



# **COMPETENCY BASED FRAMEWORK**

**FOR**

**FIRE AND RESCUE OFFICER**

**DEPARTMENT OF AIR TRANSPORT**

**MINISTRY OF INFORMATION & COMMUNICATIONS**

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**ABBREVIATION**

AEP	Airport Emergency Plan
AFFF	Aqueous Film Forming Foam
ARFFS	Airport Rescue Firefighting Service
BA	Breathing Apparatus
BCAA	Bhutan Civil Aviation Authority
CBF	Competency Based Framework
CFT	Crash Fire Tender
DCP	Dry Chemical Powder
DoAT	Department of Air Transport
E-GP	Electronic Government Procurement
FIT	Foundation In-service Training
ICAO	International Civil Aviation Organization
ITI	Innovative Thermal Imaging
PPE	Personnel Protection Equipment
PRR	Procurement Rules and Regulations
RGoB	Royal Government of Bhutan
SAR	Search and Rescue
SARPs	Standard and Recommended Practices
ToT	Training of Trainers
TNA	Training Needs Analysis

## **1. Background**

### **1.1. About the Department**

Department of Air Transport (DoAT) is a statutory department under the Ministry of Information and Communications of Royal Government of Bhutan, constituted by civil aviation act 2016. It came into existence on 24th April 2014 by bifurcating the erstwhile Department of Civil Aviation with a view to accelerating the integrated development, expansion and modernization of the Air Traffic Services, Passenger Terminals, Operational Areas and Cargo Facilities at the airports across the country. The department owns and maintains 4 airports including 3 Domestic airports. DoAT provides Air Navigation Services (ANS) at all airports / civil enclaves in the country, assigned and as designated by Bhutan Civil Aviation Authority (BCAA). Department is committed to its mandate of creating more airport infrastructure and navigation infrastructure across the length and breadth of the nation. From its beginning with a handful of people in 1986, it has now bloomed into a competent technical organization with 4 divisions, 3 Domestic airports and 9 technical sections with a strength of over 200 staff.

The Department of Air Transport is headed by the Director General and he is supported by Division Chiefs, Airport Safety Strategists and Section heads. Fire Fighting and Rescue Service falls under the Airport Service Division and is mandated to save lives and properties in the airport from fire disasters.

### **1.2. Vision of the Department/Agency**

To provide efficient and reliable delivery of services for safe, secure and sustainable operation of airports in Bhutan.

### **1.3. Missions of the Department**

To develop and manage airports and air navigation infrastructure and services to international standards, meeting our stakeholders' values while profitably contributing to the national economic development.

### **1.4. Core Values**

The core values that will guide our staff towards shaping work culture and work towards achieving our vision are as follows:

1. Safety
2. Standards
3. Services
4. Teamwork, and
5. Integrity

### **1.5. Core Functions**

1. Develop, maintain and operate airports in Bhutan,
2. Provide services to support aviation activities,
3. Foster efficient coordination with other stakeholders working at the airports,

4. Collect charges, including fees and airport taxes from airline services as well as use of space and infrastructure in the airports and air traffic service routes.
5. Develop and administer the national aviation infrastructure and Bhutanese airspace;
6. Provide and upgrade air navigation services for safe operations;
7. Foster the development and promotion of Civil Aviation in general and facilitate the growth of the tourism industry; and
8. Monitor and address environmental issues in aviation.

## **2. Competency-Based Framework for Fire & Rescue Officer**

### **2.1. Introduction**

The Royal Civil Service Commission launched the Competency-Based Framework for Civil Service in collaboration with Singapore Polytechnic International in 2018. The program is aimed at strengthening the capacity and capabilities of the civil servants based on their role-specific competency to enhance professionalism, growth and development to contribute optimally to the national building to ultimately achieve efficiency and effectiveness of the public service delivery.

### **2.2. Purpose**

The CBF highlights the knowledge, Skills and Abilities (SKA) required for an Aviation Fire and Rescue Officer to achieve a high level of professional competence and deliver the highest standard services. The framework is developed with the following aim and objectives.

### **2.3. Aim**

The CBF aims to build a fraternity of Fire and Rescue Officers who are highly knowledgeable, skillful and competent in delivering efficient and effective services of the highest standard.

### **2.4. Objectives**

The main objective of this paper is to seek approval of the RCSC and the management to:

1. Implement the Competency-Based Framework for Fire & Rescue officer
2. Provide Competency-based training for Fire and Rescue officer
3. Guide in approving and recruiting competent Fire and Rescue Officer

### **2.5. Framework Development Processes**

The development of the framework involved identifying Role Profiles, Competency Areas, Key Competencies, Behavioral Indicators and Proficiency Levels through a rigorous, consultative and inclusive process with key stakeholders.

### **2.6. Structure**

The structure of CBF of Fire & Rescue Officer comprises 3 key roles and 2 broad Competency Areas as Technical Competencies and Leadership competencies. There are 14 Key Competencies and 14 Behavior Indicators under Technical Competency Area and 5 Key Competencies and 8 Behavior Indicators under Leadership Competency Area. 14

## Competency Based Framework for Fire & Rescue Officer

BIs under the technical Competencies are further classified into 56 proficiency levels and 8 BIs under Leadership Competencies into 32 proficiency levels. Both BIs and their classifications are not depicted in the following diagrammatic overview of the CBF. However, it is being explained in detail in the following pages.

The following diagrammatic overview of Competency Based Framework for fire and rescue officer are presented in two separate diagram (Technical Competency and Leadership Competency) as indicated below.





### 2.6.1. Identification of Key Role

The key role is an organized set of behaviors that are crucial to achieving the current and future goals of the Department of Air Transport. Following are the key roles expected to be performed by the Fire and Rescue Officer.

- a. Safety Strategist
- b. Safety Administrator
- c. Safety Ensurer

#### 2.6.1.1. Description of Role Profile

The role profile is the description of roles that Fire and Rescue Officers are expected to demonstrate in achieving the outcomes of the Department of Air Transport. It defines outcomes and competencies for an individual role. It concentrates on outcomes rather than duties, which provides better guidance than a job description on expectations. It does not constrain a Fire and Rescue Officer to carry out a prescribed set of tasks.

**Role Profile of Fire & Rescue Officer**

SN	Key Role	Role Description
1	SAFETY STRATEGIST	<ol style="list-style-type: none"> <li>1. Plan and Procure aviation fire and rescue equipment such as fire extinguishers, airport category Crash Fire Tender (CFT) vehicles, Aqueous Film Forming Foam (AFFF), Dry Chemical Powder (DCP), PPE and gadgets to ensure Bhutan Civil Aviation Authority (BCAA) and International Civil Aviation Organization (ICAO) standards and regulations are met.</li> <li>2. Develop and initiate Training Plans and Programs for fire crews and fire &amp; rescue officers for both in-house and ex-country training to ensure maximum learning and applications.</li> <li>3. Possess thorough knowledge on the "Local Topography" meaning the airport and its immediate vicinity for extraordinary rescue operations.</li> </ol>
2	SAFETY ADMINISTRATOR	<ol style="list-style-type: none"> <li>1. Administer and monitor the mandatory extinguishing agents such as AFFF and DCP are stored in the CFT vehicle at the predetermined position for flight operation.</li> <li>2. Instruct and delegate the fire and rescue team to ensure readiness for the flight operation.</li> <li>3. Instruct and ensure intelligent care and handling of all rescue and firefighting equipment to guarantee operational efficiency under all circumstances. The equipment must be regularly tested or inspected and careful records must be maintained of the circumstances and results of each test.</li> <li>4. Facilitate fire and rescue team in maintaining level of physical fitness that is necessary to enable firefighters to carry out their operational duties.</li> </ol>
3	SAFETY ASSURER	<ol style="list-style-type: none"> <li>1. Develop Airport Emergency planning (AEP) manual and conduct table-top and full-scale emergency drills as a preparation for mitigation of the anticipated aircraft incidents and accidents.</li> <li>2. Assess the incident and accident scenarios to identify the Triage area and collaborate with key stakeholders during the real incidents and accidents for necessary arrangements and assure the implementation of the AEP manual to mitigate the risks.</li> </ol>

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		<p>3. Manage the aviation fire and rescue team to perform firefighting and rescue operations during incidents and accidents of aircraft to save lives and properties within the response time as per the BCAA standards.</p> <p>4. Compile and prepare post-incident and accident reports and submit it to management and the regulator (BCAA) as mandated.</p>
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**2.6.2. Identification of Competency Areas**

