - Complete a mock operator's certificate and SOPs and identify items to include in the certification report.
Course Period (Duration)	15 days (112 hours)
Mode of Delivery	Onsite / Virtual
Language	English

Course Content	**Module 0**	Introduction
	Module 1	Course Overview
	Module 2	ICAO Obligations
	Module 3	Pre-Application Phase - AMO
	Module 4	Formal Application Phase – AMO
	Module 5	Document Evaluation Phase: Statement of Compliance – AMO
	Module 6	Document Evaluation Phase: AMO Procedures Manual – AMO
	Module 7	Document Evaluation Phase: Maintenance Procedures and the Quality System – AMO
	Module 8	Document Evaluation Phase: Training Programme – AMO
	Module 9	Demonstration and Inspection Phase – AMO
	Module 10	Certification Phase – AMO
	Module 11	Pre-Application Phase – Air Operator
	Module 12	Formal Application Phase
	Module 13	Document Evaluation Phase: Maintenance Control Manual – Air Operator
	Module 14	Document Evaluation Phase: Maintenance Programme – Air Operator
	Module 15	Document Evaluation Phase: Minimum Equipment List – Air Operator
	Module 16	Demonstration and Inspection Phase: Aircraft and Equipment – Air Operator
	Module 17	Demonstration and Inspection Phase: Facilities – Air Operator
	Module 18	Demonstration and Inspection Phase: Demonstration Flights – Air Operator
	Module 19	Certification Phase – Air Operator

Course Schedule *** Subject to Change** **- See TPeMS for Exact Dates**	**No**	**Host Organization**	**Location**	**Date (Planned)**
	1	Civil Aviation University of China (CAUC)	Tianjin, China	Dec, 2025

8. GSI-OPS

ICAO Government Safety Inspector Operations – Air Operator Certification

Goal	The Government Safety Inspector (GSI) Operations – Air Operator Certification (OPS) Course was developed as a collaborative effort between the International Civil Aviation Organization (ICAO) and the Federal Aviation Administration (FAA) in order to provide operations, airworthiness, and personnel licensing aviation safety inspectors, on a worldwide basis, with uniform skills and knowledge to conduct specific safety oversight functions. This 14-days course, designed for operations inspectors, covers the basic concepts and steps involved in certificating an air transport operator. Participants will be taught the five-phase certification process based upon ICAO Standards and Recommended Practices (SARPs) and Model Civil Aviation Regulations (MCARs).
Learning Objective	After having successfully completed the GSI OPS, the trainees will be able to: - Evaluate Pre-assessment Statement forms and identify Pre-application Meeting objectives; - Review two mock packages: assess quality of one, identify meeting objectives for the other; - Evaluate narrative and reference statements; - Evaluate excerpts from mock Operations Manual, Cabin Attendant Manual, and A300 Aircraft Operating Manual; - Review sample training curriculum segment; - Evaluate mock MEL and CDL; - Verify performance planning data; - Review Aircraft Loading and Handling Manual and identify errors; - Assess Exit Row Seating programme excerpts; - Evaluate main base inspection results and determine inspector actions; - Evaluate training programme observations and facilities; determine inspector actions; - Assess emergency evacuation scenarios and justify decisions; - Recommend actions based on demonstration flight observations; - Complete mock certificate and SOPs; identify items for certification report.
Course Period (Duration)	14 days (112 hours)
Mode of Delivery	Onsite / Virtual
Language	English

Course Content	**Module 0**	Introduction
	Module 1	ICAO Obligations
	Module 2	The Pre-Application Phase
	Module 3	Conducting the Pre-Application Meeting
	Module 4	Conducting a Formal Application Meeting
	Module 5	Evaluating a Statement of Compliance
	Module 6	Evaluating Operations Manual
	Module 7	Evaluating a Quality Manual
	Module 8	Evaluating a Safety Management System Manual
	Module 9	Evaluating a Training Manual
	Module 10	Evaluating a Cabin Crew Manual
	Module 11	Evaluating an Aircraft Operating Manual
	Module 12	Evaluating a Minimum Equipment List
	Module 13	Evaluating a Performance Planning Manual
	Module 14	Evaluating a Loading and Handling Manual
	Module 15	Evaluating Other Required Manuals and Documents
	Module 16	Evaluating Applicant's Main Base and Station Facilities
	Module 17	Evaluating Training Programmes and Training Facilities
	Module 18	Evaluating Emergency Evacuation and Ditching Demonstrations
	Module 19	Evaluating Demonstration Flights
	Module 20	Issuing the Air Operator Certificate

Course Schedule *** Subject to Change** **- See TPeMS for Exact Dates**	**No**	**Host Organization**	**Location**	**Date (Planned)**
	1	Civil Aviation Training Center (CATC) Mongolia	Ulaanbaatar, Mongolia	29 Sep - 16 Oct, 2025

ICAO APAC Fellowship/Scholarship Programmes

This section is to provide more information on fellowship or scholarship training opportunities in the APAC region.