The competency area is the clustering of key competencies by related behavior and functions of each role. It comprises a set of Knowledge, Skills and Abilities (KSA) that result in essential behaviors expected from a Fire & Rescue Officer. The framework has identified 2 Competency Areas as follows: -

Role #	Key Role	Competency Area
1	Safety Strategist	1.1 Technical Competencies
		1.2 Leadership Competencies
2	Safety Administrator	2.1 Technical Competencies
		2.2 Leadership Competencies
3	Safety Assurer	3.1 Technical Competencies
		3.2 Leadership Competencies

**2.6.3. Identification of Key Competencies**

The key competency is an observable behavior that indicates the presence of the particular competency. Generally, it is broadly divided into a core competency, leadership competency and technical or functional competency. The framework has identified 18 key competencies as presented below: -

**Technical Competencies**

Role #	Key Role	Competency Area	Key Competencies
1	Safety Strategist	1. Technical Competencies	1.1 Procurement Planning
			1.2 Strategic Capacity Development
			1.3 Technological affinity
			1.4 Local Topography
			1.5 RGoB Procurement Rules and Regulations
		2. Technical Competencies	2.1 Aviation Firefighting & Rescue Procedures

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2	Safety Administrator		2.2 Knowledge of Extinguishing Agents
			2.3 Team Management & Job Delegation
			2.4 Physical Fitness
3	Safety Ensurer	3. Technical Competencies	3.1 Airport Emergency Planning (AEP)
			3.2 Coordination (stakeholders and team)
			3.3 Search & Rescue (SAR) Operations
			3.4 Knowledge of aircrafts
			3.5 Medical First Aid Knowledge

**Leadership Competencies**

Key Role	Competency Area	Key Competencies
1. Safety Strategist, 2. Safety Administrator 3. Safety Ensurer	Leadership Competencies	Strategic View
		Result-oriented
		Collaboration & Partnership
		Personal drive and integrity
		Effective Communication

**2.6.4. Identification of Behavioral Indicators**

The Behavioral Indicators is the description of competencies based on various proficiency levels. It outlines a collection of desired and observable motives, traits and behaviors when executing or carrying out the assigned task. It serves as a tool to guide evaluations of employee performance. The framework has identified a total of 21 behavioral indicators and as apparent from the table below.

Competency Based Framework for Fire & Rescue Officer

Competency Area	Key Competency	Behavior Indicators
<b>Key Role 1: Safety Strategist</b>		
Technical Competencies	1.1 Procurement Planning	Carries out procurement planning for CFT vehicle and extinguishing agents to ensure uninterrupted fire and rescue service delivery.
	1.2 Strategic Capacity Development	Collaborates with HRD in planning and implementing strategic capacity development programs to enhance the skills of the Aviation fire & rescue staff.
	1.3 Technological Affinity	Demonstrates wide knowledge and understanding of the best practices of technological applications relevant to aviation fire and rescue operations globally.
	1.4 Local Topography	Possess thorough knowledge on the "Local Topography" meaning the airport and its immediate vicinity for extraordinary rescue operations.
	1.5 RGoB procurement rules and regulations	Exhibits understanding of the RGoB Procurement rules and regulations for compliance.
<b>Key Role 2: Safety Administrator</b>		
Technical Competencies	2.1 Aviation Firefighting & Rescue Procedures	Demonstrates aviation firefighting and rescue procedures to the aviation fire and rescue crews for successful rescue operations.
	2.2 Knowledge of Extinguishing Agents	Understands and applies correct extinguishing agents for various incidents and accidents to ensure effective risk mitigation.
	2.3 Team Management and Job Delegation	Manages the aviation fire and rescue team to perform firefighting and rescue operations during incidents and accidents of aircraft to save lives and properties within the response time as per the BCAA standards.

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	2.4 Physical fitness	Facilitate fire and rescue team in maintaining level of physical fitness that is necessary to enable firefighters to carry out their operational duties.
<b>Key Role 3: Safety Ensurer</b>		
Technical Competencies	3.1 Airport Emergency Planning (AEP)	Conducts table-top and full-scale emergency drills as per the AEP manual to enable the stakeholders to react within the response time during the real incidents and accidents.
	3.2 Coordination (stakeholders and team)	Assesses the incident and accident scenarios to identify the Triage area and coordinates with key stakeholders during the incidents and accidents for necessary arrangements and assures the implementation of the AEP manual to mitigate the risks.
	3.3 Search & Rescue Operations	Facilitates the conduct of Search and Rescue Training to the aviation fire and rescue crews to carry out search and rescue operations effectively.
	3.4 Knowledge of aircrafts	Possesses an intimate knowledge of all types of aircraft (aircraft familiarization) normally using the airport to understand the various types of aircraft designs for effective use of fire and rescue equipment.
	3.5 Medical First Aid Knowledge	Instructs the aviation fire and rescue crews on the application of first aid prior to the arrival of medical personnel in the collection and triage areas.

**Behavior Indicator for Leadership Competencies**

<b>Key Competencies</b>	<b>BIs</b>
Strategic view	Builds a sense of shared purpose and direction by actively promoting the vision and creating alignment of goals with national development priorities.
	Applies sound knowledge and judgment to develop realistic and innovative solutions to issues/emerging issues to achieve organizational targets.
Result-oriented	Builds organizational capacity to achieve the agency's annual targets ensuring excellence in service delivery.

## Competency Based Framework for Fire & Rescue Officer

	Capitalizes on organizational diversity to harness the potential of multiple perspectives.
Cooperation and partnership	Cultivates a culture of working relationships with colleagues and multiple stakeholders to build strong connections, cooperation, and collaborations to create a conducive working environment.
Personal drive and integrity	Demonstrates a high level of professionalism and personal integrity in professional conduct and strives for continual learning to achieve the targets of the organization.
Communication	Communicates clearly to ensure key conclusions are conveyed.
	Negotiates persuasively to address the disagreements objectively.

### 2.6.5. Classification of Proficiency Levels

The proficiency level is categorized based on the level of expertise. It describes the levels of competency required to perform a specific job successfully. There is a progression of proficiencies at each level. The proficiency level of Fire and Rescue Officer is categorized into Four levels as i) Entry (P5&P4), ii) Intermediate (P3), iii) Experienced (P2) and Advanced (P1). The framework has identified 84 proficiency levels.

The proficiency will enable individual officials to distinguish the type of competencies expected in their career path, which will give them an opportunity to enhance competency in achieving current as well future career goals. As the officials in position levels of P5 & P4 play similar roles, their proficiency levels are merged together. Further, the proficiency level will set a benchmark for recruitment and deployment. The proficiency levels of each key competency are detailed below:

#### Proficiencies for Technical Competencies

<b>Key Role 1: Safety Strategist</b>			
<b>Competency Area: Technical Competencies</b>			
<b>Key Competency: 1.1 Procurement Planning</b>			
<b>Behavior Indicator: Carries out procurement planning for CFT vehicles and extinguishing agents to ensure undisrupted fire and rescue service delivery</b>			
Entry (P5&P4)	Intermediate (P3)	Experience (P2)	Advanced (P1)
Drafts procurement plan for CFT vehicles and extinguishing	Guides the subordinates on drafting procurement plan for CFT vehicles	Reviews and provides recommendations on the draft procurement plan for CFT vehicles	Apprises the draft procurement plan to Management for approval

Competency Based Framework for Fire & Rescue Officer

agents with guidance from the seniors	and extinguishing agents	and extinguishing agents	
<b>Key Competency: 1.2 Strategic Capacity Development</b>			
<b>Behavior Indicator:</b> Collaborates with HRD in planning and implementing strategic capacity development programs to enhance skills of the aviation fire and rescue staff.			
Entry (P5&P4)	Intermediate (P3)	Experience (P2)	Advanced (P1)
Identifies critical trainings for aviation fire and rescue staff and nominates the relevant staff for the trainings	Evaluates the content of the critical trainings to be provided by the external institutions and discusses with seniors if required additional contents	Prioritizes the training based on the urgency and budget availability for onward submission to Supervisor	Designs training calendar in consultation with the HRD and facilitate implementation of the trainings with prior approval from the management
<b>Key Competency: 1.3 Technological Affinity</b>			
<b>Behavior Indicator:</b> Demonstrates wide knowledge and understanding of the best practices of technological advancement and applications relevant to aviation fire and rescue operations globally.			
Entry (P5&P4)	Intermediate (P3)	Experience (P2)	Advanced (P1)
Identifies and comprehends the technical know-how and utility of different types of fire and rescue equipment used in the top ranking airports	Demonstrates and guides the crews on the applications of different types of fire and rescue equipment	Researches and explores new advancements in the fire and rescue technology field and discusses with the supervisor on the feasibility aspects	Submits proposal of new technology requirements to the management based on the budget availability
<b>Key Competency: 1.4 Local Topography</b>			
<b>Behavior Indicator:</b> Possess thorough knowledge on the "Local Topography": the airport and its immediate vicinity for extraordinary rescue operations.			
Entry (P5&P4)	Intermediate (P3)	Experience (P2)	Advanced (P1)
Exhibits thorough knowledge and application of GRID MAP developed based on ICAO (International	Provides guidance on the GRID MAP reading and resolves confusions of	Reviews the existing GRID MAP and provides practical recommendations for further enhancement	Assesses and evaluates the knowledge and understanding of GRID MAP by the subordinates

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Civil Aviation Organization) manual	subordinates related to GRID MAP		
<b>Key Competency: 1.5 RGoB Procurement Rules and Regulations</b>			
<b>Behavior Indicator:</b> Exhibits understanding of the RGoB Procurements Rules and Regulations for compliance.			
Entry (P5&P4)	Intermediate (P3)	Experience (P2)	Advanced (P1)
Exhibits the understanding of RGoB procurement rules and regulations, procedures and electronic systems involved in tendering processes	Drafts Terms of References (TOR) emphasizing on the technical specifications for procurement of fire and rescue equipment	Reviews the draft TOR and ensures technical specification standards are met. Serves as the evaluation committee member for tendering processes	Monitors the procurement of fire and rescue equipment. Serves as the awarding committee member for tendering processes
<b>Key Role 2: Safety Administrator</b>			
<b>Competency Area: Technical Competencies</b>			
<b>Key Competency: 2.1 Aviation Firefighting and Rescue Procedures</b>			
<b>Behavior Indicator:</b> Demonstrates aviation firefighting and rescue procedures to the aviation fire and rescue crews for successful rescue operations.			
Entry (P5&P4)	Intermediate (P3)	Experience (P2)	Advanced (P1)
Leads and manages the firefighting and rescue team at the scenario of the aircraft incidents and accidents and should be able to operate all the firefighting equipment	Conducts in-house training on aircraft firefighting and rescue procedures to enhance the skills of team members	Designs in-house training manual, materials and modalities through in-depth research	Monitors the conduct of in-house training on aircraft firefighting and rescue and ensure training quality and standard
<b>Key Competency: 2.2 Knowledge of Extinguishing Agents</b>			
<b>Behavior Indicator:</b> Understands and applies correct Extinguishing Agents for various incidents and accidents to ensure effective risk mitigation.			
Entry (P5&P4)	Intermediate (P3)	Experience (P2)	Advanced (P1)

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Understands the classifications of fire, specific extinguishing agents, correct positioning of equipment and approach and should be able demonstrate the applications to firefighting and rescue team	Arranges and ensures that the extinguishing agents are stocked and stored in advance as per the ICAO and BCAA manual	Oversees and ensures the testing of extinguishing agents for quality control	Monitors and ensures that the extinguishing agents are stocked and tests are conducted as required
<b>Key Competency: 2.3 Team management and job delegation</b>			
<b>Behavior Indicator:</b> Manages the aviation fire and rescue team to perform firefighting and rescue operations during incident and accident of aircraft to save lives and properties within the response time as per the BCAA standards.			
Entry (P5&P4)	Intermediate (P3)	Experience (P2)	Advanced (P1)
Instructs and delegates job responsibilities on the daily basis to fire and rescue team to prepare for aircraft incidents and accidents	Ensures adequate fire and rescue teams are deployed at the site for all times	Monitors and ensures the health and safety of the fire and rescue team for immediate attention and support	Monitors and ensures the health and safety of the fire and rescue team for immediate attention and support
<b>Key Competency: 2.4 Physical Fitness</b>			
<b>Behavior Indicator:</b> Facilitate fire and rescue team in maintaining level of physical fitness that is necessary to enable firefighters to carry out their operational duties.			
Entry (P5&P4)	Intermediate (P3)	Experience (P2)	Advanced (P1)
Ensures adequate fitness equipment are in place for regular physical training required in maintaining fitness levels	Facilitates in accessing expert advice in physical training on physical fitness, weight management and health promotion issues	Reviews suitable health and fitness policy or SOPs that identifies how fitness issues are to be managed and addressed	Reviews suitable health and fitness policy or SOPs that identifies how fitness issues are to be managed and addressed
<b>Key Role 3: Safety Ensurer</b>			
Competency Area: Technical Competencies			

<b>Key Competency: 3.1 Airport Emergency Planning (AEP) (On the airport)</b>			
<b>Behavior Indicator:</b> Conducts table-top and full-scale emergency drills as per the AEP manual to enable the stakeholders to react within the response time during the real incidents and accidents			
Entry (P5&P4)	Intermediate (P3)	Experience (P2)	Advanced (P1)
Leads and manages the fire and rescue team and conducts the drill on AEP including the overseeing and managing the fire and rescue equipment	Guides the subordinate on the execution of drill as per the ICAO manual and assesses their preparedness to manage and lead the drill	Plans and designs the AEP drill, mobilizes the resources for the conduct of drill	i. Acts as an on-scene commander and reports to Air Traffic Controller (ATC) for necessary arrangements  ii. Communicates with the EOC (Emergency Operation Center) for reporting
<b>Key Competency: 3.2 Coordination (stakeholders and team) (On the airport)</b>			
<b>Behavior Indicator:</b> Assesses the incident and accident scenarios to identify the Triage area and coordinates with key stakeholders during the incidents and accidents for necessary arrangements and assures the implementation of the AEP manual to mitigate the risks			
Entry (P5&P4)	Intermediate (P3)	Experience (P2)	Advanced (P1)
Assesses and identifies Collection Area, Triage Area (priority I, II & III) and Transportation Area	Coordinates with key stakeholders for necessary arrangements	Monitors and ensures the health and safety of the fire and rescue team and everyone involved in scenario with discussion with supervisor	Monitors and ensures the health and safety of the fire and rescue team and everyone involved in scenario
<b>Key Competency: 3.3 Search and Rescue (SAR) Operations (OFF the airport)</b>			
<b>Behavior Indicator:</b> Facilitates the conduct of Search and Rescue Training to the aviation fire and rescue crews to carry out SAR operations effectively.			
Entry (P5&P4)	Intermediate (P3)	Experience (P2)	Advanced (P1)
Familiarizes and develops better handling of the SAR equipment with fire	Trains the subordinates on the SAR operations as per the International Standards & SAR	Designs practical SAR training manual, materials and modalities	Ensures the smooth implementation of the

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and rescue crews with guidance from supervisor	manual and assesses their preparedness to manage and lead the operation	through in-depth research	SAR training and its application
<b>Key Competency: 3.4 Knowledge of aircrafts</b>			
<b>Behavior Indicator:</b> Possesses an intimate knowledge of all types of aircraft (aircraft familiarization) normally using the airport to understand the various types of aircraft designs for effective use of fire and rescue equipment.			
Entry (P5&P4)	Intermediate (P3)	Experience (P2)	Advanced (P1)
Exhibits thorough knowledge on all types of aircraft using the airport	Coordinates and attends aircraft familiarization programs through collaboration with airlines	Ensures aircraft familiarization programs are implemented	Ensures aircraft familiarization programs are implemented
<b>Key Competency: 3.5 Medical First Aid knowledge</b>			
<b>Behavior Indicator: 3.1.3.1</b> Instructs the aviation fire and rescue crews on the application of First Aid prior to arrival of medical personnel in the Collection and Triage areas.			
Entry (P5&P4)	Intermediate (P3)	Experience (P2)	Advanced (P1)
i. Guides and instructs the fire and rescue crews to perform First Aid.  ii. Ensures all the medical kits relevant medicines are arranged and brought to the scene.	Ensures First Aid tools and relevant medicines are available in the ambulance	Arranges and coordinates First Aid training to the subordinates	Monitors and ensures that fire and rescue team is equipped with knowledge and practicality on the First Aid

**Proficiencies for Leadership Competencies**

**Key Competency: Strategic View**

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**Behavior Indicator:** Builds a sense of shared purpose and direction by actively promoting the vision and creating alignment of goals with national development priorities.