1 HKIAA-ENAC Advanced Master Programmes Sponsorship

WEBSITE | https://www.hkiaacademy.com/en/

Full Sponsorship opportunities are available for participating in and attending the Advanced Master in Aviation Safety Management and Advanced Master in Air Transport Management programmes in Hong Kong, China.

	Course Title	Training Center (Country)	Course Duration	Delivery Mode	Remark (Registration Link)
1	Advanced Master in Aviation Safety Management with Ecole Nationale de l' Aviation Civile (ENAC), France	HKIAA (Hong Kong)	Sep 2025 – Apr 2027	In-person	https://www.hkiaacademy.com/en/
2	Advanced Master in Air Transport Management with Ecole Nationale de l' Aviation Civile (ENAC), France	HKIAA (Hong Kong)	Jan 2026 – Jul 2027	In-person	

2 ICAO-Indonesia Developing Countries Training Programme

WEBSITE | https://www.trainairplus.id/indonesia-icao-dctp-2025

Indonesia and ICAO jointly established the Developing Countries Training Programme (DCTP) in 2025. Sponsored by the Indonesia Government and administered by the ICAO Technical Cooperation Bureau, the DCTP provides fellowships for specialized training program conducted by the Human Resources Development in Transportation Agency (HRDTA). 60 Fellowships will be available in 2025, and we welcome applications from government officials of eligible developing ICAO Member States. Visit the website above for further information.

	Course Title	Training Center (Country)	Course Duration	Delivery Mode	Remark (Registration Link)
1	Essential Soft Skills for NextGen Aviation Professionals (ESSNGAPO EN)	CHRDCA (Indonesia)	25 Aug, 2025	Online	https://www.trainairplus.id
2	Performance-Based Navigation Overview (PBNO EN)	CHRDCA (Indonesia)	25 Aug, 2025	Online	
3	Air Transport Economics for Airport Professionals (ATEAP EN)	CHRDCA (Indonesia)	25 Aug, 2025	Online	

3

ICAO–Republic of Korea Fellowship Training Programme

WEBSITE | https://korea-ftp.org/edu/courselist.do

ICAO–Republic of Korea Fellowship Programme: Investing in Future Global Leaders

The Republic of Korea, in close collaboration with ICAO, has operated one of the most comprehensive aviation training support programmes since 2001, hosting more than 2,000 professionals from over 100 countries. The programme is funded by the Korean government and delivered through Incheon Airport Aviation Academy (IAAA) and the Civil Aviation Training Center (CATC) under Korea Airports Corporation. On average, 14 specialized training courses are offered annually.

Flagship Offering: Scholarship for Master's Degree in Aviation Policy

The programme's centerpiece is a fully funded, 17-month scholarship for a Master's degree in aviation policy. Delivered by one of Korea's top universities, the programme is tailored to mid- and senior-level professionals and emphasizes real-world application of aviation policy and global leadership. Through this flagship initiative, Korea reaffirms its commitment to strengthening institutional capacity in aviation governance and strategy. The programme continues to bridge policy and practice, empowering States to build resilient and future-ready aviation systems in alignment with ICAO's No Country Left Behind vision.

	Course Title	Training Center (Country)	Course Duration	Delivery Mode	Remark (Registration Link)
1	Aerodrome Inspection	IAAA (ROK)	24-30 Jul, 2025	In-person	https://www.korea-ftp.org/main.do
2	Airport BHS & HBS Design and Management	IAAA (ROK)	21-26 Aug, 2025	In-person	
3	Aviation Security Practice for Screening Checkpoint Supervisors	CATC (ROK)	20-24 Oct, 2025	In-person	
4	Aerodrome CNS Engineering	IAAA (ROK)	22-28 Oct, 2025	In-person	
5	UAS & Navigation Aids System	CATC (ROK)	10-14 Nov, 2025	In-person	
6	ACT-SAF	IAAA (ROK)	1-5 Sep, 2025	In-person	
7	ILS & A/G Data Communication	CATC (ROK)	4-8 Aug, 2025	In-person	
8	Master of Science in Aviation Policy	KAU (ROK)	26 Aug, 2024 ~ 28 Nov, 2025	In-person	