Entry	Intermediate	Experienced	Advanced
Understands the vision and mission of the organization and its alignment to national development priorities.	Aligns the core mandates of the organization with the national development priorities.	Champions the vision and communicates the way forward. Encourages others' input to strategic plans.	Champions the vision and communicates the way forward. Encourages others' input to strategic plans.

**Behavior Indicator:** Applies sound knowledge and judgment to develop realistic and innovative solutions to issues/emerging issues to achieve organizational targets.

Entry	Intermediate	Experienced	Advanced
Identifies the potential issues and seeks guidance to develop mitigation strategies.	Weighs up options and applies sound judgment to develop realistic solutions for the organization.	Anticipate problems and develop strategies to address them.	Generates innovative solutions to effectively resolve complex problems that may not have been experienced previously.

**Key Competency: Result-oriented**

**Behavior Indicator:** Builds organizational capacity to achieve the agency's annual targets ensuring excellence in service delivery.

Entry	Intermediate	Experienced	Advanced
Assists in implementing all research-based international best practices in enhancing optimism and enthusiasm among employees to achieve organizational goals.	Implements all the research-based international best practices in enhancing optimism and enthusiasm among employees to achieve organizational goals.	Researches and recommends international best practices pertinent to the enhancement of optimism and enthusiasm of the employees and culture of nurturing talents.	Demonstrates creative and innovative strategies to enhance optimism and enthusiasm.

**Behavior Indicator:** Capitalizes on the organizational diversity to harness the potential of multiple perspectives.

Entry	Intermediate	Experienced	Advanced
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Listens to and appreciates multiple perspectives and encourages constructive dialogues to reach a mutual agreement.	Listens to and appreciates multiple perspectives and encourages constructive dialogues to reach a mutual agreement.	Anticipates differing views, cultural perspectives, and adopts strategies to harness them.	Encourages and utilizes multiple perspectives in the organization to convert diversity into strength.
<b>Key Competency: Collaboration and Partnership</b>			
<b>Behavior Indicator:</b> Cultivates a culture of working relationships with colleagues and multiple stakeholders to build strong connections, cooperation, and collaborations to create a conducive working environment.			
<b>Entry</b>	<b>Intermediate</b>	<b>Experienced</b>	<b>Advanced</b>
Works collaboratively and cooperatively to achieve the target of the organization.	Ensures collaborative and cooperative working culture to achieve the target of the organization.	Promotes constructive networks within and outside the organization to facilitate the accomplishment of results.	Oversees and leads in communication and consultation, engaging with a wide range of supervisors, peers and stakeholders across the division, department, and agencies.
<b>Key Competency: Personal Drive and Integrity</b>			
<b>Behavior Indicator:</b> Demonstrates a high level of professionalism and personal integrity in professional conduct and strives for continual learning to achieve the targets of the organization.			
<b>Entry</b>	<b>Intermediate</b>	<b>Experienced</b>	<b>Advanced</b>
Adheres to the civil service values, code of conduct and behaves in an honest, ethical and professional way.	Demonstrates drive for personal development, identifies new challenges to extend the experience for new learning.	Demonstrates drive for personal development, identifies new challenges to extend the experience for new learning.	Accomplishes goals and maintains focus on long-term outcomes placing goals of the organization above personal ambitions.
<b>Key Competency: Effective Communication</b>			
<b>Behavior Indicator:</b> Communicates clearly to ensure key conclusions are conveyed.			
<b>Entry</b>	<b>Intermediate</b>	<b>Experienced</b>	<b>Advanced</b>
Communicates effectively to convey the HR actions to the relevant	Provides a clear, constructive and timely feedback system to	Provides a clear, constructive and timely feedback	Establishes a clear, constructive and timely feedback

Competency Based Framework for Fire & Rescue Officer

stakeholders in the organization.	ensure two-way communication in a manner that encourages learning and achieves required resolutions.	system to ensure two-way communication in a manner that encourages learning and achieves required resolutions.	system to ensure two-way communication in a manner that encourages learning and achieves required resolutions.
<b>Behavior Indicator:</b> Negotiates persuasively to address the disagreements objectively.			
<b>Entry</b>	<b>Intermediate</b>	<b>Experienced</b>	<b>Advanced</b>
Acknowledges differences of opinion and addresses disagreements objectively.	Pitches messages in a way that facilitates the desired outcomes. Uses techniques to illustrate the argument persuasively	Pitches messages in a way that facilitates the desired outcomes. Uses techniques to illustrate the argument persuasively	Offers a convincing rationale and makes a strong case, without getting personal or aggressive.

**2.7. Training Needs Analysis**

The Training Needs is the differences between desired capability and current capability. The Training Needs Analysis is the process of recognizing the skills gap and needs of training. It is the procedure to determine whether the training will bring out the solution to the problem. It ensures that training is targeting the correct competencies, the correct employees and the needs of the Department. The training can reduce, if not eliminate, the gap by equipping the Fire & Rescue Officer with knowledge and skills. It should be the shared responsibility of the employee and Department to build and enhance their capability and competency.

The training needs analysis is carried out in consultation with the stakeholders through interview, survey and FGD. The questionnaire consists of both closed and open-ended questions. The questionnaire is based on 84 proficiency levels on Likert Scale of “Competent” and “Not Competent” followed by open-ended questions asking the likely reasons for ‘Not Competent’ and suggesting interventions to address the gap. The behavioral indicators were assessed by proficiency level to identify the performance gaps.

**2.7.1. Training Needs Assessment at Entry Level (P5 & P4)**

<b>Role 1: Safety Strategist</b>				
<b>Key Competencies</b>	<b>Description of proficiency level</b>	<b>performance (competent/ Not competent)</b>	<b>Likely reason for performance gap</b>	<b>Methods intervention/training requirement</b>

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1.1 Procurement Planning	Drafts procurement plan for CFT vehicles and extinguishing agents with guidance from the seniors	C		
1.2 Strategic Capacity Development	Identifies critical trainings for aviation fire and rescue staff and nominates the relevant staff for the trainings	C		
1.3 Technological Affinity	Identifies and comprehends the technical know-how and utility of different types of fire and rescue equipment used in the top ranking airports	NC	No prior knowledge and experience in the field	On the Job Training
1.4 Local Topography	Exhibits thorough knowledge and application of GRID MAP developed based on ICAO (International Civil Aviation Organization) manual	NC	No prior knowledge and experience in the field	Basic firefighting training course from ICAO certified institute
1.5 RGoB Procurement Rules and Regulations	Exhibits the understanding of RGoB procurement rules and regulations, procedures and electronic systems	C		However, Induction on RGoB Procurement Rule and Regulations, electronic system is recommended.

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	involved in tendering processes			
Role 2: Safety Administrator				
Key Competencies	Description of proficiency level	performance (competent/Not competent)	Likely reason for performance gap	Methods intervention/training requirement
2.1 Aviation Firefighting and Rescue Procedures	Leads and manages the firefighting and rescue team at the scenario of the aircraft incidents and accidents and should be able to operate all the firefighting equipment	NC	No prior experience	Fire Officer course  Basic firefighting and rescue training course from ICAO certified institute
2.2 Knowledge of Extinguishing Agents	Understands the classifications of fire, specific extinguishing agents, correct positioning of equipment and approach and should be able demonstrate the applications to firefighting and rescue team	NC	Lack of knowledge	Training on fire extinguishing agents
2.3 Team management and job delegation	Instructs and delegates job responsibilities on the daily basis to fire and rescue team to prepare for aircraft incidents and accidents	C		

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2.4 Physical Fitness	Ensures adequate fitness equipment are in place for regular physical training required in maintaining fitness levels	NC	Lack of physical training	Basic physical training (Gym and PT)
<b>Role 3: Safety Ensurer</b>				
<b>Key Competencies</b>	<b>Description of proficiency level</b>	<b>performance (competent/ Not competent)</b>	<b>Likely reason for performance gap</b>	<b>Methods intervention/training requirement</b>
3.1 Airport Emergency Planning (AEP) (On the airport)	Leads and manages the fire and rescue team and conducts the drill on AEP including the overseeing and managing the fire and rescue equipment	NC	Lack of knowledge	Training on AEP from ICAO certified Institute
3.2 Coordination (stakeholders and team) (On the airport)	Assesses and identifies Collection Area, Triage Area (priority I, II & III) and Transportation Area	C		However, On the Job training will be given
3.3 Search and Rescue (SAR) Operations (OFF the airport)	Familiarizes and develops better handling of the SAR equipment with fire and rescue crews with guidance from supervisor	NC		In-country Training on SAR

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3.4 Knowledge of aircrafts	Exhibits thorough knowledge on all types of aircraft using the airport	NC	Lack of knowledge	Familiarization of airlines
3.5 Medical First Aid knowledge	i. Guides and instructs the fire and rescue crews to perform First Aid.	NC	Lack of knowledge	Basic firefighting and rescue training course from ICAO certified institute
	ii. Ensures all the medical kits relevant medicines are arranged and brought to the scene.	NC	lack of knowledge	Basic firefighting and rescue training course from ICAO certified institute

**2.7.2. Training Needs Assessment at Intermediate Level (P3)**

<b>Role 1: Safety Strategist</b>				
<b>Key Competencies</b>	<b>Description of proficiency level</b>	<b>performance (competent/Not competent)</b>	<b>Likely reason for performance gap</b>	<b>Methods intervention/training requirement</b>
1.1 Procurement Planning	Guides the subordinates on drafting procurement plan for CFT vehicles	C		
1.2 Strategic Capacity Development	Evaluates the content of the critical trainings to be provided by the external institutions and discusses with seniors if required additional contents	C		
1.3 Technological Affinity	Demonstrates and guides the crews on the applications of different types of fire	C		However, refresher courses would

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	and rescue equipment			update knowledge and enhance skills
1.4 Local Topography	Provides guidance on the GRID MAP reading and resolves confusions of subordinates related to GRID MAP	C		
1.5 RGoB Procurement Rules and Regulations	Drafts Terms of References (TOR) emphasizing on the technical specifications for procurement of fire and rescue equipment	C		
<b>Role 2: Safety Administrator</b>				
<b>Key Competencies</b>	<b>Description of proficiency level</b>	<b>performance (competent/Not competent)</b>	<b>Likely reason for performance gap</b>	<b>Methods intervention/training requirement</b>
2.1 Aviation Firefighting and Rescue Procedures	Conducts in-house training on aircraft firefighting and rescue procedures to enhance the skills of team members	C		
2.2 Knowledge of Extinguishing Agents	Arranges and ensures that the extinguishing agents are stocked and stored in advance as per the ICAO and BCAA manual	C		

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2.3 Team management and job delegation	Ensures adequate fire and rescue teams are deployed at the site for all times	C		
2.4 Physical Fitness	Facilitates in accessing expert advice in physical training on physical fitness, weight management and health promotion issues	C		
<b>Role 3: Safety Ensurer</b>				
<b>Key Competencies</b>	<b>Description of proficiency level</b>	<b>performance (competent/Not competent)</b>	<b>Likely reason for performance gap</b>	<b>Methods intervention/training requirement</b>
3.1 Airport Emergency Planning (AEP) (On the airport)	Guides the subordinate on the execution of drill as per the ICAO manual and assesses their preparedness to manage and lead the drill	C		Refreshers course
3.2 Coordination (stakeholders and team) (On the airport)	Coordinates with key stakeholders for necessary arrangements	C		
3.3 Search and Rescue (SAR) Operations (OFF the airport)	Trains the subordinates on the SAR operations as per the international standards or applicable manuals and assesses their preparedness to	C		Refreshers course

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	manage and lead the operation			
3.4 Knowledge of aircrafts	Coordinates and attends aircraft familiarization programs through collaboration with airlines	C		Attend In-house training conducted by airlines
3.5 Medical First Aid knowledge	Ensures First Aid tools and relevant medicines are available in the ambulance	C		

**2.7.3. Training Needs Assessment at Experienced Level (P2)**

<b>Role 1: Safety Strategist</b>				
<b>Key Competencies</b>	<b>Description of proficiency level</b>	<b>performance (competent/Not competent)</b>	<b>Likely reason for performance gap</b>	<b>Methods intervention/training requirement</b>
1.1 Procurement Planning	Reviews and provides recommendations on the draft procurement plan for CFT vehicles	C		
1.2 Strategic Capacity Development	Prioritizes the training based on the urgency and budget availability for onward submission to Supervisor	C		
1.3 Technological Affinity	Researches and explores new advancements in the fire and rescue technology field and discusses with the	NC	Lack of exposure	Exhibition visits and institutional visits

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	supervisor on the feasibility aspects			
1.4 Local Topography	Reviews the existing GRID MAP and provides practical recommendations for further enhancement	C		
1.5 RGoB Procurement Rules and Regulations	Reviews the draft TOR and ensures technical specification standards are met. Serves as the evaluation committee member for tendering processes	C		
<b>Role 2: Safety Administrator</b>				
<b>Key Competencies</b>	<b>Description of proficiency level</b>	<b>performance (competent/Not competent)</b>	<b>Likely reason for performance gap</b>	<b>Methods intervention/training requirement</b>
2.1 Aviation Firefighting and Rescue Procedures	Designs in-house training manual, materials and modalities through indepth research	NC	No experience	Attend TOT on firefighting and rescue
2.2 Knowledge of Extinguishing Agents	Oversees and ensures the testing of extinguishing agents for quality control	C		
2.3 Team management and job delegation	Monitors and ensures the health and safety of the fire and rescue team for immediate attention and support	C		
2.4 Physical Fitness	Reviews suitable health and fitness	C		

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	policy or SOPs that identifies how fitness issues are to be managed and addressed			
<b>Role 3: Safety Ensurer</b>				
<b>Key Competencies</b>	<b>Description of proficiency level</b>	<b>performance (competent/Not competent)</b>	<b>Likely reason for performance gap</b>	<b>Methods intervention/training requirement</b>
3.1 Airport Emergency Planning (AEP) (On the airport)	Plans and designs the AEP drill, mobilizes the resources for the conduct of drill	C		However, refreshers course is required
3.2 Coordination (stakeholders and team) (On the airport)	Monitors and ensures the health and safety of the fire and rescue team and everyone involved in scenario with discussion with supervisor	C		
3.3 Search and Rescue (SAR) Operations (OFF the airport)	Designs practical SAR training manual, materials and modalities through indepth research	NC	Lack of experience	TOT on SAR
3.4 Knowledge of aircrafts	Ensures aircraft familiarization programs are implemented	C		Attend training conducted by airlines
3.5 Medical First Aid knowledge	Arranges and coordinates First Aid training to the subordinates	C		

**2.7.4. Training Needs Assessment at Advanced Level (P1)**

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<b>Role 1: Safety Strategist</b>				
<b>Key Competencies</b>	<b>Description of proficiency level</b>	<b>performance (competent/Not competent)</b>	<b>Likely reason for performance gap</b>	<b>Methods intervention/training requirement</b>
1.1 Procurement Planning	Apprises the draft procurement plan to Management for approval	C		
1.2 Strategic Capacity Development	Designs training calendar in consultation with the HRD and facilitate implementation of the trainings with prior approval from the management	C		
1.3 Technological Affinity	Submits proposal of new technology requirements to the management based on the budget availability	C		
1.4 Local Topography	Assesses and evaluates the knowledge and understanding of GRID MAP by the subordinates	C		
1.5 RGoB Procurement Rules and Regulations	Monitors the procurement of fire and rescue equipment. Serves as the awarding committee member for tendering processes	C		
<b>Role 2: Safety Administrator</b>				

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<b>Key Competencies</b>	<b>Description of proficiency level</b>	<b>performance (competent/Not competent)</b>	<b>Likely reason for performance gap</b>	<b>Methods intervention/training requirement</b>
2.1 Aviation Firefighting and Rescue Procedures	Monitors the conduct of in-house training on aircraft firefighting and rescue and ensures training quality and standard	C		
2.2 Knowledge of Extinguishing Agents	Monitors and ensures that the extinguishing agents are stocked and tests are conducted as required	C		
2.3 Team management and job delegation	Monitors and ensures the health and safety of the fire and rescue team for immediate attention and support	C		
2.4 Physical Fitness	Reviews suitable health and fitness policy or SOPs that identifies how fitness issues are to be managed and addressed	C		