4 ICAO-Singapore Developing Countries Training Programme

WEBSITE | https://www.caas.gov.sg/saa/fellowships

Singapore and ICAO established the Developing Countries Training Programme (DCTP) in 2001. Sponsored by the Singapore Government and administered by the ICAO Capacity Development and Implementation Bureau (CDIB), the DCTP provides 330 Fellowships and 10 Scholarships to government officials from eligible developing ICAO Member States to attend specialised training programmes conducted by the Singapore Aviation Academy (SAA).

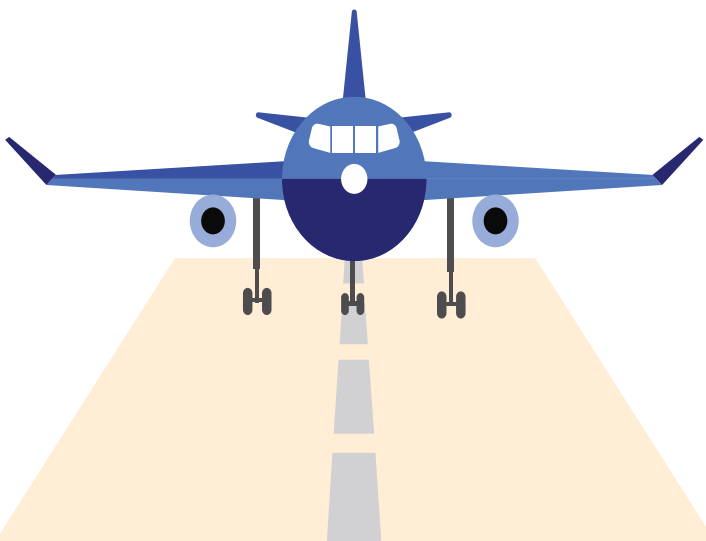
	Course Title	Training Center (Country)	Course Duration	Delivery Mode	Remark (Registration Link)
1	Auditing Techniques and Best Practices in Aviation Security	SAA (Singapore)	1-5 Sep, 2025	In-person	https://form.gov.sg/67ebc12f816662948f8e232a
2	Aviation Security Management Programme	SAA (Singapore)	6-9 Oct, 2025	In-person	
3	ICAO Training Package: Oversight of Aircraft Leasing Operations	SAA (Singapore)	27-31 Oct, 2025	In-person	
4	Air Traffic Flow Management and Collaborative Decision Making	SAA (Singapore)	27-31 Oct, 2025	In-person	
5	Resolution of Safety Issues	SAA (Singapore)	3-7 Nov, 2025	In-person	
6	IAASM-SAA Aviation Medicine for Medical Examiners and Assessors Refresher	SAA (Singapore)	3-7 Nov, 2025	In-person	
7	ICAO Standardized Training Package: Operational Hazard Identification and Risk Mitigation	SAA (Singapore)	10-13 Nov, 2025	In-person	
8	ICAO Training Package: Oversight of Competency-based Training	SAA (Singapore)	24-28 Nov, 2025	In-person	
9	Human Factors in Aviation Workshop	SAA (Singapore)	1-5 Dec, 2025	In-person	
10	Air Traffic Management Safety Investigation and Analysis	SAA (Singapore)	8-12 Dec, 2025	In-person	
11	Aircraft Accident Investigation Techniques	SAA (Singapore)	23-27 Feb, 2026	In-person	
12	Aircraft Accident Investigation Management	SAA (Singapore)	2-6 Mar, 2026	In-person	

5 ICAO-Thailand CAAT Developing Countries Training Programme

WEBSITE | https://www.catc.or.th/th/dctp/

Thailand and ICAO jointly established the Developing Countries Training Programme (DCTP) in 2025. Sponsored by the Government of the Kingdom of Thailand and administered by the ICAO Capacity Development and Implementation Bureau (CDIB), the DCTP is a one-year programme running from January to December 2025. It provides 51 fellowships to government officials from eligible developing ICAO Member States to attend specialized training courses conducted by the Civil Aviation Authority of Thailand (CAAT) in collaboration with the Civil Aviation Training Center Thailand (CATCT). Applications from government officials of eligible developing ICAO Member States are welcome.