**Role 3: Safety Ensurer**

<b>Key Competencies</b>	<b>Description of proficiency level</b>	<b>performance (competent/Not competent)</b>	<b>Likely reason for performance gap</b>	<b>Methods intervention/training requirement</b>
3.1 Airport Emergency Planning (AEP) (On the airport)	i. Acts as an On-Scene Commander and reports to Air Traffic Controller (ATC) for necessary arrangements	NC	Needs knowledge enhancement	Advance course on AEP

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	ii. Communicates with the EOC (Emergency Operating Center) for reporting			
3.2 Coordination (stakeholders and team) (On the airport)	Monitors and ensures the health and safety of the fire and rescue team and everyone involved in scenario	C		
3.3 Search and Rescue (SAR) Operations (OFF the airport)	Ensures the smooth implementation of the SAR training and its application	C		
3.4 Knowledge of aircrafts	Ensures aircraft familiarization programs are implemented	NC	Needs wide range exposures	Institutional visit
3.5 Medical First Aid knowledge	Monitors and ensures that fire and rescue team is equipped with knowledge and practicality on the First Aid	C		

**2.7.5. Proposed Long Term Training (Specialization)**

Course Title	Priority			Number of Slots
	Immediate (2020-21)	Medium (2021-22)	Long-term (2023++)	
Masters in Fire Safety Engineering				
Masters in Fire & Rescue Service Management				
Masters Structural and Fire Safety Engineering				

**2.8. Mandatory Short-term Training**

The framework has highlighted the likely reasons for the gaps and interventions proposed above. In order to provide a capacity building program, the following are the expected methods of intervention, core training areas and course contents.

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Proficiency Level: ENTRY			
Key Roles	Key Competencies	Core Training Areas	Methods of Intervention
<b>Safety Strategist</b>	1.1 Procurement Planning		
	1.2 Strategic Capacity Development		
	1.3 Technological affinity	<ol style="list-style-type: none"> <li>1. CFT Operation</li> <li>2. Extinguishing Agents</li> <li>3. Firefighting Equipment &amp; Operation</li> <li>4. PPE</li> </ol>	On-the-Job training (OJT)
	1.4 Local Topography	GRID MAP Reading and application	Basic Firefighting course from ICAO certified institute
	1.5 RGoB Procurement Rules and Regulations	RGoB PRR and electronic procurement systems (such as E-GP)	Foundational In-service Training (FIT) by RCSC
<b>Safety Administrator</b>	2.1 Aviation Firefighting & Rescue Procedures	Training on: <ol style="list-style-type: none"> <li>1. ICAO Documents and SARPs (Standards and Recommended Practices)</li> <li>2. BCAA manuals and regulations</li> <li>3. Complementary and foaming agents</li> <li>4. BA (breathing Apparatus) donning and rescue</li> <li>5. Rescue from crashed aircraft</li> <li>6. Aircraft firefighting and rescue</li> <li>7. Freight aircraft fires</li> <li>8. Aircraft Internal fires</li> </ol>	Airport Fire Officer Course

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		<ul style="list-style-type: none"> <li>9. Fire Ground Control at the aircraft accident</li> <li>10. Fire Safety Inspection</li> <li>11. Airport Fuel Installation</li> </ul>	
	2.2 Knowledge of Extinguishing Agents	<ul style="list-style-type: none"> <li>1. Types of Fire</li> <li>2. Types of fire extinguishers</li> <li>3. Fire extinguisher features</li> <li>4. Fire extinguisher operations</li> <li>5. Fire extinguisher maintenance</li> <li>6. Fire Triangle</li> </ul>	Basic firefighting and rescue course (Training on fire extinguishing agents)
	2.3 Team Management & Job Delegation		
	2.4 Physical Fitness	<p>Training on:</p> <p>Weight lifting, Treadmill, Exercise techniques, Chest exercise, Yoga, etc. and indoor game facilities.</p>	Basic physical training (Gym, Indoor games and PT)
<b>Safety Ensurer</b>	3.1 Airport Emergency Planning (AEP)	<ul style="list-style-type: none"> <li>1. Overview of regulatory requirements ( )</li> <li>2. Basics of aviation emergency management</li> <li>3. Roles and responsibilities: Airports and GSP</li> <li>4. Tasks – actions – workplaces</li> <li>5. Overview of notification – alarm – alarm plans</li> <li>6. Special assistance team / humanitarian response</li> <li>7. Drafting a AEP plan</li> <li>8. Overview of exercises</li> <li>9. Business continuity</li> </ul> <p>As per Airport Services Manual, Part 7, Airport</p>	Training on AEP from ICAO certified institutes

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		Emergency Planning, ICAO.	
	3.2 Coordination (stakeholders and team)	Team coordination and job delegation	OJT
	3.3 Search & Rescue (SAR) Operations	SAR operation technique and use of equipment	In-country training on SAR
	3.4 Knowledge of aircrafts	Familiarization on: <ol style="list-style-type: none"> <li>1. Knowledge on aircraft types</li> <li>2. Design of aircrafts</li> <li>3. Engine mounting</li> </ol>	Familiarization with airlines
	3.5 Medical First Aid Knowledge	First Aid knowledge	Basic firefighting and rescue training from ICAO certified institutes
<b>Proficiency Level: INTERMEDIATE</b>			
<b>Key Roles</b>	<b>Key Competencies</b>	<b>Core Training Areas</b>	<b>Methods of Intervention</b>
<b>Safety Strategist</b>	1.1 Procurement Planning		
	1.2 Strategic Capacity Development		
	1.3 Technological affinity		
	1.4 Local Topography		

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	1.5 RGoB Procurement Rules and Regulations		
<b>Safety Administrator</b>	2.1 Aviation Firefighting & Rescue Procedures	Advanced training on: <ol style="list-style-type: none"> <li>1. Complementary and foaming agents</li> <li>2. BA (breathing Apparatus) donning and rescue</li> <li>3. Rescue from crashed aircraft</li> <li>4. Aircraft firefighting and rescue</li> <li>5. Freight aircraft fires</li> <li>6. Aircraft Internal fires</li> <li>7. Fire Ground Control at the aircraft accident</li> <li>8. Fire Safety Inspection</li> <li>9. Airport Fuel Installation</li> </ol>	Senior Airport Fire Officer Course
	2.2 Knowledge of Extinguishing Agents		
	2.3 Team Management & Job Delegation		
	2.4 Physical Fitness		
<b>Safety Ensurer</b>	3.1 Airport Emergency Planning (AEP)	Advanced training on: <ol style="list-style-type: none"> <li>1. Overview of regulatory requirements ( )</li> <li>2. Basics of aviation emergency management</li> <li>3. Roles and responsibilities: Airports and GSP</li> <li>4. Tasks – actions – workplaces</li> <li>5. Overview of notification – alarm – alarm plans</li> </ol>	AEP Refresher Course

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		<ol style="list-style-type: none"> <li>6. Special assistance team / humanitarian response</li> <li>7. Drafting a AEP plan</li> <li>8. Overview of exercises</li> <li>9. Business continuity</li> </ol> <p>As per Airport Services Manual, Part 7, Airport Emergency Planning, ICAO.</p>	
	3.2 Coordination (stakeholders and team)		
	3.3 Search & Rescue (SAR) Operations		
	3.4 Knowledge of aircrafts	<p>Familiarization on:</p> <ol style="list-style-type: none"> <li>1. Knowledge on aircraft types</li> <li>2. Design of aircrafts</li> <li>3. Engine mounting</li> </ol>	Familiarization with airlines
	3.5 Medical First Aid Knowledge		
<b>Proficiency Level: EXPERIENCED P2</b>			
<b>Key Roles</b>	<b>Key Competencies</b>	<b>Core Training Areas</b>	<b>Methods of Intervention</b>
<b>Safety Strategist</b>	1.1 Procurement Planning		

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	1.2 Strategic Capacity Development		
	1.3 Technological affinity	Exposures and practical knowledge	Visits to Exhibition and Institutes
	1.4 Local Topography		
	1.5 RGoB Procurement Rules and Regulations		
<b>Safety Administrator</b>	2.1 Aviation Firefighting & Rescue Procedures	Certification courses	ToT on firefighting and rescue
	2.2 Knowledge of Extinguishing Agents		
	2.3 Team Management & Job Delegation		
	2.4 Physical Fitness		
<b>Safety Ensurer</b>	3.1 Airport Emergency Planning (AEP)	<ol style="list-style-type: none"> <li>1. Aircraft Rescue Firefighting Management</li> <li>2. Airport Emergency Planning</li> <li>3. Incident Emergency Management System</li> <li>4. Bulk fuel fire management</li> <li>5. Aircraft Accident Investigation</li> <li>6. Legal aspects of disaster or emergency management</li> <li>7. Impact of Aviation safety and airport</li> </ol>	Seminar/Workshop/Meeting

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		emergency services 8. Psychological impact of major disaster 9. Innovation Thermal Imaging (ITI) in firefighting requirements 10. Designing an Airport Water Rescue Plan	
	3.2 Coordination (stakeholders and team)		
	3.3 Search & Rescue (SAR) Operations	Certification Course	ToT on SAR
	3.4 Knowledge of aircrafts	Familiarization on: 1. Knowledge on aircraft types 2. Design of aircrafts 3. Engine mounting	Familiarization with airlines
	3.5 Medical First Aid Knowledge		
<b>Proficiency Level: ADVANCED</b>			
<b>Key Roles</b>	<b>Key Competencies</b>	<b>Core Training Areas</b>	<b>Methods of Intervention</b>
<b>Safety Strategist</b>	1.1 Procurement Planning		
	1.2 Strategic Capacity Development		
	1.3 Technological affinity	Exposures and practical knowledge	Visits to Exhibition and Institutes

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	1.4 Local Topography		
	1.5 RGoB Procurement Rules and Regulations		
<b>Safety Administrator</b>	2.1 Aviation Firefighting & Rescue Procedures	<ol style="list-style-type: none"> <li>1. Aircraft Rescue Firefighting Management</li> <li>2. Airport Emergency Planning</li> <li>3. Incident Emergency Management System</li> <li>4. Bulk fuel fire management</li> <li>5. Aircraft Accident Investigation</li> <li>6. Legal aspects of disaster or emergency management</li> <li>7. Impact of Aviation safety and airport emergency services</li> <li>8. Psychological impact of major disaster</li> <li>9. Innovation Thermal Imaging (ITI) in firefighting requirements</li> <li>10. Designing an Airport Water Rescue Plan</li> </ol>	Seminar/Workshop/Meeting
	2.2 Knowledge of Extinguishing Agents		
	2.3 Team Management & Job Delegation		
	2.4 Physical Fitness		
<b>Safety Ensurer</b>	3.1 Airport Emergency Planning (AEP)		

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	3.2 Coordination (stakeholders and team)		
	3.3 Search & Rescue (SAR) Operations		
	3.4 Knowledge of aircrafts		
	3.5 Medical First Aid Knowledge		

**Core Training Areas for Leadership Competencies**

<b>Proficiency Level: ENTRY</b>			
<b>Key Roles</b>	<b>Key Competencies</b>	<b>Core Training Areas</b>	<b>Methods of Intervention</b>
1. Safety Strategist	Strategic View	- Problem solving - Decision making	Training
2. Safety Administrator	Communication Skills	Communication skills	
3. Safety Assurer	Result-oriented	Refer RCSC Framework Team building	Mentoring/Coaching

**Proficiency Level: INTERMEDIATE**

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Key Roles	Key Competencies	Core Training Areas	Methods of Intervention
1. Safety Strategist 2. Safety Administrator 3. Safety Assurer	Result-oriented	- Motivation and inspiration - Result-based management	Training
	Communication Skills	Communication and Negotiation skills	
	Result-oriented	Refer RCSC Framework	Coaching & Mentoring

**Proficiency Level: EXPERIENCED**

Key Roles	Key Competencies	Core Training Areas	Methods of Intervention
1. Safety Strategist 2. Safety Administrator 3. Safety Assurer	HR Recruitment and Succession Planning	Identification of feasible employee motivation and inspiration framework	Institutional visit

**Proficiency Level: ADVANCED**

Key Roles	Key Competencies	Core Training Areas	Methods of Intervention
1. Safety Strategist 2. Safety Administrator	Cooperation and Partnership	- Team building - Managing diversity	Training

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3. Safety Assurer	Personal Drive and Integrity	- Ethical leadership training program - Emotional intelligence <ul style="list-style-type: none"> <li>● SIY</li> <li>● Mindfulness</li> </ul>	
	Strategic vision		

Mandatory Technical Trainings for Proficiency Levels

<b>Entry Level (P5 &amp; P4)</b>		
Sl. #	Training Titles	Core Contents
1	Basic Firefighting course from ICAO certified institute	<ol style="list-style-type: none"> <li>1. Basic physics and Chemistry of Fire</li> <li>2. Fire Extinguishers, Electricity and Fire Extinction or suppression technology</li> <li>3. Basic Hydraulics and Firefighting Procedure</li> <li>4. Liquefied Petroleum Gas (LPS)</li> <li>5. Dangerous Goods or Materials</li> <li>6. Small Gears and PPE, Hydrants and Pump and Primers</li> <li>7. Extinguishing Agents/Media, Foam and Form making branch</li> <li>8. Ladders, Knots, Ropes and Lines, Hose and Hose Fittings</li> <li>9. Aircraft Crashes, Helicopters, Aircraft Salvage/Recovery, Airports, Building Construction and Aircraft Fire Hazards, Grid Map, Fire Ground management and Aircraft Construction</li> <li>10. Airport Emergency procedures and Aviation Fuel</li> <li>11. Medical First Aid and Breathing Apparatus (BA)</li> <li>12. Leadership &amp; Discipline, Air Traffic Control (ATC) and RT handling</li> </ol>
2	Airport Fire Officer Course	<ol style="list-style-type: none"> <li>1. ICAO Documents and SARPs (Standards and Recommended Practices)</li> <li>2. BCAA manuals and regulations</li> <li>3. Complementary and foaming agents</li> <li>4. BA (breathing Apparatus) donning and rescue</li> <li>5. Rescue from crashed aircraft</li> <li>6. Aircraft firefighting and rescue</li> <li>7. Freight aircraft fires</li> <li>8. Aircraft Internal fires</li> <li>9. Fire Ground Control at the aircraft accident</li> <li>10. Fire Safety Inspection</li> </ol>
3	Training on AEP from ICAO certified institutes	<ol style="list-style-type: none"> <li>1. Overview of regulatory requirements ( )</li> <li>2. Basics of aviation emergency management</li> <li>3. Roles and responsibilities: Airports and GSP</li> <li>4. Tasks – actions – workplaces</li> <li>5. Overview of notification – alarm – alarm plans</li> <li>6. Special assistance team / humanitarian response</li> <li>7. Drafting a AEP plan</li> <li>8. Overview of exercises</li> </ol>

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		9. Business continuity  As per Airport Services Manual, Part 7, Airport Emergency Planning, ICAO.
4	Familiarization with airlines	Familiarization on: 1. Knowledge on aircraft types 2. Design of aircrafts 3. Engine mounting
5	Foundational In-service Training (FIT) by RCSC	RGoB PRR and electronic procurement systems (such as E-GP)
6	On-the-Job training (OJT)	1. CFT Operation 2. Extinguishing Agents 3. Firefighting Equipment & Operation 4. PPE 5. Team coordination and job delegation
7	In-country training on SAR	SAR operation technique and use of equipment
8	Basic physical training (Gym, Indoor games and PT)	Training on:  Weight lifting, Treadmill, Exercise techniques, Chest exercise, Yoga, etc. and indoor game facilities.
<b>Intermediate Level (P3)</b>		
Sl. #	Training Titles	Core Contents
1	Senior Airport Fire Officer Course	Advanced training on: 1. Complementary and foaming agents 2. BA (breathing Apparatus) donning and rescue 3. Rescue from crashed aircraft 4. Aircraft firefighting and rescue 5. Freight aircraft fires 6. Aircraft Internal fires 7. Fire Ground Control at the aircraft accident 8. Fire Safety Inspection 9. Airport Fuel Installation
2	AEP Refresher Course	Advanced training on:  1. Overview of regulatory requirements 2. Basics of aviation emergency management 3. Roles and responsibilities: Airports and GSP 4. Tasks – actions – workplaces 5. Overview of notification – alarm – alarm plans 6. Special assistance team / humanitarian response 7. Drafting a AEP plan