	Course Title	Training Center (Country)	Course Duration	Delivery Mode	Remark (Registration Link)
1	ITP: CORSIA Verification	CATC (Thailand)	13-15 Aug, 2025	In-person	https://www.catc.or.th/en/DCTP
2	ITP: State Safety Programme	CATC (Thailand)	3-10 Sep, 2025	In-person	
3	ICAO: Safety Management for Practitioners	CATC (Thailand)	6-10 Sep, 2025	In-person	



ICAO Certified Training Instructors

This section is to provide information on training instructors who can conduct English-based training courses in the APAC region for States and Centers to efficiently cast instructors when planning and developing training courses, with a possibility of sharing in the region.

	Name	Training Center	Subject (Training Course/Area)	Contact Information (Email)
Bangladesh	Mr. Prasanta Kumar Chakraborty	Civil Aviation Academy (CAA)	TMC, TIC	caabadat @gmail.com
China	Ms. BAI Huixin	Civil Aviation University of China (CAUC)	TIC, TDC	hxbai @cauc.edu.cn
	Ms. LIU Chang		TIC	c-liu @cauc.edu.cn
Hong Kong, China	Mr. Steven Lau	Hong Kong, China	TIC	AcademyEnquiry@ hkiaaAcademy.com
	Mr. Steven Barry Wordsworth		Airport Landside Security	stevewordsworth @mac.com
Indonesia	Mr. Ahmad Bahrawi	CHRDCA Indonesia	TIC, TMC	bahrawi @catc-indonesia. org
	Mr. Mohammad Faizal	CHRDCA Indonesia	TIC	baladjam @gmail.com
	Mr. Farid Imam Wahyudin	CHRDCA Indonesia	GSI AIR	faimwa@gmail.com
Mongolia	Mr. Badral Seded	Civil Aviation Training Center (CATC) Mongolia	TIC	badral85s @gmail.com
Nepal	Mr. Bharat Raj Dhakal	Civil Aviation Academy of Nepal	AVSec	dhakalbharatraj8 @gmail.com
	Mr. Shreehari Bhatta		AVSec	bhattashreehari @gmail.com
	Mr. Khageswor Aryal		AVSec	Khageswor @gmail.com

	Name	Training Center	Subject (Training Course/Area)	Contact Information (Email)
Republic of Korea	Mr. Nick Kang	Incheon Airport Aviation Academy (IAAA)	TIC, TDC, VCI	saltkang @airport.kr
	Ms. Eunbyul Kim		Safety Management Incorporating PANS-Aerodromes	Eunbyul_kim @airport.kr
	Ms. Songhee Sim	Incheon International Airport Corporation (IIAC)		Songhee_sim @airport.kr
	Ms. Jeehyun Mok			Jeehyun_mok @airport.kr
	Mr. Joohyung Lee		Airport Landside Security	Joohyung_lee @airport.kr
	Ms. Sooyon Jin	Civil Aviation Training Center (CATC) Aviation Security Training Center (ASTC)	Airport Landside Security	soo2 @airport.co.kr
	Mr. Jonghwan Yoon		Aviation Security Practice for Screening Checkpoint Supervisors	yjh0523 @airport.co.kr
	Ms. Subin Lee	Korea Airports Corporation (KAC)	Airport Landside Security	leesb14 @airport.co.kr
Singapore	Mr. Allan Tang	Singapore Aviation Academy (SAA)	GSI PEL, GSI OPS, GSI Air Cargo, TIC, TMC, Safety Management System	Allan_Tang @caas.gov.sg
	Mr. Michael Pang		GSI AIR, Safety Management System	Michael_Pang @caas.gov.sg
	Ms. Tan Siew Huay		Air Law	Tan_Siew_Huay @caas.gov.sg
	Mr. Clyde Ong		GSI PEL	Clyde_Ong @caas.gov.sg
	Mr. Fong Weng Khin		GSI OPS	Fong_Weng_Khin @caas.gov.sg
Thailand	Ms. Iratrachar Amornpipat	Civil Aviation Authority of Thailand	GSI PEL	iratrachar.a @caat.or.th

ICAO Asia Pacific
Regional Training Cooperation
Framework (RTCF)

COMPENDIUM OF APAC TRAINING PROGRAMMES

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