Competency Based Framework for Fire & Rescue Officer

		<ol style="list-style-type: none"> <li>8. Overview of exercises</li> <li>9. Business continuity</li> </ol> <p>As per Airport Services Manual, Part 7, Airport Emergency Planning, ICAO.</p>
3	Familiarization with airlines	<p>Familiarization on:</p> <ol style="list-style-type: none"> <li>1. Knowledge on aircraft types</li> <li>2. Design of aircrafts</li> <li>3. Engine mounting</li> </ol>
<b>Experienced Level (P2)</b>		
<b>Sl. #</b>	<b>Training Titles</b>	<b>Core Contents</b>
1	ToT	Certification courses (firefighting and rescue, SAR)
2	Seminar/Workshop/Meeting	<ol style="list-style-type: none"> <li>1. Aircraft Rescue Firefighting Management</li> <li>2. Airport Emergency Planning</li> <li>3. Incident Emergency Management System</li> <li>4. Bulk fuel fire management</li> <li>5. Aircraft Accident Investigation</li> <li>6. Legal aspects of disaster or emergency management</li> <li>7. Impact of Aviation safety and airport emergency services</li> <li>8. Psychological impact of major disaster</li> <li>9. Innovation Thermal Imaging (ITI) in firefighting requirements</li> <li>10. Designing an Airport Water Rescue Plan</li> </ol>
3	Familiarization with airlines	<p>Familiarization on:</p> <ol style="list-style-type: none"> <li>1. Knowledge on aircraft types</li> <li>2. Design of aircrafts</li> <li>3. Engine mounting</li> </ol>
4	Visits to Exhibition and Institutes	Exposures and practical knowledge
<b>Advanced Level (P1)</b>		
<b>Sl. #</b>	<b>Training Titles</b>	<b>Core Contents</b>
1	Seminar/Workshop/Meeting	<ol style="list-style-type: none"> <li>1. Aircraft Rescue Firefighting Management</li> <li>2. Airport Emergency Planning</li> <li>3. Incident Emergency Management System</li> <li>4. Bulk fuel fire management</li> <li>5. Aircraft Accident Investigation</li> <li>6. Legal aspects of disaster or emergency management</li> </ol>

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		<p>7. Impact of Aviation safety and airport emergency services</p> <p>8. Psychological impact of major disaster</p> <p>9. Innovation Thermal Imaging (ITI) in firefighting requirements</p> <p>10. Designing an Airport Water Rescue Plan</p>
2	Visits to Exhibition and Institutes	Exposures and practical knowledge

**2.9 Implementation of Competency Based Framework**

The implementation of training and other CDI has to be based on the mandatory methods of intervention/training requirement listed under section under the training needs analysis of this document. The mandatory list of training/other methods of intervention includes all the interventions that are found to be “Not Competent” under the Training Needs Analysis. However, for implementation, it has to be prioritized based on the following:

- a. Most critical area of intervention (without its intervention will lead to non-performance)
- b. Interventions which are reflected as “Not Competent”
- c. Availability of the resource allocation

**2.10 Recommendations**

In order to implement the Competency Based Framework for Fire and Rescue Officer, the taskforce member proposes the followings:

1. **Recruitment Criteria for Fire & Rescue Officer:** It is highly recommended that RCSC incorporate the following recruitment criteria during the selection of Fire & Rescue Officer:
  - 1.1 **Qualification:** minimum of Bachelor’s degree in technical field (preferably in Mechanical Engineering). *None of the current officers have Bachelor’s degree and based on the nature of job, the mechanical engineering has been identified as most suitable technical field/qualification.*
  - 1.2 **Physical fitness:** Height - 5’6” (minimum)  
 Weight - 55 Kg (minimum)  
 Chest - 32”- 34” (2” expansion)
  - 1.3 **Medical Standards:** Eye Sight- 6/6  
 Color: No Color  
 Vision: No blindness
  - 1.4 **Others:** No flat foot and knocking Knees. Should not suffer from any ailment in the past that shall render unfit for the post.
2. Develop In-house capacity development through ToT and facilitate certification for basic courses and courses in which we have in-house capacity including requirement of Gym space, fitness equipment and indoor games.

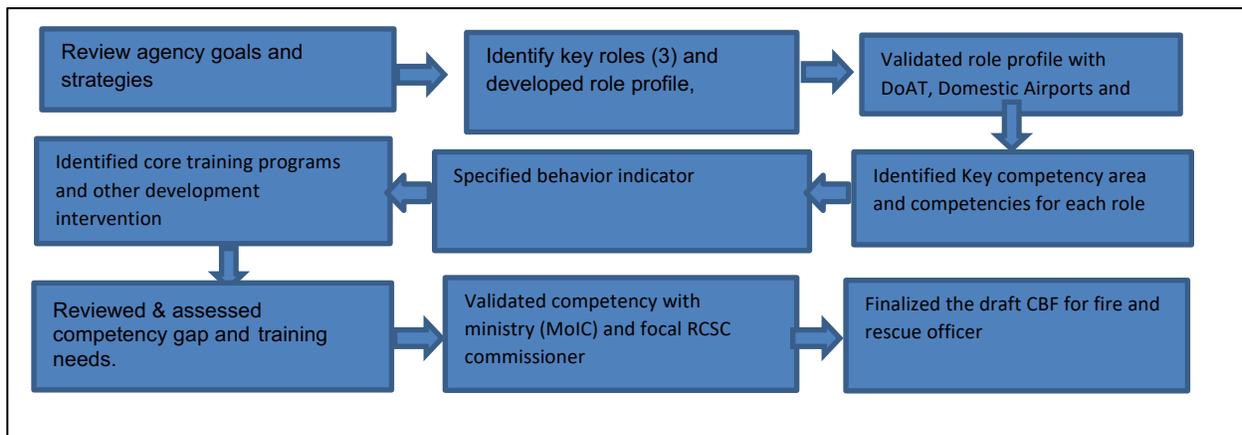
3. Need for succession planning for the Airport Rescue & Fire Fighting Service (ARFFS) office under Airport Service Division. Since the existing officers are on the verge of their retirement, immediate recruitment of officers needs to be prioritized and facilitated.

### 2.11 Conclusion

The Competency Based Framework presented in this paper are descriptive of Key Roles, Competency Area, Competencies and Behavioral Indicators as tabulated below:

Sl no	Fire & Rescue Officer	
1	Key role identified	3
2	Competency Area identified (Technical and Leadership )	2
3	Key Competencies identified	19
5	BIs	22
6	Proficiency levels (classification of BIs into 4 levels)	88

The CBF for Aviation Fire and Rescue Officers are developed through the process as depicted below:



### The expected benefits of the CBF:

1. Enhance the technical capacity of the Fire and rescue officer to maximize organizational performance.
2. Foster greater role clarity and ownership of the tasks and career progression.
3. Prioritize training programs for the Fire and rescue officer & effectively utilize the Training budget.
4. Enable succession planning and talent management in the Airport Rescue and firefighting service (ARFFS).

A training needs analysis was carried out for the Fire & Rescue Officers following the steps as specified in Table 2.7 and the outputs were validated with relevant officials. From TNA, we have identified training requirements. At the same time, we also recorded the possible reasons for performance gap and the most suitable methods of interventions.

In Summary, the Aviation Fire & Rescue Officers must possess adequate Skills, Knowledge and Abilities through quality training and field knowledge to deliver the intended service delivery as per the requirements of Bhutan Civil Aviation Authority (BCAA) and International Civil Aviation Organization (ICAO) and enhance fire safety in the country. The CBF will without doubt contribute to the Royal Civil Service Commission in meeting its mandates and reforms.

Finally, the Competency based Framework will prove to be the most valuable tool for building and continuing HR capacity development for the fire and rescue office throughout the levels of professionals of the Aviation Fire & Rescue Officers towards ensuring safety in the aviation industry in Bhutan.

### **References**

1. A Guidebook on Competency-based Framework for Civil Service 2019, RCSC
2. ICAO Annex14 Volume 1 - Aerodrome Design and Operation
3. ICAO Service Manual, Part 1- Rescue and fire fighting
4. Airport Services Manual, Part 7, Airport Emergency Planning, ICAO
5. Airport Emergency Plan Manual (Second edition, 2018, DoAT)
6. Basic Fire Fighting Course booklet (2015), FST, Kolkata, India
7. Emergency Management workshop booklet (2018), SAA, Singapore
8. Fire Officer Course booklet (1999), SAA, Singapore